

finlay anderson

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Sent: Friday, August 03, 2012 10:28 AM
To: Finlay Anderson
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Subject: Re: Swan Lake Expansion Project - 2012 field efforts - request for review
Attachments: Stangl 2009 Tongass Goshawk Inventory Protocol Final .doc; USFS 2001 Fish and Stream Habitat Survey Handbook.doc

Finlay,

Sorry for the delay in responding to your request for review of your study plans. My comments are listed below, for each of the plans you sent, and constitute the recommendations of the U.S. Fish and Wildlife Service.

Wildlife Study:

Goshawk surveys are recommended only in the vicinity of forest removal. For example, if trees will be cut around the dam, the area within approximately 400 yards of the area that will be cleared should be surveyed using the latest protocols developed for the Tongass National Forest (attached). If timber will be left standing around the perimeter of the reservoir, we do not believe that surveys should be required. Although raising the water level by 20 feet is likely to kill any trees with their roots inundated, such trees supporting nests are likely to remain standing through the nesting season. This would allow affected pairs to complete nesting, then move to an alternate location the following year. Alternatively, if timber will be removed from the perimeter of the reservoir, the area should be surveyed for nesting goshawks prior to clearing. In any case, clearing should be scheduled for the non-nesting season (September to March) to protect many species of migratory birds.

(See attached file: Stangl 2009 Tongass Goshawk Inventory Protocol Final .doc)

Page 5 indicates that "Deer and bear high-use areas" will be noted and mapped. Mountain goats should be added to this list, as they are common in the mountains around Swan Lake.

Bald eagle surveys should include the perimeter of the lake.

Fish Community and Aquatic Habitat Study

Page 5, first full paragraph, third sentence beginning "Post-impoundment surveys indicated..." It is not clear which species these data apply to.

Page 6, "Reservoir Habitat Surveys". We recommend that in addition to providing qualitative descriptions of potential spawning and rearing habitat, you also quantitatively measure substrates in

potential spawning areas along the shore, for comparison to the known or expected range of suitable gravel size for spawning kokanee and Dolly Varden char.

Page 6, "Tributary Habitat Surveys", paragraph 2, beginning "Field crews will also..." Quantitative standards should be used to identify "potential fish passage barriers". The most widely-accepted standard for Southeast Alaska is the "Fish Blockage Table" found in both the State of Alaska's Forest Resources and Practices Regulations as "Table A: Anadromous Fish Blockage" (11 AAC 95.265 Classification of Surface Water Bodies) and in the U.S. Forest Service's Fish and Aquatic Stream Survey handbook. See page 14 of the attached USFS 2001 handbook for the table.

(See attached file: USFS 2001 Fish and Stream Habitat Survey Handbook.doc)

Kokanee salmon are not included in the table, but may be closer to Dolly Varden than to their conspecifics, sockeye salmon, in passage ability.

We recommend that your evaluations also identify barriers or partial barriers that might be modified to allow passage to potential spawning habitat above the barriers, as a mitigation option.

Tributary Access Study

Page 5, "Fish Barrier Information" section. Our comments above, concerning the "Fish Blockage Table", apply equally here.

Spawning Study

Page 4-5, "Background" section. Your discussion of Dolly Varden spawning and rearing habitat should recognize that newly emerged Dolly Varden often use very small tributary streams (including intermittent and ephemeral streams) for several weeks. This appears to reduce predation on these very young fish, before they move into other areas to continue rearing. Availability of this type of early-rearing habitat should be assessed for the existing and potential future conditions.

Page 5. "Methods" section, second paragraph. The length of the three sampling periods should be specified. Three short visits could easily miss peak spawning activity. We recommend that crews check potential spawning areas for as many days as possible to establish beginning, peak, and ending of spawning.

It is not clear how "proportion of available habitat occupied" will be determined. Please elaborate. Similarly, how will "upwelling areas" be "observed"? Upwellings may be identified by local variations in dissolved oxygen, temperature, nutrients, or other water characteristics, but currents are typically not visible.

Page 6. Final paragraph of "Methods" section. We agree that if fish are spawning in waters too deep to survey, your results may be considered a conservative estimate. Fish spawning in deeper waters, in what might be considered marginal habitat, though, may be more likely to suffer with an additional 20 feet of water above them, if water depth somehow limits egg or fry survival. One method for locating possible lake spawning areas is through tracking a sample of radio-tagged fish. Our office is currently conducting such a study at Auke Lake in Juneau. We may be able to assist in

a cooperative study to evaluate distribution and habitat use by fish in Swan Lake using this technology. Please let me know if you would like to discuss this possibility.

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06/14/2012 02:58 PM

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Subject Swan Lake Expansion Project - 2012 field
efforts - request for review

Hello all –

On May 24th we all met in Ketchikan to discuss SEAPA's proposed reservoir expansion project. We talked through a number of potential issues and discussed a general line of inquiry to help us all understand the potential implications of the proposal. SEAPA and its consultants took away an action items to develop a suite of studies that could be implemented on short notice with the intent filling in some knowledge gaps.

Agencies emphasized the need for adequate time for review, but we also acknowledged that for some of these studies, permitting and logistical planning would need to start ASAP. To that end, I am attaching 7 studies for your review. Each of them are relatively short and self-explanatory, but we would be happy to respond to questions as they arise.

Please review the attached as they may pertain to your area of interest and provide your thoughts and comments no later than **July 13** (earlier would be excellent!). We would prefer it if the agencies could coordinate internally so as to provide a single set of comments for each agency, but if that is difficult, let us know. Also if there is a need we can convene a short conference call to address questions or concerns I would be happy to set it up.

Concurrent to this review, Tetra Tech will be initiating permitting.

For questions regarding the studies, you can contact me and I will point you to the right resource. Also as a reminder, information about the proposed action, meeting materials, and a meeting summary may be accessed at <http://www.longviewassociates.com/swanlake.html>

Thanks,

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[attachment "SwanLk_Cult Res_Study_agency_review_draft_06-14-2012.pdf" deleted by Steve Brockmann/R7/FWS/DOI] [attachment "SwanLk_FishAquatic_Habt Study_agency_review_draft_06-14-2012.pdf" deleted by Steve Brockmann/R7/FWS/DOI] [attachment "SwanLk_Soils Study_agency_review_draft_06-14-2012.pdf" deleted by Steve Brockmann/R7/FWS/DOI] [attachment "SwanLk_Spawning Study_agency_review_draft_06-14-2012.pdf" deleted by Steve Brockmann/R7/FWS/DOI] [attachment "SwanLk_Trib Acc Study_agency_review_draft_06-14-2012.pdf" deleted by Steve Brockmann/R7/FWS/DOI] [attachment "SwanLk_Vege Study_agency_review_draft_06-14-2012.pdf" deleted by Steve Brockmann/R7/FWS/DOI] [attachment "SwanLk_Wildlife Study_agency_review_draft_06-14-2012.pdf" deleted by Steve Brockmann/R7/FWS/DOI]