

RGRWA

RIO GRANDE REGIONAL WATER AUTHORITY

Invasive Aquatic Species

Because the Rio Grande is the “life blood” of our community, threats to its flow and water quality have serious economic and environmental impacts. For this reason, the Rio Grande Regional Water Authority (RGRWA) has created the Aquatic Weed Task Force to lead the battle against the rapidly-growing populations of aquatic weeds.

TYPES

Invasive plants are non-native and quick spreading. Three main aquatic weeds that affect the Rio Grande are water hyacinth, hydrilla and arundo. All three of these species grow in dense patches and reproduce at a quick pace. Both hydrilla and water hyacinth have growth patterns that crowd out local species, clog waterways, and decrease the flow of the river, making it more stagnant.

Arundo donax, also known as giant reed or arundo, grows rapidly along the banks of rivers, reaching a mature height of 25 feet in about 12 months. It comes from Eastern Asia but has been transplanted all over the world because of its many uses. Arundo has been used for walking sticks, fishing poles, musical instruments, and it is currently being investigated as a biofuel source. Giant reed has a highly dense growth formation that impairs native ecosystems. It also poses a dangerous threat because it is highly flammable.

Water hyacinth (*Eichhornia crassipes*), is an ornamental plant from South America. Hyacinth is considered one of the most aggressive aquatic weeds in the tropics because it reproduces sexually and



vegetatively. It floats on the water's surface blocking out sunlight and impairing the river's ecosystems.

Hydrilla (*Hydrilla verticillata*), otherwise known as water thyme, is a submerged aquatic plant that was brought to North America via the aquarium industry. This species has the ability to regenerate from tubers and fragments enabling it to survive several draw downs. Hydrilla is a robust plant that can withstand intense heat, high salinity and cannot be eradicated by mechanical extraction alone.

CONTROL METHODS

There are several solutions used to help control and get rid of aquatic weeds. For example, manipulating the level of sunlight by shading certain areas helps reduce growth of plants. Mechanical efforts like harvesters, rakes and drag lines are also used. Similar to simple farming methods, different types of herbicides can successfully eliminate aquatic weeds as well. Also, the introduction of certain species of fish and insects whose food sources include the invasive plants can help mitigate growth. Ecological safety evaluations can assess whether or not these herbivores pose any significant threat to native species.

EFFORTS

In 2002, the RGRWA received a \$149,995.80 grant from the National Fish and Wildlife Foundation, which was matched by \$381,990.63 in non-federal contributions, adding up to a total of \$531,986.43 to implement Integrated Pest Management strategies in the Lower Rio Grande.

That same year, the Texas Parks and Wildlife Department waived a \$2.00/fish fee for RGRWA to release 23,000 Triplod Grass Carp into the lower reaches of the Rio Grande. Grass Carp is known for being able to eat several times its body weight and feeds on plants such as hydrilla.

In late 2008, the RGRWA agreed to use a specific herbicide called Glyphosate to help control the growth of water hyacinth. A study is being conducted to monitor the effects of this application.

RGRWA will continue to play an important role in mitigating the effects of invasive species on the Rio Grande. Information about ongoing and future efforts can be found at www.RGRWA.org.

