

THE TEXAS WATER SOURCE

UPDATING HARDIN, JEFFERSON & ORANGE CO. FOREST LANDOWNERS ON FORESTRY AND WATER ISSUES

Planning Tools for Use in Forest Operations

Taking time to plan out a forestry activity is an extremely important step in protecting water quality. Planning allows you to layout your operation in the most productive, economical, and environmentally sensitive manner possible. With a little planning you can spend more time preventing problems and less time solving them.

Many of you may be familiar with traditional forest planning tools such as aerial photos, topographic maps, and soil survey books. All of these resources are very useful and readily available to forest landowners, managers and loggers today. Professional foresters also use them regularly when working on your property. Some online sites for these tools are listed in the sidebar on this page. Also, feel free to contact your local Texas Forest Service office for assistance in locating these resources.

TOPOGRAPHIC MAPS

Topographic maps help you get a feel for the layout of the land. They display elevation through a series of contour lines and show the location of roads, towns, pipelines, lakes, wetlands, streams, structures, and land cover across the landscape. They are useful for laying out road systems, estimating the costs of implementing Best Management Practices, and avoiding wet area's and steep slopes. Free topo maps are available to download from the U. S. Geological Survey (USGS) Store. The interactive map locator allows you to navigate to any place in the country and download all

available maps for that location.

AERIAL PHOTOGRAPHS

Aerial photographs give you a bird's eye view of the forest. Aerial photos tend to be newer than topo maps and therefore reveal more current features of the landscape. Knowledge of current road systems may help in identifying backside access to a tract or avoid the expense of crossing a large stream. Google Maps is a website that allows you to view and zoom in and out of aerial photos at nearly any spot on the earth, with the additional benefit of labeled roads, towns and structures. You can also print these photos for free.

Google Earth is a free, downloadable program that also allows you to view photos as well as measure distances and mark points. A free webinar - "Making Google Earth Work for Land Management" - is posted at www.forestrywebinars.net and can show you the basics on operating this program.

SOIL SURVEYS

Soil surveys contain information such as the location of wet areas, drainage patterns, and the grade of slopes. They also provide important information related to forestry operations, such as a location's suitability for logging roads, landings, equipment operability, and tendency for erosion and compaction. Soil survey information is available for free at the Natural Resources Conservation Service (NRCS) site.

For more information:

Topographic maps:

- <http://www.usgs.gov>
Click on USGS Store, then Map Locator.

Aerial photographs:

- <http://maps.google.com/>
- <http://www.google.com/earth/index.html>

Soil surveys:

- <http://websoilsurvey.nrcs.usda.gov/app/>

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*Agency Spotlight***U.S. Fish and Wildlife Service and Wetlands****For more information:**

- <http://www.fws.gov/>
- <http://www.fws.gov/wetlands/index.html>
- <http://www.fws.gov/wetlands/StatusAndTrends/index.html>
- http://www.fws.gov/wetlands/_documents/gOther/StatusReportNWIProgram2009.pdf

The mission of the U.S. Fish and Wildlife Service (Service) is to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. The Service supports programs related to migratory birds, endangered species, certain marine mammals, inland sport fisheries, and wildlife refuges.

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information to the public on the extent and status of the Nation's wetlands. The Service established the National Wetlands Inventory (NWI) to provide resource managers with information on the location, extent and types of wetlands and deepwater habitats. This geospatial information is used by Federal, State, and local agencies, academic institutions, and private industry for management, research, policy development, education, and planning activities.

Congress recognized that wetlands are nationally significant resources and that they have been affected by human activities. Direction was given to the Inventory with enactment of the Emer

gency Wetlands Resources Act. The Act and its subsequent amendments gave the Inventory specific goals and deadlines for producing wetland maps for the contiguous United States, Alaska, Hawaii, and the Trust Territories. NWI data are available for nearly all of Texas. Most of these data are in map form only and not available in digital format for GIS and computer applications. Digital data are available for coastal Texas, the Playa Region of Texas, some river corridors, and several other areas.

Wetlands provide a multitude of ecological, economic and social benefits. They provide habitat for fish, wildlife and a variety of plants. Wetlands are nurseries for many saltwater and freshwater fishes and shellfish of commercial and recreational importance.

Wetlands are also important landscape features because they hold and slowly release flood water and snow melt, recharge groundwater, act as filters to cleanse water of impurities, recycle nutrients, and provide recreation and wildlife viewing opportunities for millions of people.

Aquatic Invasive Species

The **Branch of Aquatic Invasive Species**, part of the Service's Fisheries Program office in Washington D.C., leads the Aquatic Invasive Species (AIS) Program. The AIS Program is currently authorized by the National Invasive Species Act of 1996.

One of the premier activities that AIS coordinators have worked on with public and private entities is the 100th Meridian Initiative. The goal of the Initiative is to prevent the westward spread of zebra mussels and other AIS by boats and personal watercraft. Boat inspections and assessments are conducted across the states west of the

100th Meridian. Through inspections and boaters' assessments, partners can learn how to prevent the spread of zebra mussels and other AIS via transport of boats and personal watercraft.

The zebra mussel is a highly invasive aquatic species known to have caused alarming declines in populations of fish, birds and native mussel species and can disrupt a city's entire water supply system by colonizing the insides of pipelines and restricting the flow of water. In 2009, zebra mussels were identified in Texas in Lakes Texoma and Lavon and their connecting waters.

For more information:

- <http://www.fws.gov/fisheries/ANS/ANS.cfm>
- http://www.texasinvasives.org/action/report_detail.php?alert_id=2

Watershed Water Quality Monitoring

In August of 2002, a Total Maximum Daily Load (TMDL) project was initiated by TCEQ for Adams and Cow Bayous to restore and maintain water quality standards set by the EPA (see Nov. 2010 *The Texas Water Source* newsletter). Numerous studies of water quality in Adams and Cow Bayous have been performed in the past. During the 1980s and 1990s, the following entities performed assessments on these waters for various reasons:

- Sabine River Authority (SRA)
- Texas Department of Water Resources (TDWR)
- Texas Water Commission (TWC).
- Texas Parks and Wildlife Department
- Texas Commission on Environmental Quality (TCEQ; formerly TNRC)
- Environmental consulting firm

Since the data from these studies was collected, numerous changes have occurred in wastewater discharges, non-point pollutant sources and possibly flow and hydraulic properties of the bayous. However, this existing data was useful in selecting appropriate estimates for newer studies.

A 2002 draft Assessment of Water Quality Impairments on Adams and Cow Bayous collected data from a more recent 5-year period, along with the entire dataset for each site. Data was retrieved from several sources: 1) The Texas Regulatory and Compliance System (TRACS) of the TCEQ, which serves as the primary repository of surface water quality monitoring data in Texas; 2) the Sabine River Authority; 3) The USGS; 4) the Texas Watch Program [now called Texas Stream Team].

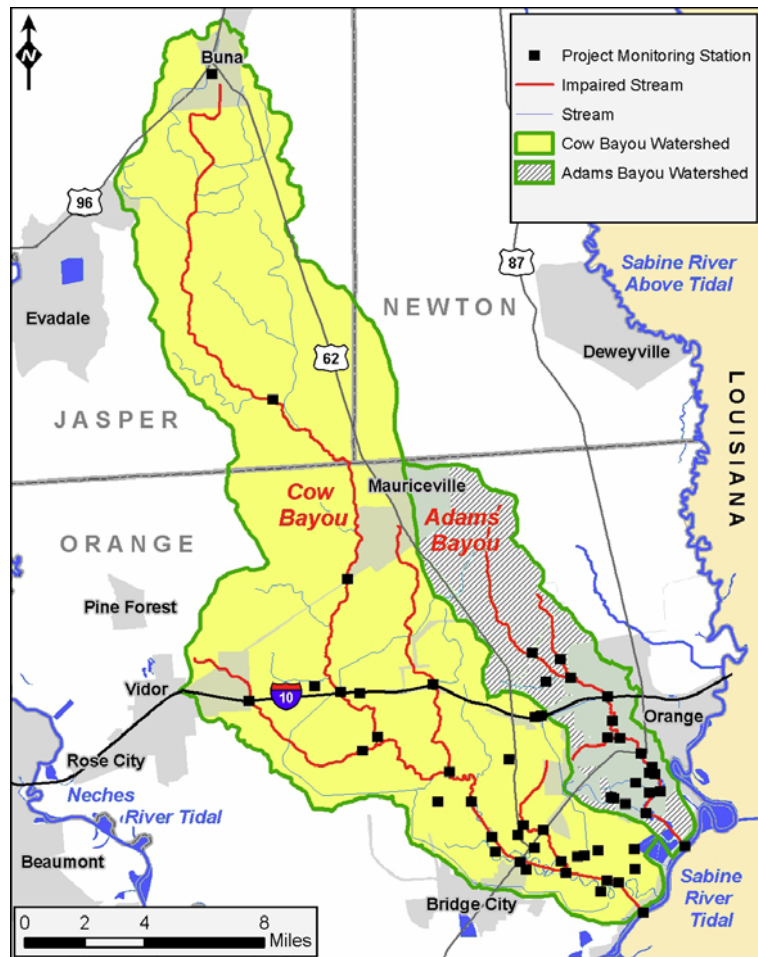
Data to be assessed must be quality-assured and collected using methods consistent with TCEQ guidance in "Surface Water Quality Monitoring Procedures Manual." In general, the

surface water quality monitoring (SWQM) data used in the assessment resides in the TRACS database.

A water quality monitoring plan and quality assurance project plan were then developed to collect additional data needed to develop the TMDL. This new data was collected by the environmental consulting firm and SRA between January and November 2004. The TMDL report was adopted by TCEQ in June of 2007, and approved by EPA in August of 2007. An Implementation Plan to describe the management actions that now need to be taken is currently being finalized.

For more information:

- <http://www.tceq.state.tx.us/implementation/water/tmdl/37-orangecounty.html>
- <http://txstreamteam.rivers.txstate.edu/Projects/TMDLs/Orange-County.html>



Updating Hardin, Jefferson & Orange Co. Forest
Landowners on Forestry and Water Issues

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Workshop Opportunities

Texas AgriLife Extension Service will conduct a **Texas Watershed Steward Workshop** in Orange at the new Sabine River Authority building at 12777 Hwy. 87 N. on Thursday, **March 24, 2011**. The workshop will run from 8:00 a.m. to 4:00 p.m.

Go to <http://tws.tamu.edu/workshops/upcoming> for more information and to enroll in the workshop.

Texas Forest Service is hosting a **Texas Timber Income and Property Tax Workshop** on **February 17, 2011**, at the Lottie and Arthur Temple Civic Center in Diboll, Texas. The daylong workshop will provide an understanding of timber tax, including the latest changes to tax laws and rules for 2010 income tax return preparations with a refresher on local timberland property tax incentives.

Registration fee is \$70 per participant; \$30 per additional family member. The registration fee includes the workbook, catered lunch, and refreshments. Space is limited. Go to

<http://texasforests.tamu.edu/main/popup.aspx?id=12018> for more info and to register.



TDD Line: 1-866-419-4872