Advanced Ecology, Ltd.

ADVANCEMENTS

April 2009

## Lake Houston Wilderness Park

Advanced Ecology has been working with a team of professionals spearheaded by the landscape design firm SWA Group over the past year on the Lake Houston Wilderness Park Master Plan. Advanced Ecology is serving as the natural resource consultant on the team, developing the Forest and Wildlife Management Plan for this unique city park. The Park is 4,986 acres of upland, flatwoods and bottomland forests in an urban setting about thirty minutes from downtown Houston. AEL has completed an exhaustive analysis of the Park's forests by measuring over two thousand sampling points, utilizing the latest in Geographic Information Systems (GIS) and natural resource technology.

AEL's natural resource professionals worked over a year on the Management Plan, integrating their experience in forest and wildlife habitat management with an understanding of coastal plain ecology. The Plan is based on a unique strategy for increasing the habitat diversity of this old timber company woodlands, while conserving the forested aspects of the Park for the enjoyment of future generations of visitors. This Park offers a rare opportunity for the urban populations to experience such a large expanse of forest located in the midst of such a heavily populated area. AEL is currently working with the SWA Group in implementing Phase I development of the Master Plan for the Park, which includes assisting in road design, conducting forest thinnings and habitat restoration. The Plan can be viewed at http://www.houstontx.gov/parks/publications.html#A4

The design team developing the Master Plan for the Lake Houston Wilderness Park has recently won the Texas Chapter of the American Society of Landscape Architects (ASLA) 2009 Award of Excellence. The announcement of this award is not posted on the Texas ASLA website as this goes to print, but it should be available soon at http://www.texasasla.org

Contributor: Mark Brian, AEL VP

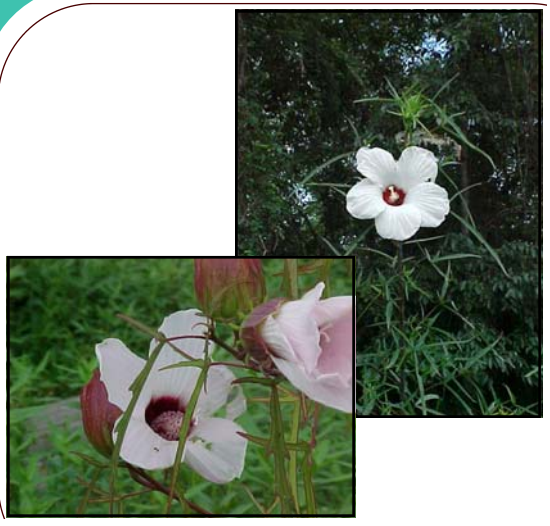
## Neches River Rose Mallow

The Neches River Rose mallow (*Hibiscus dasycalyx*) is listed as a candidate for listing as a federally endangered species. The Neches River Rose mallow was previously known only to occur in Cherokee, Houston, and Trinity Counties, Texas, in three watersheds (Angelina, Neches, and Trinity Rivers), suggesting a relatively wide historical range. The historical decline of the rose mallow has been attributed to various activities including wetland drainage and loss, stream channelization, road construction, compaction by cattle, and herbicide use.

This perennial species appears to be restricted to wetland areas in full sun, and differs from other species of Hibiscus in that its leaves are more narrowly lobed with a prominently pubescent calyx and fruit. It is typically found within the immediate floodplain of a permanent stream or river, having community dominance within the narrow band between high and low water levels in wetlands.

More recently, range expansions for the Neches River Rose mallow have been documented in East Texas. AEL Environmental Operations Manager Keith Webb discovered two new populations outside of the known range (Anderson and Jasper Counties, Texas) in 2003-2004. Additional populations within the known range and new county records have been reported since that time. Mr. Webb is currently working with Texas Parks and Wildlife Department Personnel to publish these findings in the Journal of the Botanical Research Institute of Texas.

Contributor: Keith Webb, AEL Environmental Operations Manager



# Advanced Ecology, Ltd.

Economic Development with Environmental Conscience

Wetland Mitigation • Wetland Determinations / Delineations • Endangered & Threatened Species • Wildlife Management • Forestry

## Forest Landowner Highlights

Advanced Ecology is highlighting the various landowners with whom its forestry division, Bird Forestry, has long-standing working and personal relationships. We take great pride in each of these associations and the land that we are entrusted to manage. We would like to share this history with our newsletter audience.

Our first highlight is the Charles Green Tract located in Cherokee County, Texas, which is currently under the ownership of Marianne Green. The property is scenic rolling terrain with a rich mix of pine and hardwood forests. This property has been in the Green family since the 1800's, and has been under the watchful eye of Mark Brian and Bird Forestry for the last three decades.

The Green family has been very active in the management of this forestland for multiple generations. The forest management has included annual tract inspections, improvement thinnings, direct seeding supplementing natural regeneration of loblolly pine, upland hardwood management, establishment of loblolly pine plantations and boundary line maintenance. These management techniques have helped to increase forest product values and wildlife habitat as well as providing an aesthetically-pleasing site for the Green family to enjoy.

We recently visited the property with Roger and Katherine Hammond, the daughter and son-in-law of Marianne Green, to examine the forested areas. This was a very enjoyable visit for Bird Forestry and hope this can become a regular occurrence with the entire family. Mr. and Mrs. Hammond are pictured below standing next to one of the many creeks located on the property.

Contributor: Chris Adams, AEL Forestry Operations Manager

## AEL to Start on 10th Mitigation Bank—Murvaul Creek

Advanced Ecology Ltd. recently initiated the Murvaul Creek Mitigation Bank Project, which should prove to be the first significant mitigation related stream restoration project in Texas. Located along a segment of Murvaul Creek in Panola County, the project will entail the elimination of approximately 2-miles of diversionary channel, coupled with the restoration of approximately 4-miles of historic stream channel. The project will also provide ecological and functional uplift to approximately 700-acres of adjacent bottomland habitat. Following the recent completion of a successful site tour with state and federal agencies, AEL is set to begin the permitting phase of the project in May.

Until now, mitigation banking efforts related to streams in Texas have been limited to the preservation or enhancement of habitat adjacent to existing stream channels. Initiating the costly and often complex efforts associated with channel realignment and restoration is an exciting endeavor for AEL.

AEL is also pleased to announce that this represents the firm's tenth mitigation banking effort. Although the firm entered the ecological services market in the late 1990's when it began permitting the Big Woods on the Trinity Mitigation Bank, it has only been in the last two years that company has fully focused and intensified its efforts in the mitigation banking arena. After successfully permitting the first phase of the Bunker Sands Mitigation Bank in 2008, AEL anticipates the successful completion of four additional mitigation banks in 2009 in various regions of Texas. During a recent speaking engagement CEO Mike Bird stated "While it's taken an enormous amount of effort on the part of the company and the agencies to get those first ten projects started, its amazing how fast the next ten are developing". Murvaul Creek, for example is the first of a series of five stream related mitigation banks that the company plans to initiate this year in East and Central Texas.

Contributor: Terry Anderson, AEL President

### Wetland Plants Course Planned for August…

We have planned a wetland plants course for August 2009 with Dr. Steven Hatch from Texas A&M University. The course will be taught from our Center office. The course will include a half day of keying instruction and 1 1/2 days of field identification for $395. A more detailed agenda and specific date will be announced at a later date. The class will be limited to 20 participants to facilitate more hands-on instruction. If you are interested in attending, please contact Courtney.


**For More Information**

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