

SAN JACINTO RIVER AUTHORITY
AQUATIC PLANT MANAGEMENT PROGRAM

Revised August 15, 2006, 2006

HISTORY

The San Jacinto River Authority (SJRA) was created by an act of the Texas Legislature to develop and preserve the water resources in the San Jacinto River Basin. In partnership with the City of Houston, Lake Conroe was constructed in the early 1970's as a water supply reservoir to meet the future needs of the growing area. The financing of the reservoir was backed by long term water supply contracts, with no funding from state or local taxes. In fact, the SJRA receives no state or local taxes for any of its activities and is strictly an enterprise operation, generating operating capital from the sale of water and wastewater treatment services.

Although Lake Conroe was constructed as a water supply reservoir, a tremendous economic base has developed around the lake, and today it is one of the most extensively developed and used lakes in Texas. Even though there has been tremendous recreational, residential and commercial development, the SJRA, as a non-taxing entity, receives no financial benefits from this development and use. Nevertheless, without any mandated obligation to do so, the SJRA has and will continue to expend considerable manpower and funds (approximately \$150,000 per year) to maintain the recreational benefits of the lake and the economic health of the development around the lake. Indeed, some of these activities are at cross purposes with the fundamental value of the lake as a water supply reservoir.

In the late 1970's, the initial infestation of hydrilla in Lake Conroe was discovered and the Texas Parks and Wildlife Department (TPWD), along with some help from the SJRA, began an aggressive spray program. However, the infestation eventually grew to 9000 surface acres and the spraying efforts could not keep up with the growth. In 1977 a plan was proposed by the Lake Conroe Association (LCA) to introduce the Chinese Grass Carp (White Amur). After an extended court battle with those opposed to the stocking, and while the carp sat in an Arkansas hatchery getting bigger, they were finally introduced in 1979. After several years, the stocking of Grass Carp led to the eventual eradication of hydrilla in Lake Conroe. Unfortunately, the science at that time was not nearly as sophisticated as it is today with regards to appropriate stocking rates, and carp mortality, resulting in a gross overstocking and the eventual elimination of all plant species in Lake Conroe for nearly 15 years.

Several years ago, we began to notice signs of reinfestation of hydrilla, along with water hyacinth and a new invasive species, giant salvinia. According to recognized fisheries and lake management practices some vegetation is necessary for the health and safety of juvenile fish and to provide critical habitat for the insects and invertebrates which make up a part of the food source. Since the lake also had a recovery of beneficial plants, the decision was made to try to control the hydrilla with the use of herbicide applications in

an effort to preserve the beneficial plant growth. However, after using herbicide applications for four years with limited success, the SJRA and the TPWD agreed that a revised plan was needed that included a limited and controlled reintroduction of Grass Carp into the Lake Conroe system. This plan calls for the implementation of Integrated Pest Management (IPM), as outlined in the TPWD Aquatic Management Guidance Document for the State of Texas. A similar plan had been very successful on Lake Austin.

THE PLAN

To facilitate The Plan, the SJRA and TPWD seated a panel of Lake Conroe stakeholders, including representatives of Lake Area Business Owners, Lake Area Property Owners Associations, the Lake Conroe Association (LCA), Texas Black Bass Unlimited (TBBU), and the Texas Bass Federation, to provide input. The intent was to put together a plan for the control of hydrilla that would be acceptable to all concerned and to do so in a timely manner. After four such panel meetings and considerable debate among the differing factions, a rough plan was hammered out, not to any one group's complete satisfaction, but to an overall consensus. On November 15, 2005 a public meeting was held at The Lone Star Convention Center in Conroe, Texas, where the final draft of The Plan was presented, public input was accepted and written comments were submitted, as required by the TPWD Guidance Document. Afterwards, the SJRA and the TPWD staff met to process the input received and to finalize The Plan for submittal to our respective Board of Directors and Commission for approval and final adoption.

To our knowledge this is the first time in the history of the State that a permit for the introduction of Grass Carp into a large public body of water has gone legally unchallenged. This can be attributed to the efforts of both involved agencies, as well as all of the involved stakeholders.

IMPLEMENTATION

On March 13, 2006 the initial prescribed number of 4300 Grass Carp was stocked into the three most heavily impacted residential areas of Lake Conroe, Little Lake Creek between Walden and Bentwater, Lewis Creek between Lake Conroe Hills and Point Aquarius and Caney Creek on the west shore of the Sam Houston National Forest. The prescribed number of Grass Carp was based on an August, 2005 hydrilla survey conducted by TPWD which determined an area of infestation of 860 surface acres. The Plan called for an initial stocking rate of 5 fish per infested acre. As of the July Survey, there were less than 800 surface acres of infested area on Lake Conroe and in accordance with the approved plan another 9311 Grass Carp were introduced in August bringing the total number to just under 14,000. Another survey will be done in September at which time it will be determined if more Grass Carp are needed.

At this time, the SJRA and TPWD are operating according to the approved plan regarding hydrilla on Lake Conroe. IPM is being achieved through the use of Grass Carp, herbicide treatments by the SJRA, and efforts of private individuals, including herbicide

applications by certified applicators, mechanical harvesting, and bottom barriers. It is very important for everyone to realize that results will not be instantaneous. The Grass Carp are small when introduced and will need time to mature before their full benefit will be realized. When Grass Carp were first introduced to Lake Conroe in 1979 at a rate of 30 fish per infested acre, it took over two years to have any noticeable effect.

IPM is also being used to achieve control of giant salvinia and water hyacinth on Lake Conroe in the form of bio-control with weevils, as well as herbicide applications as necessary. It is important to note that any herbicide applications done on these plants will destroy any weevil populations that are present due to the surfactants used in the tank mix. Grass Carp are not known to be effective in eradicating either of these species of aquatic plants.

SUMMARY

We have strived to take a scientifically supportable middle ground in the development and implementation of The Plan, and we are convinced that our commitment to The Plan is the best cause of action for all parties concerned. We are very proud of the efforts of our staff in this endeavor, and will continue to work closely with the Texas Parks and Wildlife Department in achieving a balanced and healthy lake enjoyable by all interested parties.

Thanks for your interest in the SJRA's Aquatic Plant Management Program for Lake Conroe.

SJRA Management