



Hydrilla sampling

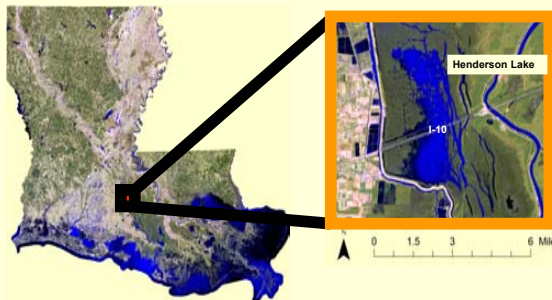
Introduction

Henderson Lake is a 4,000 acre shallow picturesque water body located within the Atchafalaya Basin in south central Louisiana. The lake is used intensively for recreational and commercial purposes. Interstate 10 crosses Henderson Lake where a major swamp tour industry has developed.

Hydrilla completely infested the lake over the past decade causing decreased use and economic hardship for service businesses associated with the lake.

Management attempts to control hydrilla with seasonal drawdowns were not successful. These drawdowns essentially drained the lake causing tremendous economic loss for the swamp tour industry and other businesses centered there.

An alternate means of hydrilla control became necessary. Local leadership invited LSU AgCenter to provide technical advice and assistance in controlling the immediate hydrilla infestation and developing a long-term management plan for Henderson Lake.



Hydrilla infestation



Fishing areas choked



Boat traffic limited



Lake is big tourist attraction



Lake draw-downs leave marinas dry



Stakeholder meeting

Lake Management Timeline

- 1999 Fall drawdown
- 2000 Fall drawdown
- 2001 Fall drawdown
- 2002 Summer herbicide treatment
- 2003 Summer-Fall herbicide retreatment



Media reports



Hydrilla tubers



Progress report to legislator

Conclusion

Hydrilla management in Henderson Lake must be viewed as a long-term effort. Total eradication of the weed is virtually impossible. A level of control that allows sustainable use can be achieved with proper management that includes herbicides and partial draw-downs.

Lake stakeholders have learned that their involvement is crucial to the success of hydrilla management. Development of a comprehensive lake management plan and lake advisory group will insure Henderson Lake does not again become infested with hydrilla.

Procedure

A complete lake treatment with aquatic herbicide fluoridone was decided upon as the most effective means of controlling the hydrilla infestation. Local political leaders secured state funding (\$1 million) through the Louisiana Department of Natural Resources. No hydrilla control project of this scale had ever before been attempted in Louisiana and was expected to be a learning experience for all involved.

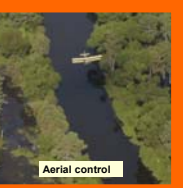
Meeting were held with stakeholders and leaders throughout the process to discuss treatment objectives, procedures and expectations. Media was invited to keep the public informed as the treatment project progressed from planning through to implementation and follow up.

A contractor was hired to provide a lake map of hydrilla densities, bathymetry data, herbicide and application services. LSU AgCenter was contracted to provide quality control oversight, help develop a long-term lake management plan and monitor hydrilla in the lake for three years.

LSU AgCenter coordinated with contractor, local law enforcement, state and federal agencies and media to insure safety of lake users during herbicide applications. Notices of lake treatment were posted at all boat landings. Lake levels were drawn down via a water control structure to facilitate treatment. Herbicide was applied over a three day period in June 2002 using both airboats and fixed wing aircraft.



Shallow water treatment



Aerial control



Airboat application



Treatment notice

Results

Herbicide applied in 2002 was effective in reducing hydrilla in Henderson Lake by 90% within 90 days as required by the contract. Extensive efforts to inform the public of treatment procedures resulted in a trouble-free application experience. Not a single complaint was registered during the application process.

Assistance from local law enforcement and other agencies present during treatment was effective in keeping boaters out of areas while herbicide was being applied.

Hydrilla began to reappear in Henderson lake in the Spring of 2003 at densities higher than in 2002. This level of regrowth was not anticipated and caused an uproar among stakeholders and local leaders.

A follow-up study of lake soil samples revealed existence of tremendous hydrilla tuber (turion) stocks throughout the lake. Herbicide treatments of 2002 removed the standing hydrilla but had minimal impact on the hydrilla seed bank.

The manufacturer of fluoridone used in this project, in act of good faith, retreated the lake at their expense during the summer and fall of 2003. Results are extremely promising with the majority of hydrilla and tubers now absent from Henderson Lake.

A long-term management plan for Henderson Lake is presently being developed. An advisory group of stakeholders is also being established to deal with the hydrilla problem and other lake management issues.



Hydrilla free

Tourism, lake use and fishing success are again on the increase as the hydrilla is brought under control