Navasota River Watershed Meeting Discussion Overview

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Time</th>
<th>Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday, February 18, 2016</td>
<td>College Station</td>
<td>1:30pm</td>
<td>16 stakeholders</td>
</tr>
<tr>
<td>Thursday, February 18, 2016</td>
<td>Franklin</td>
<td>6:30pm</td>
<td>4 stakeholders</td>
</tr>
</tbody>
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**Stakeholder Process and Decision Making Framework:**

- Reviewed stakeholder roles: provide input regarding sources, goals/objectives, strategies, levels of implementation and timelines
- Coordination Committee with stakeholder and workgroup input was preferred at November meeting
  - Establishing coordination committee has proven challenging
    - Size of watershed prohibitive
    - Time is short for many parties
    - Centralized meeting location not available
  - Proposed a decentralized approach for engaging stakeholders
    - Individual and small group meetings to get stakeholder input
    - Compose plan content based on feedback
    - Deliver back to individuals for review and revision

**Watershed Bacteria Source Estimates**

- Population estimates used to approximate bacteria contributions across the watershed
- Strong ties to land use and land cover for animal species
- Helps prioritize management needs and areas within the watershed
- Use available data for initial estimates
  - Local, regional, state and national datasets
    - Address data, population estimates/densities, recommended stocking rates, National Ag Statistics Survey data
  - Reconcile with stakeholder feedback
- County level data are scaled down by the percent of the county that is in the watershed

**Cattle:**
- National Ag Statistics Survey Data – 123,088 head for the watershed
- NRCS stocking rates modified with stakeholder input – 92,057 head for the watershed
  - Stakeholders deemed NRCS stocking rate approach more appropriate

**Other Livestock:**
- National Ag Statistics Survey Data
- Horses: 4,622 head
- Goats: 3,124 head
- Sheep: 1,142 head
Dogs:
- American Vet. Medical Assoc. estimates 0.584 dogs per household
- 2010 Census indicates 60,518 households in watershed
  o 35,342 dogs with bulk in urbanized area

Poultry:
- TSSWCB Water Quality Management Plans provide info on dry farms
  o 41 facilities with 9.77 million birds
  o 65,282 tons of litter produced
    ▪ Stakeholder feedback indicated that litter stays within 20 miles of houses

Deer:
- TPWD spotlight survey from last 3 years indicates average of 32 acres per deer
  o 27,998 head in watershed when applied to suitable habitats

Feral Hogs:
- Texas A&M survey indicates 33 acres per hog
- Stakeholder feedback suggests much less
  o Range of 16 to 33 acres per hog = 24,363 hogs in watershed
  o Stakeholder feedback suggests count is even higher ~36,000
  o Numbers will be adjusted further based on additional feedback received

Septic Systems:
- Based on available data and 911 address/housing units/imagery assessment
- Estimated 18,016 systems in watershed
  o Further refinement will likely reduce this number
  o Feedback regarding failure rates ranged from 5 to 50% - will consult with each county regarding local knowledge

Wastewater Treatment Plants
- 8 in watershed with permitted flow of 21.45 MGD
- Recent discharges total 12.25 MGD
- 9 E. coli exceedences reported in last 3 years for all facilities combined

**Bacteria Loads and Needed Reductions**
- 13 individual bacteria impairments currently in watershed
- 2 dissolved oxygen impairments on Duck Creek
- Monitoring actively occurring at 6 locations
- Recent data show 2 of 5 stations on Navasota have bacteria above allowable levels
- Hwy 79 and Hwy 30
  - Load Duration Curves demonstrate that the bulk of high bacteria levels occur during high flow and wet weather conditions
  - Reductions are needed at all sites during high flow conditions
    - These flows suggest the influence of nonpoint source pollution and sediment resuspension
  - Stakeholders agree that the water quality standard should be used as the water quality target

Next Steps and Next Meeting

- Adjust loading estimates based on stakeholder feedback
- Work to distribute loads across watershed
- Continue visiting with stakeholders to identify concerns, needs, and pertinent management activities: especially regarding OSSFs and WWTFs
- Begin to develop management strategies based on feedback
- Next meeting date and time TBD
- Will cover
  - Revised loading estimates and distribution information
  - Bacteria source tracking results
  - Management recommendations and resource needs for implementation