DOUBLE BAYOU WATERSHED PARNERSHIP

AG / WILDLIFE / FERAL HOGS - FIRST WORKGROUP MEETING

Tuesday, November 19, 2013
5:30 - 7:00 P.M.
Tony's Barbecue Restaurant
1102 Miller Street
Anahuac, TX 77514

DRAFT MEETING NOTES

Attendees: David Boyd (Sierra Club), Betty Dugat, Leroy Ezer, Clint Fancher, Tyler Fitzgerald (AgriLife Chambers County), Charles Johnson, David Manthei (NRCS), Tom McNeely

Team Members: Kristi Alexander (Shead), Stephanie Glenn (HARC), Brian Koch (TSSWCB), Linda Shead (Shead), Danielle Vinette (Shead)

1. Welcome, Agenda Review, and Introductions – Kristi Alexander

Kristi thanked everyone for coming, went over the agenda, and then started introductions.

2. Review of Water Quality, Impairments, and Potential Sources – Linda Shead

Linda stated that this meeting focuses on Agriculture, Wildlife, and Feral Hogs exclusively, and the December 10th meeting, all of the workgroup meeting results will be discussed.

Linda gave a short review of the material in the Texas Watershed Stewards training, which included an overview of water quality and impairments. She noted that the West Fork of Double Bayou is considered impaired, but it is not far from meeting the standards, and the community has an opportunity to clean it up voluntarily before it gets worse, or must undergo required actions to improve the water quality. With a WPP project, the East Fork could also be prevented from getting onto the Impaired list and be taken off the Concern list. She stressed the importance of the stakeholders in helping the team members with figuring out the source of potential pollutants.

Stakeholders posed several questions regarding water quality and sampling, which were discussed, and Linda encouraged everyone to ask more of these types of questions during the December 10 meeting. These questions will be added to the ongoing list for which answers are being developed and will be presented to stakeholders.

Linda then presented potential sources of bacteria, such as wastewater treatment plants, septic systems, livestock, wildlife, domestic animals, and feral hogs. She also described the potential causes of low dissolved oxygen, including decomposing matter, high temperatures, and sluggish flow.

3. Nine Elements of Watershed Protection Plans – Brian Koch And Introduction to Role of Workgroups

Brian Koch reviewed the Watershed Protection Plan process. He reminded everyone that watershed protection plans are flexible and voluntary, and stressed that only the stakeholders approve the plan. The project team will write the stakeholders' ideas into the plan, and bring the plan back to the stakeholders for review, until the stakeholders are satisfied. After that, the EPA looks at the plan, and decides if it meets the requirements to be eligible for grant funding.

Brian then outlined the Nine Elements of a watershed protection plan, which are:

a. Identify the causes and sources,
b. Estimate the needed load reduction,
c. Describe management measures,
d. Estimate technical and financial assistance,
e. Plan for information/education,
f. Schedule for implementation,
g. Describe measurable milestones,
h. Criteria for determining if reductions are achieved, and
i. Monitoring plan to evaluate its effectiveness.

He concluded this section by stating that once the plan is consistent with these elements, and is approved, then, funding becomes available.

There was a discussion about some of the missing stakeholder interests – such as the Army Corp of Engineers and industry. Linda encouraged anyone who has names of industry people to please bring them forward.

Brian then gave a brief presentation of land use in the watershed, reporting that the primary land use is grassland/pasture, and the second is cultivated land. His presentation listed the different land uses in the watershed and a description of each. A discussion followed about how tallow trees are included in the map, and Brian answered that they are considered forested.

Brian stressed that collecting information is a continuous process. He said that stakeholders have been updating the maps, providing more accurate data to plug into the models. He also noted that the percentages of land use in the Double Bayou watershed are very close to those for the whole state, making this area a great model.

4. Introduction to Watershed Models – Stephanie Glenn

Stephanie Glenn started her presentation by stating that models are an analytical approximation of the real system, and that models use calculations to get approximations that are as close to the real system as possible. She quoted industry professionals, "Garbage in is garbage out." emphasizing that we need good data to go into the model in order to get good data out.

She then defined a "load," which is a measurement of how much pollutant is in a particular body of water, as well as "best management practices" (BMPs), which are practices that can be put in place to reduce the load. She emphasizes that the watershed model will help target the places that need to be focused on for implementation.

Stephanie discussed two commonly used tools, noting that it will take another year's worth of sampling before one of them can be used, and that the discussion for this meeting will focus on a geographic model– SELECT. SELECT was developed at A&M for use in Texas rural watersheds and uses GIS. GIS (Geographic Information System) is a grid-based system that takes layers of data and puts them on top of each other to build up a map. The map can then be

used to do calculations. Examples of data layer sources that can be used that are relevant to this workgroup are: livestock, crops, deer, and feral hogs. The layers are created and then shown to the stakeholders, who then say how accurate the data are and help to tweak it. SELECT will take the watershed and divide it up into smaller drainage blocks. For calculating the loads in SELECT, the where, how many, and how much will be put in. SELECT will then calculate and ranks the loads of the contributing sources for the entire watershed. Stephanie gave an example based on a theoretical watershed and dog waste.

A stakeholder asked a question about the watershed boundaries, and provided information about a canal that would affect the boundary. Stephanie noted how important such local input is to refining the maps. Also, HARC's GIS person and the County's GIS person are working together, and getting additional fine tuning from local stakeholders. She encouraged stakeholders to markup the map, indicating what information needs updating.

5. Discussion of Potential Sources for this Workgroup – Linda et al

Linda started the discussion by saying that Stephanie is going to come back with possible sources (ideas for sources generated in the workgroups) and data layers that might help to define location and quantity for the sources. The stakeholders will then review the data to ensure the data locations and quantities are accurate. Linda showed a flow chart of the back and forth process that will happen before the results are finalized and Best Management Practices can be defined.

Using flip charts, Linda collected the group's ideas on potential bacteria sources in this workgroup's category, and then the best sources of information on how many and where they are in the watershed. The following is the result of that discussion:

Bacteria Source	**Data Source**
Waterfowl	USFWS-ANWR, TPWD, guides, A&M
Feral Hogs	TPWD, A&M
Goats and Horses in a Confined Setting	
Nesting Birds	TPWD
Livestock (goats, cattle, horses)	USDA
Deer	
Small mammals (rabbits, squirrels)	
Scavenger Roosts	
Coyotes	

Regarding a question on why animals that are not warm blooded are omitted, the answer is that the bacteria from warm-blooded animals are more likely to make humans sick, whereas cold-blooded animals and fish are not as troublesome.

In noting that not all land that is suitable for grazing is actually being grazed, Linda said that what will probably work best is to bring back the official numbers, and have the workgroup members say where this applies, and if it is accurate.

The next part of the discussion focused on sources contributing to low dissolved oxygen and other watershed problems. For dissolved oxygen, fish kill data from TPWD and Sea Grant may help. Other issues were identified and discussed, and included many non-native, invasive species:

- Collection of vegetation – logs and debris since Ike, but not always a water quality negative

- Red tide – a problem because of the drought, but a toxic rather than a D.O. problem
- Water Hyacinth – serious problem (has been used successfully to clean water in confined settings)
- Alligator weed – serious problem
- Chinese Tallow – serious problem
- Sword grass – new problem
- Giant Salvinia – not so far a problem in the watershed

Also the relationship between nutrients and chlorophyll-a was discussed, and the effectiveness of rice fields in acting as artificial wetlands to filter the water.

6. Wrap-Up and Next Steps

The next step is to bring back maps with data. The workgroups will not meet every month, just when they are needed for more data, or when there is more data to be reviewed by the workgroup. There will be another workgroup meeting in January to consider the information collected by then. The December meeting will be a general public meeting and involve sharing what was discussed and determined in the workgroups, so everyone can add their input. The second part of the December meeting will be tackling more of the detailed water quality questions.

Linda asked if the third Tuesday of January – January 21 – would work for the next workgroup meeting. Tony's was preferred as the location again

7. Adjourn