



The Cypress Knee

NEWSLETTER OF THE WHITE OAK BAYOU WETLAND MANAGEMENT PLAN

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Wetland Management Plan Update

CURRENT DEVELOPMENTS, MEETING UPDATES, AND FUTURE PLANS

There wetland management plan is now complete and final edits from the public and

important tasks/actions for future involvement. Three were selected as the most important: Education, stormwater management, and wetland trails.

This year GBMc & Associates marked beaver dams throughout the White Oak Bayou watershed to show the correlation between elevation differences before and after beaver dams and flood control. Over the course of two site visits, seven beaver dams were identified and their locations were recorded. Once the dams had been located, a third site visit was conducted in order to obtain high accuracy elevation measurements directly upstream and downstream of each dam. The sites were accessed via kayak and elevation measurements were

collected on a Trimble TSC3 controller utilizing a Trimble R-10 RTK Rover receiver connected to the Pulaski Area Geographic Information System (PAgis) Virtual Reference Station (VRS) network. The elevation information was then plotted from upstream to downstream in order to produce an elevation profile of the surveyed area.

The University of Central Arkansas (UCA) practicum program is underway. Stephanie Stoughton, a graduate student at UCA, is still collecting water samples in the reaches of WOB to determine the water quality and identify areas where sources of potential contaminants are greatest.



Austin Bristow using the Trimble unit for elevation

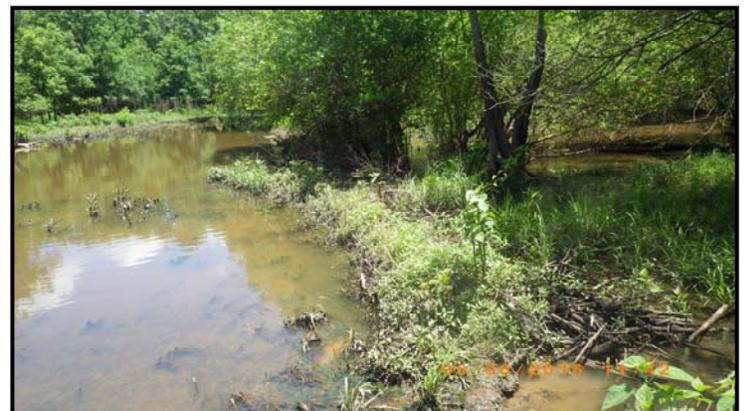
Important Dates:

- Steering Committee Meeting: April 5, 2016
- Steering Committee Meeting: October 2016

Story Ideas?
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thecypressknee@swbell.net

government agencies have been sent to GBMc. This document is a “living” document in that it will be continued to be updated and edited for its existence. The City of Maumelle will keep the wetland management plan for the future.

Three Steering Committee Meeting were held on January 21, February 26, and April 5 in order for the public to have time to go over the WMP, provide edits to the document, and decide what are the most



Beaver Dam in the White Oak Bayou channel.

Wetland History: Arkansas Delta

Wetland Trivia

Exploring the functions and values of wetlands in the ecosystem

Peat was used as a bandage to soak up blood.

The Delta ecoregion of Arkansas is one of the largest ecoregions of the state. Consisting of all or part of 27 counties, this region is some of the most bountiful cropland anywhere in the world.

Early settlers came to Arkansas for the fur and timber industry. Before the rise of agriculture in the state, the delta consisted of mostly bottomland hardwoods and other types of wetlands. These wetlands provided ample habitat for migratory birds, amphibians, mammals, and reptiles alike.

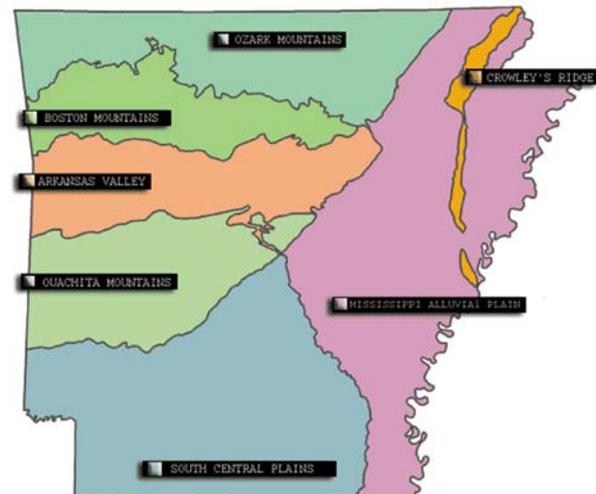
In the middle of the 19th century, settlers moving into the region began digging trenches to drain large areas of the delta for agriculture. Without modern machinery to assist in land development, clearing for agriculture was limited to what could be done

by hand. The transition from bottomland to farmland increased as industrial equipment became more readily available to settlers.

Today, most bottomland hardwood wetlands in Arkansas can be found near major tributaries and floodways of the Mississippi River. They provide a buffer for the agricultural land in the Delta from flooding and are natural improvers of water quality in the state.

The White Oak Bayou itself is a direct filtration system that leads to the Arkansas Delta. While it is located in the Arkansas River Valley, it drains to the Arkansas River, which in turn drains into the Mississippi River. It is important to protect this watershed in order to

preserve habitats and promote clean water. Without wetlands, the natural ecology of the region would suffer and wildlife would cease to exist.



A map featuring the different ecoregions of Arkansas. The far left purple indicated the Delta Region.

Animal of the Month: Water Strider

Featuring plants, animals and other critters in your area

Scientific Name:

Gerridae

Water striders are a fascinating water bug due to their ability to walk on water!

Water striders also known as pond skaters, water skippers, or Jesus bugs have six legs and thousands of tiny hairs on their legs that keep water from touching them. The two front legs are shorter than the thin, long back legs in order to more easily eat food. These insects can walk on water due to those tiny hairs on their legs. Those hairs create surface tension with the water. Water molecules are attracted to each other

(cohesions). At the surface of water, water molecules form a strong bond called surface tension. The water strider uses the surface tensions and their long legs to evenly distribute the weight of its body. The tiny hairs keep the body and legs from retaining moisture and the hairs capture air.

Water striders are aquatic predators that mainly eat spiders and insects that fall on the water. Water striders are also the prey of birds and some fish.

Water striders' preferred habitat are calm and slow-moving water such as ponds and marshes.



A water strider using surface tension.