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Morning Breakout Sessions Record (presented in early afternoon)

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Group 1 Morning Breakout Chart – Do we understand the process; and how should it be refined?

At what point does the corps become involved

Carl: concern(s)

- Per impoundment record as a standard?
- Is it accurate?
- Is it feasible for the future?
- How does it fit in landscape context?
- Appropriate scale?
- Refer to Allan Savory on Holistic Management – A new framework for decision making
- Impounded and unimpounded tribs may need to be treated differently and kernels of information may be different.
- This may effect the parameters of the pre project recommendations
- Cost testing and valuation structure
- Benefit to cost and bringing value back to the public
- How do we set dollar value?

At step 3:

- Quantitative measures will be needed
- Societial and economic support for certain species (e.i. stripped bass) may conflict with pre impoundment conditions
- Quantitative measures:
 - Formation of discrete flow regimen
 - Adoption of policy given the proper political and socioeconomic climate
- Time frame for engaging the public. (ex.) Chamblis land mapping proposal opposed by industrial timber interests.
- PR – timing, content, and full stakeholder involvement.
- What do we want Caddo Lake to look like?

What constitutes sustainability?

Issues:

Fish kills

Water quality

Self contained? Or dependent on inflows from other systems?

How do we separate the upper and lower parts of the system?

2 Levels:

Short term – day to day flow management

Long term – larger scope activities

- Tactical goals may differ from strategic goals
- Water rights to some degree constrain the ability of the corps to make changes and may be the primary limiting factor.
- Fort District has studies (grey papers) dating from the mid 80's to recent.
- Stephen F Austin satellite mapping may be able to contribute and is a contractor to the corps.
- Lake of the Pines was the experimental project for the corps with satellite mapping done with SF Austin University

Group 1 Spokesman Comments:

The question that we were charged with dealing with was "Does everybody understand what is going on and do you understand the process?" and that question was answered pretty quickly with "If I know the answer to this question maybe I would." so we decided to work both ends toward the middle in seeking to understand it. The first question that came up was "At what point does the CORP's actually become involved?" We tried to deal with that. So again this speaks to the process of when is everyone going to have their input and at what point of

Ronnie Ulmer

TNC Northeast Louisiana Program Manager



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the process are decisions going to be made that may or may not be able to be implemented. So there were some concerns about what we were seeking to achieve in the watershed where the pre-impoundment record was going to be the standard and determine how far back to go and what were we seeking to come out with and is it feasible for the future. Also, how does it fit into the larger landscape? We also wanted to know, "how does the suite of proposals that may come out of this process fit in the context of East Texas, the upper gulf coastal plain and rivers in general?" So that speaks to the appropriate scale. We have a specific reference that you guys can glean from this information.

There was some concern about the impounded and un-impounded tributaries and the fact that there may be some difference between the Northern and Southern parts of this watershed that may be significant. That may naturally have an effect on the parameters of the project due to the difference.

Every government entity has to deal with this; the benefit to cost ratio. This definitely is going to be a concern for them.

What is going to be the mechanism for bringing the value of these ecological improvements in the water regime back to the public and how do we set a value on that.

At step 3 in particular was a question "What quantitative measures will be used to evaluate this?"

How we go forward. Social and economic support was cited for certain species. Striped bass being used as the example as a type of species that may have not been present historically, but now has a constituency because of sport fisheries that may now come into play in our decision making process - and some of these existing conditions on the ground now were cited as possible conflicting with our perceived level of pre-impoundment conditions.

Quantitative measures - we kind of decided that these things flow into the formation of the discrete flow regime. The adoption of policies would flow from that, given the proper political and socioeconomic climate. That is a moving target which has kind of become the buzz phrase for today.

The question arose that one thing we felt was really important was "What time frame would we use for engaging the public?" There was an example cited of the Chambliss land mapping proposal that was opposed by some timber interests, because they felt that it would impact them economically. People felt that this probably was the type of scenario that we would want to avoid in this process - where something got out into the public perception and was perceived wrong - and negative momentum began to build before the process ever got under way. And that is in big letters "PR", content and always making sure that we have all of the stake holders involved and here is the real question, "What do we want Caddo Lake to look like when we get thru here?"

This is The Nature Conservancy take on it. This is the question that we always ask when we start to work in a watershed, "What constitutes sustainability?" Some particular issues that were mentioned were fish kills and water quality issues. Are these things self-contained? Or are they dependant upon inflows from other systems and that is going back to the Northern reaches Southern reaches question? How we separate these two things?

There were two levels cited in our group that needed attention and these were the short term day to day management, nuts and bolts operations of the management regime, and longer term things. In the Savanna River Project it was cited that there was an area where there was a hospital located that may end up with some flooding as a result of the increased flow, and that was discounted as a possibility because its just not economically, politically, socio-economically possible, but sometime in the future, because this hospital is not going to last forever, there may be an opportunity to re-evaluate what we decide to do in the watershed. So, long term versus short, of the temporal component, is the way that I would term that, not losing sight of the long-term tactical & strategic goals.

This was cited as what may be the primary limiting factor to a successful effort, and that's the fact there are some water use issues - where people either have legal rights to water or perceived rights to water that may cause some opposition.

That may be encountered to any change in the status quo. It was mentioned that in the Ft Worth district that the CORP has some studies from the mid 80's to some more recent studies in this particular watershed. The work of Stephen F Austin University (SFA) and satellite mapping we will want to include in the literature and the body of knowledge. Apparently they have already done some work in this area. As a matter of fact I believe that SFA may have done the pilot project for the mapping effort, so there may be some data there. Lake of The Pines was the focus of this experimental mapping project with the satellite mapping.

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Group 2 Morning Breakout Chart – Do we understand the process; and how should it be refined?

The process: Does it make sense?

Concerns:

Can you really get consensus @ the flow recommendations workshop?

Who really makes the decision?

Time investment: What is realistic?

The Good:

Integrated and multi-disciplinary approach.

Issues:

Need ample lead time w/deadlines for revisions as TAMU team reaches each step in process

How did Savannah team do it?

TAMU needs to break the process into meaningful and logical steps, then assign/request expertise as appropriate

Brainstorming/Data

Reconstruct flow regime back 400 years – via tree ring data

How much data are available on flows?

Elevation data from USCOE from ~ 1932

Other inflow data?

3 gauges – Little Cypress
Black Cypress
Big Cypress

Permit data

TCEQ
TMDL process
303D list = Low DO

Group 2 Spokesman Comments:

Good afternoon, my name is Brad Wilcox. I am part of the Texas A&M team of scientists that will be putting together a lot of the information. Our group, in terms of this process, asked "Does this process make sense?" We immediately went to stage 3 where everyone comes together (having gotten this report from the experts) who have been locked in a room for two or three days and they come out with some consensus and some recommendations.

There was real concern, maybe even skepticism, if this could actually work. Concerns about this process are, "Who really makes the decisions?" "What time investments are required?" Then the discussion veered off, "How can we help make it work?"

On the other hand, we all recognize the positive affect of the people from all types of backgrounds and interdisciplinary expertise coming together with a positive attitude and exploring what the problems are and what the solutions are.

Brad Wilcox

**Associate Professor, Texas A&M University
Department of Rangeland Ecology & Management**



Some ideas that we came up with in order to make things work a little better from stage 2 to 3. Two (2) being, where the information is put together, and three (3) when it is shared. What we recognized is that in order for this to be proved is maybe if the Texas A&M team is

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communicating thru the community of scientists and maybe get some outside reviewers to see if we are headed in the right direction, or are we way off base, so that an idea that came out of the process might work. I think all in all we are all positive about the process so these were some issues that came up.

Then we immediately charged off into the conceptual model about, what people think the issues are, where are the problems? What is it we're really doing here and what is it we are we trying to accomplish? We spent some time trying to at least develop a consensus among ourselves about, "What is the purpose?" "What are the problems?"

We had lots of interesting discussions about what really is the issue at Caddo Lake and what can be done about it. We talked a lot about the issues of sedimentation and invasive species and whether or not flushing might really work in this system. One thing that was pointed out was that there is a dam at the base of Caddo Lake that is not really designed to let flows out except over the top. Would flushing actually work without modification to the dams? We didn't answer this question. But the question was raised.

There was some discussion about important data sources, that we shared what we knew and in terms of that "Was the data available?" One important aspect we are really trying to understand is the flow regime before the dam was in place and what is going on right now, and we talked about where to find that data. Maybe the most traditional approaches of figuring out what the prehistoric regime was and some suggested that there might even be a potential for using tree ring data as far back as 400 years ago.

To truly understand flow regime we spent quite a bit of time discussing what really is the problem. Some people have described the lake as a dying system. Or is this a natural phenomenon, or is the lake really dying

Then finally we identified some other people that might should be involved and ended up with one suggestion of trying to get "funding" agencies to get involved.

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Group 3 Morning Breakout Chart – Do we understand the process; and how should it be refined?

Issues with process

1. Who will pay when get sued? Once we were confident could blame Brian Richter – moved on.
2. Is this the most appropriate process?
 - Joe – a. Timeline, why the rush, i.e. 1 year? Is there some eminent threat? Why not implement long term monitoring.
 - Luz – b. linkages 3-4-5. Can there be 3-5-3? This would allow tweaking of plan no major flow implementation.
3. Focusing on step 2 where should focus stop? Regional vs. watershed – what happens to wetlands fingering Lake of The Pines when prescribed water released? What happens downstream of Caddo? How far downstream, does it matter?
4. Focusing on step 2 – step 3
 - There will be knowledge gaps in our understanding of the ecology of Caddo Lake – which influenced the (un)certainly of initial recommendations.
 - How large do the knowledge gaps have to be before process is stopped and new research conducted?
5. What “ensuring measures of success” are defined or are in place?
6. Overall – support for process as a form of “Pre-major conflict” resolution.

Exp. How to respond when Dallas comes calling?

PROCESS:

- What are threats, constraints, goals... is this the best most appropriate process (e.g. timeline)?
- Pending water use/transfer?
- Timing/process to consider.
- Other issues (socio-economic)
- Pre major conflict
- Existing knowledge is rel. good
- *do we want “constraint” info before?

ISSUES:

Definition of “site” (upstream & downstream)...for defining env. Flows

- within reservoir?
- Downstream of Caddo?

*Gaps in understanding & impact on recommendation (level of confidence)?

-Ensuring “measures of success” are defined in place.

Group 3 Spokesman Report:

I am Dan Roelke. I am also part of the Texas A&M research team and I am reporting for group 3 and I have tried to prioritize our concerns with the 1st being the most concern.

So, regarding the process and when we talk about the process we are talking about this figure (Prescription Process ESWM).

First, what is the process in general, and why does it have to be this process, and the time line that we laid out is about the course of a year. What is the big rush? Is there an imminent problem that is coming up that we need to address?

Dan Roelke
Associate Professor Texas A&M
Departments of Wildlife & Fisheries Science
and Oceanography



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Potentially, we considered some long term monitoring that would give us some more data leading into this process. The second was the linkage of this process. We go from step 1, 2, 3, 4. So, for example we go from Step 2, which is literature review and summary to this recommended flow, to implementation, to data collection, back to recommendation. Is that a good management strategy?

But, why does it have to be like that. Can we go from step 3 to step 5? For example, if we have some sort of recommendation that we know may have some problems with, or some inconsistencies, why do an implementation that may be costly? Why not do some kind of pilot study or small experiments (which would be under step 5) that would allow us to tweak this plan before going into a larger scale program. The next is step 2, the stuff we are doing now and that the Texas A&M team is going to be doing, compiling this literature and synthesizing it with you all, and coming up with some sort of summary report.

Well, the question is "Where do we focus?" Obviously Caddo Lake. But where does this focus stop? So naturally, there are implications when you talk about altering flows. They are going to have ramifications for flows downstream. So, how far downstream do we look? We considered these things in our plan. Also, the ramifications upstream. Where might this water be coming from? Well, Lake O the Pines. There are also surrounding wetland systems, around that eco system that are also dependant on that water. Do we use that water from that lake and draw it down to supply Caddo Lake at certain times of the year and at certain magnitudes. Well, what does that do to the ecosystem of Lake of The Pines? So when we compile this summary report, what is the special scale? Is it regional or is it watershed wide? So, we need to answer that question.

Focusing on when we go from step 2 to step 3, we're not going to have all the answers from step 2. We've already started looking into literature and there are some issues we have questions with that we can't find any information on. This is the case in everything we do in life. We never have all the answers before we do

something. So, we live with some level of uncertainty. How big do the knowledge gaps have to be that our level of uncertainty gets to be too large that we say "We can't make a recommendation because we don't know what we are talking about"? Case in point, something I work with is phytoplankton and cyno-algae. When we look at blue-green algae which are cynobacteria is there a problem with cynobacteria in Caddo? Why is this important? Well certain cynobacteria produce toxins that cause liver cancer in people if they drink this water. So is this a problem in Caddo Lake? We don't know? If it is, it better be a part of any kind of recommendation we would have for water flows.

So, we have all these different steps. Where is the quality control? Are there measures in place that can ensure quality at each of these steps?

Is there some sort of peer review process that is going on?

As an overall comment our group was in support of the process. I don't mean for anyone to think we were all negative.

We were very supportive of it and mostly we wanted to have some sort of pre-major conflict resolution plan in place. The example there is "You know, someday Dallas may come knocking and wanting more water for that region and they may want to buy water from this region." How much water can this region afford to sell, if any at all? By going thru this process now we would have that information in place and we would have conceptual models and we would be better able to discuss that concern.

Group 4 Morning Breakout Chart – Do we understand the process; and how should it be refined?

Important to have this discussion now while you still have residents here that remember what the lake used to be.

Now have a lot of folks that have moved into floodplain, making flood restoration problematic (considerable political resistance if flooding worsens)

Cyclic nature of adaptive mgmt. is important – let's learn as we go.

How might this analysis of env. Flow needs translate downstream to layer basin.

Big differences in public involvement between TX and LA sides efforts are being made to engage local communities in LA (e.g. no mercury advisories or other "alarms" in LA)

Big differences in data collection between TX and LA sides just getting started in LA

Likely Participation:

- USGS quite interested in getting more involved in EF issues
- TPWD very supportive – value of this resource extremely high
- Relationship with Water District very important – there is a good foundation already
- Private consultant involvement dependant upon client support.

Clear understanding of importance of bald cypress regeneration to eco tourism

This process could be applied to other TX rivers

Financial compensation/grants will be important to viability of process

This process can foster collaborative proposal development

Will this process work as well in water stressed , competitive basins?

Communications & Outreach

- Shreveport Times
- Important to speak with one voice
- Town meetings should be used for outreach (e.g. during flow recommendations wkshp)
- Keep elected officials "On Board"

Group 4 Spokesman Report:

Our group was asked two questions, "Does this process make sense?" and "What issues have to be considered?"

We never got to the second one. We pretty much decided at the outset that this process is probably the only means that you could logically address such a complex set of issues and everybody nodded their heads in agreement.

Maybe that's because Brian was the moderator in our group. I don't know if that had anything to do with it.

But, one thing that was highlighted - the way the process was set up provides the legitimacy for the recommendations at the end because you are

Kirk Winemiller
Professor, Texas A&M
Department of Wildlife & Fisheries Sciences



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bringing everybody into the process at the outset. This meeting today is part of this initial effort, and also it was highlighted that there are tremendous educational opportunities in the process as it is designed.

The perceptions of the local community, it was felt, would be key in terms of what degree of change might be targeted. We may be talking about radical changes in the status quo or maybe something relatively minor and that would be driven by a large extent by what the local people saw as problems.

We talked a bit about the problem with the invasive plants and on occasion fish kills, which bring everything to the forefront in the media and so on. Also the regeneration of bald cypress is perceived as potential issue for eco tourism in the region. Those bald cypress give the area its unique characteristics and the point was made that it was important that we are doing this now because there is a degree of memory involved among local citizens that remember how Caddo Lake was years ago and there is this problem in conservation biology of the shifting baseline. You know, depending on you time scale of perception of what the status quo is, or what changes that varies, so the old timers need to have some input. It was also pointed out that, in terms of when we get to the point of recommendations. When lake of the pines was created a lot of people moved into the flood plane area.

It was mentioned by the last group the issue of how the activities involving Caddo Lake and the immediate area translate to the watershed downstream to a larger basin and how will that effect other people I'm not sure where you draw the boundaries in terms of your sphere of influence in this effort.

And, also it was brought up that there seem to be some major difference in the degree of public involvement between TX and LA. The example was cited of mercury advisories for consuming fish. Apparently LA had no advisories. We don't know if that's because the data are different, if the levels are actually different, the perception is different, if methodology used to come up with the numbers is different or what. That needs to be looked into. But, the fact that things aren't being handled exactly the same on either side of the state line is something that will have to be dealt with. In

addition, ongoing efforts gathering data differ in the two states.

It was felt that the cyclic nature of the process incorporating adaptive management was critical. Everybody liked the idea of that participation.

Actually we did a little survey "which groups were likely to participate?" USGS and TPWD were clearly entities that expressed a lot of interest and likely involvement. Relations with the water district were said to be very good and a good foundation was there already. The districts have ongoing monitoring in place. Then the issue of "what would it take to keep private consultants and academic entities involved in this process?" was brought up and "It is realistically going to require some pool of financial resources to make that happen?" It was felt that maybe this process could achieve that to increase that pool of resources to make that happen, by developing collaborative proposals. In other words, if it is an individual entity carries the whole burden of finding new financial resources to get research done, that's going to make it much more difficult. So we need to work together and be creative and go at this as a team of investigators.

Communication and outreach was felt to be critical to this whole process. That's probably obvious. Print media, perhaps town meetings. It was felt by one individual in the group that it was important that the process speak as much as possible with one voice so there is not a lot of dissension within the process as it moves forward.

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Brian Richter, The Nature Conservancy

"I don't think it is necessary to do any sort of formal presentation or report back from the groups on these subjects because we created lists in each of the breakout groups."

Group 1 – Session 2 Notes:

Who needs to be involved:

- Jim Neal – USFWS (bottomland hardwoods)
- Richard Keesling – USGS water quality
- Cindy Loeffler – TPWD – resource protection
- Steve Davis – TAMU macrophytes detritus
- Stephen Chapra – water quality
- Another geomorphologist – University of TX
- Danny Harold – COE
- Tom Arsuffi – Aquatic ecology (TSU)
- Tim Bonner – fish ecologist (TSU)
- Billy Higgenbotham – TCE @ Overton
- Carroll Kendall - wetland ecology (LSU)
- John Day, LSU – wetland ecology
- Mike Smart – USACOE (macrophytes)
- Jack Kilgore – COE Vicksburg (fisheries)
- Hans Williams – Stephen F. Austin – wetlands
- Mike Buttram – Texarkana College

Sources of Information:

- USGS hydrologic data
- TX WAM outputs (naturalized data sets)
- Rick Knipe bird inventory
- Stephen F. Austin graduate thesis
- Fisheries Management reports since 1950's
- TCEQ Water quality data
- LDEQ water quality data
- USGS gauging station topo survey
(discharge measurement notes)
- Highway Dept (TX DOT) surveys @ bridge crossings
- Lake profiles (COE) Vicksburg?
- Mercury studies – Dave Crabinhoff USGS
- Alligators studies – Stephen F Austin University

Group 2 – Session 2 Notes:

Expertise/Needs

- Art Crowe CTCEQ-Tyler
- Roger Miranda – CTCEQ-Austin
- Jacob Donelin (TFS)
- John O'Connor (TSSWCB-Mt. Pleasant)

FUNDING!?

Who? Fed. And State

- Sabine River Authority
- Tx Dept of Health
- USGS – David Brown H2O Biological
- USCOE – Ft Worth, Ft Worth
- TFS
- TCEQ – SE Div (LA)
- TSSWCB
- TPWD
- EPA
- NPS
- LA Wildlife & Fish
- TWDB
- FEMA
- LA DEQ
- USFWS

Academic

- SFA
- LSU
- E TX Baptist
- UT
- TAMU

Regional Water Planning Group D

- Sulfur – Cypress SWCD
- Outreach x Stakeholders
 - Jefferson
 - Marshall
 - Uncertain
 - Cypress Creek
 - Clean Rivers Program
 - Fishing and Hunting Interests
 - East Texas Council of Gov'ts
 - ArkTx Council of Gov'ts

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Group 2 – Session 2 (con't)

Chambers of Commerce
County Gov't (Marion)

Information Needs

Spatial
H2O Quality
Biological
Climate
Census Data
Present Reservoir operations plan
Hydrology
Socio-economic
Recreational

Group 3 - Session 2 Notes:

Municipalities – hired guns

Jerry Lisantli – Centenary Coll. Of Univ
Mussel Expert – Rbt Howells & Bob Brandis
Louisiana Representative – Agencies Expert +
Hans Williams – SF Austin
WES-ERDC
TCEQ?
TX dept of health – now? (Seafood safety div)
Don Wiese COE – Ft Worth (Forests)

a.

Sources
N.O. COE
Vicksburg COE
WES-ERDC
Dept of Defense
COE Dist. Envir
TCEQ Water Quality (Big lake Platform)
LA
Bathemetry – TX & LA Caddo
Bathemetry – TX Lake O Pines COE
Channel Cross sections – Tribs
(Ft. Worth Dist – USGS)
Flood Plan maps – FEMA
Birds – Cliff Shakelford TPWD
HERPS – Lee Fitzgerald
Mammals – TP&WL
Gound water - surface water – USGS TWDTS
Limnologist - TX? LA?
Invasive species plants and animals

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Group 4 – Session 2 Notes:

Who needs to be involved?

- TP&W – Greg Conely
- Ft Worth District of Corps – Bill Colbert
- LA representatives
- LDWF – Nancy Higginbotham non game division
- TCEQ (303d list not meeting)
- Art Crowe regional biologist
- EPA region VI (Willie Lane or other)
- City of Shreveport – Richard Green use to be Mayor now with EPA
- City of Marshall
- Jacues Bagur local historian
- Local lake guides – David Applebaum, Billy Carter and Jimmy Johnson

What type of information is needed?

- Jim Neal – contents of Jim's office
- USGS River gauge data for past years
- Vicksburg red river navigation project data – office of Corps – Daingerfield reach study Vicksburg district on file in Marshall library
- With Mike Ryan on paddlefish study
- With Jerry Thomas FWD of UIACOE on Grey Papers on trial releases
- National Park service has a study done at Jefferson pictures are on wall in lobby of Jefferson Center (Marsha Hackett may know)
- Sediment Data – USFS Stoneville MS. – Ted Leneinger Mississippi State
- Jack Kilgore at waterways exp station for fisheries issues
- NRCS – area conservationist office is in Marshall TX
- Soil survey from circ 10+/- Harrison & Marion Co would need Caddo and Bossier
- Raymond Chic Dolzel
- NOAA and USGS – climate, sat imagery and hydrological Data
- Corps in Tulsa Cliff Murray
- Longhorn Ammo Plant – contaminant studies.
- Texas regional institute of environmental studies now defunct but did work at Longhorn must come from SF Austin or (Sam Houston State Mark Lipenik)

- Historic Aerial Photos – Texas Land Office GLO
- Railroad Commission (old maps, etc)
- LSUS has a Caddo archive
- TPWD noxious weeds info
- Earl Chilton - PHP