

Cascade Creek Hydroelectric Project (FERC No. 12495)
Cascade Creek LLC

Study Plan Review and Implementation Meeting Summary
USFS Ranger District Offices
Petersburg, AK

Thursday, August 12, 2010
11 a.m. – 3:45 p.m.

Attendees

Doug Fleming, ADFG, Sport Fish
Rich Lowell, ADFG, Wildlife
Julianne Thompson, USFS, Tongass
Sue Walker, NMFS -- AKR
Russ Beers, USFS – Petersburg
Chris Savage, USFS – Petersburg
Heidi Lombard, USFS – Petersburg
Gina Esposito, USFS
Brad Hunter, USFS -- Recreation
Jim Steward, USFS -- Recreation
Katie Eaton, ADFG -- Habitat
Linda Slaght, USFS -- PRD
Jim Anderson, ADNR – Land
Dan Bussard, ADNR
Ted Deats, ADNR -- Water Rights
Shawn Johnson, ADFG – Sport Fish
Barbara Stanley, USFS -- Juneau
Carrie Bohan, ADNR – Coastal/Oceans
Gretchen Bishop, ADFG
Mark Ivy, FERC
Terry Schwarz, ADNR
Chuck Parley, USFS – Petersburg
Shelly Adams, Oasis
John Gangemi, Oasis
Steve Ralph, Oasis
Weber Greiser, Historical Research Associates
Allison Murray, Kleinschmidt
Sarah Woehler, Kleinschmidt
Chris Spens, Cascade Creek

MEETING PURPOSE

The purpose of the August 12, 2010 meeting was to update agency participants on the project status, review draft study plans, and discuss the FERC licensing process. Additional meeting goals included identifying and addressing any new issues and determining if the most recent resource study plans are sufficient to begin field study work in August.

BACKGROUND/PROJECT STATUS

Chris Spens of Cascade Creek LLC (CCLLC) provided background on the project and an update regarding what CCLLC has accomplished to date (since meeting with agencies in March 2010). Notable changes include modification of the project design to maintain natural lake level fluctuations and CCLLC's receipt of funding to support the licensing process. CCLLC is extremely committed to carrying out the project, and developing an acceptable license application.

CCLLC has selected a team to carry out the work required for the proposed Project, which includes Allison Murray of Kleinschmidt Associates as licensing coordinator, Oasis Environmental as the prime environmental coordinator for fish and aquatic resources, Mark Storm of Civil Science for hydrology work, SADG Inc. for geology work, and Aqua Terre Systems Inc. for wetlands and vegetation mapping.

With funding now in place, CCLLC intends to move forward as quickly as possible to develop a FERC license application and Draft Environmental Assessment (DEA) that satisfies FERC's requirements. Research and agency comments to date have shown no major "show stopping" resource concerns. No ESA species have been identified, nor is CCLLC aware of any cultural issues, land ownership or boundary issues or any specific attributes suggesting that the Project cannot go forward. CCLLC anticipates that additional field work and studies will be necessary post filing to augment the license application. The project's success will be shaped by agency efforts and contributions.

LICENSING

Allison Murray provided an overview of the project's licensing process. CCLLC is using the Alternative Licensing Process (ALP) which provides more flexibility throughout licensing. If the agencies and CCLLC reach agreement on certain aspects of the project related to study plan implementation, post filing activities, and application content, FERC may accept these agreements; however, there is no leeway on the expiration of the preliminary permit and and consequential need to have a license application filed by January 31, 2011.

As a result of the January 31 application filing deadline and due to seasonal attributes, some studies/surveys will have to be done after CCLLC files its license application. Accordingly, the application may not be as detailed as the agencies and FERC prefer, but FERC will have the opportunity to issue Additional Information Requests (AIRs) while agencies will have the opportunity to issue comments. In an effort to address issues specifically relevant to the project area, resource study requests should consider project nexus, scope and scale.

FERC will expect CCLLC to file the license application with as much information as possible, with a clear plan as to how and when CCLLC intends to fill information gaps and augment baseline data. One option is that CCLLC may work with the agencies to develop draft license articles defining post licensing actions to supplement baseline data or to implement seasonal studies. Another option may be to develop a draft Memorandum of Agreement (MOA) or some kind of acknowledgement that the agencies are comfortable with the proposed post filing study plans and to submit it concurrently with the license application. While development of a Settlement Agreement is a possibility, it is not likely feasible to develop prior to the license application deadline. FERC staff indicated that filing these types of documents while FERC is reviewing the license application may be a possibility. Once FERC receives the license application the licensing process can take anywhere from one year to four years while staff analyze the proposed project's potential effects. Construction is not likely to occur for four to five years.

CCLLC is developing a Scoping Document 2 (SD2) to be distributed in early September. This is not a required document; however, it provides a format for summarizing efforts and responding to agency

comments to date. Cascade Creek will be meeting with FERC in August 2010 to discuss the proposed project.

AQUATICS STUDY PLAN REVIEW

John Gangemi of Oasis led a discussion regarding the aquatics study plans, of which there are nine. The study requires doing initiating studies in 2010 with follow up in 2011 due to the life cycle of fish, insects, etc. Oasis is open to having agency people see the work they're doing throughout the study period. Given the change in proposed project operation, marine studies are no longer being pursued, but some data will be obtained during pre-construction permitting and opportunistically during other field work.

Oasis was scheduled to begin work, anticipated to last approximately ten days, immediately after the meeting and receipt of appropriate permits from ADFG/USFS. Bathymetry mapping is also scheduled for this time period with habitat/geomorphology work beginning in August. He will be working on Swan and Falls Lakes by August 13. Oasis will provide a map to expedite the process and will identify the hydrologic features in the basin, the location of the pond, and sections of Cascade Creek that they'll be investigating.

ADFG's comments regarding stock assessment and fish movement will be incorporated into the study plan. The focus of the study will be more on population than on aging. Oasis provided an overview of sampling methods dates for the two to three week sampling have been shifted to early September. At ADFG's request, Oasis will incorporate sampling during a low flow event.

Fish Telemetry

The fish telemetry study plan is still in development. Oasis plans to use a combination of mobile and fixed station receivers. Approximately 25-35 tags will be used, which will be geographically spaced in Swan Lake, the pond, and the Upper Cascade Creek. Implanting will occur in late September/October due to battery life of tags. Telemetry will have fixed stations at the bottom of Falls Lake, the pond area (which may not be necessary), and at Swan Lake. There will be a total of six stations. ADFG indicated it was not entirely comfortable with previous data collected in October 2008 but they would discuss it and provide a firmer response to CCLLC.

Spawning Study

The spawning study will be conducted in 2011. Telemetry will be integral when fish move into the Upper Cascade and Swan Lake. The focus will be on Upper Cascade Creek and the Spring Creek area, which is the most important area for spawning. Spawning will be documented with discrete, spray painted rocks. Velocity, depth, and substrate will be measured. In addition, Oasis will check littoral areas on Swan Lake. They will investigate the small delta areas by snorkeling. The group agreed that spawning areas near Swan Lake are limited. ADFG may have additional comments on spawning areas and will provide them to Oasis as soon as possible. While a maturity assessment would be difficult to accomplish, Oasis may be able to provide qualitative observations during snorkeling and observing other fish. Oasis intends to benchmark with a staff gage. Hydrology work will be integrated into the spawning study. Comments received regarding study objectives will be incorporated into the final study plan.

To address agency concerns regarding stream reaches that cannot be assessed due to steepness, hydraulic features (falls) and substrates in Lower Cascade Creek, and as an alternative to on the ground habitat mapping, CCLLC/Oasis will fly the creek corridor and videotape the reach for agency review. Agency staff is welcome to participate in this flight. CCLLC requested agency verification regarding the acceptability of not including the Lower Cascade Creek in the study mapping in lieu of the proposed

alternative. ADFG indicated a videotaped flyover was acceptable but that it should occur during lower water periods.

Fish Habitat Survey

CCLLC/Oasis intends to use the Tier-2 Field Sampling Protocol. The survey area will include Upper Cascade Creek for 1.5 miles, Spring Creek at the confluence of the delta area (2,000 and 1100 feet upstream of the channel) before it bifurcates. Up to 10 benchmarks will be established using a Tremble GPS unit. The longitudinal profile will be tied into the stream gaging station. Oasis intends to use USFS survey forms and asked if staff could provide analysis. Staff agreed to discuss this possibility after the meeting. The survey is scheduled to occur the week of August 16.

ADFG stated that the study addresses key points in respect to the relationship between the spawning and habitat surveys; however, vertical velocity profiling would be more appropriate in the spawning study. Longitudinal elevation profile information requested by ADFG will be provided through geomorphology characterization and that cross-section in Spring Creek and Upper Cascade Creek. Critical habitat (gravel) will be documented next year with the spawning study; however, some data may be obtained during the habitat survey in August.

Geomorphology Study

Standard survey elements with depth, long, bed particle size, distribution, etc. will be conducted. Dr. Booth will provide narrative context of basin. Process classifications developed in 1992 will be used for geographical relevance. The delta will be characterized through topographical mapping and longitudinal profiles of channels running to depths of two meters. Benchmarking will be established.

Bathymetry Study for Falls Lake

To date, CCLLC has received limited commentary on the proposed Falls Lake bathymetric study, with the exception of a question on habitat characteristic mapping. There is no predefined habitat, but bathymetry may assist in habitat prediction. ADFG indicated that the lake basin was leaky, which may provide input regarding available flows when Cascade Creek is dewatered. The bathymetric data will predict habitat volume. Swan Lake, temperature profiling and conductivity can also be measured.

The potential for gas saturation is under investigation. This is not anticipated to be an issue due to the closed pipe conveyance which precludes atmospheric mixing. ADFG indicated CCLLC should consider project affects to water quality, recommending CCLLC focus on researching literature concerning water quality, rather than the lake profile. CCLLC will find what exists and supplement where necessary with new information.

Benthic Macroinvertebrates Study

Oasis stated that the study will measure the density of benthic macroinvertebrates. The group discussed the need to measure drift, concluding that, with assistance from ADFG, field studies could incorporate other means to assess a wider range of invertebrates.

RECREATION STUDY PLAN

The goals of the recreation study are to assess overall utilization and the significance of recreationists to the area. In an effort to obtain an overall picture of demand and numbers and given the remote location and dispersed nature of use in the project vicinity, the revised recreation plan has been refocused to be an outreach, survey-driven study to solicit feedback from various recreationist individuals and groups. This

will occur, in part, by sending surveys to outfitters and recreational service providers. CCLLC will augment this data with information USFS has compiled and by installing trail cameras and conducting aerial boating counts in Thomas Bay. Overall, the study will observe fishing and game, commercial recreationists, cabin reservations, broadcast surveys of boat owners/users, and trail camps. The study will ultimately include such information as an estimate of how many people use the site based on access points rather than canvassing the entire area, but will include the perspectives of outfitters and commercial and private recreationists. CCLLC intends to use bathymetric data to assess navigability for recreational boaters in the project lakes and runnable river reaches.

CCLLC is seeking study plan feedback from agencies including the number of flyover days and other sources of private user contacts. CCLLC may augment these surveys by incorporating boat observations during other flyover efforts. As with all other studies, CCLLC welcomes agency participation in the field aspects of this study. Trail cameras will be placed at specific viewsheds (falls, scenic overlooks) in an effort to coordinate the use assessment with aesthetic assessments.

CCLLC intends to develop surveys immediately upon receipt of study plan comments and can begin with mailing out surveys to get an idea as to who/what the users are, with that information being extrapolated. The goal of the initial study will be to establish a data baseline that supports an acceptable level of analysis for the license application. The group discussed the fact that licensees are predictably charged with continued/ongoing assessment of recreation use as a condition of their project license by FERC. If initial analyses warrant follow up for either recreational use or aesthetic effects, CCLLC may consider follow up, on the ground interviews regarding preferences and opinions related to flow as a license condition or post filing study.

CULTURAL RESOURCES STUDY PLAN

Weber Greiser from Historical Research Associates (HRA) led the discussion on the cultural resources study plan. CCLLC is proposing an initial Phase 1 survey consisting of initial background/inventory and limited field survey follow up. The need for Phases 2 and 3 would depend on initial study results. CCLLC can complete Phase 1 prior to filing of license application, with the application identifying areas of sensitivity. CCLLC anticipates that the application will identify any additional survey needs (Phase 2 or beyond). HRA intends to initially acquire a permit specific to cultural resource work from the USFS, while obtaining a permit from the SHPO for intertidal areas. In addition, HRA will consult with Native Alaskan representatives. HRA has worked with some of the project stakeholders in the past and intends to consult with them to augment survey efforts.

Field survey efforts will focus on areas of direct project effect and other areas identified by the USFS as sensitive. Given the stream topography of Cascade Creek has a IHRA assumes a low probability for cultural/heritage resources at Swan Lake. If any potentially sensitive areas are identified in the initial research, HRA will conduct surveys, soil probe investigations, and shovel tests following the USFS' Tongass model. HRA will do full-site recording using forms approved by USFS and AL SHPO and will ultimately prepare a report of finding.

USFS stated that generally the study plan is acceptable. Staff is aware of particular culturally sensitive areas and would work directly with HRA.

WILDLIFE RESOURCES STUDY PLAN

Shelly Adams of Oasis led the discussion. CCLLC/Oasis intends to initiate wildlife studies as soon as possible in an effort to provide a level of baseline data for the license application. While there are a couple iterations of the study plan, CCLLC/Oasis has received comments from most of the relevant

agencies, including the USFS, ADFG, and the EPA. In response to these comments, the latest study plan iteration attempts to provide significantly more detail on specific study aspects.

White-Tail Deer

The USFS stated that the white-tail deer is a management-indicator species important to recreation. In addition, the USFS is interested in effects to habitat rather than occupancy. CCLLC's study will encompass a winter range assessment using USFS' Tongass National Forest methodology. In addition, deer pellet transect surveys will be conducted, which give estimate of deer density. USFS stated that they would like their deer people to look at the study plan and comment as necessary or appropriate.

Small Mammals

While CCLLC is unclear what the project nexus is to small mammals, they are considered endemic to the Forest Service Plan of the Tongass National Forest and ADFG has previously expressed concern about temporary loss of fish and habitat in the project area. Accordingly, CCLLC will conduct baseline survey efforts to assess species presence/absence. The study will employ Sherman live traps at different points along the transmission corridor and within the proposed powerhouse location, with ten traps at each point and four total stations. While this is a modification to prescribed protocols, meeting attendees concluded this was an acceptable effort to obtain baseline data. The ADFG stated that a permit will be required from them.

Marbled Murrelet

The goal of this survey will be to determine relative species abundance. Accordingly, two surveys will be conducted: (1) boat survey during breeding season (which will also do for kittlitz's murrelet); (2) fixed station locations looking for flybys.

Queen Charlotte Goshawk

CCLLC/Oasis conducted three miles of initial surveys in June 2010. To augment this effort CCLLC/Oasis proposes to undertake additional survey using a modified Kennedy and Stolacker methodology. This will include USFS inventory and monitoring protocols, and broadcast acoustical surveys, with modified stations to 500 - 600 meters apart along the transmission corridor.

While originally proposed to occur beginning June of 2011, ADFG indicated that relevant data can still be obtained in mid to late August and early September 2010 because goshawks are more active during that time with follow up studies, as needed in early summer 2011. ADFG also indicated its concurrence with the modified survey stations, protocols, and proposed centerline transects, but suggested CCLLC consult with USFWS as well.

Owls

The study will include the Western screech owl and the barred owl. Survey will include listent stations, one minute observations and barred owl call broadcasts. ADFG indicated that CCLLC should follow the Alaska Owl Network survey protocols. Additional data may be available from a recently completed owl study on Mitkof Island.

Songbirds

There are numerous song birds, including several management indicator species and some species of concern. ADFG is concerned with collisions with the transmission line. A critical point count survey will be coincided with a breeding bird survey, spacing at 500 meters rather than the typical 200 meters.

While not clear on the project nexus to songbirds, CCLLC agrees to conduct qualitative songbird surveys in concert with other wildlife survey activities to establish baseline data. CCLLC/Oasis will follow up with USFWS staff to verify the need for and acceptance of the study.

Bald Eagle/Osprey

ADFG recommended CCLLC/Oasis consult with Bill Schimpff who likely already has the project area mapped, since surveys were conducted last year. This may preclude the need for a focused survey for eagles. Additionally, USFS may similar data and recent survey information for osprey. After further consultation CCLLC will assess the need for these surveys as well as peregrine observations.

Amphibians

The goal of survey will be to determine the presence and absence of amphibians within the project area and to provide baseline data sufficient for potential effects analysis. Visual encounter surveys and trapping will occur during the spring and fall. If possible, Oasis may be able to provide qualitative observations of amphibians during other fall studies. ADFG indicated a large amphibian population in the project area (specifically Spring Creek and Swan Lake) however: site specific data is limited. The group discussed natural fluctuations in Swan Lake and its affect on study timing.

Wolverines, Mountain Goat, and Moose

ADFG is undertaking these surveys. Staff anticipate they will complete the work wolverine study by late fall 2010 and that data may be available to incorporate into the license application.

Other Wildlife Comments

ADFG expressed concerns with harlequin ducks, specifically the pool potential on Lower Cascade Creek where harlequin ducks exist. Given the proposed operation of the Project, CCLLC does not see a project nexus.

While CCLLC is not proposing specific marine studies, it will incorporate observations made during other study efforts. Project effects analysis will be premised on a natural discharge regime. For potential effect related to the proposed undersea cable, CCLLC will conduct a bathymetric/ side sonar study prior to construction. NMFS indicated that CCLLC would need to accomplish near shore habitat assessment, but that might be appropriate prior to CCLLC construction permit applications.

HYDROLOGY

The most recent study plan was distributed in March 2010 and CCLLC has been implementing this study since that point. CCLLC has installed stream gages and Oasis has started to develop rating curves. A continual record at the lake-level stage has been conducted from January 2010, with a continual record from the USGS gage at the mouth of Cascade Creek. A record of information at Falls Lake had been collected up until mid December 2009, when the extended gage was dropped 30 ft. A cableway was consequently built over the mouth. Collected information was plotted over curves. A field report based on observation, including aerial study and field mapping, will be available for review by mid September 2010. Preliminary field reports will be produced this month. Data will be posted on Cascade's website.

CCLLC will use hydrologic data in concert with turbine manufacturer specifications to develop an operational rule curve for the project. This will be included as part of the FERC license application. The application may also include low flow protocols. CCLLC will also use hydrologic modeling in its design of the project tailrace.

CONCLUSION

CCLLC would like to include all final plans in the SD2 and in an effort to initiate any studies that can be accomplished in late summer and fall 2010.

As needed, CCLLC would like to schedule follow up teleconferences by specific resource interest to address additional questions or comments and to finalize study plans. CCLLC acknowledged agency staff cooperation given their other responsibilities and indicated its appreciation for expedited review of the revised study plans.

8/24/10 FERC Wa DC Mtg Summary

Attendees:

FERC

Jennifer Hill, , Northwest Branch Chief, Hydropower Licensing

David Turner, FERC Team Lead

Jennifer Harper, Engineer

Mark Ivy, Recreation Specialist

Liz Molloy, Legal Counsel

Ryan Hanson , Fish Biologist

CCLLC

Chris Spens, Licensing

Allison Murray, Kleinschmidt, Licensing

FERC Comments/Directives:

Cascade Creek LLC is trying to do in five months what typically takes a year and a half

All of the information necessary to assess the project impacts and benefits will need to be completed and presented at the time of license application. Any work that may occur thereafter should be minimal, or of a non-essential nature, for cooperative agreement or simply verification of what is already known or anticipated.

We do not include side agreements in our review and processing, even though we have been asked to do so. You may include these agreements as an appendix to your application; however, the body of the license must contain enough data for us to do a thorough environmental analysis. Side agreements do not help us do that.

Based on public comments, recreational use and determining whether this area has a much larger draw than just local use appears to be the most significant issue.

Need a substantial visual assessment of the Cascade Creek waterfall at different discharge states to determine visual impacts.

You must provide a detailed operational plan that depicts how the project will be operated as a run-of-the-river type project.

What is the relationship of the project to the AK-BC?
(Not dependent, based on S.E. power demand forecast).

You should begin discussion of license terms & conditions and “PME” measures as soon as possible, once agencies have sufficient information to determine impacts.

Should provide agencies documents for review at earliest possible time to avoid slowdown at the end of the process and flush out any remaining issues asap.

Need to consult Petersburg and bring them more into the process.

Many will be watching, public & private. Our review will be stringent.

CCLLC may file a license application in response to preliminary permits filed for Cascade Creek (after 1/31/11). Generally, if the respondent application is complete, it will receive priority over a municipal preliminary permit application.

Need to resolve the roadless area issues with the USFS.

90 day review for draft license application is standard.

Do not dismiss lightly application issues or information requests, must substantiate reasons for not addressing requirements.

Will be returned if patently deficient, will be returned w/comments if deficient.
May be re-submitted with additions/corrections until accepted.

Even the best applications require additional information.

Be sure and include all stake holders in distribution/review of subsequent major docs: SD2, Final Study Plans, PDEA, Draft License Application.

Consult the license application preparation guidance materials.

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Cascade Creek LLC

DRAFT MEETING SUMMARY

Follow-up Agency meeting
USFS Ranger District Offices
Petersburg, Alaska

Tuesday, September 28, 2010
9 a.m. – 12 noon

Attendees

Casey Duncan – USFS
Mary Clemens – USFS
Rich Lowell – ADFG-Wildlife
Doug Fleming – ADFG – Sport Fish
Chuck Parsley – USFS - Petersburg
Barbara Stanley – USFS - Juneau
Shelly Adams - Oasis
Shawn Johnson - ADFG
Allison Murray - Kleinschmidt
Gina Esposito - USFS
Weber Greiser – Historical Research Associates
John Gangemi - Oasis
Katie Eaton – ADFG-Habitat
Russ Beers – USFS - Petersburg
Chris Savage – USFS - Petersburg
Heath Whitacre – USFS- Petersburg
Monte Miller – ADFG – Hydropower Coordinator
Chris Spens - Cascade Creek LLC

MEETING PURPOSE AND AGENDA

The goals of the meeting were to go over Project design renderings, update agency participants on the FERC meeting in DC, and begin a discussion of the implications of the FERC meeting and how to move forward with a modified timeline, including the possibility of a Memorandum of Agreement (MOA). Additional meeting goals included updates on studies and the Scoping Document 2.

PROJECT DESIGN REVIEW

Chris Spens of CCLLC provided printed versions of design renderings for the site plan and access plan to aid in the determination of Project effects and aesthetics. The water view rendering of the powerhouse showed that the powerhouse will be screened by trees and located near the hill-slope for noise attenuation and aesthetic values. CCLLC noted that their intention is that the Project will not be physically apparent or visible, except for the dock and stream like tailrace, and that the site footprint will be limited.

The transmission line route discussion highlighted the fact that the majority of the proposed route occurs within previously/currently developed corridors. At present, CCLLC does not propose using the local poles, rather installing new poles within the transmission right of way. CCLLC will develop power

purchase and line interconnection agreements post licensing. FERC does not require a power purchase agreement to process the license application. Should CCLLC find it needs to develop a new substation (which it does not anticipate at this time) FERC would require a license amendment application prior to construction. Currently CCLLC bases its project economics on the southeast connection and regional electric system. Should the AK/BC interconnect come to fruition, CCLLC would seek an interconnection with Canada and the lower 48.

WATER RESOURCES DISCUSSION

CCLLC provided an overview of their water resources analyses to date. They noted that both flow data and visual data (photographs) are being collected and pulled together in report form. It was explained that the lowest summer flow was observed on Sept 21, 120 cfs. It was further noted that this was a lower snowpack year, and a drier summer. Discharge graphing of Cascade Creek shows that during 5 months of the year there is very low contribution from Swan Lake. At this point in time, data currently collected is consistent with USGS historical data. The lake stage fluctuation is at about 4.5 ft in this year.

During site surveys and field work, staff noted that portions of Cascade Creek were dry. Photo documentation depicts that Cascade Creek is essentially dry from about 300 feet from outlet to just above the pond. However, up to that point, Falls Lake held steady with about 60 cfs contribution; Falls Lake levels have been observed to decrease with about 20 cfs of contribution. Oasis explained that their GPS studies of Falls Lake show that it is a dynamic system, with significant increases and decreases in stage even with no contribution from Swan Lake.

FERC VISIT

Allison Murray and Chris Spens met with FERC in August to provide an update of the Project. FERC indicated that CCLLC must include appropriate baseline information within the Environmental Analysis for FERC to determine environmental effects at the time of application filing. FERC will not accept additional information filings requiring 2011 studies in its determination of application completeness. CCLLC expressed that they wholly intend to carry out the studies agreed to with the agencies; however they hoped to come to agreement regarding those studies that could be preformed this season, and are necessary to analyze direct project effects in the PDEA, and those studies that could be agreed to under a Memorandum of Agreement (MOA) or other document codifying CCLLC's intent to undertake additional studies that inform broader agency management goals next season. In order to provide a level of assurance, CCLLC and KA also suggested the possibility of drafting license articles that specify studies and phases that must be completed prior to construction and inclusion of protection, mitigation, and enhancement (PME) measures that proactively anticipate addressing concerns that agencies have previously expressed. The group discussed the fact that while CCLLC seeks collaborative agreement, if these agreements cannot be developed, FERC will be the final arbiter of unresolved issues or disagreements regarding project effects, nexus, and the appropriate level of baseline data.

CCLLC will continue to work on studies, and will have enough data for lake level fluctuation, and an examination of presence, distribution, and key habitat areas for rainbow trout populations in order to determine project operational effects on the bypass reach. ADFG and ADNR expressed concern that all studies they had previously requested were directly related to project effects and off license agreements were not a preferred method of addressing their issues. ADFG stated that they want to be sure they can look at data collected to date before they make a decision about license conditions or other agreements. Allison Murray explained that it takes time for FERC to evaluate the environmental analysis, so the

request for mandatory prescriptions (4e) is likely a year or more out. It was also noted that USFWS was agreeable to the format of using a MOA to complete second year studies. Allison Murray noted their hope to utilize this method with all agencies and develop a multi-party MOA. USFS requested CCLLC develop a draft MOA including studies that it intends to undertake “off license”.

UPDATES ON STUDIES

Recreation

Allison Murray explained that the modified proposed study plan would remove 2011 aerial counts as part of the overall recreation studies but that CCLLC intends to include this aspect of survey as part of its “off license study agreements with agencies. Instead, efforts to provide appropriate baseline data for the PDEA will focus on surveying commercial outfitters and private recreationists. Furthermore, the desktop research will expand to encompass other activities in the region, with the overall goal of providing a regional perspective. The surveys CCLLC is distributing will include photorenderings of project facilities to garner responses and opinions of users to determine potential project effects to recreational uses and aesthetic values. CCLLC expects results to be ready by the time the FLA is filed.

Cultural

Weber Greiser, from Historical Research Associates (HRA), provided the group with an update on Cultural Resources. Wrangell residents have traditionally used the Thomas Bay area, but HRA is trying to uncover additional information. Per USFS recommendations, a broader area was surveyed. Thus far, the only historic structure obvious from the walking reconnaissance is the old Agassi School structure from the 1920s – this is likely within the broader Area of Potential Effect, but outside the transmission line gap. Several sites have already been recorded in this area from previous investigations, so there is interest to see if other sites will show up. Additional field work will be completed late spring early summer 2011. CCLLC anticipates including a draft license article in the license application requiring the preparation of a Historic Properties Management Plan encompassing these efforts as well as ongoing evaluation of potential construction effects to sensitive cultural sites. Pursuant to USFS and SHPO feedback, aspects of additional cultural resource work could also be included as part of an inter-agency MOA or as a standalone MOA in accordance with Section 106 of the Federal Historic Preservation Act.

Tribal consultation is not complete. Letters have been sent out, but so far, no responses have been received. After discussion, an agreement was reached that a Phase 1 investigation will provide enough information for analysis, with Phase 2 being complete before doing any site disturbance. It’s expected that FERC will require a Cultural Resources Management Plan that would offer specifics and PME measures. Following a concern about potential public disturbance, CCLLC confirmed that reports will be CEII and not public record.

Habitat Assessment

Shelly Adams from Oasis provided an update of the habitat assessment. Oasis was able to conduct the Sitka winter range assessment along the transmission line and powerhouse sites, and recently completed small mammal trapping. Results of the trapping included shrews, voles, field mice, and red squirrels. No fox were found in the area. Oasis is in the process of completing desktop amphibian studies, which will include a literature review and habitat assessment maps, and an intense look at what could occur in the area linked to hydrologic data. Shelly Adams explained that an updated draft wildlife study plan has been drafted. Currently, the new wildlife study plan includes black-tailed deer, small mammals, fox, and

amphibians. Shelly also noted that several of the studies have already been removed from the previous study plan and will be included in an MOA pursuant to the direction of USFWS. Owls and migratory songbird surveys were removed after discussions with USFWS regarding CCLLC's proposal to use existing transmission corridors.

CCLLC will continue to support the ADFG through funding for wolverine and mountain goat surveys.

Water Quality and Fishery Studies

John Gangemi, from Oasis, gave the group an update on the fishery study. He reviewed study events that have already occurred, including mark and recapture, fin clips, trapping, and tagging. Successful sampling occurred in Cascade Creek between Swan and Falls Lake.

He further explained that water quality data has been recorded and mapping/geomorphology work has occurred. Bathymetric mapping was also done at Swan Lake inlet to get an idea of substrate and topography. John Gangemi continued to note that macroinvertebrate sampling was performed in Cascade Creek, Falls Lake, and Lower Cascade Creek. Oasis plans to do spring monitoring and fish telemetry work next year. Agencies requested that any video data of the survey work be provided on CD.

ADFG posed questions regarding trapping and tagging methods. John Gangemi assured the group that proper measures were being taken and that backlights will be used when elastomer tags are to be re-identified. A total of 8 fish were clipped in the first sampling effort (4 in the pond and 4 in Falls Lake). Oasis noted their plans to perform sampling again in November. Chris Savage and Doug Fleming agreed that sampling every two months through January would be acceptable. There was some disagreement between ADFG and CCLLC regarding a project nexus of rainbow trout issues, which had to potential to be left up to FERC to determine.

PROJECT OPERATIONS

The group continued discussion on an MOA. As a result, the group conferred over the Project in more detail and concerns were raised about the project's run-of-river designation. ADFG noted that they believe that a true run-of-river would not necessitate a 40ft-deep penstock and that it seems to leave the project open for future operational changes. CCLLC noted that penstock depth is influenced by the possible need for winter storage. While the depth of the penstock could allow for future project operation modification, there currently is no plan to propose anything different than the proposed operation within normal lake level fluctuations. Any future changes in operation would require a license amendment, which would open the process back up for agency comment.

CLOSING

In closing, CCLLC indicated that draft field reports will be included in the PDEA for agency review. CCLLC further explained that comments on the PDEA will be addressed by mid-January for final submittal of the Final License Application before the end of January. Though CCLLC has been trying to schedule a public community meeting, there hasn't been any interest indicated. However, the public has a chance to comment during draft EIS and the PDEA review will be announced to the public, as well. Chris Spens also noted that a November review meeting may be appropriate.

CCLLC will also distribute the SD2 and will include study plans that reflect the studies that will be performed in 2011. An outline of the formal MOA will follow and will include items no longer in the 2010 study plans.

The group closed discussions and adjourned.