BAKER RIVER PROJECT RELICENSE

Aquatic Resources Working Group

May 10, 2001

9:00 a.m. – 2:30 p.m.
US Forest Service
Conference Room A (425-775-9702)
21905 64th Avenue West, Mountlake Terrace, WA

AGENDA

1. Review agenda and minutes
2. Review action items/parking lot
3. Continue review of study plans and requests
4. Set agenda for next meeting (June 14)
5. Evaluate meeting

May 10, 2001

Driving Directions to US Forest Service Office:

1) Driving North from Seattle (or South from Everett) on I-5, take the 220th St. SW exit (exit 179). 2) Turn west (right if from southbound I-5, left if from northbound I-5) onto 220th St. SW.
3) Drive west about a block and turn right onto 64th Ave W.
4) The office building is about ¼ block down the street on the right side of the road.

NORTHWEST FOREST PLAN

AND

HYDROPOWER LICENSING

NFP 101

United States Department of Agriculture

Forest Service

United States Department of the Interior

Bureau of Land Management

April 1994

Record of Decision

for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl

Standards and Guidelines

for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl

Introduction

- ROD signed in 1994
- Protect OG Forests and the species dependent on them, and provide stable timber supply
- Covers all FS and BLM lands within range of N. spotted owl (W. OR/WA and N. CA – 24MM acres)
- Primarily developed to guide future timber mgmt but does address other resource uses

Application to Existing Projects

- ROD pg 15: “S&G’s that require adjustments to current contracts, etc. will be applied in those areas where statutory or regulatory authority exists if the change is necessary to achieve the overall goals.”
- ROD pg. C-17: “Existing developments…are considered existing uses…and may remain, consistent with other S&G’s”

New Projects

- Require in-stream flows and habitat conditions that maintain or restore riparian resources, favorable channel conditions, and fish passage

- Locate new support facilities outside Riparian Reserves

Congressionally Reserved Areas

- Wildernesses
- Wild and Scenic Rivers
- National Monuments, Parks
- Other federal lands not administered by the Forest Service or 0BLM
- Riparian Reserves S&G's apply

Aquatic Conservation Strategy (ACS)

- Goal – to restore and maintain the ecological health of watersheds and aquatic ecosystems on public lands.
- Protect habitat for fish and other riparian-dependent species
- Prevent further degradation
- Restore habitat over broad landscapes
- Long-term approach – decades/century

ACS – Four Components

- 1. Established Riparian Reserves – w/ Stds. and Guides
- 2. Identified Network of Key Watersheds
- 3. Prescribed use of Watershed Analysis
- 4. Emphasized Watershed Restoration

ACS Objectives (9 total) –

FS/BLM lands will be managed to Maintain and Restore:

- Distribution, diversity and complexity of watershed and landscape-scale features…
- Spatial and temporal connectivity within and between watersheds…
- Physical integrity of the aquatic system…
- Water quality…
- Sediment regime under which systems evolved…

ACS Objectives (9 total) –

FS/BLM lands will be managed to Maintain and Restore:

- Instream flows…
- Timing, variability and duration of floodplain inundation…
- Species composition and structural diversity of plant communities…
- Habitat for native verts, plants, inverts…

ACS Objective #2

- Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal and drainage network connections include floodplains, wetlands, upslope areas, etc. Network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements…

ACS Objective #6

- Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.

Example S&G

- LH-2. Tier 1 Watersheds: …during relicensing of hydroelectric projects, provide written and timely license conditions to the FERC that require flows and habitat conditions that maintain or restore riparian resources and channel integrity.

Maintenance vs. Restoration

- Maintenance is appropriate where:
  - Primary physical and biological processes are in place
  - Processes are generally operating within the natural range of variability

- Restoration is needed where the current situation has resulted in degraded conditions (i.e. where the above is not the case).

Maintenance/Restoration

- Baseline to assess maintaining or restoring conditions is developed through a watershed analysis.

- Improvement relates to restoring biological and physical processes within their ranges of natural variability.

Interagency Coordination – REO and RIEC

- REO – Regional Ecosystem Office
- RIEC – Regional Interagency Executive Committee
- REO and RIEC have advisory roles – REO recommends to RIEC which decides and interprets S&G implementation
- Responsibility for project decision making still resides with FS/BLM

ACS Consistency Finding

- Regional Forester Deciding Officer
- Must find the proposed action consistent with the ACS
  - "Meets ACS Objectives"
  - "Does not retard or prevent attainment of ACS Objectives"

Connectivity/Processes Issues

- Biological
  - Fish Passage
    - Upstream
    - Downstream
  - Other aquatic organisms
- Physical
  - LWD movement
  - Sediment transport and storage
  - Water quality

IFIM Habitat Analysis

- Species Preference (Criteria) Curves
  - Weighted Usable Area (WUA)
  - Available for many salmonid species and life stages
- Spatial Niche Analysis
  - Ecological approach
  - Provide a diversity of habitats in absence of curves
  - Macroinvertebrates, amphibians, etc.

Spatial Niche Analysis

- Expansion of IFIM/PHABSIM
- Breaks out habitat niches using combinations of depths and velocities
- Most useful where criteria curves are absent or not applicable for some species
- Objective might be to provide sufficient flows to provide all niches that occurred under natural hydrograph

NICHE PARAMETERS	DEPTH (FEET)	VELOCITY (FT/SEC)	TARGET FUNCTION
D.5V.5 MARGIN	0-.5	0-.5	FRY/MARGIN HABITAT
D2V1.5 MODERATE SLOW	.5-2	0-1.5	JUVENILE TROUT INVERTEBRATES
D2V3.5 MODERATE FAST	.5-2	1.5-3.5	ADULT/SPAWNING TROUT INVERTEBRATES
D3.5V1.5 DEEP SLOW	2-3.5	0-1.5	ADULT SPAWNING TROUT INVERTEBRATES
D3.5V3.5 DEEP FAST	2-3.5	1.5-3.5	ADULT TROUT INVERTEBRATES
DV1.5 VERY DEEP SLOW	>3.5	0-1.5	ADULT TROUT AMPHIBIANS

Late-Successional Reserves (LSRs)

- Goal – to protect and enhance conditions of late-successional and old-growth ecosystems, which serve as habitat for late-successional and old-growth related species, including the northern spotted owl.
- Functioning and interacting late-successional and old-growth ecosystem
- Management Assessments for LSRs
- Existing developments are considered existing uses and may remain, consistent with other S&Gs

LSR Example

- Reservoir Fluctuation Zone
  - Maintained in early successional stage, precluding ability to manage for late-successional forest
  - What components of late-successional forest habitat can be managed for adjacent to the reservoir to improve habitat for late-successional species?
  - Objective is to reduce impacts to late-successional species

Survey and Manage Species

- Goal – Protection for rare species of plants and animals (amphibians, bryophytes, lichens, mollusks, vascular plants, fungi & arthropods)

- Required actions
  - Surveys
  - Implement Management recommendations

Continuing Impacts

- Mitigation for impacts to NFSL resources that will occur over the new license period
- Pre-project, reference, or historical conditions
- Mitigation constrained by site potential & evaluation of what could be expected to be restored if the project facility were removed ("without-project" conditions)
- Not FS intent to receive reparations for past impacts

BAKER RIVER PROJECT RELICENSE

Aquatic Resources Working Group

May 10, 2001

9:00 a.m. – 2:30 p.m.

USFS Office, Mountlake Terrace, WA

MEETING NOTES

Aquatics Working Group Mission: *"To identify issues and develop solutions and recommendations addressing fish and aquatic resource interests related to the Baker River Project and its operations, leading to a settlement agreement."*

Fish Team Leader: Arnie Aspelund, 425-462-3442, aaspel@puget.com

PRESENT:
Karen Kloempken (WA Dept. Fish & Wildlife), Stan Walsh (Skagit System Cooperative), Dick Raisler (WA Council-Federation of Fly Fishers/Fidalgo Fly Fishers), Arn Thoreen (Skagit Fisheries Enhancement Group), Rod Sakrison (WA Dept. of Ecology), Brady Green (U.S. Forest Service), Arnie Aspelund (PSE), Cary Feldmann (PSE), Doug Bruland (PSE), Nick Verretto (PSE), Kristin Schuldt (PSE), Sue Madsen and Phil Hilgert (R2 Resource Consultants), Bob Wright (WA Dept. of Ecology), Chuck Ebel (U.S. Corp of Engineers), Don Schluter (Trout Unlimited by phone), Carl Corey (U.S. Forest Se), Fred Seavey (U.S.Fish & Wildlilfe), Gary Sprague WA Dept. Fish & Wildlife), Lyn Wiltse (facilitator - PDSA Consulting)

Agenda May 10, 2001
9:00 a.m. - 2:30 p.m.
USFS Office, Mountlake Terrace, WA
Bring Lunch

1. Review Agenda and Minutes
2. Review Action Items

3. Study Request Submittals/Study Plan Development
4. USFS Presentation on NW Forest Plan and Aquatic Conservation Strategy
5. Study Request Submittals/Study Plan Development
   Update on PSE reservoir operations model.
6. Parking Lot
7. Set agenda for next meeting, June 14 – Room 1b & 1c at Department of Ecology in Bellevue, WA
8. Evaluate meeting

FUTURE DATES AND LOCATIONS

The team will continue to meet on the second Thursday of each month, from 9:00 to 2:30: June 14, July 12, Aug. 9, Sept. 13, Oct. 11, etc.

NEW ACTION ITEMS

- **ALL:** Provide comments on A1, B, C and A-2 by June 14.
- Chuck: Notified team members when delta field survey is to take place.
- Nick: Get update on aerial photos/surface model.
- Rod: Meet with PSE to come up with spill protocol.
- Phil: Distribute copies of Study Plan for A1, B, and C by June 7th for all to review.
- Arnie: Re-send the most current version of A-2 for review.
- Brady: Invite Jim Chu to do presentation on Wild & Scenic River at July meeting.
- Fred: Talk with Terrestrial Group re: wetlands that are hydrologically but not directly connected to the river.
- R-2: Complete Task 1 of R-A01.A by June 30.

REPORT ON OLD ACTION ITEMS

- ALL: Provided feedback to Arnie on R-A01.A, B and R-A02 by May 2.
- Arn: Gave Orrell's contact information to Sue.
- Arnie: Emailed copies of R-A01.A, B and R-A02 to team members ASA
- Rod: Reserved Dept. of Ecology Office in Bellevue for June meeting.
- Gary: Distributed hard copies of his May, 2000 sockeye presentation.

INTRODUCTIONS

The team welcomed Kristen Schuldt, PSE's new FERC Licensing Information Coordinator to the group and Carl Corey, Wildlife/Terrestrial Specialist from the U.S. Forest Service. Carl will give a presentation on the NW Forest Plan and Aquatic Conservation Strategy.

GROUT SPILL UPDATE

Bob reported that he was on vacation during a media report that questioned the timeliness of the reporting of the spill. It was unfortunate that Ecology Public Information officer was not aware of how Bob had worked with PSE re: the spill. Rod distributed a handout on protocol for emergency spill response in Washington State with spills of oil and hazardous materials. Ecology needs to be contacted immediately. They have a 24hr./7 day phone contact number. When in doubt, Ecology should be

called so they can advise appropriate action. It is also good to provide Ecology with advance warning when possible.

Bob acknowledged that it is difficult to determine how much of a substance would constitute a spill. It makes good sense and is good Public Relations to report any spill. If a spill might affect the Skagit River, the Forest Service would also appreciate a call. Washington Department of Fish & Wildlife works with Ecology to manage spills.

OUTAGE UPDATE

PSE's Lower Baker generator should be back on line by mid-June. They have been spilling 2,000-3,000 cfs at Lower Baker for the past couple of weeks. They ramp down at night and resume spilling during the day. The turbidity is gradually beginning to subside.

NORTHWEST FOREST PLAN AND HYDROPOWER LICENSING NFP 101

Carl Corey gave a very informative presentation on the NW Forest Plan as it relates to relicensing the Baker River Project Relicensing Process. His presentation is available on the Website.

STUDY REQUEST SUBMITTALS/STUDY PLAN DEVELOPMENT

Study # Title	Notes/Next Steps
A01.A Reservoir Tributary Habitat Surveys	Sue has been working with a variety of sources to gather information and is also conducting a literature review. Still on track to complete this by June 30th. At this point they are planning to survey up 1 kilometer of each tributary. There is a question about how far to survey the main stem of the Baker (A-18). We will expand 1A to include A-18. We will continue with Phase1 and then make a decision, re: the level of survey/study methods required for data gathering that meets everyone's interests. We will make this decision at our June meeting.
A01.B Reservoir Tributary Biological Surveys	Defer to June meeting (Phil)
A01.C Reservoir Tributary Delta Surveys	Defer to June meeting (Phil)
A02 LB River Habitat Mapping	Finalize comments at June meeting
A03 Reservoir Fish Population Characteristics	Defer to June meeting. Will be bringing in a graduate student to do this.

A04	LB/Skagit River Flow, Gaging	Approximately six weeks of readings have been gathered. They will continue until the fall.
A09	Skagit River Flow and Habitat Assessment (HIGH PRIORITY)	Proceeding with Study Plan. Met with Paul Uncapher, formerly with Forest Service to discuss this plan. Upon reviewing the tables, he suggested the issues be stated as hypothesis to be tested. Phil will do this. Phil proposed we separate out the channel and geomorphic piece as a separate study item - **A24: Hydrologic and Geomorphic Analysis**. This will make these studies easier for outsiders to find. Paul also suggested that either this group or the Terrestrial Group study areas inside the flood plain (wetlands that are hydrologically connected to the river.)
A05	Water Quality Sampling	Keep separate from A13.
A06 A08	UB Passage Design Baffle Modification UB Passage System Evaluation	Work is progressing. Starting the installation next week. Report in June.
A07	Lower Baker Forebay Bathymetric Survey	Pending – proceeding by June 1st.
A10	Baker River Delta Habitat Assessment-Char	Proceeding …awaiting next level of survey conditions.
A11	Nutrient Addition	Parking Lot- not for 2001.
A12	Instream Flows for Biodiversity	Split between A21 and A09.
A13	Water Quality Assessment	Keep separate from A05.
A14	Reservoir Shoreline Erosion	Not for 2001-Needs further development.
A15	UB Delta Scour	Proceed to Study Plan. Consider control added to study design.
A16	Lower Baker Delta/Channelization	Pending – Not for 2001.
A17	Tributaries Surveys Upstream of Barriers	Coordinate methodology with A01.
A18	Baker River Survey Upstream of 1 km.	Coordinate methodology with A01.
A19	Review Limnological Information	Pending.
A20	Large Woody Debris Management	Pending.
A21	Skagit Wild & Scenic River Values	Pulled out from A12 – Pending.
A22	Baker Lake Trout Impacts Evaluation	Probably defer to 2002 – Discuss at next Meeting.
A23	Baker River Wild & Scenic River Values	Pending/Also recreation issue.
A24	Hydrologic and Geomorphic Analysis	Study Plan under development.

LIST OF MEETING HANDOUTS:

- FOCUS – Emergency Spill Response in Washington State (WA Department of Ecology)

- BAKER RIVER SOCKEYE – June 2000 presentation by Gary Sprague (WDFW) to the Baker Aquatic Working Group
- NW Forest Plan powerpoint presentation (U.S. Forest Service)
- 4/24/00 Memo – Non-Federal Hydropower Projects and the Northwest Forest Plan

ADDITIONAL ISSUES

Water Quality/Quantity during planned maintenance outages
Water Quality/Quantity during unplanned outages

PARKING LOT

- Watershed Analysis presentation by Brady Green (Aquatic findings- share in June or July?)
  We need a strategy to integrate this analysis into the process
- Feedback on "Salmon on the Baker River" document
  Different perspectives
  Discuss posting reviews on web
- Chinook Working Group- Skagit River Chinook Recovery Plan
- Presentation on Northwest Forest Plan including Wild and Scenic Rivers Act (USFS) in fall?
- Presentation on ESA (direct relationship to 4(d)
- State agency presentations re: mandates

EVALUATION OF MEETING

Well-Dones

- Carl's presentation
- Reminder of interests
- Got closure on disagreement
- Food!
- Good facilitation
- Baker River Sockeye presentation handout
- Forest Service hosting

Opportunities to Improve

- Ran over
- Lack of follow-through on some study plan developments
- Think about rooms with windows that open
- Reminder of interests

Tentative Agenda for Next Meeting
June 14, 2001
9:00 a.m. - 2:30 p.m.
Room 1b & 1c, Department of Ecology in Bellevue, WA
Bring Lunch

1. Review agenda and minutes

2. Review Action Items
3. Continue review of Study Plans and Requests
4. Update on Fish Life History & Habitat Intersections
5. Brady's presentation on Watershed Analysis
6. Update on PSE Operations model
7. Parking Lot
8. Set agenda for July 12 (location TBD)
9. Evaluate meeting