

## Impacts of Saltcedar Invasion

Saltcedar (*Tamarix* spp.) is a highly invasive plant native to the Middle East and Asia that now infests more than 2 million acres in the Southwest U.S., including over half a million acres in Texas. In floodplains in the southern great plains, saltcedar is increasingly becoming the dominant woody species. Saltcedar forms dense thickets that displace native plants along rivers, blocking livestock access and reducing habitat quality for wildlife such as wild turkeys, which require grassy, open understory. Saltcedar is a “game-changer” not only for riparian habitats but also for the aquatic community—the thickets reduce the river’s ability to meander in the floodplain causing sediments to build up as the river digs a deeper channel, in turn affecting fish and invertebrates that make a living in riffles and pools. Saltcedar also uses a lot of water—some estimates suggest that each acre of saltcedar may lose 1-2 acre-feet of water through evaporation. Because of the hydrological conditions present in the Brazos River, there may be a good chance of increasing the amount of water flow.

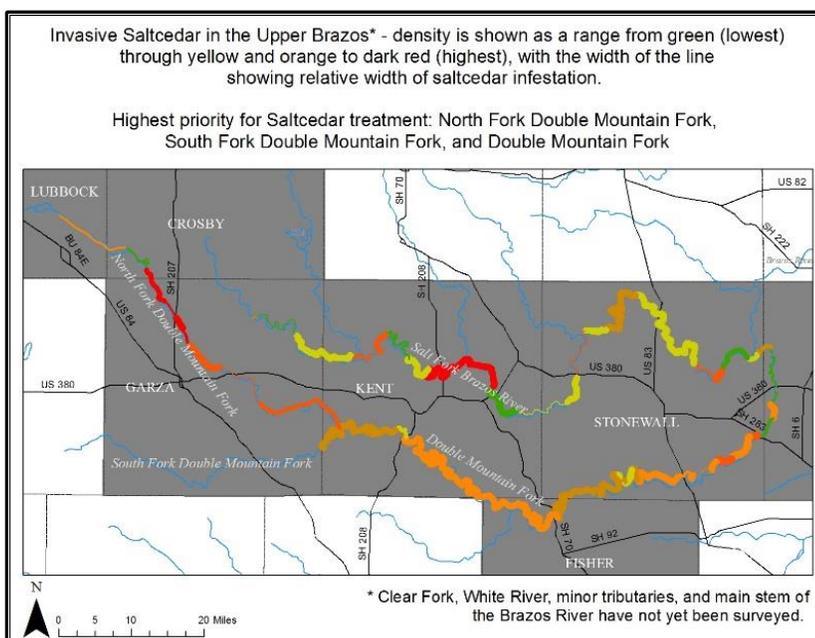


## Project Goals

The purpose of this project is to improve riparian and instream habitat quality through targeted saltcedar control provided for landowners **free of charge**. There are two basic participation levels—herbicide treatment only or treatment plus allowing periodic access for monitoring the effectiveness of treatment. Landowner participation in allowing access for monitoring is essential for documenting success and helping to secure support for ongoing control of saltcedar in the Upper Brazos River watershed.

## Project Area and Methods

With landowner participation, we plan to conduct saltcedar management and monitoring on riverfront properties in the Upper Brazos River Basin, with an initial **focus on the Double Mountain Fork and its tributaries**, beginning upstream in Lubbock, Crosby, Garza, and Kent counties and working downstream toward the Salt Fork confluence. If your property is located in the focus area, we would like to set up a site visit to evaluate saltcedar coverage and determine the best method of treatment and talk with you about potential for monitoring at your site.



## Landowner Permission – What Will Be Done with Data from Your Property?

During the site visit, you'll need to sign a permission form or us to conduct treatment or monitoring. Data on saltcedar treatment will be used to show progress (on maps) in controlling saltcedar. This is important for securing ongoing funding for control efforts. The form gives two options—if you choose the option to release location-specific data (preferred), your property will be shown on project maps but not labeled with landowner or ranch name. The alternative option will not allow TPWD to show your participation on a map.

### Herbicide Treatment (Base Level Participation). A

helicopter will be used, when feasible, to apply herbicide treatments to invasive saltcedar.

Herbicides used to control saltcedar are imidazoline herbicides (i.e., imazamox, imazapyr)—systemic herbicides that attack an essential enzyme process that animals don't have (so they're not affected). If initial site visits find low density of saltcedar and

high density of desirable, woody native plants, ground-based (e.g., ATV) application of herbicides may be necessary. Willing landowners will be asked to complete and sign the Landowner Permission for Invasive Plant Research and Investigation form, and arrangements specific to each property will be established between the landowner and the

researchers/biologists. *Contractors/biologists will provide advanced notice before any aerial treatment or visit to private property where permission has been granted. Access to a property (aerial or ground based) will be scheduled for a "treatment window" of 3-5 days to allow for wind/weather delays associated with herbicide application.*



### Contacts for Site Visits:

If you have already been contacted by one of the individuals below, please continue to work with them as your primary contact. Otherwise, please use the phone contacts in the order listed or send an email to one or all contacts listed below. We will work together to schedule a site visit with the right people to address your potential participation level.

Duane Lucia – Partners for Fish & Wildlife, (806)445-6477; [duane\\_lucia@fws.gov](mailto:duane_lucia@fws.gov)

Monica McGarrity – Aquatic Invasive Species Biologist; [monica.mcgarrity@tpwd.texas.gov](mailto:monica.mcgarrity@tpwd.texas.gov); 512-389-8292

Kevin Mayes – Aquatic Biologist, River Studies Program; [kevin.mayes@tpwd.texas.gov](mailto:kevin.mayes@tpwd.texas.gov); 512-754-6844 ext 225

Seth Pearson – TPWD Wildlife Biologist; [seth.pearson@tpwd.texas.gov](mailto:seth.pearson@tpwd.texas.gov); (806) 253-0636