

Rio Grande Harvestable Willow Pole Survey

July 5-6, 2017

RGSSS

Willows were surveyed to determine the approximate number of harvestable poles available for revegetation efforts on tributaries of the Rio Grande in the Big Bend National Park watershed. The reach of the Rio Grande/Rio Bravo between the confluence of Terlingua Creek and Cottonwood Campground was chosen as the study reach based on prior surveys indicating a high density of willows (*Salix sp.*) and proximity to roads and revegetation sites.

Methods:

Stands of willows with more than 25 harvestable poles (diameter between 1-3 inches at base) were surveyed. All locations were recorded with a GPS (UTM;WGS 84) and numbers of poles available to be harvested were estimated. In addition, ease of access from the river was recorded and if vehicle access was available it was noted. Other notes/observations were added on a site by site basis. Willows were not keyed to species due to difficulty identifying *Salix* without Inflorescences/flowers.

Harvestable pole estimates on stands smaller than 200 poles were obtained by actual counts or estimates based on area measurements. Larger stands were paced (1 meter pace) and the number of poles in a 1 meter transect were recorded every 10 paces to determine the average number of poles/running meter. The average number of poles per meter was multiplied by the length of the stand to estimate total number of poles per stand.

It should be noted that there a significant number of small (fewer than 25 harvestable poles) stands of willows and that willow numbers appear to be expanding in this reach. There are a significant number of poles available for harvest from these smaller stands although it would not be feasible to harvest from them unless crews were already passing by them and removed poles while travelling to another site.

Observations:

Sites that have been harvested previously show high resiliency to harvest and appear to be recovering quickly. It would be difficult to tell that the Blue Creek Harvest Site has been used as a source of poles 3 times in the last 3 years without careful observation. This resiliency is almost certainly related to total stand area and density with larger more mature stands being the most resilient. Harvesting these areas at a higher rate (30%) may be the most cost effective and least environmentally damaging way to provide poles for future revegetation efforts.