**RECREATION/HUNTING
WORKGROUP MEETING**

**Tuesday, June 10, 2014
5:30 - 7:30 P.M.**

Chambers Recovery Team
509 Washington Avenue
Anahuac, TX 77514

**MEETING SUMMARY**

**Attendees:**  Tom Douglas, Becky Fancher, Guy Jackson

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

### 1.      Sign-In, Welcome, Agenda Review, and Introductions – Linda Shead

Linda Shead welcomed everyone, noting the availability of refreshments, and then proceeded with self-introductions.  HARC has been doing research on the numbers of bacteria from different animals that might be found in the watershed.  The task for the meeting is to get everyone's input on where those numbers of bacteria sources should be applied in the watershed.

### 2.      Review and Discussion of Watershed Boundary Maps and Land Cover Data – Stephanie Glenn

The first item for the group to discuss and agree on was the land cover, to help determine where bacteria from specific animal sources might be found.  For example, if mice were found only in open fields, then the numbers of mice in the watershed would not be assigned in areas of forest.   The new maps are based on 2010 data (vs. the 2006 data of the previous set).  First, the team had two stakeholders, who are very familiar with land cover in the county, review the maps, and they recommended some adjustments for a few tracts, between pasture/hay and cultivated crops.   Then, the Agriculture Workgroup had noted that the land cover data will need to be considered a snapshot, because rice is not grown on the same field every year, but typically rotated with another crop or with cows or laying fallow.  They noted that this should work for estimating loads, because the overall numbers of cows won't change significantly, even though they may be rotated from between nearby fields.  The group agreed that the current revised maps would be a good snapshot for

applying the numbers of acres.  HARC will consolidate any changes from input from the different workgroups.  That information will then be presented at the next general meeting, for further input/confirmation.

### 3. Presentation of Available Source Data and Discussion of Bacteria Distribution for Each Source – Stephanie Glenn

Stephanie proceeded to provide the numbers they had researched for some species that would be hunted in the watershed, for the group to discuss and consider where they would be found, and thus where they would be applied in the model.

*Deer*.  Deer are surveyed by Texas Parks & Wildlife Department (TPWD) within certain Resource Management Units (RMUs) in the state.   Chambers and Liberty County are both in RMU 13 which has a current estimated deer density of approximately 5.15 deer/1000 acres which probably represents the variability of densities across the entire RMU. This density was then applied to the ~60k total acres in the watershed to come up with a total of 313 deer in the watershed. Those 313 deer were then distributed across the 'Mixed Forest/Forested Wetland' category as this is where the deer are most likely to spend most of their time.   The group felt that number might be a little low, but did not have alternate numbers to propose, and so felt that using the RMU survey numbers would be the best basis. (Note:  One stakeholder noted that deer had been wiped out by over-hunting as far back as 55 years ago, when Joe Lagow reintroduced white-tailed deer into the county.)

*Feral Hogs*.  Stephanie noted that feral hogs are the most difficult for obtaining numbers.  Many of the studies have suggested that feral hog densities are greater within 100 meters of a waterway, and thus the squiggly lines on the map represent those 100 meter "buffers" along all the waterways in the watershed.  The Ag Workgroup suggested that cultivated areas would be rice, and thus be flooded at certain times, and so also should be considered a water area.  They had also noted that the hogs would be found in fields that have been drained, but are still wet.  Brian noted that the hogs are known to decimate row crops, but still, they spend the bulk of their time during the day in the riparian area or near water, to stay cool, since they have no sweat glands.

Stephanie offered that, even though there are no specific feral hog counts for this area or for the state,  different studies indicate a medium density number of 50 acres per hog, with 38 acres (or even 33 acres) per hog as a high density.  A low density might be 71 acres per hog (or even 80 or 100 acres for a low-low).  It is possible to run different scenarios in the model – a best case and a worst case.  The point will be to identify where specific Best Management Practices (BMPs) will be the most effective at reducing the bacteria load to the bayou.  Especially because so much of the county is wet, the group agreed that using a high density number for the waterways/buffers, and a medium or low density for the rest would make sense.

*Carcasses*.  There don't seem to be any numbers for estimating the carcass issue.  All of the bacteria numbers for animals are from defecation rates for living animals.  Some people think that alligators or other predators would take care of carcasses in the water, but the intestines would still likely release all those bacteria before the dead animal was disposed of.  Stephanie said they could research the number of bacteria in intestines.  While that

would not be something that could be plugged into the model, it could be useful in helping to educate folks about not dumping carcasses in the water. Some noted that the numbers of natural deaths would be many more than man-made deaths, but others noted that nature doesn't dump the carcasses in the bayou. Also, the sampling team has been noting the number and location of carcasses they see on their sampling trips. So education could be an important step, but providing an alternative for carcass disposal will be needed – perhaps just dragging into a field where coyotes and vultures could get to them.

## 5.    Wrap-Up and Next Steps – Linda Shead

Linda noted that what will happen next is that all the workgroup results will be compiled and taken to the general meeting on 6/17, to get other input or ideas on land cover and densities. Then, HARC folks will run the models and bring the results back to the workgroups, to verify that the areas shown to have relatively high bacteria loads make sense. Later, the model results will be compared to sampling results and brought back to the group. For example, if numbers in a watershed model pointed to a high load from deer in a particular area, but the sampling results didn't show high bacteria there, then perhaps the stakeholders would need to re-think the location of those deer. A big part of the process is getting to see if the values/numbers that have been placed are supported by the data. The main purpose of doing the models is to be able to focus bacteria management efforts on a part of the watershed where it will make a difference.

To review, the group agreed with using a feral hog density of 30 acres per hog in all the water areas (streams, "buffers," and rice fields), and using a lower density on the rest of the watershed. In response to a question, it was noted that TPWD does not survey hogs, because they are not a "game" species, and are considered a "nuisance" species.

The issue of *coyotes* was brought up, but, even though folks see a lot of them in the area, there doesn't seem to be any data. (A workgroup member noted that wolf re-introduction was attempted in the 1970s, and was studied by *National Geographic*, but the effort was not successful.)

Also, folks reconsidered *dogs* as a source, but most folks had noted that there wasn't such a high density in this area, compared to urban watersheds. Plus, with so little impervious cover, less dog waste would make it to the waterways.

A reminder: The next general meeting will be on Tuesday, June 17 (with dinner prepared by Russell Ezer catering). And on Friday, June 27, the project will be hosting a Feral Hog Workshop (with fee of $10 to cover lunch).

## 6.    Adjourn

The meeting adjourned at approximately 6:40 p.m.