Scenic Rivers Joint Study Committee
October 2, 2015
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. Call to Order and Approval of Minutes of April 14, 2015 Regular Meeting

SMITHEE called meeting to order at 10:09

Members present:

Arkansas Representatives	Oklahoma Representatives
Brian Haggard (HAGGARD)	Shellie Chard-McClary (CHARD-MCCLARY)
Marty Matlock (MATLOCK)	Shanon Phillips (PHILLIPS)
Thad Scott (SCOTT)	Derek Smithee (SMITHEE)

Contractor Ryan King (KING) present
Dara Hall (HALL), Arkansas Assistant Attorney General present
Clayton Eubanks (EUBANKS), Oklahoma Assistant Attorney General present
Bill Honker (HONKER), Director, Water Quality Protection Division, EPA Region 6
See sign-in sheet for public members present which is attached to the minutes.

SMITHEE announced that this is a meeting for the committee to get an update on the project and that this is not a public meeting for comments, questions, etc. However, he stated that as was customary for this committee, questions and comments would be taken at the end.

SMITHEE stated that the minutes had been circulated in advance and he would entertain a motion to approve.

MOTION 1: To approve minutes as presented.

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

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

II. Administrative and Budget Report regarding the SRJSC's Contract with Baylor University Performance of Water Quality Study

CHARD-MCCLARY stated that billing was being made in accordance with the agreement and payments were being made timely.

KING said that the project is proceeding and appears to be on time and on budget.

III. Report on Performance

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."

PUBLIC asked how the second set of criteria would be addressed.

KING stated that part would be up to the committee and that he is only doing study.

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, Barren Fork, and Spavinaw.

KING described the 35 sample sites as large enough sample size with different land uses and wide range of total phosphorus values. There are ongoing intensive monitoring sites selected as well as other sites to fill in the gaps in order to fill in sample locations to show a gradient for the stressor response study. The study has an adequate gradient with selected sites. This is the 9th event, and he is expecting to have a total of 12 events. He mentioned that he was at Sager Creek the preceding day and was glad to hear conditions resulting from the upset at the treatment plant were improving.

KING explained the Sampling schedule which should result in 12 events over a two year period.

KING discussed the sample status report describing when each sample was collected. He stated that he needs to talk to the committee about identifying the taxonomy. He needs direction to know which samples will be analyzed for taxonomic characteristics. This is expensive and thus the target sample events must be carefully selected. He has Hess samplers to collect macro invertebrates on all 8 events that have been completed. The Diel DO samples looked at day and night values in August 2014 and August 2015 at 25 sites.

MATLOCK asked about the Phosphorus gradient of the sites.

KING said he was confident that they got the low and high data.

KING presented a disclaimer about the data that is it only preliminary, no statistical analysis has been done, and no conclusions have been drawn. It is really important to remember all this because there is a reason that this is a 2 year study for a reason. He

will show graphs that show the relationship between Phosphorus and biological life but there will be no statistical analysis at this point. There is still 1/3 of the study to be conducted.

KING described the data illustrated on the Sestonic Chlorophyll-a vs. Total Phosphorus slide. The slide contains data updated through all events and includes the mean values over duration.

MATLOCK asked for error bars to be added and stated that would be helpful.

KING stated that the group did discuss adding error bars but did not specify. He said we would need to determine how we could do that. EPA uses one method that is cumulative effect and the data could be expressed with error. He said no statistical analysis had been done yet.

MATLOCK stated that this is a statistical analysis because there is a mean shown.

KING showed a photograph of Benthic (Periphyton) Chlorophyll-a that was representative of many of the stream reaches. He said that there was significant colonization on the rocks and that Cladophora was the primary species.

KING displayed a graphical representation of Benthic (Periphyton) Chlorophyll-a vs. Total Phosphorus from the April 2015 sampling event. There were some high values at some sites. There was also a lot of scouring in the area due to recent high water flow events.

KING displayed a graphical representation of Benthic (Periphyton) Chlorophyll-a vs. Total Phosphorus from the June 2015 sampling event. This sampling event again followed a scouring event and there were days of high flow.

HAGGARD asked if these values were higher or lower compared to April 2015.

KING stated that he had slides that would follow to illustrate. However, April data is lower in some areas and higher in other areas.

KING stated that the August event was completed in 1 week when flows were at baseflow but following a series of high flows throughout the summer

KING displayed a graphical representation of Benthic (Periphyton) Chlorophyll-a vs. Total Phosphorus from the August 2015 sampling event.

KING displayed a graphical representation of Benthic (Periphyton) Chlorophyll-a vs. Total Phosphorus from the June 2014 through August 2015 sampling events. The magnitude varies by time. There is a slight increase in response from June 2014 until December 2014 and then there is high Cladophora. February 2015 was high and then April 2015 through August 2015 decreases were seen. August had the most decrease.

KING displayed a graphical representation of mean values of the Benthic (Periphyton) Chlorophyll-a vs. Total Phosphorus from the June 2014 through August 2015 sampling events. He stated that this represented the mean data from all 8 events

without error bars. This illustration is similar to the work of Barry Biggs which was the basis of his proposal which also used no error bars. Walter Dodds uses minimum, maximum and mean without error bars

MATLOCK stated that he might want to see the minimum and maximum values down the road

KING said that he had no problem with that.

KING displayed a graphical representation of mean values of Benthic (Periphyton) Chlorophyll-a vs. Total Phosphorus from the June 2014 through August 2015 sampling events on a log scale. He stated that sometimes data on a log scale can help the analysis.

PUBLIC asked if the presentation was available on the website.

KING stated that it was not yet.

SMITHEE stated that it would be next week.

KING displayed a graphical representation of maximum values of the Benthic (Periphyton) Chlorophyll-a vs. Total Phosphorus from the June 2014 through August 2015 sampling events.

KING displayed a graphical representation of the mean values of Benthic (Periphyton) AFDM:CHLA ratio vs. Total Phosphorus from the June 2014 through August 2015 sampling events. He stated that this was a proxy for the surface on the chlorophyll-a and that this ratio will show ash free dry mass.

KING showed a photograph of Cladophora and graphical representations of the Cladophora glomerata biovolume vs. Total Phosphorus. He stated that this was the relationship of nuisance algae and Phosphorus. These graphs show the ratio was Cladophora since it was the primary nuisance species. The graphs show change over the sample dates.

KING displayed 3 graphs illustrating the nuisance filamentous green algae percentage of total non-diatom biovolume vs. total Phosphorus. He stated this was a slightly different way to look at it. All types of nuisance algae, defined by the literature, are included. At some point the committee may want to look at species and determine if there are more that should be included or if some should be excluded. Not all diatoms are in the database yet.

SMITHEE asked about the percentage of the species.

KING stated that at high Phosphorus sites, it is primarily Cladophora. At lower sites in Saline and Little Lee Creek, spirogyra is the primary genera which we have not seen previously.

KING showed a photograph of Calothrix fusca and graphical representations of the Calothrix fusca biovolume vs. Total Phosphorus. He stated that this occurs at low

sites primarily and declines at higher sites and may not appear at all. The Cyanobacteria species described by Mary Powers in here work on stonerollers and grazing in Barren Fork Creek decades ago. Rocks that are heavily grazed have chunks of it removed but we still see remnants, indicative of intensity of grazing pressure.

MATLOCK stated these are challenges in sampling. Is it grazing or competitive growth space?

KING presented a slide to begin the discussion on how the data analysis will work. In the last meeting it was brought up that we need to talk about some various different methods. He would like to consider the methods outlined in his original proposal. The committee needs to look at data analysis options including variables to be included.

KING presented slide that reflects that the questions to be answered should guide the analysis that is completed. How questions are phrased could have an impact on the future and lead to a lifetime of analysis. Questions could include things like at what concentration of TP corresponds to largest increase in benthic CHLA? Or what concentrations of TP correspond to an increase that significantly exceeds some set number?

KING presented a second slide on data analysis. The committee may want to determine what statistical methods would be used such as change point analysis with a single predictor and a threshold; single and multiple predictors with no thresholds; or TITAN with single predictor, multiple responses, species and community thresholds. nCPA and TITAN could be used to generate potential TP and threshold values with uncertainty. Also GAM/GLM is useful for TP threshold if we have an a pori threshold value.

KING stated that it is important to be objective. We need to determine what is the largest or if we have a linear data set we need to look at the midpoint. If you are talking about total Phosphorus and Chlorophyll-a, we can look at means, identify what it represents and we can consider what individual sample data tells us. We can look at 1 or 2 previous events.

KING stated that the committee could talk about this issue now or later in the day.

SMITHEE stated that now OK.

MATLOCK asked to go back to Slide 2 relating to the charge of the committee. He said it is scientifically interesting for the first 2 bullet items but the regulatory implications resided with the second 2 bullet items. This is important and we must deal the scientific issues but the regulatory items determine the outcome of this committee's work.

SMITHEE stated that it appears that we may be jumping ahead. We may need to keep working through the study blind.

KING suggested that we keep going at this point.

SCOTT commented that SMITHEE and MATLOCK seem to be in different and opposite places and agrees that we need to keep going for now.

KING stated that we have to look at when we statistically we exceed a set value. If we have set value, it is better to do it this way. If we do not we have a value we have to find one.

KING continued the discussion on the statistical methods. In the change point analysis we can use the model to fit a line to the data. We can us single or multiple predictors. It provides an error around the line but without y-axis target it is just a fit. Species analysis includes what declines and increases and at what level. It uses species and threshold data and it will illustrate increases and decreases. TITAN can generate other potential thresholds.

KING presented slide on the change point approach. He clarified that the data was "made up" for discussion purposes. There is variability and the change point analysis would give 95% or other confidence interval we specify. If we have another reference value we could set relationship and not worry about violating assumptions, set a line and determine where y meets. Where it does we would drop down on our stressor.

SCOTT suggested another option: have the y range of conditions and then we could draw multiple lines to determine model and error line. There would be multiple y lines.

KING stated that he could absolutely do that.

KING then stated that he can't do much else until he knows how the committee wants him to proceed.

SCOTT said that he thinks that what KING presented to us is why he was chosen to do this work. We will have to have a discussion but he thinks all of what KING presented is what the committee wants to see. He thinks this is what will give us is a set of possible Phosphorus values with a referenced change point. If we stack on top of each other the gray area will get darker.

SMITHEE asked if this is what the TITIAN model does.

KING said it did and this makes a lot of sense for species.

MATLOCK commented that we are not operating in the open set of parameters of science research. We are operating in a regulatory framework of Water Quality Standards and this project will require action. All of this will be helpful but we have to make recommendation for Water Quality Standards. We as a committee are bound by the last two bullet points.

SCOTT said he agrees and this study gets us to the point where we we need to link benthic chlorophyll-a to 48 hour diel dissolved oxygen. The linkage should get us to a target.

MATLOCK stated that the chlorophyll-a:DO relationship is a causal relationship between the two variables and he is very comfortable with that. He minded the group that we are only 2/3 of the way through this project. He thinks we will need to do multiple analyses to address both the science and regulatory framework. There is a lot more work ahead of us.

KING referenced the 2nd Joint Principles document and wondered why species and algal biomass were included if this was only about dissolved oxygen. He said he has struggled with that.

MATLOCK stated that he and SMITHEE struggled and that SMITHEE won.

SMITHEE stated that dissolved oxygen is not the driver.

MATLOCK suggested that we must yield to the science. He said Ruth Patrick identified diatom species in toxicology more than 70 years ago and that the correlations between diatom species and water quality were so noisy they haven't made better policy. This whole process is noisy.

SCOTT suggested that linking dissolved oxygen will be helpful for us to come up with the y-axis; whatever it is. He thinks it is just another way to corroborate the findings. This is additional clarity to the process. There may be a dissolved oxygen relationship and both states do have a dissolved oxygen criteria. He does not think dissolved oxygen should drive the whole study analysis.

MATLOCK agreed that other parameters have to be included and as a group we need to talk through them, but the Water Quality Standards are what we are here to evaluate.

HAGGARD stated that at the last meeting KING mentioned Biggs and Dodds and Welch may not apply to Ozark streams do to concentrations of phosphorus. He asked KING what he thought we could do to establish a nuisance standard.

KING said the idea depends on total phosphorus value agreement. We need to agree on the reference streams, then using either non-parametric 95 percent exceedence probability or observed maximum values of all sites, and use that as a line. These are lows and high as it gets and the cumulative of what is the maximum reference as a cumulative mean. So far the highest site is 0.15 mg/m2, and literature for nuisance algae usually starts at 0.20 mg/m2; even low phosphorus sites in literature are of higher phosphorus.

HAGGARD asked if we could group sites together and look at left side at lower confidence interval.

KING replied that then we would use the higher level.

HAGGARD asked about using this analysis to determine the reference site.

SMITHEE stated that we cannot get away from change point analysis.

KING said he would have to determine the high, low, and prediction interval values.

SMITHEE stated it could be as simple as when the 0.037 mg/l water quality standard was established 12 years ago to keep the Scenic Rivers as the top 25% of all rivers in the area. He wondered if we should use that approach.

MATLOCK said something like that might be OK if the site statistics were robust.

KING said this is similar to that.

SMITHEE stated that KING did a good job on picking the sample areas to get the gradient. He said this looks great so far.

MATLOCK agreed that this is good.

KING that this was a result of the good data that both Arkansas and Oklahoma were able to provide.

BREAK 11:03 - 11:12

HAGGARD stated that a stickler for the committee is the second part of the slides, the second set of bullets. He likes the idea of the statistical analysis and after we have all the change points identified maybe we could separate out what the data really looks like. We will have to make decision on nuisance and when the shift in species actually happens.

KING asked if the committee wants that analysis.

HAGGARD said we want to see where it is and that it could give us even more information to make a decision. If the values are off, we will need to rethink.

PHILLIPS reminded the committee that the 0.037 mg/l standard is to protect stream aesthetics. She said the committee has to be careful using dissolved oxygen which is a fish and wildlife beneficial use. We have to keep that in mind. She likes where HAGGARD is going with weight of evidence.

SMITHEE said he is trying to be mindful of where we will be in a year from now and what our charge is. If our number in the "dark zone" is 0.027 to 0.047 then we are essentially done but if it is outside we will have a lot more work to do.

HAGGARD said this might end if the number doesn't change. He said that is fine but we also have the ability to link the 0.037 and determine how it is assessed. Will it be through annual or seasonal average?

SMITHEE said that this was okay for secondary output.

HAGGARD said he thinks they go hand in hand.

SMITHEE said he agrees but that it is not our charge. It is not central to our mission.

MATLOCK summarized the charge based on the 2nd Joint Principles document. He said we only have the nuisance algae criteria to guide us and everyone seems to be struggling with this. We might need to develop a more specific collaborative agreement to move on. He does not mean to grandstand but our decisions are what are laid out in the Joint Principles.

KING stated that HAGGARD's point was important. He said if we are generate change points one way and implement the standard another way it is incongruent.

PHILLIPS said we need to read the Joint Principles document and remain focused on what the committee was charged to do.

HAGGARD said every sampling condition was at base flow. We will need to identify relationships and variables at how they related to base flow conditions. This is a concern.

KING said we need to discuss how we related base flow conditions to other conditions. It would be helpful to decide now. If we don't do it soon it could be problematic later.

HAGGARD said if we are using one total phosphorus then we shouldn't be doing the other sample analysis and data analysis.

KING said that in February 2015 Cladophora was prolific; the low phosphorus was likely due to uptake by Cladophora. It is tied to the antecedent conditions.

SMITHEE said that this is how dose response curves work.

SCOTT said he does not agree. He asked if we need to consider something else. At Arkansas 59 phosphorus is being immobilized in Cladophora. That doesn't represent the growth conditions that were there in the preceding 3 months before. Using that concentration is dangerous because we need the supply rate. The other option is literally algal biomass concentration.

PUBLIC said they appreciate the conversation but wonders if the committee has asked this of KING.

KING said that he has not been asked.

SMITHEE asked KING if he would do this if asked.

KING said monthly grab samples are used to estimate phosphorus exposure given that at least a month or two that lead to what we observed we could use the previous events. This is what would be need for the assessment to occur.

SMITHEE said the standard assessment has a rolling average but that is clearly different from the study. We get one sample per month. That is not really powerful and you need 3 months to average.

KING we will need to talk about it with the committee. This will lead to how the statistical analysis will move forward.

HAGGARD said we need to be careful about how much data is available on the species compositions.

KING stated that we would still have phosphorus data leading up to the species sample event. What the change point of phosphorus is will be the key.

HAGGARD said that without spacing by 3 months it is much harder. We need to be careful due to the seasonal aspects of the conditions.

KING said he will need the committee to tell him what we want.

PHILLIPS stated that we saw a build up at low flow without scouring events. Systems can be flashy. They are not regular events that can be predicted. They happen when they happen.

KING said at the low to middle range the base flows over time are pretty similar and can predict values. There are periods when the water level is higher and a little more dilute with effluent like Sager Creek, whereas Beaty Creek, which lacks point-sources of phosphorus, is remarkably stable regardless of low/high baseflow. This is a consistent and good way to approach. We have data to show storm flow and can relate those to intensive grabs. Storm flow is obviously higher and we can correlate values.

SCOTT said another approach would be to use whatever for analysis and then use science to get translators for flows and values. That would be a good way to correlate.

SMITHEE said he hopes KING's work is spring board for more work in the future.

SCOTT said that it is either that or the assessment will already be incorporated or otherwise the standard that may be developed has no confounding things around it.

SMITHEE asked if he was referring to assessment or duration and magnitude.

HAGGARD said frequency or duration. This is what we do to get X-axis. This defines duration and magnitude

SMITHEE said that regulatory assessment also includes what you can actually do.

SCOTT said that this includes base flow.

SMITHEE said it is primary productivity that happens at other than base flow conditions

SCOTT said if we had storm flow, representative base flow, we would still need more data. If we had more data we would want even more.

KING said the majority of growth is low to high base flow whereas the storm water flow doesn't necessarily matter as much due to scouring and high turbidity.

HAGGARD said that the storm water flow is short in duration and has a major impact on the load.

COMMITTEE talking at once agreeing on this concept.

SMITHEE stated that frequency and duration is part of Oklahoma's assessment. This is a problem based on usage contained in regulations.

SCOTT asked if samples are collected for assessment that could be a problem.

SMITHEE said it is recognized by the committee to not include storm water flow since it is not what the study has done.

SCOTT said part of the idea is if this is central to our mission as part of our recommendation.

MATLOCK says this speaks to the effectiveness of the recommendation.

SMITHEE said this will be tricky to craft.

COMMITTEE agrees.

KING said the research he used to develop his PhD was very contentious. He said there was extensive temporal monitoring. Then he had to determine how to calculate, geometric means, how to develop the windows for the duration and frequency. He said at this point, one sampler per month at base flow is not bad. He stated he could send graph out to the committee.

MATLOCK asked if there was a charge at this point to KING and wondered if the committee needed a proposal for the next phase.

SMITHEE said he is very happy with data at this point. He is happy with the diversity of the concentrations and responses. He thinks we need a discussion on speciation next meeting. He said we have 4 chances left for some collects and we don't need to do the analysis yet. He is comfortable doing what KING has recommended in interview process and what SCOTT pointed out to overlay the change point paying attention to the dirty 5 and see where it takes us and to use a confirmatory analysis

CHARD-MCCLARY said she likes the layover approach and is hopeful that it will be telling.

HAGGARD asked if we need to look at duration. He thinks this will give KING the ability and direction to move forward. We should give him the guidance of what information that we need or want to establish.

SMITHEE asked HAGGARD if he had a suggestion.

HAGGARD said that yearly mean, geometric mean and the impact of seasonal influences.

KING said that June 2014 benthic chlorophyll-a was completed.

HAGGARD asked KING if he needed a year to do that. Looking at a response and central tendencies it would be good.

KING said every 2 months if we shift resulting in 6 analyses for assessment. He wonders if every time samples were collected, does the committee want the benthic collected as well.

HAGGARD said no.

SMITHEE said that regulatory assessment would require it.

HAGGARD said regulatory is on the Y-axis. On 12 data points we have, he suggests 6 windows of time. There would be either individual or mean values on the Y-axis. He thinks mean or geometric mean would be appropriate.

KING said we can't do it on all. He suggested that if he did change point analysis he would uses benthic as rolling window.

MATLOCK asked if we would prefer ash-free dry mass?

SCOTT asked if we can choose chlorophyll-a since it is the simplest. It is a more direct measure. He said that one issue with community composition data is that there are several more steps that potentially introduce errors.

KING said that the algal species and biomass are specifically addressed in the Joint Principles. There are a lot of other non-algal types of organisms in periphyton, which is why chlorophyll-a is the most direct measure of benthic algal biomass.

SCOTT asked if there are 4 metrics.

KING said this gives him a preliminary idea of what is out there. He can have 2 datasets already and then can do a moving window and use average from 2 samples before. We would have fewer change points based on means.

HAGGARD said that this sounds reasonable: chlorophyll-a, Cladophora and the percent nuisance species

KING stated that the annual mean would be all three events averaged to get years' worth of phosphorus. Does this approach make sense?

HAGGARD thought so and suggested looking at a others approaches as well.

SCOTT said if we choose: chlorophyll-a, what are the other 1 or 2 parameters. He inquired that if we use biomass how do we bring in species as described by the Joint Principles document.

KING said that he can do that.

MATLOCK-stated that what we are doing is incremental data analysis and wondered if we need all 3 to help us understand.

HAGGARD said he thought it helps to identify duration of the impact.

SCOTT said that for algal species we will have 1/3 the amount of data.

MATLOCK agreed and said we will see what else we need.

HAGGARD asked if KING could visually show how phosphorus changes over the various sites. He thinks that will help guide us.

SCOTT said that in regard to which sampling event to determine species composition, he wishes the committee had the benefit of algal biomass first but recognized that "hind sight is 20/20."

KING said he could look at the budget and check if there is money available. He added that so far less than anticipated has been spent on supplies so far so there could be some funding available.

SMITHEE asked to go back to the sample timeline slide and said the next scheduled meeting is not until April.

CHARD-MCCLARY stated that it sounded like we might need a meeting sooner than April.

MATLOCK said that maybe in January or sometime sooner than April and that we would need time for discussion

KING asked if the committee wanted interim data.

HAGGARD asked KING if he had a timeline in mind.

KING said that he needs to think through that.

HAGGARD said we may need to see that information before we set another meeting

SCOTT said it would be helpful to get the information as soon as possible so that we can have discussion in April and do analysis after.

MATLOCK asked how long the samples can held.

KING stated the holding time was at least 1 year.

MATLOCK stated that since all the data has been collected anyway we may be able to wait until the April 2016 meeting to determine.

KING said the committee cannot wait too long since there will need to be interaction after the sample analysis and during report writing.

SCOTT stated that it is starting to get to time to discuss and consider budget and that we may need to set end date and work backward.

SMITHEE stated that at this point there would be no special meeting at this point. He asked if KING thought there was something the committee was missing.

KING said he brought up the major issues that he was aware of at this point and thinks the committee made headway and he has an idea of the information he needs to submit to the committee.

SCOTT said he thinks we have 2 tasks for the April 2016 meeting: 1) recommend or agree on statistical analysis approach and 2) decide on options for algal species composition. This process would be finalized with work starting in June.

CHARD-MCCLARY asked the AG representatives how much can review of options and determining the details of what we want to by email or telephone.

EUBANKS stated that we need to do as much of the work as possible in public.

HALL stated that it gets a little more gray in Arkansas but this committee isn't a decision making body.

MATLOCK asked that if we have issues to discuss we could share on website so the public could see the conversations.

EUBANKS asked how that could work.

PHILLIPS stated that the email strings could be posted on the website.

MATLOCK stated we will have to figure out how to get our work down once we move on to report writing. This will be really important.

HAGGARD said that this is about information sharing, not making decisions.

EUBANKS said that so far this has been a very transparent process and it needs to continue.

HAGGARD said that if we wait until April, KING will have better idea on where the budget stands.

KING stated that he will double check with taxonomist to verify availability and cost.

SMITHEE told KING that as he begins to go through the work, to inform the committee if it appears we are heading down a wrong path. KING should contact HAGGARD or SMITHEE and they will schedule meeting a special meeting if necessary.

HAGGARD stated that KING could conference in by telephone or internet to minimize the cost.

KING stated that he could send the presentation in advance so that the committee could have the information in front of them. He said that he thought the group accomplished quite a bit. His biggest concern was the approach to the analysis and making his data analysis that would match assessment activities on the ground.

COMMITTEE all agreed that we had made good progress and see a path forward SMITHEE asked if KING was clear with the charge.

KING said yes.

SMITHEE stated that CHARD-MCCLARY will send the minutes to group for review. Also, once the committee agrees on the initial data analysis, KING can get to work. The minutes will go up on the website as draft and then be replaced with the final once they are approved at the next meeting.

HAGGARD confirmed that the taxonomy identification would be completed for the June and April samples

CHARD-MCCLARY asked that the committee review drafts as soon as possible so they can be posted on the website in draft form.

SMITHEE lead a discussion which resulted in the next meeting being set on April 8, 2016 location to be determined

IV. New Business
MATLOCK stated that Bill Honker, EPA Region 6 was present and ask that he briefly discuss the Illinois River and Lake Tenkiller model project and provide an update on the status.

HONKER provided a description of what has happened to date. This has been an on-going issue for the last 6 years. The models were placed on the EPA website yesterday (October 1, 2015). He said that the work has been peer reviewed and EPA will be working with the states and tribes to assist them in gaining understanding of the process and models. There will be public and stakeholder involvement meetings in the future. He said that EPA met with both states and one tribe by telephone to provide an update. Based on the outcome of the discussion, EPA decided to make the information available to the public at same time that the states received the information. Additionally, he said that EPA would be providing training for the states and tribes on how these models work. Then there will be several months of work with states and tribes followed by public meetings. The purpose will be to look at different scenarios and load reductions that could occur. EPA is not rushing to any conclusions and they are aware of the work being done by this committee. They do not have a definite timeframe at this point. However, they need to start dialogue now and know this will be a long process with significant public participation.

SMITHEE thanked HONKER and asked if there were questions from the public.

PUBLIC asked if the charge to KING would be made available to the public and if the minutes would be made available.

SMITHEE stated that the committee will review the minutes and draft minutes would be posted on website with the final version posted after approval at the next meeting.

PUBLIC ask exactly what is the data that will be evaluated

KING state that the duration will be the variable and that frequency has been established. He will be looking at what the duration might show. He said they will look at various intervals based on the date the samples were collected.

PUBLIC asked about the stressor response aspect and wanted to know how the committee will we go about this. Also, inquired if other states done a stressor response study and how this study might compare to others.

SCOTT stated that EPA has guidance document that addresses this.

MATLOCK stated that we are creating the next pathway to go on to public policy development

KING said that this is fair statement. He said he is not familiar with all states. However, knows that Montana and Florida have some standards based on stressor response. Additionally, he has done work in Texas.

PUBLIC asked if any of the states and tribes need to have input into this process.

MATLOCK stated that he would think others could have input.

HAGGARD state that all information submitted would go to the record.

MATLOCK said we need to include other opinions if appropriate

SMITHEE said that this committee of 6 will make a final recommendation to the Governors of Oklahoma and Arkansas.

PUBLIC state that there are only 6 individuals on the committee and Oklahoma state agencies are represented but Arkansas agencies are not.

SMITHEE state that all 6 were appointed by their state's respective Governor and therefore, each committee member is a representative for their state.

HAGGARD stated that the committee would accept information from the agencies.

SMITHEE stated there will not be a hearing on the information and the report that the committee prepares because it is not required.

MATLOCK stated that each state will have to follow their own processes should any rulemaking be required as a result of the study.

HAGGARD stated the charge of the committee is frequency and duration.

SMITHEE said that if the committee recommends a change to the Oklahoma Phosphorus standard then that will lead to rulemaking.

EUBANKS stated that there will be a lot of public notice, hearing, etc. if rulemaking is required.

HALL said that he agrees.

PUBLIC stated that the committee has said that if the Phosphorus data shows a level between 0.027 and 0.047 the committee will not recommend a change. However, it will be important for the study to set number. If change is required in Arkansas and tax money is required, there will have to be sound reasons and documentation to back it up.

SMITHEE - may agree we'll see

PUBLIC asked if the frequency and duration was long enough to get adequate data to make an informed decision.

MATLOCK stated that scientists always say "no" and want more data. However, data collection is expensive. We will have better knowledge and be in a position to make better decisions as a result of this study.

SMITHEE said that he totally agrees

SMITHEE stated that the minutes will be out soon in draft as will the date and location of next meeting.

V. Adjournment

MOTION 5: To adjourn meeting

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

Meeting adjourned at 12:27 pm

SCENIC RIVERS JOINT STUDY COMMITTEE

October 2, 2015
10:00 AM
GRAND RIVER DAM AUTHORITY ECOSYSTEMS AND EDUCATION CENTER
West End of Grand Lake O' the Cherokee's Pensacola Dam
420 Highway 28 - Langley, OK 74350

NAME	ENTITY REPRESENTED	EMAIL
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Keith Morgan	Town of W. Siloam Spgs	Keithm1972@live.com
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Marty Porter	CWRB	marty.porter@owrb.ok.gov

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NAME	ENTITY REPRESENTED	EMAIL
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