

**Claunch-Pinto Soil and Water Conservation District  
Greater Rio Grande Watershed Alliance  
Riparian Restoration Projects  
Final Report**



**Completed By**



PO Box 9057  
Durango, CO 81302  
(970) 884-2985  
[www.horizonenvservices.com](http://www.horizonenvservices.com)

April, 2012

## Table of Contents

<b>Project Background</b>	3
<b>Objectives</b>	3
<b>Horizon Environmental Equipment</b>	3
<b>East Rio Arriba</b>	
Description	4
Scope of Work	4
Notes	5
Hours	5
Site Map	5
Herbicide Map	6
Photographs	6
<b>Santa Fe – Pojoaque</b>	
Description	9
Scope of Work	9
Notes	10
Hours	10
Site Maps	10
Photographs	12
<b>Valencia</b>	
Description	14
Scope of Work	14
Notes	14
Hours	15
Site Map	15
Photographs	16
<b>Herbicide MSDS</b>	
Habitat	Attached
Polaris	Attached
Viewpoint	Attached
Maximizer	Attached
Activator 90	Attached

## BACKGROUND

This project was accomplished via grants through the Greater Rio Grande Watershed Alliance (GRGWA) within the boundaries of the East Rio Arriba, Valencia and Santa Fe-Pojoaque Soil and Water Conservation Districts.

## OBJECTIVE

The primary objective of this project was to remove all non-native phreatophytes consisting primarily of Russian olive, Siberian elm, salt cedar, mulberry, and tree of heaven in this environment. A phreatophyte is a deep-rooted plant that obtains a significant portion of the water that it needs from the phreatic zone (zone of saturation) or the capillary fringe above the phreatic zone. Phreatophytes live in areas with standing water or running water, in arid areas along riverbeds and some apparently dry areas. These plants have very deep roots that reach the water table and consume very large amounts of water. Encroaching juniper were also removed in selected areas. Herbicide was to be used to treat all stumps of cut trees.

## EQUIPMENT

- Kubota KX 080 Excavator with FAE mastication head/ bucket and thumb
- ASV RC 100 Skid-steer with Loftness Timber-axe mastication attachment
- ASV RC 60 Skid-steer with grapple bucket
- Kubota RTV 900 Access vehicle
- Rayco Chipper
- Chainsaws – Stihl 290 (3), Stihl 362, Husqvarna 570, Husqvarna 365, Husqvarna 235
- Backpack Chemical Sprayer – Chapin (3)
- Hand tools – Shovels, rakes, etc.
- Safety – Mcleods, Spill Kits, Massive Trauma Kit, Basic First Aid Kits, Fire Extinguishers, etc.



Kubota KX 080 W/ FAE Mastication Head



ASV RC 60 W/ Grapple Bucket  
Towing Rayco Chipper



ASV 100 W/ Timberaxe

# East Rio Arriba

## DESCRIPTION

The project is located in the Alcalde/Velarde area North of Espanola and contains 23.5 acres within the boundaries defined. Access was in the middle of the project via a road running East from CR 39. Additional access was not needed. The project is bound by the Rio Grande on the West, a fence on the East, an acequia diversion on the North and an acequia on the South. The Acequia de Alcalde runs North and South and near the East boundary and was dry from the access road headed North. The acequia was used to access the North areas.

The project is on private property with 7 separate landowners. Fences were encountered during the project work and dealt with at that time. An access gate was installed on the West side of the acequia to access the Southern properties of the project. While on the Southern properties Horizon encountered one cross fence, a fence that paralleled the Rio Grande and an interior fence. The interior fence was removed by Horizon due to the lack of ability to work around it. The fence was very old and unused by the land owner. North of the access road, Horizon made one more gate and moved two more interior fences in order to access work areas. These fences were replaced to the extent possible (there were no fence posts prior to work; live trees were previously used as posts).

## SCOPE OF WORK

Horizon used numerous pieces of equipment to complete the scope of work. On site were two tracked skid steers, one excavator, three mastication heads, one heavy duty chipper, up to six chainsaws and an access vehicle. Horizon utilized a work force of up to fifteen people. Daily safety meetings were held and open for discussions from the work force. No major safety issues were reported. Work days were up to ten hours long. Horizon crews stayed in a local hotel and worked around forty hours per week. A breakdown of equipment hours and labor hours is attached.

Horizon had several certified herbicide applicators on site for the duration of work. Their only job was to treat the stumps with herbicide after cutting. Three herbicides were used for treatment on this site, Habitat, Polaris and Viewpoint. Habitat and Polaris were the two main herbicides used while Viewpoint was used at various locations throughout the site for touch-up. A map of herbicide treatment can be found below.

## NOTES

There is a lot of firewood left on the site. Some landowners may have a difficult time accessing the firewood, as access is only available through one landowner. Horizon was asked to leave access

roads through the site to facilitate the removal of firewood. No interior fences were removed by landowners prior to the work. During the project a bald eagle was seen flying overhead and landing in several of the large cottonwood trees on the site, however, there was no evidence of active roosting.

## BREAKDOWN OF HOURS

### Total Equipment Hours

ASV RC 100 and Loftness TimberAxe- 95.25

ASV RC 60 and Grapple Bucket- 35

Rayco Chipper- 109.5

Kubota 080 Excavator with FAE Mastication Head- 55.5

Kubota 080 Excavator with Bucket and Thumb- 20.25

Chainsaw- 571.5

RTV (access vehicle) - 19

Backpack Spray Unit- 81

### Total Labor Hours

1,820

## SITE MAP



Salmon shade- Work area complete (23.5 acres)

Green Line- Leave fences

Yellow Line- Horizon removed or replaced fences



## HERBICIDE MAP



Red shade- Habitat @ 10%

Orange shade- Polaris @ 10%

## PHOTOGRAPHS



Sawyer Planning



Sawyer Working





Site During Work



Site During Work



Before



After



Before



After



Before



After



After Completion



After Completion



# Santa Fe - Pojoaque

## DESCRIPTION

This project consists of multiple sites, five of which were scheduled for treatment this year. Sites 1 and 2 are located on Via De Los Romero Rd approximately 3.7 miles West on Airport Rd/ Paseo Real, from the intersection of New Mexico 599 and Airport Rd. Sites 4 and 5 are located on Paseo Real approximately 1.2 miles West from the intersection of New Mexico 599 and Airport Rd. Site 10 is located along the Rio Tesuque, near the Buffalo Thunder exit. The areas of each are: Site 1 – 4.5 acres, Site 2 – 4.4 acres, Sites 4 & 5 – 15 Acres, and Site 10 – 23.5 acres.

Equipment access was difficult to Sites 1, 2, 4 and 5 due to terrain and fences that had not been removed prior to the start of work. Site 1 was accessed by foot and no heavy equipment was used with the exception of the first acre, which was accessible by the skid-steer and chipper. Access and work on Sites 2, 4 and 5 were difficult due to fences, running water and standing water. The Site 2 treatment area was reduced by more than 50% of the original plan due to land owners' decision not to participate in the project. Site 10 was 100% accessible to all equipment. A change order was created near the end of the project to include the area from the toe of the East slope (West facing) to the top of the slope. This work was completed at the very end of the project.

## SCOPE OF WORK

Horizon used numerous pieces of equipment to complete the scope of work. On site were two tracked skid steers, one excavator, three mastication heads, one heavy duty chipper, up to six chainsaws and an access vehicle. Horizon utilized a work force of up to fifteen people. Daily safety meetings were held and open for discussions from the work force. No major safety issues were reported. Work days were up to ten hours long. Horizon crews stayed in a local hotel and worked around forty hours per week. A breakdown of equipment hours and labor hours is attached.

Horizon had several certified herbicide applicators on site for the duration of work. Their only job was to treat the stumps with herbicide after cutting. Two herbicides were used among the five sites. Polaris was used for the majority of all the sites with Element 4 being used for areas in sites 1 and 4. MSDS and labels can be found at the end of the report.

## NOTES

Due to the difficult terrain of site 1, Horizon was unable to chip or masticate any of the treated area. The firewood was stacked as far from the water's edge as possible and slash was stacked in tightly packed piles measuring approximately 4' x 4' x 4' in accordance with the contract. Junipers were also thinned by 50% along a portion of the Southern bank from the toe of slope to the shoulder of the acequia. These were removed in no particular pattern in order to maintain a more natural state. Site 5

was divided (more or less) evenly by the water discharged from the sanitation facility adjacent to the area. The water had been dammed by wildlife creating a large pool that collected in the northeast portion of the site. It was not possible to treat several of the Russian olives on site due to this collection of water.

## BREAKDOWN OF HOURS

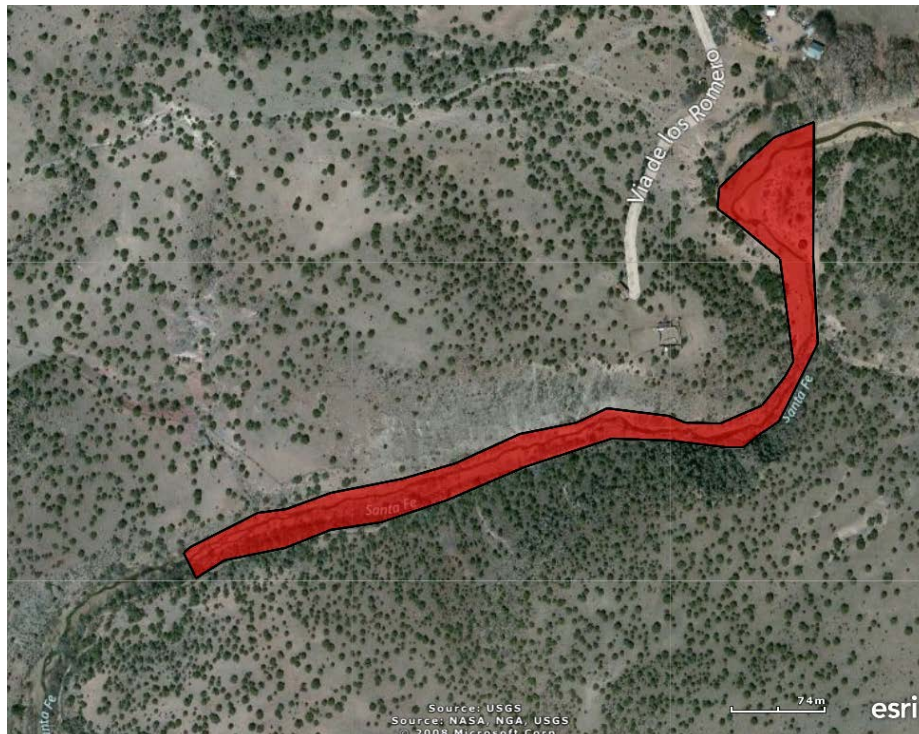
### Total Equipment Hours

ASV RC 100 and Loftness TimberAxe- 170.75  
ASV RC 60 and Grapple Bucket- 76  
Rayco Chipper- 110.25  
Kubota 080 Excavator with FAE Mastication Head- 63.25  
Kubota 080 Excavator with Bucket and Thumb- 47.25  
Chainsaw- 853.5  
RTV (access vehicle)- 13.75  
Backpack Spray Unit- 185.5

### Total Labor Hours

2,065

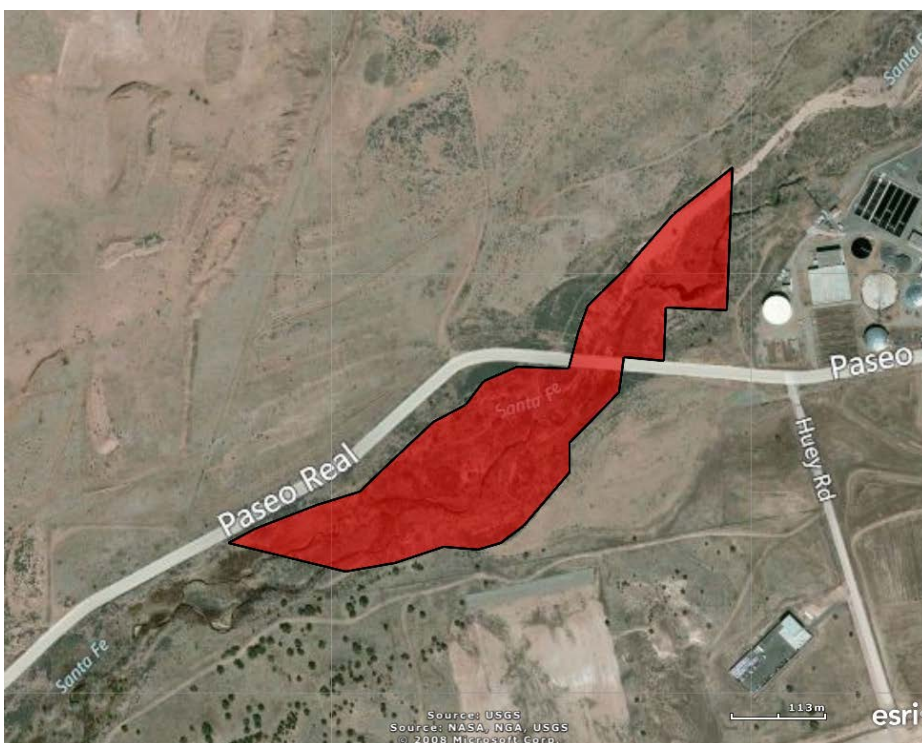
## SITE MAPS



Site 1 (4.5 Acres)

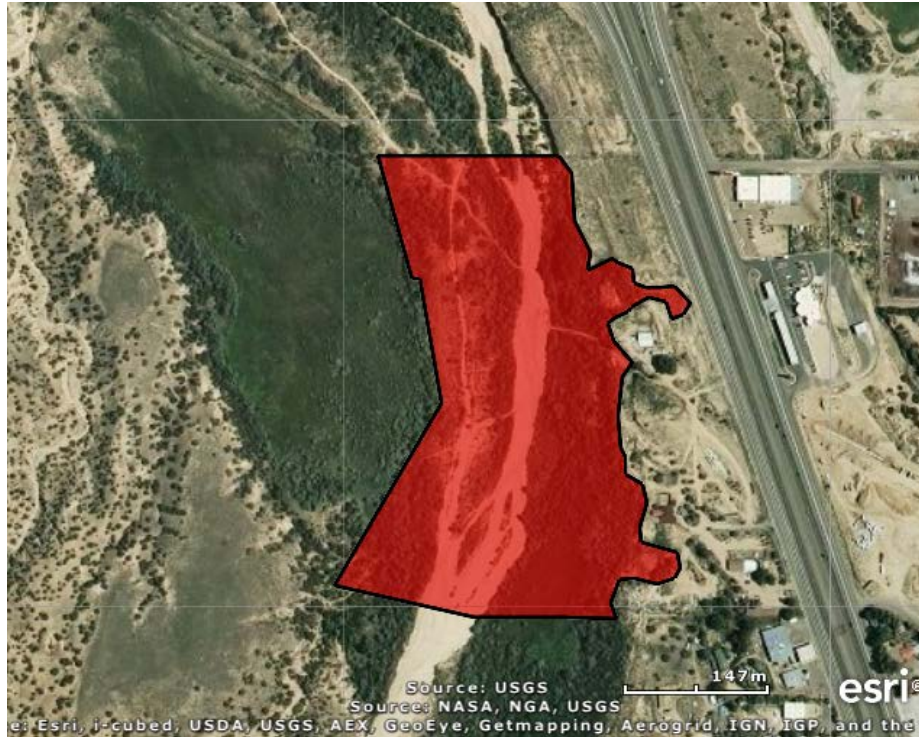


Site 2 (4.4 Acres)



Sites 4 & 5 (15 Acres)





Site 10 (23.5 Acres)

## PHOTOGRAPHS



Treated Stump



KX 080 With FAE Mastication Head



Site 1 Before



Site 1 After



Site 10 Before



Site 10 After



Site 10 Before



Site 10 After



# Valencia

## DESCRIPTION

The project is located along the middle Rio Grande River near Belen containing five separate treatment areas; four resprout areas and one section of new treatment. 20 acres were new treatment and 82 acres were resprout treatment within the boundaries defined. Access was along the levee road to the East of the project site. The project is bound by the Rio Grande on the West, the levee on the East, and flagging marked the North and South boundaries of each treatment area.

The project is on private soil and water conservation district property. Jetty jacks, wiring, and cables were encountered during the project work and dealt with at that time. Horizon was able to work around and through the jetty jack rows.

## SCOPE OF WORK

Horizon used numerous pieces of equipment to complete the scope of work. On site were two tracked skid steers, one excavator, two mastication heads, one heavy duty chipper, up to six chainsaws and an access vehicle. Horizon utilized a work force of up to thirteen people. Daily safety meetings were held and open for discussions from the work force. No major safety issues were reported. Work days were up to eleven hours long. Horizon crews stayed in a local hotel and worked around forty hours per week. A breakdown of equipment hours and labor hours is attached.

Horizon had several certified herbicide applicators on site for the duration of work. Their only job was to treat the stumps with herbicide after cutting. The herbicide used for these sites was Element 4, the equivalent of Garlon 4, which was required for use in this area.

## NOTES

There is a lot of firewood left on the site, especially the new treatment area in Site 2. Horizon was asked to leave access roads through the site to facilitate the removal of firewood. Large (12+” diameter) cottonwood logs were left along the roadsides to close access to them off after the wood has been collected.



## BREAKDOWN OF HOURS

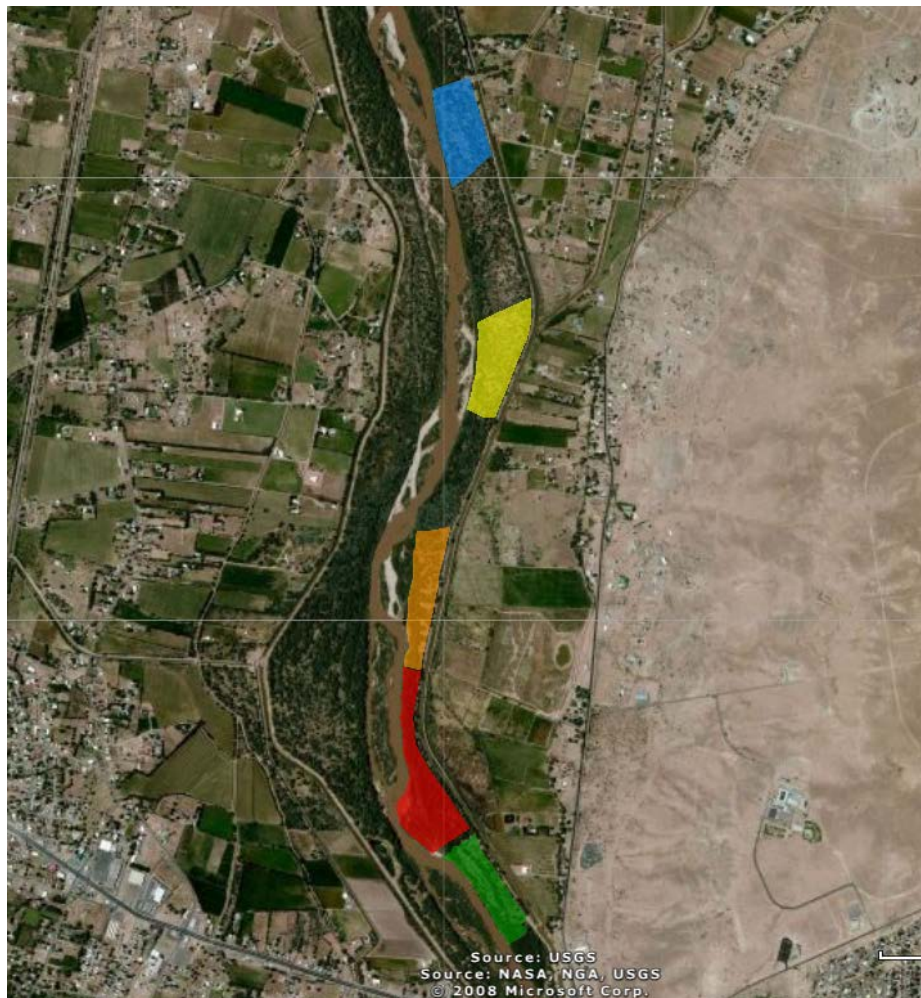
### Total Equipment Hours

ASV RC 100 and Loftness TimberAxe- 161  
ASV RC 60 and Grapple Bucket- 164.75  
Rayco Chipper- 125.75  
Kubota 080 Excavator with FAE Mastication Head- 135  
Kubota 080 Excavator with Bucket and Thumb- 13  
Chainsaw- 822.5  
RTV (access vehicle) - 32  
Backpack Spray Unit- 122.25

### Total Labor Hours

2,008.75

## SITE MAP



**Belen 1 – 17.3 Acres**

**Belen 2 – 26.4 Acres**

**Belen 3 – 19.7 Acres**

**Belen 4 – 22.6 Acres**

**Belen 5 – 20.8 Acres**

## PHOTOGRAPHS



Sawyer Work



Chipper Crew Work



Belen 3 Before



Belen 3 After



Belen 3 Before



Belen 3 After





**Belen 2 Before**



**Belen 2 After**



**Belen 2 Before**



**Belen 2 After**