

Carlsbad Project Vegetation Management Program Meeting
Carlsbad Soil and Water Conservation Office
September 26, 2007 8:30am-3pm

1. Introductions

2 Action Items from last minutes:

a. Participants will provide electronic copies of their presentations to Marsha Carra in Reclamation.

Status: Done, posted on the web site

b. Reclamation will need and updated map of the Pecos and the locations of various activities.

Status: Pending

c. Reclamation Albuquerque Area office will contact Sandia Labs to get the updates on the bank stabilization program.

Status: Contacted.

d. Reclamation will post the power points presented at the meeting on the Reclamation Web Site:

Status: Done.

e. Paul Tashjian will set up a meeting with the Carlsbad Irrigation District board members to brief work proposed in the BLNWR and will also contact Reclamation with the date and time so everyone necessary can help and attend.

Status: Completed, meet on June 12 with the CID board members and briefed on project. Received support letter and letters from the Chaves County and the Friends of Bitter Lake

3. Review work conducted to date, field work completed (see handouts)

a. Revegetation sites

b. Bank stabilization sites

c. Saltcedar leaf beetle release activities at Brantley Reservoir

d. Aerial spraying sites

e. Status of IPM

f. Seeding and restoration status

g. Aerial spraying

4. Group/Team to draft, review and edit mission statement for posting on the web page.

5. Next years' (CY2008) work projections

6. Set next meeting date

7. Next years' (CY2008) work projections

8. Set next meeting date

Carlsbad Project Vegetation Management Program Meeting
 SWCD Office 3219 S. Canal Street, Carlsbad NM
 September 25, 2007

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Pecos River Non-Native Phreatophyte Management Program

Aerial Spraying by Helicopter or Ground Application

The aerial application of herbicide treatment was completed by North Star Helicopters, Inc. during the month of September in the years 2002, 2003, 2004, and 2006. The following table reflects the acreage treated by year and county.

County	Acres 2002	Acres 2003	Acres 2004	Acres 2006	Total Acres
Eddy	2,520	2,551	700	1,105	6,876
Chaves	2,835	883	-0-	-0-	3,718
DeBaca	2,599	1,548	1,968	-0-	6,115
Guadalupe	1,146	91	-0-	-0-	1,237
Totals	9,100	5,073	2,668	1,105	17,946

Several types of ground treatment (i.e., cut and stump paint, ground spraying, and extraction of live saltcedar) were also completed over the past five years.

Cut and Stump paint acreage:

- Carlsbad SWCD - 54.8 acres (including 25 acres on Black River in BLM collaboration)
- Upper Hondo SWCD - 37.1 acres
- Guadalupe SWCD - 29.8 acres

This program was combined with a joint collaboration with the Carlsbad BLM for the cut/stump removal of Russian olive and salt cedar along the Black River.

Ground spray acreage:

- Peñasco River (Peñasco SWCD) – 239.05 acres

Extracted live saltcedar acreage:

- Dark Canyon (Carlsbad SWCD) - 115.5 acres
- Delaware River (Carlsbad SWCD/BLM) - 32 acres
- Bosque Redondo Park (DeBaca SWCD) – 32 acres

Restoration Work Using NM State Appropriated, Federal, and State Land Office Funds

Total acreage of restoration (extraction of treated saltcedar) work of 1431.73 acres has been completed in the following counties:

- Eddy County 907 acres
- Chaves County 398.5 acres
- Guadalupe County 126.23 acres

Restoration work has been a coordinated project with the BLM on the southern end of the Pecos River. The New Mexico State Land office put forward \$20,000 for approximately one and one-half mile of extraction along the Pecos River on State Trust Lands.

Pecos River Non-Native Phreatophyte Management Program

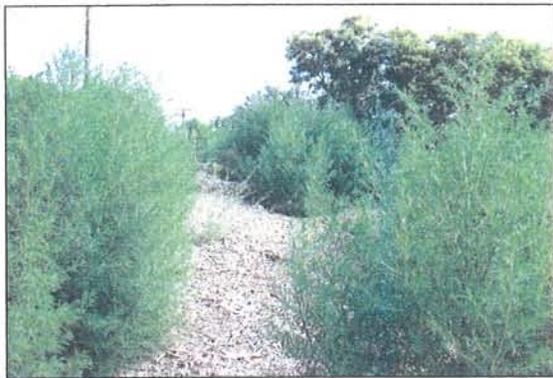
Senator Bingaman's Riparian Restoration Program

Demonstration Areas:

Santa Rosa Area – The Guadalupe demonstration site is scheduled to be planted later this fall.

Carlsbad Area – Callaway Drive - This demonstration area is being monitored on a regular basis to assess how the plantings will survive in a native state without any follow up maintenance. Most of the Cottonwood trees have survived near the water with the dead standing kochia acting as a weed barrier and several of the small shrubs that have survived.

Bujac Property – During the week of June 11-22 weeds were removed at the property and most of the plantings were alive and doing well. A few Cottonwood had died back but are coming up from the base of the poles. Follow up maintenance is scheduled for the end of July.



Kochia and lambs quarter before



Vegetation from spring planting

Six-Mile Dam – The kochia was mowed in early February. Treatment of the new growth of weeds was done first week of June.

Demonstration Test Plots:

Status on conservation plans for the following four test plots:

Cecil Pollard (east of Lake Arthur) - 150 foot by 300 foot plot; kochia has been mowed; weed control was done in June 2007; seeding and mulching completed in August; fencing to be completed in September 2007

Bach (east of Artesia) – 400 foot by 500 foot plot; kochia has been mowed; weed control was done in June 2007; seeding completed in August; fencing to be completed in September 2007

John Wright Farm (east of Loving) – approximately 160 foot by 260 foot plot: weed control done in July; seeding completed in August; fencing to be completed in September 2007

BLM - Tran King (southeast of Malaga) – approximately 140 foot by 180 foot plot; removal of dead and live salt cedar and weed control completed in July; seeding completed in August; fencing to be completed in September; and shrub or tree planting planned for October

BOR McMillan Delta Project - The Carlsbad SWCD continues administrative support and working as needed with Dr. Mark Walthall on the Imazapyr Dissipation study; revegetation of the McMillan site; monitoring the climate stations at the McMillan and Artesia revegetation sites; and working with the Zeolite studies at the Artesia demonstration and revegetation sites

From: Robert Doster
To: ALDERETE, Joseph
Date: 9/24/2007 11:09:07 AM
Subject: Least Tern update

Joe,

Here's an update on the terns for the Veg. Management Meeting:

In summer 2007, there was no nesting by Least Terns in the vicinity of Brantley Lake and only two birds were observed around the lake throughout the summer.

28 acres of new nesting habitat for Least Terns was created on the Seven Rivers WMA. This area, along with 56 acres created last year, are to be maintained, vegetation-free, for the next 10 years (as agreed to in the Pecos River Operations Biological Opinion). Along with the new 28 acres, 44 acres on the Seven Rivers WMA originally cleared last year was re-cleared for Least Tern habitat. A third area, 12 acres in size and located in the Champion Cove area of Brantley Lake, was not able to be cleared this spring because of high lake levels that made access impossible. The areas that were cleared of vegetation this year rapidly re-grew in kochia as higher-than-normal spring and summer rains fell. With a heavy growth of kochia, these sites were essentially unusable by Least Terns by early-summer.

Plans for next year include re-clearing vegetation from the all three areas (84 acres) and possibly using a pre-emergence herbicide to help control kochia that has proven to be a persistent problem.

-Rob

CID Pecos River Water Quality Analyses: Cation/Anion Balance Sheet

<u>Analyte</u>	<u>Roswell</u> <u>SR70 Bridge</u> 33°34'18.12" N 104°22'30.77" W elev 3519'	<u>Bottomless Lakes</u> <u>Lea Dam</u> 33°19'00.53" N 104°19'50.53" W elev 3463'	<u>Dexter</u> 33°12'36.17" N 104°20'11.45" W elev 3402'	<u>Artesia</u> 32°55'28.74" N 104°20'45.16" W elev 3317'	<u>McMillan Dam</u> 32°35'26.21" N 104°21'21.90" W elev 3282'
EPA Method 6010B					
CATIONS	<u>mg/L</u>	<u>mg/L</u>	<u>mg/L</u>	<u>mg/L</u>	<u>mg/L</u>
Sodium (Na ⁺)	450	1600	1600	1600	540
Calcium (Ca ²⁺)	530	800	750	740	590
Magnesium (Mg ²⁺)	150	120	220	250	130
Potassium (K ⁺)	5.6	10	8.6	11	9.6
Strontium (Sr ²⁺)	8.0	9.8	11	11	8.7
Total Cations	1143.6	2539.8	2589.6	2612	1278.3
	58.69	119.88	125.61	127.64	64.08
EPA Method 300.0					
ANIONS	<u>mg/L</u>	<u>mg/L</u>	<u>mg/L</u>	<u>mg/L</u>	<u>mg/L</u>
Sulfate (SO ₄ ⁻)	1900	2200	2200	2100	2100
Chloride (Cl ⁻)	690	2700	2800	2600	920
Bicarbonate (HCO ₃ ⁻)	83	170	110	100	71
Fluoride (F ⁻)	0.57	1.20	1.10	0.95	0.96
Bromide (Br ⁻)	0.40	0.47	0.67	0.79	0.36
Carbonate (CaCO ₃)	ND	ND	ND	ND	ND
Phosphate (P)	ND	ND	ND	ND	ND
Nitrate (N)	ND	ND	ND	ND	ND
Nitrite (N)	ND	ND	ND	ND	ND
Total Anions	2673.97	5071.67	5111.77	4801.74	3092.32
	60.72	125.43	127.05	119.12	71.15
CATION/ANION Ratio	0.97	0.96	0.99	1.07	0.90
% Difference	1	2	1	3	3

ND: analyte not detected BDL: below detection limit

CID Pecos River Water Quality Analyses: Cation/Anion Balance Sheet

<u>Parameter</u>	<u>Roswell</u> <u>SR70 Bridge</u> 33°34'18.12" N 104°22'30.77" W elev 3519'	<u>Bottomless Lakes</u> <u>Lea Dam</u> 33°19'00.53" N 104°19'50.53" W elev 3463'	<u>Dexter</u> 33°12'36.17" N 104°20'11.45" W elev 3402'	<u>Artesia</u> 32°55'28.74" N 104°20'45.16" W elev 3317'	<u>McMillan Dam</u> 32°35'26.21" N 104°21'21.90" W elev 3282'
EPA 120.1: EC					
Specific Conductance					
Electrical Conductivity	<u>µmhos/cm</u> 5200	<u>µmhos/cm</u> 11000	<u>µmhos/cm</u> 11000	<u>µmhos/cm</u> 12000	<u>µmhos/cm</u> 5800
Ratio of Anion Sum:EC	1.2	1.1	1.2	1.0	1.2
Ratio of Cation Sum:EC	1.1	1.1	1.1	1.1	1.1
SM 2540C: TDS					
TDS Measured	<u>mg/L</u> 4000	<u>mg/L</u> 7600	<u>mg/L</u> 8200	<u>mg/L</u> 8300	<u>mg/L</u> 4500
TDS Calculated	3776	7534	7646	7363	4334
Ratio Meas. TDS:Calc. TDS	1.06	1.01	1.07	1.13	1.04
Ratio Meas. TDS:EC	0.77	0.69	0.75	0.69	0.78
Ratio Calc. TDS:EC	0.73	0.68	0.70	0.61	0.75
SM2320C: Alkalinity					
Bicarbonate (HCO ₃)	<u>mg/L CaCO₃</u> 83	<u>mg/L CaCO₃</u> 170	<u>mg/L CaCO₃</u> 110	<u>mg/L CaCO₃</u> 100	<u>mg/L CaCO₃</u> 71
SM4500-H+B: pH					
pH	<u>pH units</u> 8.24	<u>pH units</u> 7.71	<u>pH units</u> 8.15	<u>pH units</u> 8.11	<u>pH units</u> 7.96
EPA 200.8: Arsenic					
Dissolved Arsenic	<u>mg/L</u> 0.00135	<u>mg/L</u> ND	<u>mg/L</u> 0.00187	<u>mg/L</u> 0.00195	<u>mg/L</u> 0.00549

ND: analyte not detected

Generally Accepted Ranges:

1. Cation/Anion Balance Difference: 0-3 = 1%, 3-10 = 2%, >10 = 5%
2. Ratio Measured TDS:Calculated TDS = 1.0-1.2
3. Ratio Measured TDS:EC = 0.55-0.70
4. Ratio Calculated TDS:EC = 0.55-0.70
5. Ratio Anion Sum:EC = 0.9-1.1
6. Ratio Cation Sum:EC = 0.9-1.1

**Original Proposed mission statements from AAO September 2004
September 26, 2007**

Purpose of team: To coordinate vegetation treatment and research activities that comprise the Carlsbad Project Vegetation Management Program and to integrate results to optimize future work and maximize benefits over the years.

Team Responsibilities: The team has no decision making authority; responsible parties continue to make decisions. Ongoing O&M and Pecos River Basin Water Salvage Project activities will continue to be managed by Carlsbad Irrigation District and Bureau of Reclamation. The team is responsible for research activities and new treatment activities not tied to existing O&M and saltcedar control programs. The team will share results of studies and treatment effectiveness. The team believes that learning successful revegetation methods is a priority and a great challenge. The team will be responsible to share information that could result in improvements. The team may recommend better treatment methods, integrated treatment methods, mitigating measures, enhancements, and needs for investigation, new studies, and any other improvements. The team may advocate for or seek funding for Vegetation management Program activities exclusive of any funds budgeted by Reclamation's AAO. The team may disband at any time; organizations may change members, though team members agree that continuity is best and will strive for consistent membership.

Common understanding of the Vegetation Management Program: The Carlsbad Project Vegetation Management program is envisioned to further our knowledge of the most appropriate and most effective treatment and revegetation methodologies while simultaneously reducing the amount of acreage currently impacted by invasive plant species. The program is anticipated to be dynamic and ongoing over the next approximate 10 years, adapting to new information, and likely initiating new studies. The long-range view of the Program is a reduction of non-native invasive species like saltcedar, a reduction other invasive like kochia and weeds, and reestablishment of native vegetation like grasses and shrubs appropriate to the area. Program activities will be consistent with and further a Reclamation and Departmental goal to "Sustain biological communities on DOI managed and influenced lands and waters in a manner consistent with obligations regarding and allocation and use of water" and a performance measure associated with that goal of "Percent change from and baseline in the number of acres infested with invasive plant species".