

**Texas Instream Flow Program
Lower and Middle Brazos River Study Design Workgroup
Meeting Notes
January 26, 2010**

The following reflect the chart notes taken by facilitators during the meeting.

Site Selection

Q: Need for oxbow sites?

A: Sufficient reports/ studies already exist compared with other knowledge

Q: Contingency plans for other sites if these (identified in report) don't work out?

A: Have access now to these sites. Welcome identification of alternatives if participants are aware of them.

Comment- Need better labeling/ description of sites

A: They may shift somewhat

Q: Why not study on the Navasota, a major tributary?

A: Need to know relation of Navasota to Brazos, but this study is on the Brazos. Navasota deserves its own study. Also, have some good data on the Navasota.

Q/ Comment- Will ultimately need whole basin- when will the Navasota be reviewed?

A: There is a legislative deadline for five areas. So, it would be after 2016.

- Welcome other entities doing studies using technical overview guidance
- Also will require studies relative to other efforts

Q: When the Navasota is studied, how will it be integrated with the Brazos studies?

A: Use the same framework -- multi-disciplinary -- and it will be compatible.

Hydrology and Hydraulics

Q: Resolution of granularity

A: At specific sites. May need to scale up in certain reaches.

Q: USGS frequency

A: Hourly/ daily → mostly

Q: How reflective are the USGS gauges to historic data?

A: Relatively close. Will be measuring flow data.

Comment: Brazos is influenced by reservoirs, but largely uncontrolled. Mention that it depends on what part of the river- difficult to characterize with one qualifier

- level of detail will come at conclusion of studies

Biology

Comment: Indicator species: Chubshiner. Recommend a notation that it is imperiled, and where it is expected

A: Will sample in expected areas and use as surrogate if found in sufficient numbers (Alligator gar will be targeted). Will also note all species found. Specific to certain areas

Q: Can there be a write-up of why species are chosen?

A: Yes.

Comment: Page 39 reference should be to Middle and Lower Brazos re species

Comment: Page 30 re Alligator gar-
“may only be used downstream”
“may” not “will”

Invasives

Don't expect flow to impact invasives. But can make natives invasive.

Mussels

Q: Will mussels be sampled or just correlated with habitat?

A: Will need to decide high end of habitat.

Good studies on low-end.

May not harvest to sample.

Q: How does rate of change impact mussels?

A: Rapid rate of change is not good. Issues of location-- stranding when rates change quickly. Mussels use fish to move youth around, so host fish studies are important. Mussels are hard to study in nature.

Q: Will it be done?

A: Study will note information in samples that may be useful. Information on mussel/fish host issues will be noted when found. Focus on target fish species that, if protected, are indicative of preserving many species. Also meso-habitat diversity will cover habitat needs. There are funding limits and time limits.

Comment: If listed, these will get more money.

Q: Should the study design reflect what the study won't do, so this doesn't remain vague?

A: Agencies won't do work themselves, but will incorporate work that might found

Other species

Q: What about benthic invertebrates?

A: Not enough money. Can use information available, but it's doubtful whether information from another stream is useful.

Q: Will birds be used?

A: Not shown that there is relationship in Brazos

Comment: Need to pick the right species as indicators that will reflect other species- to reflect regime (flow and timing) and flows.

Q: Invertebrates- Any threatened or endangered arthropods?

A: Not sure- don't think so

Note- Interior lesser tern has been seen on Brazos

A: Not nesting. Will layer in information if appropriate (if nesting)

- Can note conditions determined to be important (and incorporate in study)

Q: Turtles- are they important?

- Don't collect/ not a lot of data.
- Not sure if a good indicator.
- Different method to collect so less practical.
- Don't see collecting novel data

Instream Habitat

Q: Does sampling address need for successful reproduction?

A: That's why focus is on particular species- to be able to go into depth on a species

Q: Consider increased sampling during spawning season

A: Will address life history of selected species

Q: Will all life cycles of all species be considered?

- Only juvenile catfish
- Will look at multiple stages for other species

Comment: There are a lot of species to study multiple stages

Comment: If Brazos includes social and economic impacts., consider sport species- make a specific statement in study design to show where this is happening.

Water Quality

Q: Are there power plants on the river that fall within ½ MGD?

A: Not sure

Q: Affect of tributaries

- Modeling will consider inputs from tributaries.
- If can do it with probes, we'll do it.

Q: Will you include Oyster Creek?

- No, there's a separate TMDL

Physical Processes

Q: Are you going to look at smaller geologic studies?

A: That would be really expensive but will provide for lateral migration

Q: Are you going to predict later boundaries?

A: Beyond study capabilities

Q: Will you "connect the dots" and provide a summary of where the river is going?

A: Stick with lateral migration. Will document value of keeping migration rate

Q: Looking at main stem?

A: Will consider much longer parts of river

Q: With degradation, islands could be forming. Are you looking at future movements of river? Will study will be representative of reach overtime?

A. Most movement already has occurred

Q. What about using bank erosion rates?

A. Will be combined with sediment budgeting