

## RESEARCH ADVISORY COMMITTEE MEETING MINUTES

The Research Advisory Committee (RAC) met in Laramie, Wyoming, in the University of Wyoming Civil Engineering Building, on Wednesday, October 8, 2014. The meeting commenced at 9:00 a.m. The following members were present, constituting a quorum.

Tony Laird, P.E., Highway Development  
Greg Milburn, Materials Lab  
Jim Coffin, Geology  
Larry Konetzki, District 4, Maintenance Engineer  
John Eddins, District 3, Engineer  
Enid White, Research Manager

The following members were excused:

Michael J. Miller  
Martin Kidner

Also present at and participating during the meeting were:

Khaled Ksaibati, University of Wyoming;  
Morgan Graham, GIS Manager, Teton Science Schools;  
Jeff Purdy, FHWA;  
Jennifer Tanner; and  
Erin Muths.

1. Minutes: Minutes from the previous RAC meeting were reviewed by the outgoing RAC and approved. The incoming RAC (listed above) asked to review the minutes and copies were routed. There were no questions or concerns regarding the minutes. The minutes were approved via e-mail by the FY2014 and FY2015 RAC.

Ms. White informed the RAC that there would be 4 presentations, and that the funding for this year would be minimal. Ms. White explained how the continuing resolution affects the research funds. Normally there is approximately \$400,000 to \$600,000 available for funding each fiscal year, but for FY2015, there is only approximately \$100,000 available. Ms. White further informed the RAC that there was no approved budget for the research center set up by the budget office yet. Ms. White discussed with the RAC the new requirements for ranking proposals and matching those ranks to the performance measures, as set out by the Research Center, TRB, and AASHTO. The RAC was provided with scoring sheets for each new proposal. The Center would like to get the full RAC together to discuss scoring sheets and performance measures.

Ms. White introduced herself and gave some background information.

2. Proposals: The following proposals were heard:

- A. **Proposal** Evaluating the Effectiveness of Fly Ashes to Mitigate ASR and Using Recycled Concrete Aggregate as an Aggregate Source. Bob Rothwell, Jennifer Tanner Eisenhauer.

Ms. Eisenhauer discussed alkali silica reaction (ASR), the overview and the problem. Ms. Eisenhauer informed the RAC that ASR is a very large problem in Wyoming. Ms. Eisenhauer discussed concrete

prism testing, and mortar bar testing – the advantages, and the disadvantages of each. She further discussed fly ash sources here and in Colorado; the 4 phases of the proposal; how exploratory testing will be cheaper because they already own an autoclave; what recycled materials would be used; and companion testing. Ms. Eisenhower set out how the alternative to ASR was lithium, and how much more expensive that is. The materials lab is in full support of this project.

#### **Discussion and questions from RAC:**

Mr. Milburn discussed Phase 3; the amount of money needed and how it will be used; and how MPC may also be used for this project. Mr. Coffin asked if the project and funding could be broken up over time. Ms. White informed the RAC that all projects must be fully funded in a given year.

- B. **Proposal** – Planning Support for Mitigation of Wildlife-Vehicle Collisions and Highway Impacts on Migration Routes in Wyoming. Thomas Hart, Corrina Riginos, Morgan Graham, Holly Copeland.

This project will not only be beneficial to WYDOT, but also Game and Fish, and other state agencies. The project will look at verifications of collisions; predictions for the future; and what type of database to keep the information in. Wildlife collisions are costly to the state and approximately 32% of the migration routes intersection with the state highways. Discussion was had on gathering and keeping data centralized and accessible; the phases of the project; roadway signs, how best to merge the migration services, migration routes, and combining data sets. This project will lay the ground work for future cost benefit analysis studies for WYDOT.

#### **Discussion and questions from RAC:**

Discussion was held on where the data would be housed, and how the data will probably not go into the the Wildlife Database. Further discussion was had on costs for the cleanup of the carcasses data. Ms. White informed the RAC that Teton Science School has 30 collars and that they will be loaned to a project in Dubois, if it is funded. Otherwise the equipment will be left at Teton Science School until someone needs it. Discussion was held on the type of data begin gathered and whether WYDOT can predict migrations pattern changes from this data.

- C. **Proposal** – 11<sup>th</sup> International Conference on Low Volume Roads and Peer Exchange. Tony Laird and Khaled Ksaibati.

Mr. Laird explained what the conference was and why WYDOT should attend. He further explained that Mr. Ksaibati was a major contributor for the conference, submitting 6 papers which reflect Wyoming research. Two individuals from WYDOT will be able to attend this conference at no cost to WYDOT, if the conference is funded. Discussion was held on the amount of money needed; the deadlines for the commitment; whether this fits into the research realm; and how this conference would be beneficial to WYDOT.

- D. **Assessment of a Phase II Mitigation Site: synthesis of Multi Species Presence Data and Long Term Amphibian Data.** Bob Bonds, Erin Muths, Blake Hossack, Maggie Schilling.

Ms. Muths discussed the current amphibian research project; the habitat and stewardship issues; the history of the research project; and how it would be in the best interest of WYDOT to continue this

project for additional years and with additional funding. Ms. Muths also explained how this research could reduce the cost of mitigation time for WYDOT.

### **Discussion and Questions from RAC:**

Discussion was held on how this request would tie into the previous project; whether the project was under an environmental impact statement from the federal government; whether the project fill a commitment by WYDOT; and what the deliverables would be. Discussion was also held on the requirement from the Army Corp of Engineers and how this research could be beneficial in changes the current standards; and on successful mitigation and how this could bolster WYDOT's credibility.

#### 3. Discussion on implementation, data from projects, SHRP II, database study.

Ms. White discussed the need for WYDOT to begin gathering all data from all research projects in one centralized place; how reports can be placed out on the cloud; the need for workshops for intellectual property and data security; placing data in the Wildlife database; possible encryption of data; and backing up data.

Ms. White discussed the interim report for the Research Center evaluations; the requirements from the previous evaluations which were met by the Research Center; and conducting self evaluations of the Research Center on a more frequent basis.

Ms. White also discussed the tracking of old reports; the collaboration with the Wyoming State Library and the State Archives; digitizing the WYDOT Research Library; the updating of the Research Center Database.

### **LUNCH**

Continued discussions were held on the SHRP II project; the definition of implementation; and possible follow up surveys upon the completion of a project.

#### 4. Voting

Discussion was held on the scoring sheets and how to insert the outcome and output measures. Areas which members of the RAC feel should be added to the scoring sheet are implementation and technical transfer; economic development; goals; and implementation.

Evaluating the Effectiveness of Fly Ashes to Mitigate ASR and Using Recycled Concrete Aggregate as an Aggregate Source. Mr. Coffin moved and Mr. Eddins seconded that this project should be recommended for funding. Mr. Eddins felt that the recommendations from this project could be easily implemented in the future. Mr. Milburn felt that this project would have a great cost benefit on WYDOT. By unanimous vote, this project will be presented to executive staff and FHWA for funding approval.

Planning Support for Mitigation of Wildlife-Vehicle Collisions and Highway Impacts on Migration Routes in Wyoming. Mr. Milburn moved and Mr. Eddins seconded that this project should be recommended for funding. Mr. Coffin said that this project ranked the highest on this scoring sheet. Mr. Eddins provided

additional information on the project. By unanimous vote, this project will be presented to executive staff and FHWA for funding approval.

Assessment of a Phase II Mitigation Site: synthesis of Multi Species Presence Data and Long Term Amphibian Data. Mr. Milburn moved and Mr. Coffin seconded that this project should not be forwarded to the executive staff and FHWA for funding approval. No discussion. By unanimous vote, this project will not be presented to executive staff and FHWA for funding approval.

11<sup>th</sup> International Conference on Low Volume Roads and Peer Exchange. Mr. Coffin moved and Mr. Eddins seconded that this project should be forwarded to the executive staff and FHWA for funding approval. No discussion. By unanimous vote, this project will be presented to executive staff and FHWA for funding approval.

It was moved by Mr. Eddins and seconded by Mr. Milburn that the meeting should be adjourned. The next meeting is scheduled for **Wednesday, January 7, 2014, at 9:00 p.m., in Cheyenne.**