

Invasive Aquatic & Riparian Plants

A concern regarding invasive plants in Texas is its consumption of large amounts of water, which can displace the ecosystem.

Additionally, the unchecked growth of giant salvinia, water hyacinth, hydrilla and Eurasian watermilfoil, for example, seriously impacts water supply, water quality, hydropower production, flood control, navigation, recreation, fish and wildlife benefits, property values, and even human health. As an arid state experiencing drought conditions, Texas cannot afford additional water loss due to these invasive plants.

****REQUEST****

- [Support](#) full appropriation of Salt Cedar Control funding allowed by PL 109-320. Support federal funding of:
 - \$5M to Corps' Aquatic Plant Control Research Program
 - \$5M to Corps's Aquatic Plan Control cost share
 - \$2M to Corps for innovative strategies and research nonindigenous aquatic plant problems
- [Support](#) full funding Noxious Weed Control & Eradication Act of 2004.

Nonindigenous (non-native) species cause serious problems to Texas' water supply, water quality, hydropower production, flood control, navigation, recreation, fish and wildlife benefits, property values, and even human health. Once thought to be a problem of the "Deep South," nonindigenous aquatic plants, such as salt cedar, Russian olive, giant salvinia, water hyacinth, hydrilla and Eurasian watermilfoil occur in 48 of the 50 states. Hydrilla, which infests over 100 water bodies for a total of 75,000 acres in Texas, can be found in 22 states, reaching as far north as Maine and Washington state. Water hyacinth infests some 35 water bodies for a total of 10,000 acres. Eurasian watermilfoil is found in 46 states, and giant salvinia is found in 12 states. Salt cedar is also devastating riparian areas, lakes, and streams of the Texas. It has taken advantage of the ecological conditions brought on by years of drought and has populated many thousands of acres of dry reservoirs all over the West. While the problem is national in scope the situation in Texas is critical.

Rio Grande: The Rio Grande River is the nation's second longest river (1960 miles) and while rich in natural resources, it is also host to several invasive plant species, including hydrilla, water hyacinth, Eurasian watermilfoil, giant reed and salt cedar. These invasive weeds negatively impact flood control, navigation, habitat, and water delivery along much of the lower stretch of the Rio Grande. For example, the overabundance of the aquatic plant hydrilla costs over \$1 million per month during the peak irrigation system in the stretch of the river immediately below Falcon Reservoir. This lost water would have been used to support the billion-dollar Texas agricultural industry in the Rio Grande valley. Salt cedar and giant cane are impacting the Rio Grande as well as other west Texas rivers, dramatically reducing flows, increasing water loss through transpiration and degrading habitat.

Caddo Lake: Caddo Lake is Texas' only natural lake. It has been invaded by a variety of exotic species including Eurasian watermilfoil, hydrilla, and water hyacinth. Although hydrilla experienced exceptional growth in 1997 expanding 10 fold to over 5,000 acres, water hyacinth is typically the most problematic plant on the lake. Although hydrilla had retreated from the 1997 high, water hyacinth had grown to cover approximately 4,000 acres before an unprecedented ice storm knocked it back during the winter of 2000. Since that time it has infested previously uninfested areas of the lake, and over 300 acres were treated in both 2000 and 2001.

West Texas: In Stephens County Texas, salt cedars' invasion of Hubbard Creek Reservoir was so prolific that after only five years essentially all of the 7,000 acres of dry lake bed created by the drought yielded salt cedar. Salt cedar uses much more water than the native plant species. Salt cedar causes the top soil salinity to increase as it draws salts from the subsurface and drops salt-concentrated leaves as litter on the ground. It is estimated that a mature one-acre stand of solid salt cedar could consume and evapotranspire four to seven feet of water a year. At this rate Hubbard Creek Reservoir's estimated 7,000 acres of salt cedar would yield an estimated 28,000 acre-ft per year, that's greater than 25 MGD. The City of Abilene pumps 12-15 MGD from Hubbard Creek

Reservoir on average, so that is twice what Abilene uses. In addition to water quantity, there are concerns about water quality with salt cedar too. If salt cedar gains environmental supremacy by increasing soil salinity, then watershed runoff, stream, and lake salinity would eventually increase as well. If salt cedars are allowed to flourish, infested lakes may potentially become salty enough to require more advanced water treatment processes in the future to create drinking water that meets standards.

Toledo Bend and Lake Texana: Toledo Bend, Texas' largest reservoir (186,000 acres), and Lake Texana (11,000 acres) are infested with a number of exotic aquatic plants, including the top three: giant salvinia, water hyacinth, and hydrilla. Over the past 10 years on Toledo Bend, hydrilla coverage has ranged from nearly 8,000 acres to over 22,000 acres and in 1998 Toledo Bend was the first major public water body in the U.S. to be invaded by giant salvinia. Giant salvinia appeared on Lake Texana in 1999, rapidly expanding in mixed stands with water hyacinth. Consequently to effectively treat giant salvinia, the water hyacinth must be treated first. Despite the fact that Lake Texana is almost 18 times smaller than Toledo Bend Reservoir, the amount of giant salvinia present is comparable.

Southeast Texas: Typically, bayous in southeastern Texas are heavily infested with water hyacinth that may inhibit water transport, hunting, fishing, and other recreational pursuits. In general, maintenance treatments in the counties broadly surrounding Galveston Bay, including Jefferson County, may exceed 1000-2000 acres.

There are ways to address the problems of invasive plant species. First, is financial assistance with operational control of existing problems and technical assistance in developing and implementing scientifically-sound, ecosystem-based management strategies for restoring native plant communities in weed-infested water bodies. The U.S. Corps of Engineers, through its Aquatic Plant Control (APC) Program and Aquatic Plant Control Research Program (APCRP), has the mission and the mandate to satisfy both of these needs. The Corps' APC program has a long history of providing both funding and technical support for aquatic plant management operations in cost-sharing states. Though not funded in recent years due to cost cutting measures, this program provides cost share states (including Texas) the ability to obtain and match federal dollars with state dollars to address the growing national invasive plant problems. The Corps' APCRP is the only federally authorized research program for aquatic plant management and provides an ecosystem-based approach that seeks to integrate the use of biological, chemical, mechanical, and cultural controls to eliminate or greatly reduce the nonnative plants that cause the problems while promoting the establishment of beneficial native plants. The Noxious Weed Control and Eradication Act of 2004 has become Public Law 108-412, but it is not known how much of the \$15 million in funding has been released. If money is not released to critically under funded Texas eradication projects, future water and eradication costs will increase along with the spread of invasive plant species.