

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. These 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 can also use a lot of water. Some estimates suggest that each acre of dense saltcedar may lose 1-2 acre-feet of water through evaporation.



Project Goals

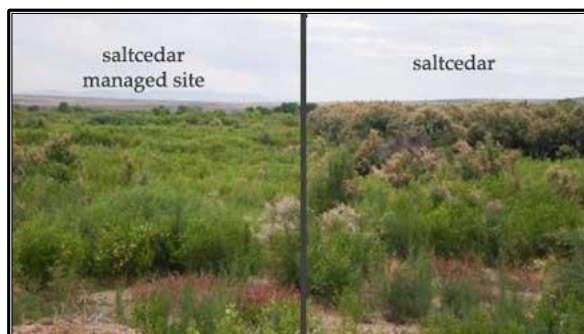
The purpose of this project is to provide targeted saltcedar control at no cost to participating landowners and improve riparian and instream habitat quality for fish and wildlife. Because of hydrological conditions present in the Brazos River, there may also be a chance of increasing the amount of water flow.

Project Area

Saltcedar management began in the upper Brazos River Basin on the Double Mountain forks and has now progressed to include the Salt Fork and areas of the main stem of the river where the forks join. If your ranch is in these areas, the property could be included in this project for treatment at no cost to you. Eventually, treatment may expand as far downstream as Possum Kingdom Reservoir.

Management Methods

Helicopter-based treatment using aquatic-approved imazapyr is being used to manage invasive saltcedar. Imazapyr is a systemic herbicide that attacks production of an essential enzyme that animals don’t possess, so they’re not affected. Pilots will take care to avoid all cottonwoods, leaving approximately a 20-foot buffer around them, and will avoid other large trees and non-target plants



such as willows or plums as much as possible. Biologists and herbicide application contractors will provide advance notice by phone before any aerial treatment or visit to private property where permission has been granted. Treatment will take place during mid to late summer when we have enough new landowner permissions. The specific treatment date will depend upon progress of treatment as well as weather considerations that could affect herbicide application.

Landowner Permission

Before treatment, each landowner must sign a permission form to authorize aerial herbicide application. Please return the form to the email or mailing address shown at the top of the form and email or call if you have any questions. The form gives two permission options. If you choose to release location-specific data (option 1), your property could be shown on a presentation map. The maps will never be labeled with landowner or ranch names, but if an adjacent road number or easily identifiable river bends were shown, for example, it could be possible to identify it as your property. Presentations might use such maps as examples of the extent of the Brazos saltcedar infestation area within the river floodplain. Additionally, if records of participating landowners were requested from TPWD, your name and address would be shared. The non-location specific option (option 2) would not allow us to share that you are a participant or to present maps at a scientific conference if your ranch could be identified. Please choose the permission level you prefer and sign and date only that option. Please be sure to list the property address and provide your mailing address at the bottom of the form.

Project Monitoring

Biologists from TPWD and partner universities are monitoring the hydrology, river channel shape and instream habitat, riverside plant community, and fish populations at six sites in the upper Brazos River basin. Hydrological/groundwater monitoring uses test wells with water level sensors and conductivity-temperature loggers along with soil moisture probes to study the interaction between groundwater and surface water over time. This research will evaluate the water budget for the river as well as how saltcedar management influences water availability in the ground and river.

Contacts:

For more details on the program, email Brazos.Saltcedar@tpwd.texas.gov (best option) or call:

Monica McGarrity, Senior Scientist for Aquatic Invasive Species Management, 512-552-3465

Kevin Mayes, Aquatic Biologist for River Studies - 512-754-6844 Ext. 225



LANDOWNER PERMISSION FOR INVASIVE PLANT MANAGEMENT & RESEARCH

(Pursuant to Section 12.103 of the Texas Parks and Wildlife Code)

By my signature below, I hereby authorize Texas Parks and Wildlife Department (Department) employees, or persons working on behalf of the Department, to enter private property I own or manage for the purpose of managing invasive species (i.e., herbicide application, biological control agent introduction, or mechanical treatment/removal) or conducting scientific research and investigation regarding invasive species and natural resources, to record and use site specific information from the property for scientific research and investigation, and to allow public access to the information to the degree authorized below.

Authorized scientific research, investigation, management practice, or other associated activity:

Herbicide treatment of invasive saltcedar in the river floodplain and larger tributaries

Landowner(s) or Authorized Agents will be notified in advance of each herbicide application and/or monitoring visit if we need to enter the property. Exact dates/times may change with weather and contractor schedule.

OPTION 1 - Release of Information (Location Specific): I hereby further authorize the Department and project partners to use the information collected in reports, maps, publications, or presentations or otherwise make the information available to the public in a manner that could identify the specific location of the private property I own or manage but does not reveal my name or exact address.

Signature (Landowner or authorized agent)	(Date)
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OR

OPTION 2 - Release of Information (Non-Location Specific): I hereby further authorize the Department and project partners to use the information collected in reports, maps, publications, or presentations or otherwise make the information available to the public only in a manner that is generalized to a level that does not identify the specific location of private property I own or manage and does not reveal my name or exact address.

Signature (Landowner or authorized agent)	(Date)
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Name and Address: (Please print legibly)

(Name of Landowner or Authorized Agent)		
(Property, Ranch, or Tract name, if applicable)		
(Address)		
(City)	(State)	(Zip)
(Home Phone)	(Mobile Phone)	
(Email Address)		

You can return the completed form one of the following ways:

Email: Brazos.Saltcedar@tpwd.texas.gov Mail: AIS Team, Inland Fisheries Division Fax: 512-389-4405
Texas Parks & Wildlife Dept.
4200 Smith School Rd
Austin, TX 78744

Texas Parks and Wildlife Department maintains the information collected through this form. With few exceptions, you are entitled to be informed about the information we collect. Under Sections 552.021 and 553.023 of the Texas Government Code, you are also entitled to receive and review the information. Under Section 559.004, you are also entitled to have this information corrected. For assistance call 512-389-4444.