



Waddle Ranch Unit 3 Haul Road As-Built Report



Prepared By Lorenzo Worster

IERS Restoration Foreman



Project Location

Waddle Ranch is a 150 acre parcel located just outside of the town of Truckee, CA to the east of Martis Creek Lake reservoir. Foot traffic access can be gained via the east end of the Martis Creek Lake dam. Vehicle access is by permission only via Sawmill Flat Road (Figure 7). After passing through the gate, continue 1.7 miles and the site will be on the left. The site extends uphill from the main access road.

Personnel

Don Triplat, IERS Project Manager; Lorenzo Worster, IERS Foreman; Kate Gross, IERS Restoration Technician; Brad Lariviere, IERS Restoration Technician; Peter Cecon, IERS Restoration Technician/Equipment Operator.

Restoration Date(s)

September 30, 2009 – October 2, 2009

Site Description

Unit 3 haul road is located on Sawmill Flat Road about .25 miles short of Beacon Meadow when approaching from Martis Valley. The site was used for hauling timber as recent as the summer of 2009. The road has a low slope angle and was highly compacted.

Treatment Area

This road segment was separated into 4 test plots. Plots 2A and 2B were approximately 100' in length and 12' wide covering 1200ft². Plot 2C is 52' long and 12' wide covering 624ft². The asphalt grindings were spread evenly from the control plot to just past a water bar, therefore plot 2 D covered 25' by 12' for a total of 300ft² even though there are some asphalt grindings that extend further.

Materials Used

The materials used on this project were all from local sources (Table 1).

- Woodchips were sourced onsite from a regional timber harvest and fuels reduction program.
- Biosol Organic Fertilizer (6-1-3) was sourced from Pacific Coast Seed.
- Native seed mix was sourced from Comstock Seed and consisted of a Tahoe specific mix of grass, shrub, and forb seed (Table 2).
- Asphalt grindings were bought from Al Pombo Inc.



Treatment Description

Test plot 2A was only treated with a layer of woodchips as a mulch. The next plot, 2B, had a more extensive treatment. The road was spread with chips and ripped to at least 12" with an modified bucket on a KX161 Mini Ex. Biosol was then spread and raked into the soil followed by seed. While raking in the seed, woodchips that were left on the surface during ripping were raked evenly across the area and used as mulch.

Plot 2C was left untreated to be used as a control. The final plot, 2D, was spread with asphalt grindings which were raked so that they were evenly distributed and then track packed with a KX161 Mini-Ex.



Table 1. Materials source and Quantity list.

Materials	Type	Source	QTY
Amendment	Green Wood Chips	Local forestry operation	37yds ³
Fertilizer	6-1-3 Biosol	Pacific Coast Seed	55lbs
Seed	IERS Upland Mix	Comstock Seed	3.5lbs
Mulch 1	Green Wood Chips	Local forestry operation	In amendment qty
Mulch 2	Asphalt Grindings	Al Pombo Inc.	3yds ³

Table 2. IERS upland Shrub, Forb, Grass mix.

Scientific Name	Common Name	Pure Live Seed (%)	Rate (lbs/acre)
<i>Elymus elymoides</i>	Squirreltail or bottlebrush	28.33	35.42
<i>Elymus glaucus</i>	Blue wildrye	33.33	41.67
<i>Bromus carinatus</i>	Mountain brome	27.50	34.38
<i>Purshia tridentata</i>	Antelope bitterbrush	6.67	8.33
<i>Ribes cereum</i>	Wax currant	0.42	0.52
<i>Eriogonum umbellatum</i>	Sulphur flower buckwheat	2.08	2.60
<i>Arctostaphylos patula</i>	Geenleaf manzanita	1.67	2.08

Table 3. Treatment Matrix

Treatments		Plot 2A	Plot 2B	Plot 2C	Plot 2D
Amendment	Type	None	Green Wood Chips (<50% Needles)	None	None
	Depth	-	3.8"	-	-
Soil Loosening	Type	None	KX161 Full bucket	None	None
	Depth	-	11.5"	-	-
Fertilizer	Type	None	Biosol 6-1-3	None	None
	Rate	-	2000lbs/acre	-	-
Seed	Mix	None	Shrub/Forb/Grass mix	None	None
	Rate	-	125lbs/acre PLS	-	-
Mulch	Type	Green Wood Chips (<50% Needles)	Green Wood Chips (<50% Needles)	None	Compacted Asphalt Grindings
	Depth	3"	1.4"	-	1.7"
Dimensions in ft ²		100 x 12 = 1200ft ²	100 x 12 = 1200ft ²	52 x 12 = 624ft ²	25 x 12 = 300ft ²
Dimensions in m ²		30 x 4.5 = 137.25m ²	30 x 4.5 = 137.25m ²	16 x 4.5 = 72m ²	8 x 4.5 = 36m ²





Figure 1. An example of ripping with a modified excavator bucket.



Figure 2. Stock piled chips at Landing C.



Figure 3. Plot 2B (PP1).



Figure 4. Compacted asphalt grindings on plot 2E (PP2).



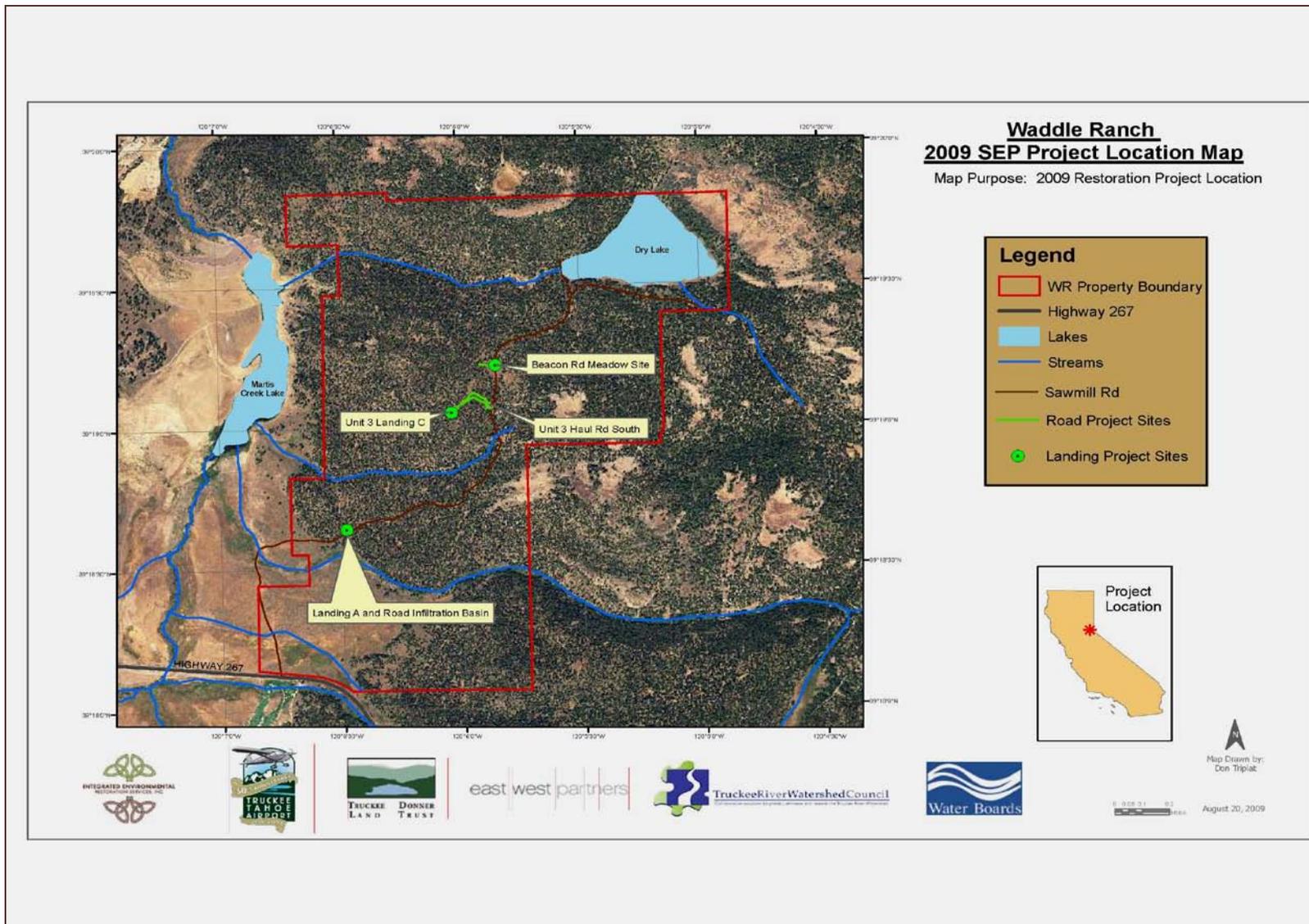


Figure 5. Overview map of Waddle Ranch 2009 restoration project locations.



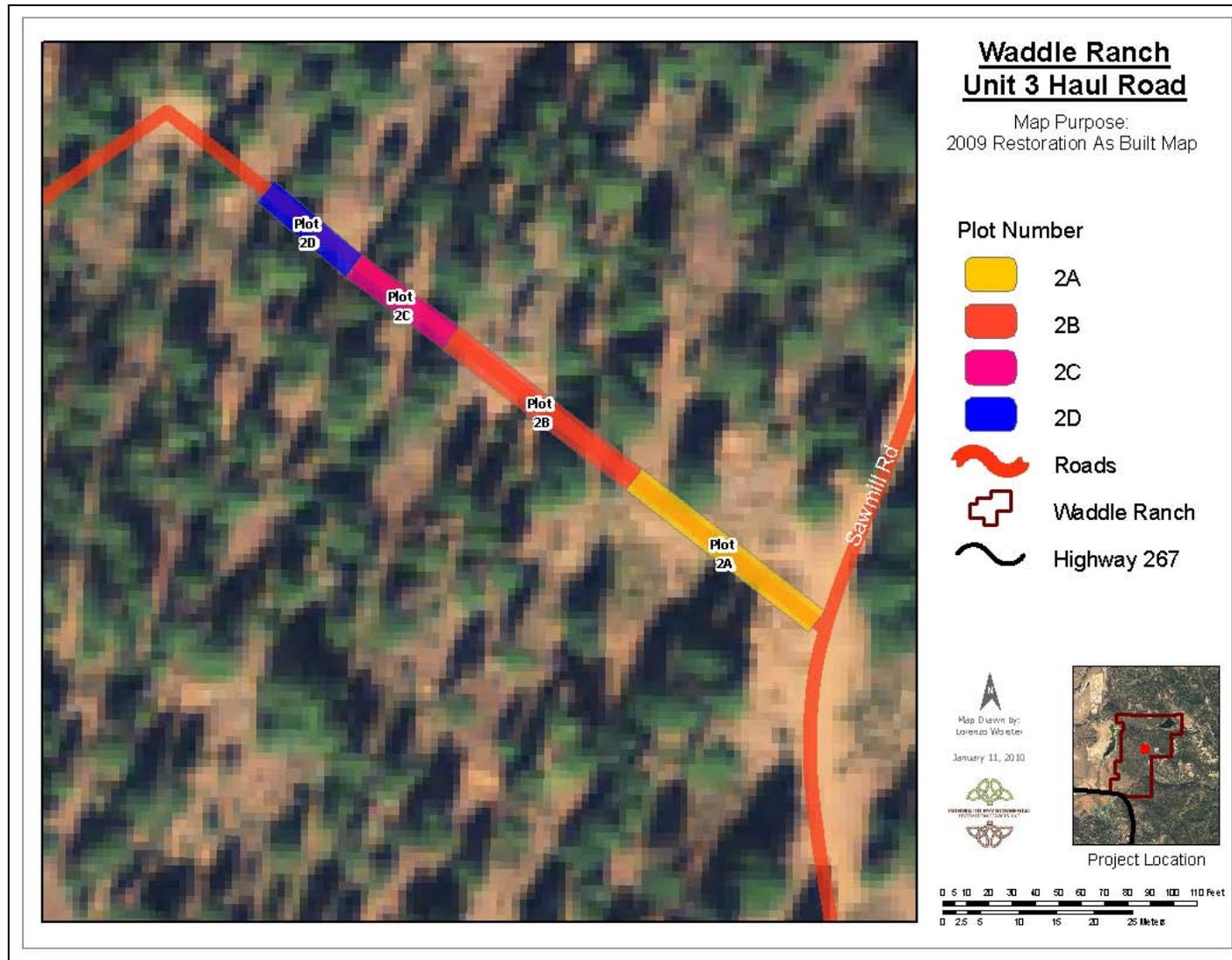


Figure 6. As Built map of Landing C.

