

Meeting Summary
Susitna-Watana Hydroelectric Project Licensing
Terrestrial Resources 2012/2013-2014 Study Plan Development,
April 2, 2012, 9 a.m. – 1 p.m.
AEA Project Offices, First Floor Conference Room
411 W 4th Avenue, Anchorage, AK

Attendees:

Organization	Name
ADF&G Wildlife Conservation	Lem Butler
USFWS	Mike Buntjer
USFWS	Maureen de Zeeuw
USFWS	Bob Henszey (by phone)
BLM	Sarah Bullock (by phone)
NPS	Cassie Thomas (by phone)
AEA	Betsy McGregor
AEA	Wayne Dyok
FERC	David Turner (by phone)
ABR, Inc.	Brian Lawhead
ABR, Inc.	Terry Schick
ABR, Inc.	Wendy Davis
ABR, Inc.	Janet Kidd (by phone)
ABR, Inc.	Alex Prichard (by phone)
ABR, Inc.	John Shook (by phone)
MWH	Kirby Gilbert
Solstice AK	Robin Reich

Presentations

Terry Schick (ABR, Inc.):

- Botanical 2012 Study Plans
 - Vegetation and Wildlife Habitat Mapping
 - Riparian Study
 - Wetland Mapping
- Botanical Resources 2013/2014 Study Plans (Requests)

Brian Lawhead (ABR, Inc.):

- Wildlife 2012 Study Plans
 - Wildlife Habitat Use & Movement
 - Big Game and Furbearer Harvest Study
 - Eagle and Raptor Nest Study
- Wildlife Resources 2013/2014 Study Plans (Requests)

General Questions/Discussion

Timelines

Kirby Gilbert (MWH) discussed that the team would like comments on the 2012 Study Plans in the next two weeks, since field work is beginning very soon. He said that there has been a request to extend the comment period on the PAD, Scoping Document 1 and Study Plans. Once AEA receives official word from FERC, the schedule will shift about one calendar month. David Turner (FERC) stated that FERC has acted on the request for time extension. Comments on the PAD, Scoping Document 1, and requests for studies are now due May 31, 2012. The FERC approval is now in FERC e-library.

Recent FERC Scoping Meetings

Wayne Dyok (AEA) indicated that there were a lot of all new issues raised during the FERC scoping meetings held the week of March 26, 2012, but AEA did get valuable input to help move the process forward. Comments will be available to the Project team and may influence study plan development. FERC transcripts will be available in a few weeks. People are interested in socioeconomic regional impacts. People in Talkeetna were interested in an analysis of tourism impacts. Although many of the comments received might not directly relate to the studies that we are discussing at this meeting, AEA still needs to account for public comments. Kirby Gilbert (MWH) mentioned that the team learned more details about the importance of issues to people, including: project access, road accessibility, access to the rail corridor, the importance of subsistence, socioeconomics and the need to analyze air quality.

David Turner (FERC) said that they did hear during the Wasilla scoping meeting about a large mining operation north of the Talkeetna Mountains. The commenter expressed concern that the mine may be influencing caribou migration behavior or use of habitat, but that the specific location was not described. Brian Lawhead (ABR) speculated that it may have been the current gold-mining operation at Valdez Creek, located adjacent to the upper Susitna River. Later in the discussion, Sarah Bullock (BLM) said that the mining development in question may be in the Tangle Lakes area on State of Alaska land. She said that Pure Nickel is now doing exploratory drilling for nickel, platinum, and copper. Wayne Dyok (AEA) said we'll need to carefully consider which projects will be including in the scope of the cumulative impacts analysis.

General Information on 2012 Study Plans and 2013/14 Study Requests

Kirby Gilbert (MWH) noted that the 2012 study plans are posted on the project website and are near final, but AEA is open to further comments within the next two weeks. Comments should be emailed to Betsy McGregor (BMcGregor@aidea.org or 771-3957).

Kirby Gilbert (MWH) also noted that draft 2013/14 study requests are posted (in MS Word format) on the project website for agencies to use to develop their study requests. He said that if

agencies want more information about the study request, they can contact Betsy McGregor at AEA (BMcGregor@aidea.org or 771-3957). The project team is focused on developing the 2013/14 study plans, which should be filed by July 16, 2012. Kirby said that the agencies are welcome to edit and submit the draft study requests that were provided. Betsy McGregor (AEA) said that AEA would like comments in writing, but if an agency doesn't have time to send comments, there would be meeting notes that agencies could accept in writing.

Kirby Gilbert (MWH) noted that some of the posted study requests don't have information regarding study cost. David Turner (FERC) said that cost is an element that the team should include in the study plans. He said that it is good to understand what any additional level of effort would cost. If there is no difference in cost with additional tasks, than cost information is not as important.

Vegetation Study Plans Questions/Discussion

Terry Schick (ABR) presented the Botanical 2012 Study Plans and Botanical Resources 2013/2014 Study Plans (Requests) following a PowerPoint presentation.

Wayne Dyok (AEA) discussed that the project facilities are currently sited based on the previous wetlands and vegetation data. He said that feedback to the locations for project components would be good, if there are important vegetation or wetland issues.

Terry Schick (ABR) highlighted that for developing wetlands delineation methods, ABR will organize a separate set of meetings to include USFWS, USACE, ADEC and EPA, with the goal being that everyone agrees before ABR begins field studies this summer. He said that the group needs to come to consensus on methodology for delineation and for determining wetland functions and values.

In reference to the riparian study, Betsy McGregor (AEA) said to make sure to coordinate with Kathy Dube who is doing the large woody debris study. Betsy said that they would have a consultant coordination chart that will be available on the website.

Bob Henszey (USFWS) asked what vegetation classification would be used. Terry Schick (ABR) said that they would use the Viereck (Alaska Vegetation Classification) Level 4 for vegetation types for the riparian study and for the habitat study; however, it is up for discussion. Bob Henszey (USFWS) said that the Viereck classification worked for him. Terry said another system might be needed for more intensive studies. Bob Henszey (USFWS) said that he was not opposed to modifying the Viereck types or creating new types if existing Viereck classes don't apply.

Kirby Gilbert (MWH) asked the extent of the previous work down the river. Brian Lawhead (ABR) said that previous (1980s) study went as far down as Willow. Brian said the active floodplain was mapped from Talkeetna upstream to Devils Canyon and then went basin-wide

above Devils Canyon. Terry Schick (ABR) said that they will follow the same study boundaries unless they hear that they need to go south of Willow.

Terry Schick (ABR) said that the team needs comments in the next two weeks to incorporate into this year's study. Betsy McGregor (AEA) said that it is important to get comments. She said that since these are multi-year studies, which will be brought into the FERC process, agencies need to accept the methods and the study area.

Terry Schick (ABR) confirmed that the same crews would be doing the vegetation, wetlands, and rare and invasive species surveys.

Betsy McGregor (AEA) said that AEA would be obtaining aerial imagery once they determine the holes in the existing imagery. Janet Kidd (ABR) confirmed that the team is determining the holes right now. Terry Schick (ABR) said that much of the imagery, as long as it is fine-scale and acquired during the summer months, should be suitable for botanical mapping studies.

Betsy McGregor (AEA) said that there may be LiDAR-quality issues in the North Susitna block, like shadows and smearing, and that reprocessing but could take longer. Janet Kidd (ABR) said that LiDAR sometimes is flown when the canopy is minimized. Betsy McGregor (AEA) said that they are waiting for the Mat-Su Borough data and will need to work on it once it is obtained. Kirby Gilbert (MWH) said that the imagery may not cover all areas of interest and there may be need to be different sources of imagery used for different areas.

Betsy McGregor (AEA) said that Kirby Gilbert and Jim Gill are working on narrowing the study corridors. Kirby Gilbert (MWH) said that the project area won't change much from what is in the PAD. He said that the study area will shift a bit as they move forward and learn more about the area in terms of the feasibility of placing new facilities in those locations. Betsy McGregor (AEA) said that the ADOT&PF access study results, expected in April, will have a nominal centerlines for the road options, which will help determine the study corridors.

Kirby Gilbert (MWH) said that sometimes there is an inclination to assume that we will be summing up results across the total project area; however, the current effort needs to compare and contrast the corridors as only one or two corridors will ultimately be chosen. As a result, the summary of information across all corridors is not going to be useful. He said that then the corridors will be compared and contrasted to help AEA decide which corridor is most favorable. He said that AEA is carrying all corridors forward at this point. The 2012 field study information will help to make corridor decisions if one is to be eliminated. Betsy McGregor (AEA) said that AEA will have to carry several corridors forward for the U.S. Corps of Engineers permitting effort. The Project team needs mapping and groundtruthing in all three corridors to help them determine the least environmentally damaging practicable alternative. Kirby Gilbert (MWH) said that they could drop a corridor if it is found to be not feasible or unreasonable, but right now can't assume any corridors will be dismissed from further consideration.

Kirby Gilbert (MWH) asked about the use of the National Wetland Inventory mapping. Terry Schick (ABR) said that NWI typically underestimates the area of wetlands.

Bob Henszey (USFWS) asked about the minimum mapping unit. Janet Kidd (ABR) said that for these studies, ABR normally maps to 0.5 acre. She said that the team would use 0.1 acre for waterbodies and aquatic habitats of interest. She said that NWI maps are based on vegetation and tend to miss small drainages that this work would catch.

Kirby Gilbert (MWH) mentioned that the corridors are generally about 1-mile wide so as to be able to accommodate a road and possibly transmission line together across varying terrain. Terry Schick (ABR) said that the team would map at a finer scale in the area of the Project footprint for the purpose of permitting and determining compensatory mitigation requirements. He said that for comparative and impact assessment purposes, the team would complete wetland mapping at a broader scale in areas surrounding the localized mapping in the project footprint area.

Janet Kidd (ABR) said that they want to hit the ground running once they have good imagery that they can use. The team would use a HGM (hydrogeomorphic) approach for each wetland polygon, similar to the method developed by Mike Gracz.

Betsy McGregor (AEA) said that we need to set up a meeting with USACE, EPA, USFWS, and ADEC for next week. She said the Corps has provided some comments during a meeting and agreed with the methods. She said that the team needs to include William Aston at ADEC, Mary Leykom the Corps' project manager, and Matt LaCroix at EPA.

Janet Kidd (ABR) said that there may be some issues with the Cook Inlet (Gracz's) Method and the team needs to work with the agencies to come to a consensus on the approach. Bob Henszey (USFWS) said that he supports this approach even though his agency recommended using Gracz's method.

Betsy McGregor (AEA) said that it will be important for each team to remember other teams' work. She said that all teams need to be collecting information in the same way, and take notes and share the information. She said to remember to share information with Kathy Dube who is doing the large woody debris study and Kevin Fetherston (R2) who is doing the instream flow riparian study.

Mike Buntjer (USFWS) said that the team should contact Betsy McCracken at USFWS for more information on the wetland methods recommendations prepared by USFWS. David Henszey (USFWS) asked to be invited to the wetland focus group meeting. Kirby Gilbert (WMH) said that it will be important to have meeting notes from these meetings for the record of consultation.

David Henszey (USFWS) asked whether the group discussed the study area or the extent of study for the 2013/14 studies. Terry Schick (ABR) said that it is going to be a large area. He said that right now, ABR will be planning on looking at all three proposed transmission corridors.

Kirby Gilbert (MWH) asked if the riparian study area extended as far as Willow. He said that the current study area shown on the slide is the extent of the vegetation mapping, which AEA thinks is adequate for the Project. Terry Schick (ABR) said that the wetlands study area is a broader for making project decisions. It is assumed that the study area would be narrowed into areas where there is decent imagery for 2012. Betsy McGregor (AEA) said that the finer scale mapping would be needed within the corridors. David Henszey (USFW) agreed that wildlife habitat would need to be understood outside the general study area.

Brian Lawhead (ABR) said that the 1980s mapping for wildlife habitat covered the entire upper basin. Kirby Gilbert (MWH) said that the study plans need to include maps if possible.

Bob Henszey (USFWS) asked how far downstream the river corridor would be mapped. Terry Schick (ABR) said they would map pretty close to just south of the Deshka River confluence. Betsy McGregor (AEA) said that the instream flow study would look at the entire river or at least to where there is tidal influence. She said that there would be less study downstream away from the project impacts and that pressure transducers would help to understand the limits of the riparian study.

David Turner (FERC) said that it is important to maintain the characterization for habitat for wildlife in the downstream area, but this may only be needed at a higher scale. He said that the project needs to have consistent study areas in order to relate and compare the information.

Wildlife Study Plans Questions/Discussion

Brian Lawhead (ABR) presented the Wildlife 2012 Study Plans and Wildlife Resources 2013/2014 Study Plans (Requests) following a PowerPoint presentation.

Kirby Gilbert (MWH) asked whether ABR did a previous bald eagle nest survey in the project area. Brian Lawhead (ABR) said that ABR looked a small area in 2011 in a limited survey around drilling borehole sites and found a previously undiscovered nest. They have a good map and physical descriptions for historical sites from the 1980s studies.

Maureen de Zeeuw (USFWS) said that she wasn't prepared to provide specific comments on the study plans, since she had an older version. She said that for delineating suitable nesting habitat for eagles, it isn't necessary to map a 10 mile area from the corridors. She said that the USFWS is interested in nest locations. Maureen said that AEA would have to apply for eagle take permits. She said that the USFWS hasn't issued permits for take of golden eagles. The project studies should concentrate on information need for a permit, including information like inter-nest distance, breeding territory size, and how many breeding territories would be taken by the project.

Brian Lawhead (ABR) said they would set up a meeting with Maureen and Jordan (Muir) to discuss study methods. Maureen de Zeeuw (USFWS) said that bald eagle permitting requires many years of preconstruction surveys. She said it would be good to look at maps together

during the meeting. She said the maps should show the corridor locations, and that aerial photography would be helpful.

Betsy McGregor (AEA) said that it would be good to understand where nests have been found in the past. Maureen de Zeeuw (USFWS) said it would be good to know where the null data is, that is, where they surveyed in the past and did not find nests.

Lem Butler (ADF&G) said that ADF&G completed a preliminary survey (geospatial population estimator) for moose last week. Brian Lawhead (ABR) said that this was a good time to do this, since this winter had a heavy snowfall and concerns had been expressed during the original project studies regarding the use of the inundation zone by moose in severe winters.

Lem Butler (ADF&G) said that he didn't think that an aerial survey was needed for brown bears and black bears. He said that he didn't think it would change the agency's understanding of the population.

Brian Lawhead (ABR) asked the group their thoughts on whether wolverines were a big study concern. Lem Butler (ADF&G) said that he missed the discussion on it and that ADF&G may have dropped their interest.

Brian Lawhead (ABR) said that additional data on wildlife harvest would be added to the studies, as they become available from ADF&G's ongoing analysis of harvest patterns, including the newly instituted small-game harvest monitoring project. He said that the project's recreation analysis may be interested in these data. Betsy McGregor (AEA) said that Bridget Easley, URS' program lead for recreation and aesthetics, should be consulted to determine what they information they need.

Betsy McGregor (AEA) asked whether it would be possible to have a list of bird species expected in the upper river so other people in the field could document their presence.

Maureen de Zeeuw (USFWS) asked why the team wasn't conducting bird surveys (beside raptors) in 2012. She said that from the point counts, the team would be getting primarily presence/absence information, depending on the specific method used. She said in 2013, perhaps the team could look at determining bird densities. She said that to figure out project impacts, it would be helpful to have to bird densities.

Terry Schick (ABR) said that the team would use variable-radius circular plots for point count surveys. He said that with enough data, they could get densities. Maureen de Zeeuw (USFWS) said that it will be important to understand impacts to sensitive species, including rusty blackbirds and olive-sided flycatchers. Terry Schick (ABR) said that given enough data, they could calculate densities by habitat and could relate that information back to project impacts. He said that the analysis would be relative to habitats used by each species.

Brian Lawhead (ABR) asked whether transmission-line collision mortality was an issue to USFWS. Maureen de Zeeuw (USFWS) asked whether there was a plan to look at bird migration corridors. She asked whether migration corridors were studied in the past. Brian Lawhead (ABR) said that water bird migration corridors were mostly studied, but that studies of nocturnal migration had not been conducted in the project area, although they have been done farther east near Gakona and farther north on the Tanana Flats.

Sarah Bullock (BLM) asked whether there had been any thought given to how the provision of more raptor perches on transmission towers would affect ground-nesting bird populations and small mammals. Brian Lawhead (ABR) said he expected that the implementation of BMPs, that is keeping the project from adding perches, would cut down on impacts to these animals.

John Shook (ABR) said that they did have data from the Eva Creek Wind project. He said that if poles are in a windy area, nests would not be sustainable, but perches could be available. He said more ravens could be attracted to the area, which could result in more small birds and mammal predation.

Maureen de Zeeuw (USFWS) said that the project still needs to understand bird migration corridors. She asked whether this issue was brought up in the past and dismissed. Brian Lawhead (ABR) said that previously the project examined migration of waterbirds only, and that the conclusion was that it was not an important migratory corridor, compared with other high-volume migration corridors such as the upper Tanana valley. Maureen de Zeeuw (USFWS) said that she would like to know the locations of bird migration corridors in relation to the transmission line corridors. She said understanding their location would help with project design. Wayne Dyok (AEA) challenged ABR to investigate what could be gleaned about bird migration corridors in the project area. John Shook (ABR) said that there is a pretty strong east-west bird migration in the Eva Creek area. Brian Lawhead (ABR) said that information collected near Tok and Gakona also shows east-west bird migration corridors.

Maureen de Zeeuw (USFWS) said that the bird migration corridors are important for locating the transmission line. She encouraged the team to think about where migration corridors might be an issue for locating the transmission line. She said that impacts to migration corridors might only be in specific locations where the elevation of the line might conflict with migration.

Terry Schick (ABR) said that there had been discussions of the level of detail needed for wildlife habitat mapping products. He said that ABR usually prepares one wildlife habitat map that shows 30 to 40 habitat types on it. Brian Lawhead (ABR) said that ABR can prepare different maps for birds and mammals, and could prepare specific maps for high-profile species (e.g., moose, bears, and species of concern). He said that if they are mapping to Viereck Level 4, the habitat types would indicate dominant species, such as willows, which are important for moose browse. Kirby Gilbert (MWH) mentioned that it might be better to have an ecosystem approach, unless there are questions about specific species.

Brian Lawhead (ABR) asked whether BLM has questions or whether there were particular mandates that the agency has for particular species or areas. Sarah Bullock (BLM) said that she don't know if she knew enough about the issue since she was new. She confirmed that the availability of game for subsistence harvests was important to BLM.

Lem Butler (ADF&G) said that ADF&G's work would extend below the proposed dam or the confluence near Talkeetna, but not down to Willow.

Wayne Dyok (AEA) asked that, assuming that there is some big game usage of the reservoir, would ABR be looking at the impacts of other hydroelectric projects in northern latitudes where fluctuations of reservoir levels was a concern for wildlife movements. Brian Lawhead (ABR) confirmed that they would be focusing on caribou movements and reservoir fluctuations.

Action Items

1. AEA agreed to begin investigating the potential for bird collisions with project infrastructure, and requested that ABR investigate what might be gleaned from other studies to help understand what broad-scale bird movements might be like in the project area.
2. ABR will organize and conduct a wetlands focus group agency meeting. AEA will provide updated transmission line corridor data for ABR to use in preparing more accurate study area maps for the wetland methods consultation meetings.
3. ABR will send copies of historical references describing LGL's eagle studies (in the 1980s) to Maureen de Zeeuw (USFWS).
4. ABR will contact Bridget Easley, URS's recreation and aesthetics program lead, to determine information needs related to wildlife harvest data from ADF&G.
5. ABR will prepare and share a list of bird species expected in the upper river with other field teams, so that other teams can document their presence.
6. ABR will organize and conduct a meeting with Maureen de Zeeuw (USFWS) and Jordan Muir (USFWS) to discuss bald and golden eagle study methods.