DOUBLE BAYOU WATERSHED PARTNERSHIP
Agriculture / Wildlife / Feral Hogs Meeting

February 5, 2015
5:30 – 7:30 PM
Oak Island Community Building

MEETING SUMMARY

Stakeholders: David Boyd, Linda Broach, Clay Dean, Clint Fancher, Charles Johnson, Brandt Mannchen, David Manthei, Craig Shoehorn, Larry Wells

Team Members: Ryan Bare (HARC), Abby Ficklin (Shead), Stephanie Glenn (HARC), Brian Koch (TSSWCB), Brandie Minchew, Linda Shead (Shead)

1. Welcome, Introductions, and Agenda Review

Linda Shead opened the meeting with an overview of the meeting objective: to determine which of the potential management measures that have been identified so far are to be included in the watershed protection plan (WPP) document. Including these measures in the WPP could result in potential funding becoming available to help implement these strategies to improve and maintain water quality. Linda noted that Stephanie Glenn would also present the current outline for the WPP document.

The overview was followed by self-introductions from the attendees. Linda thanked everyone for attending, and noted that the team would be happy to provide later any background needed or answer questions for newcomers.

2. Presentation and Discussion: Potential Management Measures

Stephanie Glenn began the presentation with an overview of past meetings and outcomes. She briefly described the SELECT modeling process and results, and how the model works to determine potential bacteria loads within the watershed. The bacteria being modeled are those that come from warm-blooded animals that produce bacteria in their waste, which, in turn, are an indicator of bacteria that could be harmful to humans. A bacteria load is the amount of bacteria produced by a certain animal per day, and different animals produce different bacteria loads. Tests done by the EPA provided data on the approximate bacteria load produced per animal excrement per day. This data, along with input from stakeholders, was included in the SELECT model.

Working with stakeholders to determine proper placement and numbers of livestock and wildlife, along with correct assessment of land cover/terrain, as well as the location of septic systems, allowed HARC to gather data needed for the model to develop an overall potential bacteria load for the watershed. A total upper potential load and a total lower potential load were determined, based on different bacteria load scenarios for different sources.

Stephanie pointed out that the goal is not to single out one particular bacteria producer, but to establish Best Management Practices (BMPs) that will address each category of bacteria source. This workgroup's focus will be on the BMPs addressing agriculture, feral hogs, and wildlife. Studying the scenarios will help to determine the best placement for BMPs and the extent to which they are implemented.

Water Quality Management Measures (WQMMs) will also be discussed. Often, these are "big picture" items, such as Water Quality Management Plans (WQMPs), which are developed to include several BMPs. The EPA refers to these WQMPs as WQMMs.. Discussion of high-level WQMMs will be seen in the Watershed Protection Plan (WPP).

Stephanie next summarized the results of bacteria water quality monitoring. Five monitoring stations were used to gather samples: two on the west fork of Double Bayou, two on the east fork of Double Bayou, and one at the wastewater treatment plant (WWTP). Different bacteria geomean level criteria have been established by TCEQ for tidal and non-tidal monitoring stations. Of the five stations, three exceeded the criteria. Bacteria levels at those stations are too high for health levels. These results point to goals that need to be met with regards to water quality and lowering bacteria levels, and they also show the efficacy of some of the SELECT modeling results.

Linda next raised the topic of making sure that listed management measures would be effective. Determining the efficacy of a management measure relies on the information available about that measure. Linda listed four points of information that help gauge how effective a management measure would be: Is it an identified water quality measure? Who is the responsible party? How much will it help to reduce the bacteria load? And, how much will it cost? Next to be determined would be how many of which measures would be planned to be implemented in the Double Bayou Watershed. The WPP will cover three years. The plan will detail which measures are implemented in the first year, which in the second year, and so on. This will help to calculate a total cost, and allow for the location of potential funding sources. Although every piece of information may not be available for each management measure, this does not mean the measure cannot be included in the plan. However, identifying key pieces of information about each measure will help to estimate their efficacy and will make it more likely for the measures to be implemented.

Linda next moved on to summarizing the flip charts. The identified management practices from previous meetings have been color-coded, with stakeholder-identified management practices in green, and, in purple are suggested management practices that Stephanie found through researching other plans.

Each of the categories and individual measures was discussed until there was agreement about what to recommend for inclusion in the WPP document. The tables below reflect the results of the discussions.

Livestock

Water quality measures for the livestock group will include specific water management quality plans (WQMPs), under which many BMPs will fall. Lists of TSSWCB-approved WQMP practices were given as handouts. These lists included plans that have been shown to be effective in reducing bacteria loads within a watershed. In a water quality management plan for agriculture, stakeholders would be given a list of effective BMPs for their property, to be administered voluntarily by the stakeholder, and the agreed-upon BMPs would then go into the WQMP. Within the WPP, the number of people agreeing to a WQMP could be listed, and from the number of BMPs included under the WQMP, a potential bacteria load reduction for the watershed could be calculated.

Category	***Measure***	***Notes***
WQMP Technician (new position)	More WQMP enrollments; Plan development & updates	Bi-lingual as a "plus"
WQMP Practices	Prescribed grazing	
	Alternative water sources	
	Stream crossings / Drop structures	Corps of Engineers permit issues
	Exclusionary Fencing	
	Shade structures	
	Riparian herbaceous buffers	
Education & Outreach	Soil & water testing campaign	
	Agriculture field days	
	Agriculture waste pesticide collection days	
	Agriculture nutrient management education	
	Livestock grazing management education	
	Texas Watershed Steward trainings	
	Riparian workshops	

It was noted that a WQMP program had been in place in the watershed since the mid '90s. The 503 plans in place are old, and it is now a matter of updating the plans. The land needs to be re-examined and determining if anything needs to be added to the plans, rather than

applying for cost-shares. There may be new sources of funding associated with oil spill money through NFWF (National Fish & Wildlife Foundation), being matched by NRCS, which might provide a motivation for updating the plan.

Team members noted that a WQMP technician position would: be solely dedicated to the Double Bayou Watershed Protection Plan; be involved in writing up the WQMPs and securing funding for them; would not only plan, but also promote the WQMP; and could organize and host workshops, including some of the activities Texas AgriLife offers. The position would be 90% field work – that is, working with landowners.

Q: What is the soil and water campaign?

A: Soil testing would be offered at a reduced rate or might be paid for from funds made available through the WPP. Soil samples would be sent to a lab at A&M, and an analysis returned that would guide proper fertilizing rates to produce a particular plot of pasture or hay field. By not using extra fertilizer, the landowner can save money by putting out only the amount of fertilizer needed for the field. Additionally, the water quality advantage would be that there is less to run off into the bayou, resulting in fewer nutrients feeding bacteria, which in turn will improve water quality. The soil testing provides knowledge for the landowner, but it is up to the landowner to decide how to use that knowledge. There are no regulations imposed through soil testing. Another advantage is that continuing education units are attached to many of the trainings and workshops that could be offered, allowing attendees to earn CEUs for a pesticide applicator license and other such things.

Confined Goats / Horses

Category	***Measure***	***Notes***
Education & Outreach	Lone Star Healthy Streams – Horse	Spanish publications needed
	Lone Star Healthy Streams – Livestock Grazing Management	Spanish publications needed, and one for goats.

Feral Hogs

Category	***Measure***	***Notes***
Feral Hog Specialist (existing)	Technical Assistance for trapping, etc.	
County position		For: equipment, training, tools
Feral Hog Management	Sterilization	
	Traps	

Category	***Measure***	***Notes***
(equipment)	Aerial Shooting	
	Exclusionary Fencing	Has been used to keep hogs out of deer feeders, golf courses, and subdivisions.
	Increased hunting / removal	
Education & Outreach	Workshop for statewide program	
	Lone Star Healthy Streams – feral hogs	
	Riparian management Workshop	
	Feral Hog workshop	
	Riparian Area Outreach	
	Promote awareness of commercial processing	
Other	Bounties	County

Feral hog control was recognized by participants as needing to be large-scale and state-wide, because hogs have a normal radius of 40-50 miles, so controlling on one property or one watershed or one county won't be that effective.

Wildlife

Category	***Measure***	***Notes***
WQMP Practices	Buffers between flooded fields and bayous, e.g., filter strips and streamside buffers	More research needed regarding TBCD easement
Education & Outreach	Not treat, or feed, wildlife as pets – Watershed signage? Billboard?	At county road public access (TxDOT issue)

Q: How big of a buffer zone are they talking about?

A: Riparian areas are streamside buffers on either side of the channel. In forested areas, this would be 50 feet on either side of the channel to be considered a buffer, which is a common minimum for riparian buffer zones. More information about minimums for buffer areas will be gathered.

Signage was discussed, with the goal of educating people about not feeding wildlife or treating wildlife as pets. The suggestion was made for installing a billboard on the highway coming into Anahuac; however, it was pointed out that the idea was to have signage at public access points, such as parks along the bayou. Other watershed signage successes such as in Plum Creek, Goose Creek, Cedar Bayou, and within the Galveston Bay Foundation

were discussed. The merits of approaching TxDOT vs. the County about installing signage were discussed.

Signage increases people's awareness that what they do on the land can affect the water of the bayou.

Carcasses (and other dumping)

Category	***Measure***	***Notes***
Education & Outreach	Proper & Alternative Disposal Sites	
	Illegal Dumping Campaign	Hazardous waste; trash; tires
	Signage	Including informing that dumping is illegal.
Enforcement, i.e., increase awareness	Programs with local law enforcement	

The next topics were other water issues, i.e., besides bacteria.

Other – Fish Kills

Category	***Measure***	***Notes***
WQMP Practices	Grazing practices	
	Buffer zones	
	Nutrient management	
	Soil testing	
	Alternate water sources	
	Vegetated banks	
	More shading over bayou	
Education & Outreach	Herbicide use	Targeted, proper
	Soil testing	
	Riparian Management Workshop	
	Riparian area outreach	

Other – Collections of Vegetation (on the water)

Category	*Measure*	*Notes*
WQMP Practices	Integrated pest management	
	Careful use of herbicide	Esp. for non-native species
	Physical removal	Of invasives
Education & Outreach	Work with TBCD	
	Riparian area outreach	
	Watershed-wide Habitat Management Plan for invasives (?)	

It was noted that the U.S. Forest Service has a specific non-native invasive plant species plan that could provide a pattern for the Double Bayou WPP. Also, the Galveston Bay Estuary Program (GBEP) has an invasive species workgroup. GBEP has educational material on invasive species, which could be a potential resource for the DBWPP.

Information about any of the BMPs included in the draft would be gathered, including who would be responsible, how much bacteria load might be reduced, what it would cost. Also, different funding sources can be considered, i.e., not just specific WPP implementation funding. For example, Ducks Unlimited can provide funding for wetland creation.

3. Draft Form and Contents for the Watershed Protection Plan

The draft outline was passed around for attendees to look at. Stephanie explained that the "Elements" listed in the outline refer to elements required by EPA to be in their standard for a WPP. Drafts of the chapters will be rolling out over the coming months. Stakeholders will have a chance for review, comments, and discussion.

4. Wrap-Up

The meeting concluded with a discussion about dates for the next workgroup meeting. Linda thanked attendees and closed the meeting.