

**Memo for Record- April 2009**

**Subject: Carlsbad Vegetation Management Team Meeting**

The Carlsbad Vegetation Management Meeting scheduled for April 2, 2009 was cancelled due to lack projects to report on and lack of funding for any experimental/on-going projects.

Another meeting will be scheduled this fall and a call in number provided.

Reclamation employees (Joe Alderete and Marsha Carra) did meet on April 7, 2009 with Brent Tanzy at Elephant Butte Reservoir. The members did look at some previous work done in the area with saltgrass/saltcedars and evapotranspiration/evaporation rates at Caballo and elephant Butte Reservoirs. (Hand outs to be posted on web page)

The Carlsbad Soil and Water Conservation District provided Reclamation with their quarterly report (thank you) for the 1<sup>st</sup> quarter Calendar year 2009. (See below).

**Pecos River Salt Cedar Management Demonstration Project**  
**Bureau of Reclamation Quarterly Report**  
**January 1, 2009 through March 31, 2009**

This report addresses activities of the Pecos River Salt Cedar Management Demonstration Project January 1, 2009 through March 31, 2009.

**Participation through Carlsbad Project Vegetation Management Team**

The staff at Carlsbad Soil and Water Conservation District (SWCD) continues administrative support as needed of the monitoring activities.

**Monitoring and Evaluating (as reported by Mark Walthall)**

The following report summarizes past, current, and proposed revegetation efforts in the McMillan Delta of the Pecos River.

Five out of fifteen of the grass test plots at the Artesia Revegetation Site planted in late summer of 2005 were successful. Each of the planting techniques were successful in at least one of the replicated (3) plots. The planting techniques tested were: broadcast seed followed by roller chopper (Figure 3); broadcast seed followed by imprinter (Figure 4); no-till grass drill; Laird Range drill. Galleta grass, alkali sacaton, and blue grama are the most persistent of the eight grasses planted. Alkali sacaton is somewhat clouded as it was growing at the site before the plots were initiated; some



of the pre-existing plants survived as well as newly seeded plants. Some of the grass sprigs planted the spring of 2008, in nine zeolite cores, are holding on but not thriving.

None of the nineteen salt tolerant plant species (grasses, forbs, and shrubs) drilled in August of



Figure 1. Artesia Alkali-Scald Site - Site is barren of vegetation and soil is cracked.

of the pre-existing plants survived as well as newly seeded plants. Some of the grass sprigs planted the spring of 2008, in nine zeolite cores, are holding on but not thriving.



Figure 4. Artesia Revegetation Site – Broadcast seeding with imprinter.

2005 or the alkali sacaton drilled in August of 2007 emerged at the alkali scald site (Figure 1). None of the grass sprigs planted in the 12 zeolite cores in

April of 2008 survived the summer (Figure 2).

None of the grasses from the eight species-seed mix survived at the McMillan Lakebed site, planted in the spring and late summer of 2005. Sorghum alnum was drilled over the entire site in the spring of 2007. Both the sorghum alnum and kochia were in great condition by mid-August, 2007, when the site was mowed. The sorghum alnum rebounded well until frost; a majority of the kochia died after the mowing. Galleta grass and little bluestem were drilled individually into both the east and west halves of the site in late August, 2007. Neither of the grass species was observed to have emerged throughout the 2008 growing season, although the



Figure 2. Artesia Alkali-Scald Site - Grass sprigs planted in 10-foot zeolite cores, April 2008, did not survive the droughty spring and summer. The plants appear to be dead.



Figure 5. McMillan Lakebed Site - Site is relatively clean of kochia with last year's (second year) sorghum stubble remaining.

The last meaningful precipitation occurred around October 11, 2008 at both sites. Soil moisture has held around 20% throughout the winter at the Artesia site (perched water table) (Chart 1). Soil moisture at the McMillan site was highest after the monsoon season at 15% and has dropped

sorghum alnum did (Figure 5). The roots of the sorghum alnum appear to be healthy and growing at the time of this report (Figure 6). It will be interesting to find out if the sorghum alnum is successful a third year, as we were advised it would only persist only through a second year.



Figure 6. McMillan Lakebed Site – Dormant sorghum alnum plants (March 10, 2009) have healthy roots and stolons.

over the winter to 10%, which is essentially the wilting point (Chart 2).

The precipitation pattern at the revegetation sites for the last three years has been one of reasonable monsoon seasons (July, August and September) with drought throughout the rest of the year. Spring plantings are not recommended as light spring showers often allow seed to germinate and then die during the windy and droughty conditions that dominate before the monsoon begins in July.

Plans for this spring are to prepare several wind-break strips on the west side of the Kaiser Channel in the McMillan Lakebed. These wind-breaks will be planted with sorghum alnum in mid to late June based on current weather predictions.

Grasses, shrubs and trees have been requested from the Los Lunas Plant Materials Center for planting the fall of 2010 in the treated (2006) and extracted (2008) saltcedar in the area along the north shoreline of the old Lake McMillan. The piles of extracted saltcedar are scheduled for burning in the winter of 2009.

Proposed work also includes composting of dead saltcedar, incorporating a mix of several drought tolerant grass species, and spreading in the area where the Kaiser channel entered Lake McMillan (east of Kaiser Channel). This area is different from the dense clays of the lakebed as it consists of stratified sands and clays, and maintains perched groundwater over extended periods of time. This work depends on funding (Collaborative Forest Restoration Program grant proposal).

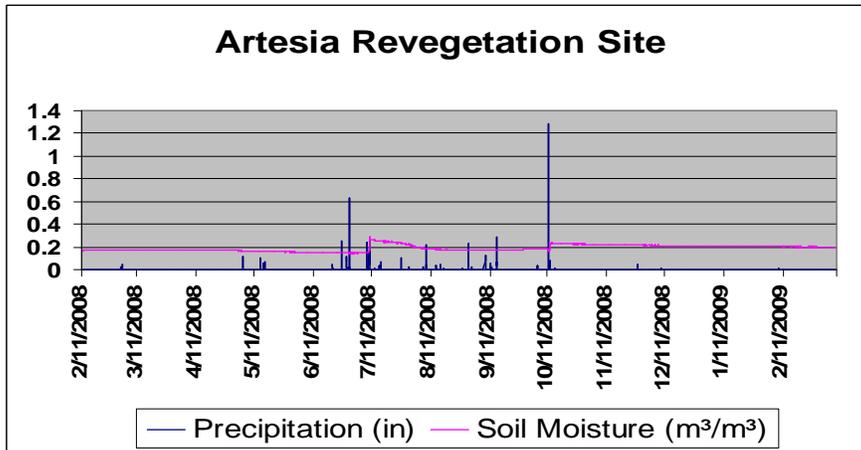


Chart 1. Precipitation and soil moisture at the Artesia Revegetation Site.

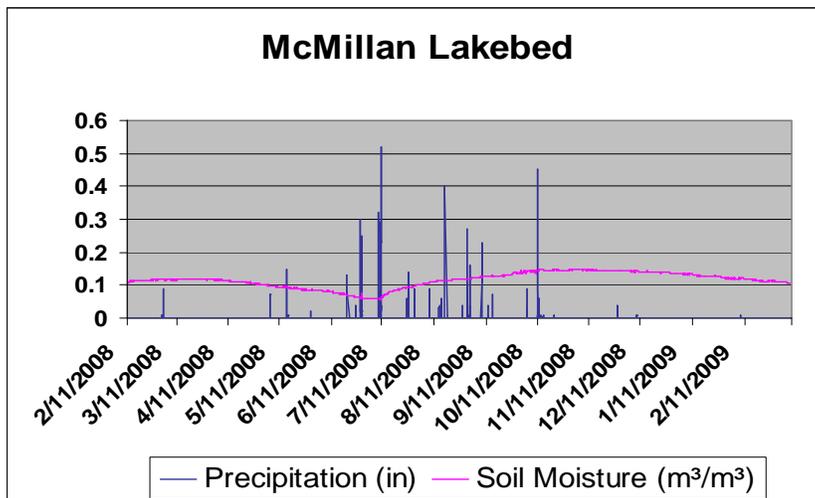


Chart 2. Precipitation and soil moisture at the McMillan Revegetation Site.

**Funding**

<b>Description</b>	<b>Agreement</b>	<b>Requested</b>	<b>Remaining balance</b>
Administration	20,000	12,225	7,775
Monitoring labor	85,000	67,235	17,765
Restoration work	70,000	69,786	214
<b>Dissipation Study</b>			
Sample Collection and Shipping	5,000	3,115	1,885
<b>TOTAL</b>	<b>\$ 180,000</b>	<b>\$ 152,361</b>	<b>\$ 27,639</b>

Respectfully submitted,  
Judy Bock, District Manager