Scenic Rivers Joint Study Committee
April 8, 2016
10:00 AM
Grand River Dam Authority Ecosystems and Education Center
West End of Grand Lake O' the Cherokee's Pensacola Dam
420 HWY 28
PO Box 70
Langley, OK 74350

I. Re Recognition of Thad Scott's Service and Welcoming Ryan Benefield - Derek Smithee

SMITHEE and HAGGARD thanked Scott for his service to the committee and wished him well with his new position. They then welcomed Ryan Benefield (BENEFIELD) to the committee.

SMITHEE stated that he knew BENEFIELD will carry on the work of the committee as SCOTT's replacement.

SCOTT stated that he knows BENEFIELD will do a great job.

BENEFIELD stated that he has been to most meetings and is looking forward to working on the committee.

SMITHEE asked SCOTT if he thought the committee was going in the right direction and if he thought there were any changes should be made.

SCOTT said that he thought the committee was definitely going in right direction. He did not think the science could not be any stronger and that KING has done an outstanding job. He reminded the committee that whatever the endpoint is and how the committee arrived at it, the committee needs to consider how any recommended standard is assessed.

HAGGARD said he has SCOTT's cellphone number and wouldn't hesitate to use it. He then thanked SCOTT for his service to the committee.

CHARD-McCLARY briefly described the incident with the Watts, Oklahoma wastewater treatment system. There was a pump failure in the lift station and a clogged line caused an overflow at a manhole. There wastewater discharged onto the ground and some waste reached the Illinois River. A local news outlet reported the DEQ planned to do nothing about the spill. In this case, Watts, aided by funding from the Cherokee Nation, hired a contractor and have plans in place to make necessary repairs and complete the cleanup. DEQ was overseeing the cleanup but not funding or providing workers to perform the cleanup. DEQ has taken enforcement actions against Watts for the unpermitted discharge. The details are still considered "case sensitive" for a few more days until all the terms are finalized. Attorneys should be able to share more information in 30 days or less. Contact ECLS or WQD at DEQ for more information.

PUBLIC asked for the date of the incident.

CHARD-McCLARY stated late March but would have to verify exact dates.

SMITHEE stated that Senate Bill 1388 has passed the Oklahoma Legislature that would place the Oklahoma Scenic Rivers Commission under the Grand River Dam Authority (GRDA). GRDA does have environmental function so they are not new to environmental game. Details have not yet been worked out. GRDA has a lab at this location and is offering a tour immediately following this meeting.

SMITHEE asked if Ed Fite and arrived yet. He had not so he asked Ed Brocksmith (Save the Illinois River, STIR) if he had anything he would like to say on this issue.

Brocksmith said it is still early in the process and that he has a lot of questions. He continued to say that he thinks it could be a positive move since GRDA is well funded. He said that STIR still thinks that the Oklahoma Scenic Rivers Commission should be its own agency.

MATLOCK asked what this would mean for funding on scenic rivers projects.

Brocksmith said that it should be a blessing since the Oklahoma Scenic Rivers Commission doesn't have much money and that GRDA is known for its financial stability.

II. Call to Order and Approval of Minutes of October 2, 2015 Regular Meeting – Brian Haggard

HAGGARD called meeting to order at 10:05

HAGGARD called the roll

Members present:

Arkansas Representatives	Oklahoma Representatives
Brian Haggard (HAGGARD)	Shellie Chard-McClary (CHARD-MCCLARY)
Marty Matlock (MATLOCK)	Shanon Phillips (PHILLIPS)
Ryan Benefield (BENEFIELD)*	Derek Smithee (SMITHEE)

*BENEFIELD appointed by Arkansas Governor to replace Thad Scott (SCOTT)
Contractor Ryan King (KING) present
Dara Hall (HALL), Arkansas Assistant Attorney General present
Clayton Eubanks (EUBANKS), Oklahoma Assistant Attorney General present

See sign-in sheet for public members present which is attached to the minutes.

HAGGARD asked the committee for any comments or edits to the minutes and called for a motion.

MOTION 1: To approve minutes as presented.

Representative		Yes	No	Abstain	Absent
Ryan Benefield		X			
Shellie Chard-McClary	Second	X			
Brian Haggard		X			
Marty Matlock	Motion	X			
Shanon Phillips		X			
Derek Smithee		X			

Approved minutes including KING's presentation and sign in sheet will be scanned and uploaded to the website by PHILLIPS.

III. Administrative and Budget Report regarding the SRJSC's Contract with Baylor University Performance of Water Quality Study – Shellie Chard-McClary

CHARD-MCCLARY stated that for this meeting she had help with keeping the notes to allow for more engagement in the discussion later in the meeting. She said the billings were occurring according to the contract and payments were being made timely. She verified with KING that he knew of no problems. She stated the project was on target in terms of time and budget.

HAGGARD asked if there were any questions regarding the budget. There were none.

IV. Review of Second Statement of Joint Principles – Brian Haggard

HAGGARD provided all a copy of the Second Statement of Joint Principles document and asked the committee review briefly. He reminded the group that the second page has mandatory requirements. "The primary purpose of the Joint Study is to determine the Total Phosphorus threshold response level, in milligrams per liter (mg/L), at which any statistically significant shift occurs in algal species composition or algal biomass production resulting in undesirable aesthetic or water quality condition in the Designated Scenic River…The Joint Study shall include a sampling population that is adequate to determine the frequency and duration component of the numeric criterion." He continued to page three which states "The committee and scientific professionals employed to complete the Joint Study will be asked to make specific recommendations as to what phosphorus levels, and what frequency and duration components of measures are necessary to protect the aesthetics beneficial use…."

HAGGARD asked if any of the committee members had any comments.

SMITHEE stated that the document does charge committee to determine concentration, frequency and duration to protect the beneficial use. We cannot just determine a "strike zone." We will need to make specific recommendations.

CHARD-McCLARY asked if we should suggest a range for the frequency and duration.

SMITHEE said he was open to suggestions. We should address the range where we see the central tendencies.

HAGGARD said this is really what KING is charged with determining.

HAGGARD asked if any other comments and stated that the committee is clearly charged with threshold, frequency and duration.

MATLOCK said the language is clearly stated but not clearly interpreted. He said he will look to BENEFIELD to help in this particular area so we aren't making regulatory decisions.

SMITHEE said that we will be making recommendations to both governors for their consideration.

HAGGARD asked the question "what are undesirable aesthetic conditions?"

MATLOCK said he believed that this referred to the difficulty we will have in tying numerical standards with qualitative standards that are hard to measure.

SMITHEE said he disagreed and that the Water Quality Standards are in place to protect aesthetics and that the 0.037 mg/L standard is in place today. He continued on to say that the committee is here to resolve if that standard is defensible.

MATLOCK said this was a circular argument since the purpose of this project is to evaluate the relationship between phosphorus in solution and the narrative standard.

HAGGARD asked if we are looking at a range of 0.027-0.047 and is that for protection of the aesthetic standard.

SMITHEE said there are two questions. First, is 0.037 standard in the range? Second what is the stressor or dose response level that presents nuisance conditions? It is a two part question.

HAGGARD said if we are within that range the Committee can make a specific recommendation.

SMITHEE said he thinks the committee can say it is within range and then specify where the inflection point is.

HAGGARD stated that the committee will make recommendation but the committee is not setting state standards or policy. He said it is up to each state to set criteria in WQS and to determine frequency and duration. It appears that there will have to be a change from 30 day geometric mean because of the way data is being collected in the joint study.

SMITHEE said it is absolutely conceivable that the number will be within the range. He thinks it will be frequency and duration that will be the big challenge. This will be true not just for

assessment purposes, but also for discharge permitting. Results should be useful for discharge permitting and non-point source best management practices.

BENEFIELD said that whatever we come up with can be used for all those purposes.

SMITHEE said that certain results couldn't be used for all purposes. He said that if we had to do it over again the WQS would probably use long term average instead of 30 day geometric mean. That way it could be used for permitting and assessment.

BENEFIELD said there are ways to translate to permitting. He stated that the Committee will make a recommendation but will not set a standard.

SMITHEE asked if there was anything else to be addressed.

HAGGARD said we are in agreement that the Committee will recommend a threshold, frequency and duration. Also, we need to make sure the standards can be implemented but implementation is not part of the charge of the Committee.

COMMITTEE agrees.

HAGGARD said it looks like we are ready to move on to next item.

V. Discuss Committee Meeting Dates, Report Format, and Supplemental Needs – Brian Haggard

HAGGARD stated that at this point we need to outline a plan of action for moving forward. It is clear that we cannot wait and meet again next October. KING has collected the final samples. We need to determine what the format of report to governors will look like.

HAGGARD thinks that KING's report should just give us the information and statistics and not any recommendations. His report would be an appendix to the report to the governors. The committee's report will be an Executive Summary of our recommendations, a short report describing the work of the Committee and how we reached the conclusions. A lot of the method details don't have to be in report to governors.

MATLOCK agrees.

HAGGARD says the report should pull in enough information to support the recommendations of the Committee. The report should meet the criteria to be peer reviewable.

MATLOCK says KING's report is not supposed to make interpretations, just show results. KING is charged with data collection and analysis and that the Committee will determine recommendations from KING's results.

SMITHEE said that we should include just the "illuminating statistics" in the Committee's 5-6 page report recommendations.

CHARD-McCLARY said that the detailed work is needed to backup or support our recommendations but the report itself should be concise. The decision makers aka Governors will not review the data. They just need a summary or interpretation of all of the work.

PHILLIPS said the executive summary should basically just show recommendations.

HAGGARD said that KING's input will be used in report as we develop recommendations.

SMITHEE stated that KING will be an integral part of team as we prepare the report to the Governors.

HAGGARD said it appears we agree that we will need an executive summary, five-six page report for recommendations and then an appendix which will be the KING report.

SMITHEE agrees.

PHILLIPS agrees.

SMITHEE reminded the Committee that the work has to be completed including the final report this year.

MATLOCK stated that we have a lot of work to do in the next few months.

HAGGARD asked the Committee how we want to move forward with setting meeting schedule.

MATLOCK asked KING when he would expect to have a preliminary data analysis report.

KING stated that his report, the next agenda item, includes statistical analysis including duration. He said they are almost complete and the taxonomic work is still ongoing. He said today's presentation is really the first part of report and he can update and pass on the information as he gets it.

MATLOCK asked if the physical and chemical portion of the report would be ready in two months for a next meeting. He suggested that we could meet every two months until completion.

HAGGARD asked if MATLOCK was suggesting a meeting in June.

MATLOCK said June or July.

HAGGARD asked if the committee had any strong feelings about the schedule. He also asked if it would be possible for KING to Skype for some meetings in order to reduce travel cost.

COMMITTEE agreed to the meeting schedule and to allow KING to attend remotely if necessary in order to limit travel expenses.

SMITHEE asked KING if the contract included travel for meetings or just sampling.

KING said the travel budget included travel for meetings every six months.

HAGGARD asked the Committee to look at calendars

COMMITTEE all discussed various dates and the result was the selection of June 6 for next meeting.

SMITHEE said he and HAGGARD would work on the location of next meeting.

HAGGARD said the Committee will set meeting dates at each meeting until projection completion.

HAGGARD turned the meeting over to KING for his presentation.

VI. Report on Performance of Referenced Contract – Ryan King

KING started the presentation with a review of the "Study Framework" which summarized information from the Second Joint Principles document including that the study was "to determine the total phosphorus threshold response level…at which any statistically significant shift occurs in 1) algal species composition or 2) algal biomass production…resulting in undesirable 1) aesthetic or 2) water quality …conditions in the Designated Scenic Rivers."

KING briefly reviewed the land use and river network that is part of the study area which spans the upper areas of Northwest Arkansas, Lee Creek, Little Lee Creek, Illinois River, Saline River, Barren Fork, and Spavinaw Creek.

KING described the 35 sample sites as large enough sample size with different land uses and wide range of total phosphorus values. Resampling the sites over time there are variations and patterns. The presentation will look at change point analysis including phosphorus, chlorophyll-a, and *Cladophora*.

KING explained that all 12 sampling events have been completed.

KING discussed the sample status report describing when each sample was collected. He and his team are still working on the analysis. The Committee will need to make a decision on which samples will have soft species or diatom species identified. This will be addresses later in the presentation but he wanted to point it out at this point.

KING asked if there were any questions about the basic data status report before moving forward.

COMMITTEE had no questions at this point.

KING presented a hydrograph illustrating the log discharge cfs vs the sampling dates. The first four events flow was relatively consistent. When looking at the flow through October 2014, moderately low flows are exhibited. As we move to 2015 samples date there is intense rainfall from April through October; scouring was evident during those sampling events. In December 2015 the sampling was high base flow after the scouring event. Based on the timing, the Team was able to sample in February 2016, 5 weeks after historic storm in late December 2015. Additionally there was a significant scour event before most recent sample collection in April 2016.

KING then presented a hydrograph illustrating the discharge cfs vs the sampling dates. This is the same data as previous slide without the log distribution. This illustrates the historic rainfall and scouring event in late December 2015. Every rock appeared to be turned, moved, polished, etc. This event was basically a reset button. Everything in the waterbodies were stripped of algae. We have been able to see how quickly the algae has returned.

KING presented a slide that illustrated total phosphorus vs time for each of the 35 locations. It is apparent that some sites have stable baseflow concentrations of phosphorus. Others locations that are influenced by point source are more variable but still have a narrow range (for example, OSAG1, OSAG2 and SAGE1).

King then showed the same data using a log scale. The sample location at Sager after the spill that occurred was lower than expected. He has been surprised by the consistency of the total phosphorus during baseflow.

MATLOCK asked about the detection limit.

KING described analytical method. In this case the lowest reported total phosphorus values are typically 3 to 10 times detection limit.

SMITHEE asked if were most samples were collected at baseflow.

KING stated that the baseflow is determined by deviation. Samples were collected at baseflow but the flows were higher than most “standard” conditions. The Team did not collect samples during stormflow events. He would consider most of the conditions to be high baseflow. He noted that there was a large dip in phosphorus concentrations for sampling event 5. There was a big algal bloom. There were high rates of phosphorus uptake. This resulted in low phosphorus concentrations at this time.

KING stated that we should keep in mind that we did not have a high temperatures and low flow summer during the 2 year study. 2015 flow was substantially higher than normal. As we know, higher flows play a significant role in controlling dissolved oxygen. The Committee should be mindful in interpretation of the data since there were no low flow periods like have occurred in the recent past.

KING presented a slide illustrating benthic chlorophyll-a vs total phosphorus for each sampling event. February 2015 there was a high amount of chlorophyll-a and filamentous algae following

a protracted period of stable baseflow conditions. However, as we moved into an El Nino cycle, frequency and intensity of rainfall events resulted in numerous scouring events throughout 2015, culminating in the massive flood in December 2015. Thus, the relationships between chlorophyll-a and total phosphorus were more variable in the second year of the study. Finally, following the flood in December 2015, February 2016 shows the quick rebound in chlorophyll-a.

KING presented a slide illustrating benthic chlorophyll-a vs total phosphorus for October 2015.

MATLOCK asked about the consensus of general literature of chlorophyll-a values for aesthetics.

KING stated that chlorophyll-a above 150, or more often, 200 mg/m2 is problematic for aesthetics.

KING presented a slide illustrating benthic chlorophyll-a vs total phosphorus for December 2015. This was the weakest correlation likely due to two large runoff events in November. He stated that each site is affected by runoff in different ways due to its geomorphology and local differences in precipitation. For example, Flint 3 is very confined and typically has lower chlorophyll-a than would be expected due to the shape of the channel and frequency of scours. Thus, flows which cause scouring are influenced by site specific conditions.

KING presented a slide illustrating benthic chlorophyll-a vs total phosphorus for February 2016. This event occurred five weeks after the significant rain storm. It shows a very strong log-linear correlation between chlorophyll-a and phosphorus concentration. This led to an interesting pattern after the complete resetting of the stream channel by the historic flood.

MATLOCK asked if KING had taxonomic samples for this sampling event.

KING said that they do have.

SMITHEE commended KING for the site selection. This will be critical for teasing out phosphorus impacts.

KING stated that the existing data allowed him to make good sample location decisions. Also, some of the single grab samples gave a good ballpark.

KING said he would try to set up a Dropbox or something similar with pictures from the sampling events for everyone to see.

KING presented a slide illustrating how the duration of exposure (total phosphorus) vs instantaneous/cumulative response chlorophyll-a. was calculated and used in the subsequent analyses. The red zones shown on the graph represent 6 months rolling average of total phosphorus and chlorophyll-a.

KING presented a slide on change point analysis. The basic question is what value of total phosphorus splits the data into two groups with the largest difference in mean chlorophyll-a? A

more technical description is what value of the predictor (x axis variable) results in greatest reduction in variance (deviance) by splitting the response data into two groups.

KING presented a graphical slide that illustrated the *Cladophora* biovolume vs total phosphorus. The change point is shown at 0.018 mg/L with a p-value of 0.021. The "bootstrap quantiles" of 25-75% and 5-95% provide a confidence band between 0.01 and 0.03 mg/L total phosphorus (approx.). In other words, 95% of the simulations resulted in a change point below 0.03 mg/L for this particular example data set.

KING presented an additional slide on change point analysis. This one described how the deviance is calculated differently based on the appropriate probability distribution for each variable. In this case normal and lognormal distributions used for benthic chlorophyll-a analyses, Poisson distribution used for *Cladophora* biovolume (biovolume is converted from counts, hence Poisson or negative binomial is appropriate), and binomial distribution was used for proportion of biovolume as nuisance taxa.

KING wrote new R scripts so that the change point approach could be adjusted to analyze data using these different distributions.

MATLOCK asked if KING could you share that.

KING said that he could.

KING explained that, in the binomial distribution case, samples with higher counts are more reliable for establishing proportion. The binomial distribution weights values based on the higher confidence of these proportions.

KING presented a slide depicting the graphical representation of total phosphorus change points with total phosphorus vs chlorophyll-a duration. The error bars become smaller after 6-12 month durations.

MATLOCK asked what the relevancy of change points was.

HAGGARD said that everything can't be displayed in graph?

KING stated that HAGGARD was correct.

KING said this information is based on normal distribution values.

KING presented a slide with the data shown using lognormal distribution. He doesn't necessarily recommend lognormal over the normal distribution, but using this distribution is another way of looking at it. He noted that the deviance reductions were typically greater (better fits) using the lognormal data, and the lognormal tended to shift the change points lower. However, the normal distribution seems to show more precision in change point location.

KING presented a slide showing photographs of multiple sample events and the amount of *Cladophora* biovolume vs total phosphorus.

KING presented slides that illustrated the *Cladophora* biovolume vs total phosphorus for June 2014, October 2014, February 2015, and April 2015.

KING then presented a slide that illustrated the *Cladophora* biovolume vs total phosphorus and duration. In this case it was a rolling average vs *Cladophora* (total phosphorus vs *Cladophora* duration). At the 12 month point, the instantaneous is above 0.037 and the mean is below 0.037.

KING presented a slide showing the proportion of biovolume as nuisance taxa vs total phosphorus for sampling events occurring in June 2014, October 2014, February 2015 and April 2015.

SMITHEE asked if the February 2015 sample event shows mostly all nuisance algae above the change point.

KING replied "yes."

KING said there is value in looking at data from a number of different ways.

MATLOCK asked if KING was surprised by this.

KING said that *Cladophora* is a phosphorus hog and does not compete well in low phosphorus conditions. He said that *Cladophora* takes off in higher concentrations. Some sites have higher biomass of *Cladophora*. However, total phosphorus below a certain value appears to severely limit the *Cladophora*.

MATLOCK stated that this is the crux of the debate. "How much is too much *Cladophora*?"

KING presented a slide on the data analysis status. He said the proportion of nuisance taxa (binomial change point analysis) is almost complete. The TITAN analysis is in progress. He needs clarification about total phosphorus and sampling duration based on the presentation today. The results will change for cumulative analysis depending upon which two events are selected for final taxonomic analysis.

MATLOCK asked about how many samples can be expected to be retrieved at baseflow annually.

KING replied that it would be around 8. Some months were never at baseflow conditions.

HAGGARD questioned if there is any duration range we would like to move forward with.

CHARD-McCLARY stated that she was leaning toward 6 months but not sure. She wants to look at one of the graphs again.

HAGGARD thinks things start to tighten up between 6 and 10 months. He also thinks that there is so much variability that we should use moving average of response data.

SMITHEE stated that he is not sure what this means with respect to water quality management.

MATLOCK said that a single sample couldn't violate standards that we would need a six month average.

SMITHEE said that six month average, samples are random. At that point do you become blind to flow events? He is struggling with what that means.

BENEFIELD asked if water quality standards are based on flow.

HAGGARD said this data is based on seasonal baseflow conditions. High flow should then be excluded when assessing the water body. He said that he has much higher confidence with a larger window of time like 12 months.

MATLOCK said that having no low flow values for this sample period can skew results. We haven't had any low flow during period the study period.

KING said the one scenario that we are not able to look at is truly low flow conditions.

MATLOCK asked what condition we are trying to evaluate. Is it high flow or low flow?

PHILLIPS replied "yes."

SMITHEE stated that a scenic river is a scenic river 12 months out of year regardless of flow. He posed the question: "Are we going to protect scenic river all year or only when people are canoeing on it?" He believes all year. We set sampling dates in advance, they are not based on flow.

HAGGARD questioned if we can we limit broader analysis and drop out instantaneous values. Can we drop out two month, four month and six month???

SMITHEE state that he is having a hard time just looking at annual.

MATLOCK stated that the difference in algal responses over time at a site should help us determine if we need to go shorter with time period.
KING said species composition should be looked at as an instantaneous response as well as averaging over a 6 to 12 month period in TITAN. Algal biomass would be better over longer period like six months.

SMITHEE stated that needs to think about this more carefully.

CHARD-McCLARY said that she would hate to start at more than 6 month period.

KING asked if in your view you were collecting samples, monthly, would you throw out a high single sample value.

SMITHEE stated that we have always said no. EPA wants us to say yes since we have one sample in 30 days, violating 30 day geometric mean. We do a three month rolling geometric mean. That gives us basically 12 points per year.

KING said that duration of phosphorus measurements, assuming monthly sampling, is the most important thing that states need to agree on. The states have very different views.

HAGGARD asked if we can look at a minimum of six months with a max of 12 months

SMITHEE said after looking at data he has a hard time with less than six months.

CHARD-McCLARY asked if we are just looking at 6 and 12, or are we looking at 6, 8, 10, and 12 months?

COMMITTEE consensus is 6 and 12.

SMITHEE says the data makes him lean that way.

CHARD-McCLARY stated that doesn't look like there is much difference between 10 and 12 months.

MATLOCK asked KING if he would you have enough data to do a six month analysis at next meeting.

SMITHEE asked if the Committee is missing anything due to site variability, seasonality, scouring, etc?

KING said there would be enough data for a six month analysis at the next meeting. He said the results are compelling because we have covered all seasons.

SMITHEE stated that when we have frequency, duration, and magnitude in the standards, frequency and duration should not be used. Example of acute and chronic criteria standards, different times and scales can then be used for permitting, etc.

HAGGARD said that we might look at eight and 10 also. We might need to use them for compromise instead of just looking at six and 12. He asked if there were any events we should exclude with either y or x or both. For example, should we throw out the extremely low phosphorus value with high algae?

HAGGARD asked if excluding values have much effect on determining long range change point analysis.

KING stated that it shouldn't have much.

HAGGARD asked SMITHEE if he was okay moving forward with six, eight, 10, and 12 months.

SMITHEE stated that's where the data leads him.

CHARD-McCLARY stated that the Watts situation shows us there is always potential for upsets. Would it really be prudent to exclude samples?

MATLOCK stated that we don't want to look at aberrations in stream conditions from discrete events in this analysis.

HAGGARD said we should look at both with and without data removed to see if there is a big difference in interpretation of data.

KING said he will do six, eight, 10, 12 month phosphorus, but look at instantaneous nuisance proportions in addition to averaging over those intervals.

KING present a Next steps slide presenting to the Committee information he needed by the end of the meeting including: selection of events for soft algae (n=2) and diatom (n=1) taxonomic identification, duration of total phosphorus and response variable for analysis, final report components and future meetings.

KING said that April 16 would be a good one to choose since he has the information from April 2015 for both soft algae and diatoms. He thinks we should consider using a fall event from last from 2015 to compare to 2014. October 2014 and October 2015 are comparable.

COMMITTEE reaches consensus that October is good for second soft algae event.

HAGGARD said that diatoms and soft algae should be analyzed for April 2016 samples and soft algae should be done for October 2015.

HAGGARD asked for the cost of the diatom analysis.

KING said it is $180 per sample for 35 sample sites

HAGGARD asked if everyone okay with moving forward

COMMITTEE all agreed.

SMITHEE asked what the TITAN program will show.

KING stated that it will show the change points for all different species that respond to phosphorus.

HAGGARD said that TITAN can also give change point for just nuisance species.

KING presented his last slide acknowledging his team from Baylor University and the Taxonomists.

HAGGARD asked if there were any other questions.

VII. New Business – Brian Haggard

HAGGARD asked if there was any new business for the committee.

HAGGARD said this was a time we could open the floor for public comments or questions.

MATLOCK stated that it was an effective strategy to tell the committee we would work through lunch.

SMITHEE reminded the public to sign the sign in sheets.

SMITHEE asked Ed Fite if he wanted to say anything since he was not present when the meeting began.

Fite stated that the legislation was moving fast and had already been approved by the full House. He is working them. GRDA will be able to collect fees and do some things that Oklahoma Scenic Rivers Commission didn't have ability to do. He thinks this could be really positive due to the funding GRDA has. He state that people want to be outside and they want clean rivers. He mentioned that with term limits on lawmakers they need to be continually educated. At this point he doesn't have anything else to say about the consolidation.

MATLOCK asked Fite if the meeting location would be his new office.

Fite answered "no." He then encouraged everyone to come float the Illinois River.

HAGGARD said that he would entertain motion to adjourn.

VIII. Adjournment

MOTION 2: To adjourn meeting

Representative		Yes	No	Abstain	Absent
Ryan Benefield	Motion	X			
Shellie Chard-McClary		X			
Brian Haggard		X			
Marty Matlock		X			
Shanon Phillips	Second	X			
Derek Smithee		X			

Meeting adjourned at 12:49