



Bosque Ecosystem Monitoring Program –

Vegetation Monitoring 2008

BEMP 2008 Vegetation Brief Preliminary Report

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Dear BEMP staff,

We, once again, enjoyed the opportunity to be a part of the BEMP project. If there are any questions about the data or report, please do not hesitate to contact us at the email addresses or phone numbers listed above. Given that this was produced on short notice we are just addressing major points of interest.

This year the BEMP staff did an excellent job of replacing or repainting bent, damaged or missing rebar on the vegetation plots. This is a big task on 25 sites and is much appreciated by the botanical crew.

Thank you.

The Plant Crew,
Phil Tonne, Dena Odell, Steven Yanoff

2008 Field Observations.

There is always something changing in the bosque and BEMP is vigilant in taking note of ecological shifts. While reading the vegetation transects we see annual shifts in the field, some of them subtle and some more obvious. Each year we try to convey something of interest that we observed that could then be tested in greater detail as the data is analyzed.

Last year we focused on the fire at the Valencia Forest site and part of the Belen Plot.

We noted many resprouts in Russian olive (*Elaeagnus angustifolia*) and salt cedar (*Tamarix chinensis*) with fewer, but not infrequent, resprouts in native trees and shrubs. With the exception of several healthy Gooding's willow (*Salix goodingii*) and sumacs (*Rhus trilobata*), and some struggling Rio Grande cottonwoods (*Populus deltoids* ssp. *wislizeni*), most of the native resprouts have died. The exotics that remain appear



relatively robust though many of them were cleared from the site this year. As noted last year we've seen a continued spread of scratchgrass (*Muhlenbergia asperifolia*), saltgrass (*Distichlis spicata*), and vine mesquite (*Panicum obtusum*). The new Crawford site to the south is similarly if not more severely affected by fire. Had we monitored this area previously it would have been dominated by cottonwood canopy, but now includes almost no living trees of this species. The groundcover diversity and percent cover is quite different from that at the Valencia Forest site.

It will be interesting to watch as these sites, in close proximity, become recolonized with different management objectives and access to water. Access to water from a recently constructed artificial conveyance channel is already having a profound effect at the Harrison site.

Similarly hydrology, precipitation, and temperature fluctuations cause dramatic shifts from year to year at Ohkay Owingeh. We note an annual expansion and contraction in species like Indianhemp (*Apocynum canibinum*; seen here) that forms dense stands. Similarly, virgin's bower (*Clematis columbiana*), saltbush (*Atriplex* spp.), and sedges (*Carex* spp.) compete with each other, sometimes increasing, sometimes decreasing. There is a complex dance between interacting



species and resources that unfolds differently each year, accompanied by an occasional new species like Showy milkweed (*Asclepias speciosa*) which has come in on the wind, seeds borne by a parachute of hairs, or coma, and taken advantage of the wet conditions at this site. It is well established at wetland edges and is popping up in drier parts of the site.