BAKER RIVER PROJECT RELICENCE

Cross Resource Workshop

March 4-6, 2003
CottonTree Inn
Mount Vernon, WA

Summary of Proceedings

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Executive Summary

On March 4-6, 2003, 61 representatives from the five resource-area working groups (Aquatics, Terrestrial, Recreation/Aesthetics, Cultural/Historical, and Economics/ Operations,) the Baker Solution Team, consultants and FERC participated in a Cross Resource Workshop to discuss aspects of the settlement process for the Baker River Project Relicense.

During the half-day session on March 4, representatives from the five working groups presented summaries of the approximately 150 draft PMEs (protection, mitigation and enhancement) options developed by the working group members over the last seven months.

On March 5, PSE presented an overview of the 54 draft proposed actions (derived from the PMEs), prepared at the direction of the Solution Team. Participants met in their respective working groups and discussed those actions that cross all resources, especially the proposed action for Reservoir Management. On March 6, the working groups continued discussion of the draft proposed actions and then all participants met together to discuss the next steps in the process. Working groups reconvened to craft action plans for how they will contribute to a second draft of the proposed actions.

The FERC representative emphasized that the Settlement Agreement must be submitted with the license application by April 30, 2004, and suggested participants begin drafting license article language as soon as actions are agreed upon. Participants acknowledged the many opportunities created by synergies across the different resource areas. The assessment of the initial draft proposed actions was fairly positive. Participants also reported feeling from "cautiously" to "generally" optimistic about coming up with a Settlement Agreement that addresses the needs of the participants.

The timeline for preparing a second draft of the proposed actions is May 1. Participants discussed the possibility of a one-day working meeting to review the second draft proposed actions and discuss how to resolve competing or conflicting actions across resource areas. These second draft proposed actions would be used for evaluation in the Preliminary Draft Environmental Assessment, to be prepared for review by September 30, 2003.

Attached for further reference is the *Summary of Proceedings*, which includes the *Flip Chart Notes* taken during the Workshop.

BAKER RIVER PROJECT RELICENCE

Cross Resource Workshop

March 4-6, 2003
CottonTree Inn
Mount Vernon, WA

Summary of Proceedings
Prepared by the Baker Facilitation Team

On March 4-6, 2003, participants, representing the five resource working groups (Aquatics, Terrestrial, Recreation/Aesthetics, Cultural/Historical and Economics/Operations), the Baker Solution Team, consultants and FERC, met at the CottonTree Inn in Mount Vernon. The purpose of the workshop was to achieve the following outcomes:

- To learn about the draft PME options being considered by all working groups
- To discuss potential synergies and conflicts on key PME issues
- To have interest-based discussions on initial PSE draft proposed actions to resolve key issues
- To develop an action plan to carry the PMEs forward from the workshop

March 4, 2003

Present: See List of Participants (Attachment A).

Agenda

- Welcome and Introduction
  - Purpose of today's meeting
  - Agenda review
- PME Options Process
  - Review of how the draft PME options were developed
- Aquatics Working Group Presentation, Q and A
- Terrestrial Working Group Presentation, Q and A
- Break
- Recreation Working Group Presentation, Q and A
- Cultural Working Group Presentation, Q and A
- Economics and Operations Working Group Presentation, Q and A
- Wrap Up and Preview of March 5 session

The first session commenced at 1:00 p.m. Representatives from each of the five working groups presented a summary of the draft PME options developed by working group members over the previous seven months. (See Attachment B for a copy of the PowerPoint presentation.) They engaged the group in questions and answers designed to clarify the options. At the close of the session, Dee Endelman of the facilitation team reviewed the following next steps:

- Discussion of draft proposed actions based on these PMEs.
- Development of second draft PMEs from these discussions.
- Completion of studies to round out the picture.
- Development of management plans.
- Ongoing interest-based settlement negotiations.

Dee explained that the first step – discussion of draft proposed actions based on the PMEs – would occur over the next two days of the workshop. The first day's session adjourned at 5:00 p.m.

March 5, 2003

Present: See Attachment A.

Agenda

- Introduction
  - Agenda review
  - Ground rules
- Review of RESOLVE
  - Review of interest-based negotiations concepts and tools
  - Using RESOLVE in the Baker Relicensing process
- A "First Look" at Cross Resource Conflicts and Synergies
  - Group review of areas of cross resource conflicts that need to be addressed
- Introduction: Draft Proposed Actions
  - Overview of draft proposed actions, taken from PME options, which appear to have greatest cross resource implications
- Review of Cross Resource Draft Proposed Actions
  - Baker River Coordinating Committee
  - Access Management
- Break
- Creative Moment!
  - The first of a series of creativity breaks
- Review of Cross Resource Draft Proposed Actions
  - Information, Education and Interpretive Services
- Review of Cross Resource Draft Proposed Actions
  - Reservoir Management

- Working Group Discussions of Reservoir Management Draft Proposed Action
  - How would this affect our resource?
  - What conflicts, if any, are there with the interests of my organization/stakeholder group?
  - Are resource needs being balanced?
- Lunch
- Creative Moment!
- Working Group Discussions of Reservoir Management Draft Proposed Action (continued)
- Large Group Report Out of Working Group Discussions
- Break
- Overview of Remaining Draft Proposed Actions
- Working Group Discussions: Remaining Draft Proposed Actions
- Review of Today/Preview of Tomorrow/Wrap Up

The March 5 session commenced at 8:00 a.m. After reviewing agenda, ground rules and tools for interest-based bargaining, the participants were asked to review a list of cross resource potential conflicts and synergies. This list had been developed with the working groups over the previous month and was contained on a pre-workshop worksheet sent out before the workshop.

Conflicts/Barriers/Draft Actions Exercise

The list of conflicts and synergies were hung on flip chart pages around the room. Also hung were the draft proposed actions which PSE developed based on interests expressed as the first draft PMEs were developed.

Participants were asked to:

1. Add their thoughts to the list of conflicts as well as their ideas for solutions
2. Write down any barriers that they saw to settlement, along with ideas for overcoming these barriers
3. Place a colored sticky dot (according to working group) next to any potential conflict that, in their opinion, needs to be discussed across working groups
4. Place a colored sticky dot next to draft proposed actions that, in their opinion, could be important to discuss across working groups

Attachment C is a Pre-Workshop Worksheet updated with the comments and "sticky dots" from this exercise. Attachment D is a table indicating the "sticky dots" placed at various draft proposed actions.

It turned out to be difficult to gauge the level of cross resource interest in discussing specific conflicts, as participants from all working groups placed at least one "dot" on almost every conflict area.

However, based on level of interest indicated by the number of sticky dots, the following potential conflict areas elicited a relatively high level of interest from Terrestrial, Recreation and Cultural working groups:

- Road and Trail Access
- Dispersed Camping
- Developed Sites
- Land Management

Among Aquatics, Recreation, Cultural and Economics/Operations, there also appeared a high level of interest in discussing Large Woody Debris Management. All groups also showed a high level of interest in discussing Reservoir Management.

Draft Proposed Actions

Kris Olin, Baker Relicensing Project Manager, gave an overview of the draft proposed actions developed by PSE. Attachment E is the PowerPoint presentation of these actions. PSE staff members first reviewed "Shared Proposed Actions," i.e., those actions which most markedly cross all resources. These included:

- Adaptive Management
- Baker River Coordinating Committee
- Reservoir Management and Operation
- Access Management
- Informational, Interpretive and Educational Services and Facilities

After these presentations, the group divided into working groups to discuss the Reservoir Management proposal. There was a large group report out at which each working group explained its group's interests with respect to Reservoir Management.

For the balance of the day, working groups met to discuss other draft proposed actions for their resource area.

Attachment F is a copy of the flip chart notes from the March 5 and 6 proceedings.

March 6, 2003

Present: See Attachment A.

Agenda

- Review/Preview
  - Review of yesterday's progress
  - Agenda review for today
- Working Group Discussions (continued)
- Break
- Creative Moment!

- Next Steps: Where do we go from here?
  - Presentation by:
    - Steve Hocking, FERC Representative
    - Kris Olin, Baker Relicensing Project Manager
    - Rob Mohn, Louis Berger Group (PDEA Consultant)
  - Group Discussion
- Lunch
- Creative Moment!
- Group Discussion: Where do we go from here?
- Break
- Final Creative Moment!
- Large Group Report Out: Where do we go from here?
- Wrap Up
- Adjourn

The March 6 session commenced at 8:00 a.m. After a brief review of yesterday's proceedings, the working groups reconvened to continue their discussions of draft proposed actions in their resource areas.

Discussion of Next Steps

At 11:15 a.m., the groups reconvened for a discussion of next steps. Steve Hocking from FERC told participants that there would be no extensions of the April 30, 2004 deadline for License Application and Settlement Agreement. He urged the group to begin drafting license articles as we continue to work on settlement. Rob Mohn reported that the Berger Group looks to June 1, 2003, as a deadline for actions they will evaluate for the Preliminary Draft Environmental Assessment (PDEA) to be issued on September 30, 2003. He urged the group to complete discussions on options to be considered for the PDEA by May 1, 2003.

The working groups answered the following questions in small group discussions and reported their action plans to the full group:

1. What can each working group get done by May 1, 2003? How will we do it?
2. What are the barriers to completing 2nd draft PMEs by May 1, 2003? How will we deal with them?
3. What are the cross resource issues? How will we discuss them?

Details of the action plans are contained in Attachment F.

With respect to "2nd draft PMEs," the facilitators suggested the groups use the format established by the Draft Proposed Actions, which contains key sections from the 1st draft PME format but is much simpler to read. The group seemed responsive to this suggestion.

Wrap Up

Following the reports on action plans, the participants engaged in closing remarks. Overall, participants indicated that the workshop had been very beneficial in moving the settlement process forward.

Participants noted that we had not gotten into substantive discussions of cross resource conflicts. There are action plans for at least some of the groups to begin this work over the coming months.

On the other hand, participants complimented PSE's efforts in developing draft proposed actions. They also appreciated the flexibility of the agenda and the facilitation of the workshop.

Attachment A – List of Participants

Cross Resource Workshop
List of Participants

	March 4	March 5	March 6
Adams, Brian – Skagit County	x	x	x
Aspelund, Arnie – PSE	x	x	x
Bivin, Mignonne – NPS	x		
Bruland, Doug – PSE		x	
Bush, Kelly – Equinox		x	
Campbell, Larry – Swinomish Tribe	x	x	
Carey, Bob – The Nature Conservancy	x		
Daily, Marc – Berger			x
Ebel, Chuck – Army Corps of Engineers	x	x	x
Efird, Carol – Berger		x	x
Endelman, Dee – Agreement Dynamics	x	x	x
Eychaner, Jim – Interagency Comm. Outdoor Rec.		x	x
Feldmann, Cary – PSE	x	x	x
Fransen, Steve – NMFS	x	x	x
Freeland, Connie – PSE	x	x	x
Freet, Bruce – Agreement Dynamics	x	x	x
Fritzen, Bob – DOE		x	
Fuchs, Tony – PSE	x	x	x
Galloway, Gene – PSE	x	x	x
Goldsworthy, Patrick – N. Cascades Cons. Council	x	x	x
Green, Brady – USFS	x		
Hatfield, Andy – PSE	x	x	x
Helton, Bob – Citizen	x	x	x
Hilgert, Phil – R2 Consulting	x	x	x
Hocking, Steve – FERC	x	x	x
Hollenbeck, Jan – USFS	x		
Jennison, Steve – DNR	x	x	x
Kuntz,Bob – NPS		x	x
Lawson, Chris – Huckell/Weinman	x	x	x
Lentz, Scott – USFS	x		
Louthain, Jerry – Anacortes, Skagit PUD Concrete	x	x	x
Mace, Rod – USFS	x	x	
Malone, Kevin – Berger	x	x	
Marks, Derek – Upper Skagit Tribe			x
Mathews, Ruth – The Nature Conservancy	x	x	x
Mierendorf, Bob – NPS	x		
Miss, Chris – Northwest Arch. Asso.		x	
Mohn, Rob – Berger	x	x	x
Molander, Joel – PSE	x	x	x
Nelson, Bob – Rocky Mt.Elk Foundation	x	x	x
Oelfke, Jack – NPS	x		

Olin, Kris – PSE	x	x	x
Pernela, Lloyd – PSE	x	x	x
Piper, Jessie – PSE	x	x	x
Reid, Dave - PSE	x	x	x
Rosebrough, Susan – NPS		x	
Schild, Ed – PSE	x	x	x
Schuyler, Scott – Upper Skagit Tribe	x	x	
Smayda, Kathy – Berger	x	x	x
Sprague, Gary – WDFW	x	x	x
Stagner, Gene – USFWS		x	x
Thoreen, Arn – Skagit Fisheries Enhancement Grp.	x	x	x
Vanderheyden, Jon – USFS	x	x	x
Vaughn, Marty – Biota Pacific	x	x	x
Verretto, Nick – PSE	x	x	x
Vigue, Lauri – WDFW		x	x
Walsh, Stan – Skagit System Cooperative	x	x	x
Weisberg, Saul – North Cascades Institute		x	
Wiltse, Lyn – PDSA Consulting	x	x	x
Wright, Bob – DOE			x
Zyskowski, Stan – NPS	x		

Attachment B – PME Option Review

PME Option Review

Terrestrial

101.Manage lands within the existing Project boundary to benefit wildlife

- Reservoir elevation rule curves
- Loon nest platforms
- Osprey nest structures at Lake Shannon
- Wildlife forage enhancement
- Cavity nest & roost structures at Lake Shannon
- Wetland creation & enhancement
- Conifer forest buffer on Baker Lake
- Riparian hardwood forest

103.Provide technical and/or financial support to landowners interested in enhancing their lands for wildlife

- Elk habitat
- Mountain goat summer range
- Road & trail access management
- Stream & wetland buffers
- Forested buffers around federal LSR
- Bald eagle habitat management plans
- Retention of trees killed by the hemlock looper
- Thinning of young forest in federal LSR

104.Contribute funding to on-going wildlife habitat acquisition and/or management programs

- Acquisition of lands
- Acquisition of development rights

105. Contribute funding to plant and wildlife research

- Terrestrial resource research fund

106. Develop and implement a noxious weed management plan

- Site-specific and species-specific plans

107. Develop and implement a management plan for plants of special status

- Surveys of potential impact areas
- Site-specific management plans
- Process for assessing and preventing conflicts

102. Acquire and manage lands outside the existing Project boundary to benefit wildlife

- Wetland habitats
- Riparian habitats
- Habitats of importance to analysis species
- Forested buffers around federal LSR
- Other forest habitats

108. Support efforts to relocate wildlife in the Baker River basin

- Oregon spotted frog
- Species of low mobility

109. Conduct public education directed at reducing recreational and other human-induced impacts to plants and animals

- Programs to address human-wildlife conflicts

110. Manage aquatic and riparian habitats downstream of the Baker River Project to enhance habitat value

- Instream flow management
- Little Baker River restoration
- Lower Baker River alluvial fan enhancement

111. Create and fund a group of interested agency and NGO representatives to oversee implementation of terrestrial PME measures

- Terrestrial resource PME implementation group

112. Develop and implement plans to control undesirable wildlife in the Baker River basin

- Species-specific plans

113. Protect the existing wilderness values of the Baker River Basin

- Avoid or minimize Project effects on wilderness

114. Re-establish and maintain historic salmon diversity in the Baker River and its tributary streams

- Consideration of biodiversity, local adaptations and harvest sustainability
- Placement of salmon carcasses above Project

Recreation and Aesthetics

205 Improve Recreational Safety & Resource Protection

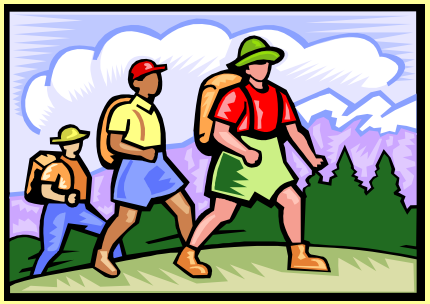
- Water Based Safety
  - Public water safety awareness
  - Hazard reduction
  - Law enforcement
- Land Based Safety
  - Law enforcement agreements
  - Housing in the Basin
  - Public emergency communications

210 Manage Dispersed Recreation Sites

- Provide periodic maintenance
- Harden appropriate high use sites
- Provide visitor education in back-country stewardship
- Decommission sites in environmentally sensitive areas

220 Scenery & Aesthetics Management

- Provide structural treatments, if/as necessary
- Develop and enhance viewpoints
- Develop landscaping / Provide vegetation management
- Manager reservoir elevation

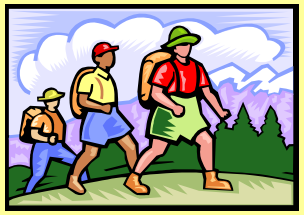


225 Construct & Maintain Trails & Trailheads

- Provide / promote facilities for water trails
- Construct multi-use, non-motorized trails serving Upper and Lower Baker areas
- Fund existing trail & trailhead maintenance

230 Provide & Maintain Public Road Access

- **Develop & implement road access, maintenance & travel management plan**
  - Identify road & trail use objectives
  - Determine cost share for project related roads
  - Identify & implement road closures & conversions
- **Secure agreement for public access to Lake Shannon**
- **Maintain public access over Upper Baker Dam**



235 Information, Interpretation & Education

- Provide information services
- Provide cultural & environmental interpretation
- Provide cultural & environmental education programs
- Construct / provide supporting facilities

240 Construct, Operate & Maintain Developed Facilities

Developed Campgrounds:

- Rehabilitate existing USFS campgrounds
- Expand capacity at existing site(s)
- Provide / replace drinking water sources
- Fund / operate developed campgrounds
- Develop overnight camping facilities on Lake Shannon
- Provide ADA compliance at new & existing sites
- Reconfigure Kulshan Campground
- Plan long-term role / facilities for Baker Lake Resort

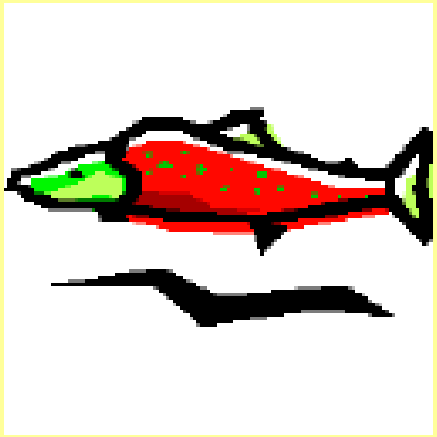
Developed Day-Use Facilities:

- Improve / expand Baker Lake day-use facilities
- Fund / operate / maintain day-use facilities
- Develop day-use facilities at Lake Shannon
- Provide ADA compliance

Boat Launching Facilities:

- Improve USFS Baker Lake boat ramps
- Relocate Panorama Point ramp
- Modify ramps and / or reservoir management to extend seasonal ramp utility
- Enhance Lake Shannon boat ramp facilities

Aquatics



Aquatic Resources

Brainstorm Potential PME Options (over 170 identified in October 2002)

12/17/02 Line #	10/18/02 Line #	Potential PME Options	Legal?	Addresses a PME need?	Feasible?	Addresses interests?	Clarifications	Related Studies?
1	3	Meet some percentage of "run of the river" option	Yes	Yes	Yes	Okay	% needs to time/flow needs to be determined	HYDROPS, A02, A04, A09(a,b,c,d), A12, A24, A27
2	4	Prescribe flow regime that maximizes community composition & productivity (in Baker, in Skagit)	Yes	Yes	Yes	Okay	Too general to work with	HYDROPS, A02, A04, A09(a,b,c,d), A12, A24, A27
3	5	Prescribe flow regime that meets threatened, endangered, sensitive fish (aquatic) species needs (in Baker, in Skagit)	Yes	Yes	Yes	In conflict with recreation/comercial fishing, tribes, DOE, DFW		Interim Protection Plan and above list
4	6	**Prescribe flow regime that meets needs of mix of species, not just TES (legal responsibility +)**	Yes	Yes	Yes	Okay		Interim Protection Plan and above list
5	7	Operate flows so that, in conjunction with Skagit flows, the aquatic & riparian habitat functions & processes down stream are **maintained and restored, where feasible.**	Yes	Yes	Yes	Okay		HYDROPS, A02, A04, A09(a,b,c,d)/A12, A24,A27
6	8	Regulate Baker flow to compensate for flow releases from Seattle City Light Project (Skagit River)	Questionable	Yes	Questionable	Not Corps of Engineers?	"Compensate" may mean "compromise" (Baker Project can't fully compensate)	HYDROPS, A02, A04, A09(a,b,c,d), A12, A24,A27
7	9	Same as above, incorporating Sauk River flows	Questionable	Yes	Questionable	Okay		HYDROPS, A02, A04, A09(a,b,c,d), A12, A24,A27
8	10	Address channel forming peak flows on periodic basis (below LB) **Note: covered under #38**	Questionable	Yes	Questionable	Okay	What flow is needed to form channels? Can we affect that?	HYDROPS, A02, A04, A09(a,b,c,d), A12, A24,A27

3.0 Aquatic Resources

- 3.01 Aquatic Species Management Plan
- 3.02 Fish Passage Management Plan
- 3.03 Flow Management Plan
- 3.04 Physical Habitat Management
- 3.05 Reservoir Pool Level Management

3.01 Aquatic Species Management Plan

- (a) Create Baker River Coordinating Committee
  - Consultation & Coordination
  - Develop Basin Fisheries Management Plan
  - Monitor and Evaluate Studies
  - Utilize Adaptive Management
  - Manage Habitat, Enhancement, Restoration, and Conservation (HERC) Fund

3.01 Aquatic Species Management Plan

- (b) Create Habitat Enhancement, Restoration, and Conservation (HERC) Fund
  - Primary Contribution
  - Matching Contribution

3.01 Aquatic Species Management Plan

- (c) Fish Propagation & Enhancement Programs & Facilities
  - Sockeye Spawning Beach
  - Other Propagation and Enhancements
  - Native Resident Salmonid (HERC Fund)
  - Native Non-Salmonid Species (HERC)

3.01 Aquatic Species Management Plan

- (d) Non-native or Invasive Aquatic Animal Species Programs (HERC)
  - Investigate
  - Develop Control Plan
  - Monitoring & Evaluation

3.02 Fish Passage Management Plan

- (a) Upstream Passage (Anadromous, Adfluvial, Fluvial, Resident)
  - Construct Trap, Sorting and Haul Facilities at Lower Baker (Reserves Section 18)
  - Develop Plans and Specifications for Operation
  - Provide Additional Funds for Future Modifications
  - Study, and if Necessary, Install Upstream Passage at Upper Baker

3.02 Fish Passage Management Plan

- (b) Downstream Passage (Anadromous,Adfluvial, Fluvial, Resident)
  - Construct Facilities at Upper & Lower Baker (Reserves Section 18)
  - Develop Plans and Specifications for Operation
  - Provide Additional Funds for Future Modifications
  - Study, and if Necessary, Install Additional Passage at Upper Baker

3.03 Flow Management Plan

- (a) Continuous Instream Flow
  - Rule Curve (Standards for Minimum Flow, Salmon Management Flow and Flood Control)
  - Gaging for Flow Releases
  - Monitoring & Reporting Protocols

3.03 Flow Management Plan

- (b) Ramping Rates
  - Rule Curve (Standards for Rate and Range)
  - Gaging for Ramping
  - Monitoring & Reporting Protocols

3.03 Flow Management Plan

- (c) Amplitude
  - Rule Curve (Standards for Amplitude Change)
  - Gaging for Amplitude
  - Monitoring & Reporting Protocols

3.03 Flow Management Plan

- (d) Frequency of Cycling
  - Rule Curve (Standards and Range)
  - Monitoring & Reporting Protocols

3.03 Flow Management Plan

- (f) Water Quality Associated with Flow Releases
  - Meet WA State Water Quality Standards
  - Monitoring & Reporting Protocols
  - Plans to Reach Compliance
  - Contingency Response

3.04 Physical Habitat Management

- (a) Fluvial Geomorphic Processes
  - Develop a Program to Augment Sediment/Gravel to the Lower Baker River
  - Consider Sediment/Gravel Augmentation to the Skagit River
  - Timing of Implementation

3.04 Physical Habitat Management

- (b) Large Woody Debris Management
  - Implement Plan for Collection and Redistribution
  - Consider Augmentation to the Skagit River from Other Sources (HERC Funds)

3.04 Physical Habitat Management

- (c) Water Quality Enhancement (HERC)
  - Investigate Nutrient Supplementation into Baker Lake or Lake Shannon
  - Opportunities To Enhance Nutrient Availability in Tributaries to Baker/Shannon
  - Enhance Temperature Regimes in Tributaries to Baker/Shannon

3.04 Physical Habitat Management

- (d) Riparian Modification, Conservation or Restoration (HERC)
  - Enhance Riparian Habitat to Tributaries to Baker/Shannon and/or Middle Skagit River
  - Control Reservoir Bank Sloughing & Erosion
  - Control Human Access

3.04 Physical Habitat Management

- (e) Instream Channel Modification (HERC)
  - Enhance Habitat to Tributaries to Baker/Shannon, Middle Skagit River and/or Little Baker River Distributary
  - Investigate Opportunities to Improve In-Channel Flow to Tributaries, Oxbows, Sloughs or Side Channels to Baker or Middle Skagit River

3.04 Physical Habitat Management

- (f) Invasive/Noxious Aquatic & Riparian Plants (HERC)
  - Investigate
  - Develop & Implement Programs for Control
  - Monitoring & Evaluation

3.05 Reservoir Pool Level Management

- (a) Reservoir Stage Management
  - Rule Curve (Standards & Range of Stage-Height Measurements)
  - Gaging for Stage-Height
  - Monitoring & Reporting Protocols

3.05 Reservoir Pool Level Management

- (b) Reservoir Water Quality
  - Meet WA State Water Quality Standards
  - Monitoring & Reporting Protocols
  - Plans to Reach Compliance
  - Contingency Response

Cultural

Scoping of Project Cultural Compliance Needs

401

- Overall project scale
- Tribal and community consultation
- FERC policies & guidelines
- Applicable cultural resource laws, regulations, & guidelines
- Federal and state agency plans
- Historic preservation offices

Cultural Resource Compliance Laws & Regulations

401

- Federal Power Act & FERC regulations
- Federal laws & regulations: NEPA, ARPA, AIRFA, NAGPRA, NHPA
- NHPA: 36CFR Part 800 guides compliance procedures
- Mt. Baker-Snoqualmie Forest Plan

Initiate Planning Studies and Consultation

401, 404

- Define “area of potential effect”: APE
- Baseline inventory & assessment of resources in APE (GIS managed)
- Identify what comprises “cultural resources”
- Unanticipated Discovery Plan

Develop Historic Properties Management Plan (HPMP)

401, 404

- Key document guides management for duration of relicense
- A protocol on how to assess and manage historic properties
- Because baseline studies may be incomplete at time of relicense, is programmatic

Implementing the HPMP

402, 404

- Coordinate compliance, review, training, partnerships
- Establish advisory committee & decision-making protocol
- HPMP management actions equivalent to PME's

Protect Archaeological Sites

402, 404

- Confidentiality: site locations and other culturally sensitive information
- Stabilize/armor/harden sites
- Restrict accessibility/patrol sites

Protect Archaeological Sites

401, 402

- Re-design/alter proposed projects to avoid
- Data recovery through arch. excavation
- ARPA/law enforcement training

Protect Traditional Cultural Properties & Sacred Sites

401, 402, 405

- Gov't to gov't consultation, policy level
- Inventory & assess: collaborative process
- Maintain confidentiality
- Protect intellectual property rights
- Design & schedule for avoidance

Protect Traditional Cultural Properties & Sacred Sites

401, 402, 405

- Manage access
- Manage for traditional uses
- Enhance culturally significant resources
- Provide financial remuneration to tribes

Protect Historic Buildings/Structures

401, 404

- Restrict accessibility
- Conduct data recovery
- Re-design/alter proposed projects
- Relocate buildings/structures
- Plan for long-term use & adaptive re-use

Interpretation/Education: Sharing the Knowledge

403

- Encourages resource stewardship & protection
- Serves local communities
- Support tribal educational programs
- Develop internal education program

ECONOMICS / OPERATIONS

500 ECONOMICS / OPERATIONS

- 501 Coastal Zone Management Act Consistency
- 502 Additional flow releases for mitigation of water use
- 503 Submerged Lands
- 504 Flood Control

501 Coastal Zone Management Act Consistency

- Goal is to meet applicable State CZMA standards
- Achieved through receiving required approvals, permits, etc. related to programs including:

501 Coastal Zone Management Act Consistency

- State Environmental Policy Act (SEPA)
- Shoreline Management Act
- Hydraulic Project Approval
- Floodplain management/ critical area ordinances
- Water quality certification
- Aquatics Resources use authorization
- Section 404 permit
- Section 10 permit
- General Bridge Act Permit
- Air quality permits

502 Additional flow releases for mitigation of water use

- Goal is to provide a non-interruptible water supply for “new” water users in Skagit River basin
- Provides mitigation when the Skagit River flow is less than DOE’s minimum instream rule. The mitigation is attained by PSE providing additional flows
- Amount of additional flow releases is equal to amount of water being used that is subject to DOE Skagit instream flow regulations
- Estimated maximum amount of additional flow is 200-250 cfs

503 Submerged Lands

- Develop correct land ownership maps
- Identify property owners within project boundaries
- Secure ownership, easements, leases or other authorizations as need be to meet FERC requirements for lands within project boundary
- Settlement of applicable DNR's land use authorizations

504 Flood Control

- To reduce risks to public health and safety by obtaining optimal flood control storage within Skagit Basin from Baker Project
- Corps current flood control set by Congress in 1977 at 74,000 acre-feet from November 15 through February
- Intent here is to attain additional flood control storage up to 100,000 acre-feet of total storage at Baker Project if cost effective

Attachment C – Pre-Workshop Worksheet

Baker Relicensing Project: Cross Resource Workshop
March 4-6, 2003
Pre-Workshop Worksheet: Updated with Input from the Workshop

The following worksheet was sent to participants before the March Cross Resource Workshop. It has been updated with information gleaned on March 5, 2003, in an exercise where participants commented on the conflicts/synergies and barriers were posted on the wall.

Area/Resource Groups with Potential Conflict	Examples of possible conflicts	Ideas for Solutions?
1. Road and Trail Access (Recreation, Cultural and Terrestrial) "Dots" interest levels[1]: Terrestrial: 5 Recreation: 7 Cultural: 5 Econ/Ops: 1 Aquatics: 2	o Tribes need access to sites associated with Traditional Cultural Properties (TCP's). o Tribes may be concerned about public access to these same areas. o Terrestrial may want to see roads or trails closed to the public (or use restricted) for habitat purposes or to protect sensitive resource areas. o Recreation may want roads open to the public for recreation purposes that conflict with Tribal/Terrestrial concerns. They may want to maintain or increase trails to provide a variety of recreational opportunities. o Others?	• Seasonal closures [2] • Consult with tribes on access issues • Convert roads to non-motorized trails • Primitive trails: narrow with limited 2WD allowed to remain across • Interpretive and Education trails: promote and educate people re: cultural resources
2. Dispersed Camping: (Recreation; Cultural; and Terrestrial)	o This issue is subject to many of the same concerns as above, i.e., dispersed camping areas could intrude on sensitive natural or cultural resources and/or habitat areas.	• Consult on potential cultural impacts from development • Create criteria for management

[1] Participants were asked to note conflicts which need to be discussed between their working group and others. The number of colored dots indicates members of the working group who "voted" for a particular conflict area.
[2] Comments with solid black circles were added at the workshop. Comments with white circles were contained in the original pre-workshop worksheet.

"Dots" interest levels: Terrestrial: 4 Recreation: 5 Cultural: 3 Econ/Ops: 0 Aquatics: 1	o There may be soil erosion concerns if people in these less developed sites are "blazing their own trails", increasing the amount of bare ground. o Terrestrial may be concerned about conflicts between humans and wildlife, i.e., wildlife harassment, inadequate food storage, etc. o Recreation might be concerned about health and safety problems for humans caused by mice, bears, etc. "food robbers". o Others?	• Recognize sites of low impact and manage them for camping opportunities
3. <u>Developed Sites:</u> (Terrestrial, Recreational, Cultural) "Dot" interest levels: Terrestrial: 4 Recreation: 4 Cultural: 2 Econ/Ops: 0 Aquatics: 1	o Potential purpose and footprint of development might be of concern to Terrestrial in its efforts to protect sensitive wildlife species habitat& plants from human disturbance. o Potential purpose and footprint might be of concern to Cultural if it is near archeological, historic or cultural sites. o Assuming there is an aesthetic component to the development, Terrestrial and Cultural would have interest in the type of plantings. o Others?	• Consult on potential cultural impacts from development
4. <u>Large Woody Debris Management</u>: (Aquatics; Economics/Ops.; Recreation; Terrestrial)	o In the reservoir: Terrestrial and Aquatics might favor woody debris for riparian habitat and nutrient recycling while Recreation might see public safety concerns (e.g., boating hazard). o In the Skagit River: Aquatics might want large woody debris for fish habitat while the County	

"Dot" interest levels: Terrestrial: 1 Recreation: 4 Cultural: 3 Econ/Ops: 2 Aquatics: 7	doesn't want logs to accumulate along bridge abutments. o Others?	
5. Reservoir Management: Aquatics; Economics/Ops.; Cultural; Recreation; Terrestrial "Dot" interest levels: Terrestrial: 6 Recreation: 3 Cultural: 4 Econ/Ops: 3 Aquatics: 16	o Recreation might be interested in a full pool for recreation purposes. Cultural might also be interested in full pool to protect artifacts from human disturbance. o In contrast, Aquatics might have concerns about the impact of reservoir levels on in-stream flows; Terrestrial & Aquatics on riparian habitat and survival of critters who might try to live in the drawdown zone; and Operations will be interested in flexibility to meet power generation needs. o Others?	• Provide schedule for planning/monitoring purposes • Provide advance notice on outages/drawdown • Target specific seasonal reservoir elevation/fluctuation rules to benefit wildlife (especially spring and fall)
6. In-stream flows and Ramping: Aquatics, Economics/Ops "Dot" interest levels: Terrestrial: 1 Recreation: 2 Cultural: 4 Econ/Ops: 3 Aquatics: 7	o Ramping rates that might be good for power generation could cause fish concerns for Aquatics. o There are cost impacts to operations to keep flows in the river. o Capital investment might be needed to comply with ramping rate needs. o Others?	
7. Land Management: Terrestrial; Recreation; Cultural "Dot" interest levels:	o Recreation opportunities might be limited if land is acquired for non-development. o Cultural might have concerns about where land is being acquired and how it is being managed if it is associated with TCP's.	• Work with cultural management plan – survey and monitoring may be required depending on

Terrestrial: 3 Recreation: 5 Cultural: 3 Econ/Ops: 2 Aquatics: 0	o Others?	proposed usage of acquired lands
8. <u>Upstream Fish Passage</u>: Terrestrial; Aquatics "Dot" interest levels: Terrestrial: 3 Recreation: 3 Cultural: 2 Econ/Ops: 1 Aquatics: 12	o Terrestrial might have concerns about the potential impact on wildlife and their adjacent habitat of salmon spawning beaches. o Fish for spawning (Aquatics) versus fish for wildlife forage (Terrestrial). o Others?	
9. <u>Downstream Fish Passage</u>: Aquatics; Economics/Ops "Dot" interest levels: Terrestrial: 0 Recreation: 3 Cultural: 3 Econ/Ops: 3 Aquatics: 11	o Costs associated with certain downstream fish methods might be prohibitive. o Others?	• "Effective" downstream fish passage • Potential conflict with reservoir elevation management and flows/ramping • All native species
10. <u>Sensitive Areas:</u> All Groups "Dot" interest levels: Terrestrial: 6 Recreation: 4 Cultural: 0 Econ/Ops: 0 Aquatics: 3	o See comments under Road and Trail Access; Dispersed Camping; Developed Sites; and Land Acquisition and Management. o Others?	• Control access (gates, seasonal closures, access barriers, etc.)
11. <u>Ground Disturbing Activities:</u> Econ/Ops, Recreation & Cultural "Dot" interest levels:	o Because of concerns regarding artifacts and TCP's, Cultural will have concerns about ground disturbing activities for operational, recreational, plantings or other reasons. o Others?	• Impacts on water quality • Invasive plant control (weeding, spraying, etc.) • Impacts on archaeological

Terrestrial: 2 Recreation: 4 Cultural: 4 Econ/Ops: 0 Aquatics: 4		sites and tribal traditional cultural use areas • Management plan for archaeological sites & TCP'S
12. <u>Surface Water Uses:</u> Terrestrial, Recreational & Aquatics "Dot" interest levels: Terrestrial: 3 Recreation: 3 Cultural: 2 Econ/Ops: 2 Aquatics: 3	o Recreational uses (including sports fishing) might conflict with fish goals of Aquatics and might create riparian habitat disturbances (Terrestrial). o Others?	• Non-motorized areas on reservoirs and/or no access • Establish "no wake zone" in Upper Baker • Wakes on boats – limit size of boats and motors

What currently stands in the way of our reaching agreement? (For example, some participants have noted that "unfinished studies" stand in the way of reaching agreement. Are there other things you've been thinking about that stand in the way?)	**What do you think this group needs to do to overcome what stands in the way?**
• Limited dollars • Not talking substantively yet • Workload [recreation: 1 "dot"] • Open ended "agreements"- putting of specific actions to the future • Confusion about adaptive management: what it is and how to include it in agreement	

Attachment D – Responses to Draft Proposed Actions

Cross Resource Workshop Responses to Puget Sound Energy's Draft Proposed Actions*

Draft Proposed Actions	Recreation	Aquatics	Econ. / Ops.	Cultural	Terrestrial	Total
1.0 **Terrestrial Resources**	2	0	0	0	2	4
1.1 Management of General Habitat Types	1	1	0	1	3	6
1.2 Management for Species-Specific Habitats	1	0	0	1	2	4
1.3 Management for Habitat Elements	1	0	0	1	0	2
1.4 Management for Botanical Resources	1	0	0	2	0	3
1.5 Terrestrial Funding	1	1	1	1	0	4
2.0 **Recreational and Aesthetic Resources**	2	1	0	0	0	3
2.1 Recreational Safety and Resource Protection	1	0	0	1	1	3
2.2 Baker Lake Dispersed Recreation	2	0	0	3	4	9
2.3 Aesthetics Management	1	0	0	2	0	3
2.4 Trails and Trailheads	4	0	0	2	4	10
2.5 Developed Recreation Facilities	3	0	0	1	0	4
2.6 Recreation Funding	2	0	1	0	0	3
3.0 **Aquatic Resources**	0	2	0	0	0	2
3.1 Aquatic Species Management Plan	1	3	0	1	0	5
3.2 Fish Passage Management Implementation Plan	0	3	0	0	0	3
3.3 Flow Management Implementation Plan	0	4	3	0	0	7
3.4 Physical Habitat Management	1	3	0	0	4	8
3.5 Reservoir Water Quality	0	1	1	0	2	4
4.0 **Cultural and Historical Resources**	1	0	0	1	0	2
4.1 Historic Properties Management Plan	2	0	0	0	1	3
4.2 Cultural Resources Review and Planning	1	0	0	1	0	2
4.3 Cultural Resources Training	3	1	0	1	0	5
5.0 **Economics and Operations**	1	1	2	0	0	4
5.1 Maintain Current Levels of Flood Control at Upper Baker	0	5	3	0	3	11
6.0 **Shared Resources**	0	0	0	0	0	0
6.1 Utilize Adaptive Management Principles	3	4	1	0	1	9
6.2 Create Baker River Coordinating Committee	1	3	1	1	3	9
6.3 Implement a Reservoir Level Mgmt. and Operations Plan	3	4	2	0	2	11
6.4 Implement an Access Management Plan	3	0	0	2	3	8
6.5 Provide Informational, Interpretive and Education Services and Facilities	6	1	0	2	2	11

*Participants were asked to note actions that could be important to discuss across working groups.

Attachment E – Draft Proposed Actions

PUGET SOUND ENERGY

Draft Proposed Actions

For Baker River Project

Baker River Project Relicense

Draft Proposed Actions- Terrestrial Resources

- Management for General Habitat Types
- Management for Species-Specific Habitats
- Management for Habitat Elements
- Management of Botanical Resources
- Terrestrial Funding

Draft Proposed Actions - Recreation and Aesthetic Resources

- Recreational Safety & Resource Protection
- Baker Lake Dispersed Recreation
- Aesthetics Management
- Trails and Trailheads
- Developed Recreation Facilities
- Recreation Funding

Draft Proposed Actions- Aquatics Resources

- Aquatic Species Management Plan
- Fish Passage Management Implementation Plan
- Flow Management Plan for Fish and Other Aquatic Species
- Physical Habitat Management
- Reservoir Water Quality

Draft Proposed Actions- Cultural and Historical Resources

- Historic Properties Management Plan
- Cultural Resources Review & Planning
- Cultural Resources Training

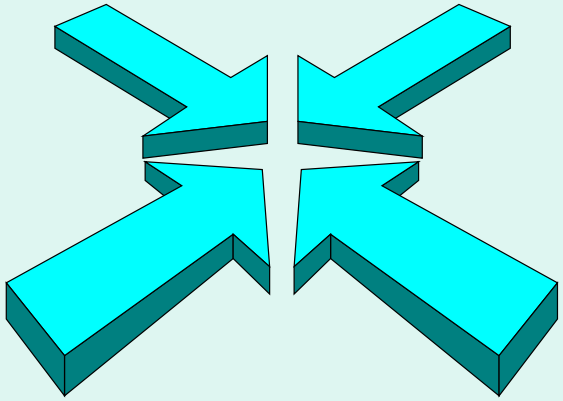
Economic and Operations

- Maintain current flood control levels at Upper Baker

Draft Proposed Actions - Shared Resources

- Utilize Adaptive Management Principles
- Create the Baker Coordinating Committee
- Implement a Reservoir Level Management & Operations Plan
- Implement an Access Management Program
- Provide Informational, Interpretive and Educational Services and Facilities.

Shared Resource Proposals



6.1 Adaptive Management

- What is Adaptive Management?
- How does it work?
- When is it employed?

What is Adaptive Management?

- Adaptive Management is a method for examining alternative strategies to meet defined goals and objectives, testing one or more of the strategies and then, adjusting future management actions to incorporate what has been learned.
- Adaptive Management promotes an orderly process to address uncertainty.

How does AM Work?

- Adaptive Management is simply -

  Plan, Do, Study, Act
- Plan - Define goals and outline methods.
- Do - Initiate actions toward achieving goals.
- Study - Observe outcome related to goals.
- Act- Modify approach to accommodate learning to reach goals.

When is AM employed?

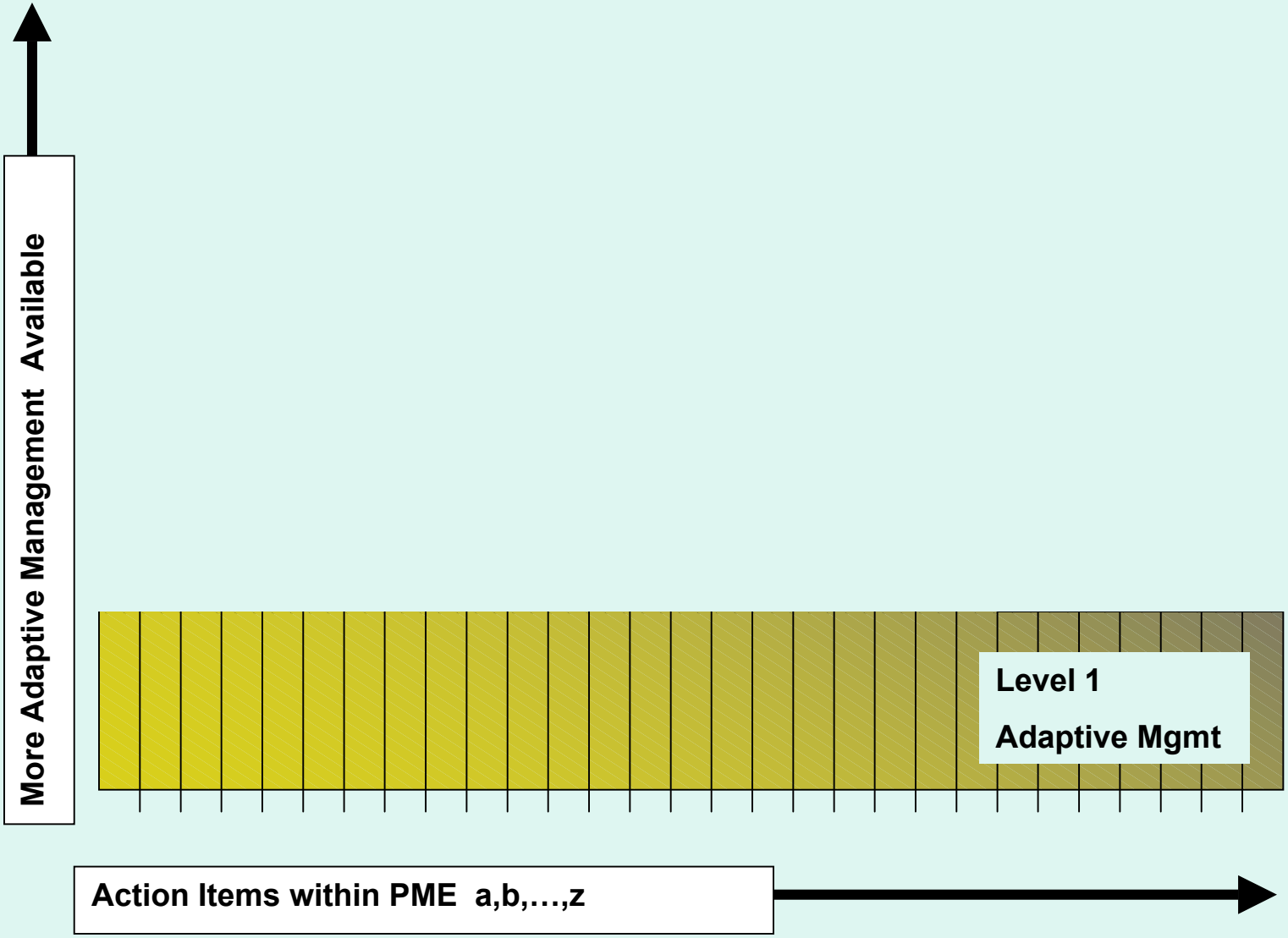
- AM is utilized to permit as many decisions as possible to be made locally without outside intervention (i.e., court action).
- Agreement necessary for the amount of AM flexibility.
- Parties agree on constraints.
- All PME actions potentially available for AM.
- Reserves Alternative Dispute Resolution as last resort.

How would AM work for the Baker River Relicense?

Level 1 Adaptive management (All PMEs a-z...)

Every action is available to discuss and can change if agreement is reached.

Schematic of Variable Adaptive Management for PMEs based on Cost Constraint



How would AM work for the Baker River Relicense?

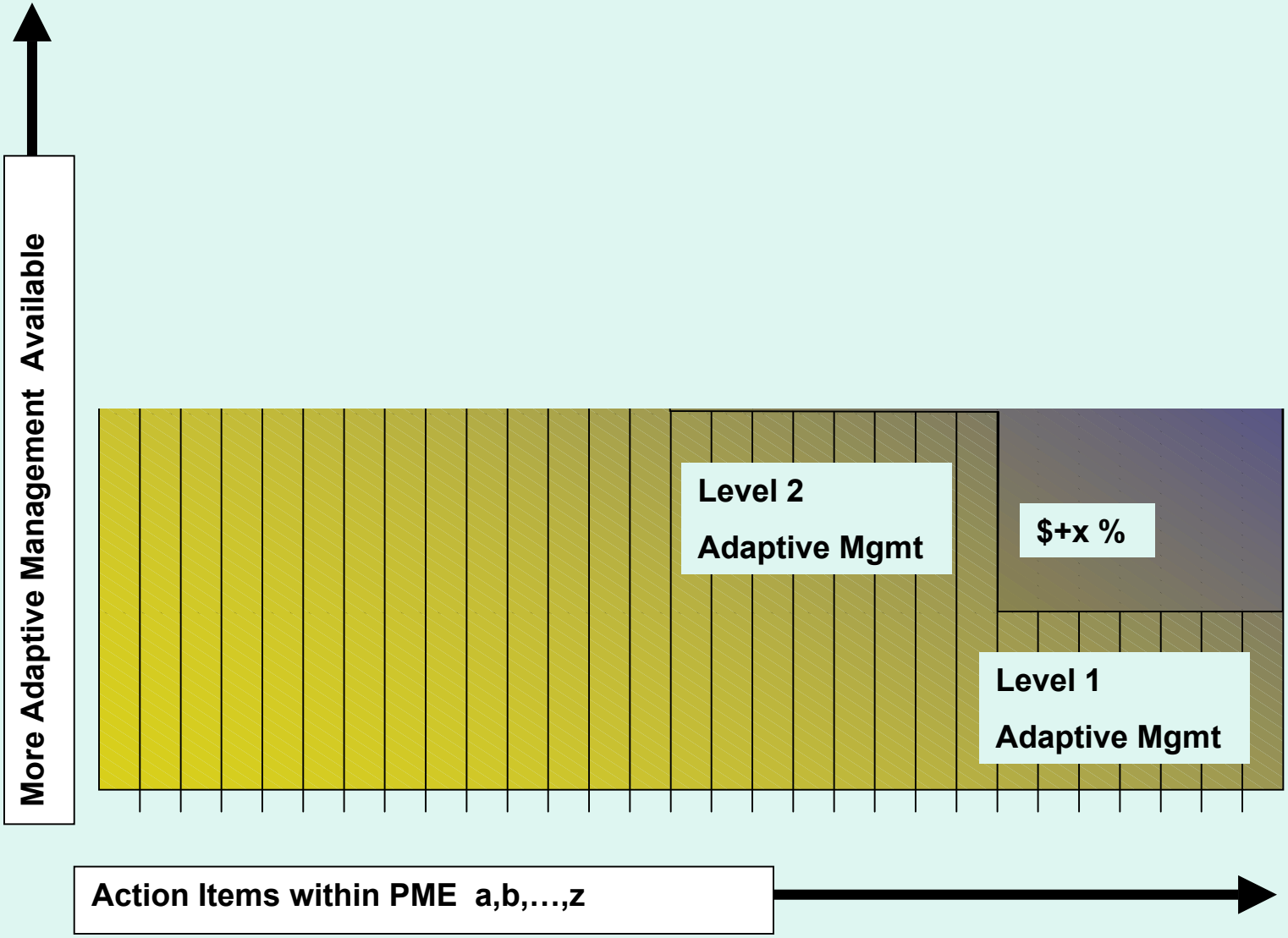
Level 1 Adaptive management (All PMEs a-z...)

Every action is available to discuss and can change if agreement is reached.

Level 2 Adaptive management (PMEs a-r..)

If agreement cannot be reached in Level 1 - and Cost exposure is ± x% from agreed or within a specific $ amount

Schematic of Variable Adaptive Management for PMEs based on Cost Constraint



How would AM work for the Baker River Relicense?

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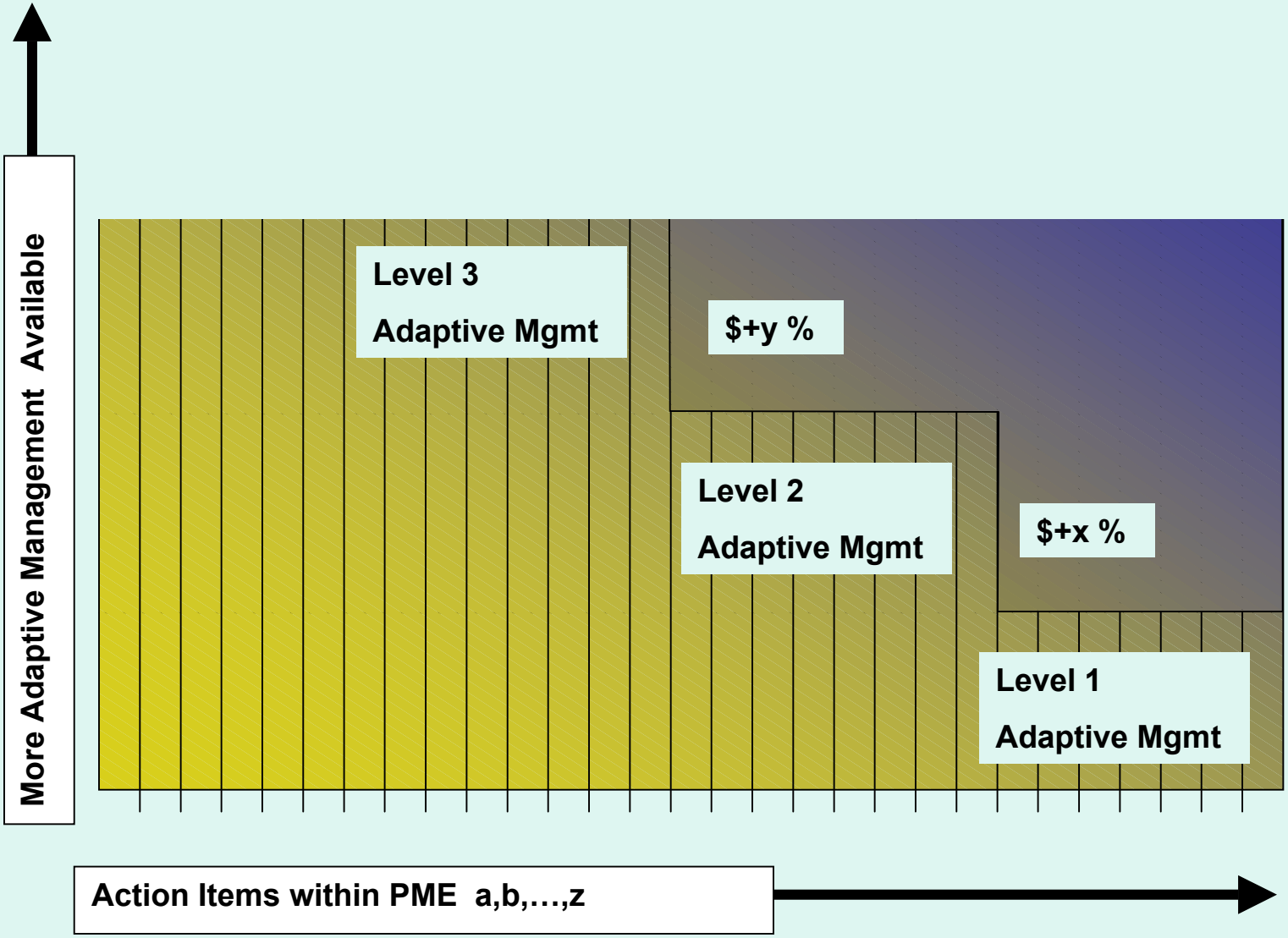
If agreement cannot be reached in Level 1 - and Cost exposure is ± x% from agreed or within a specific $ amount

Level 3 Adaptive management (PMEs a-l...)

If agreement cannot be reached in Level 1,or 2 - Cost exposure ± y% from agreed or within a specific $ amount

Schematic of Variable Adaptive Management for PMEs based on Cost Constraint



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If agreement cannot be reached in Level 1 - and Cost exposure is ± x% from agreed or within a specific $ amount

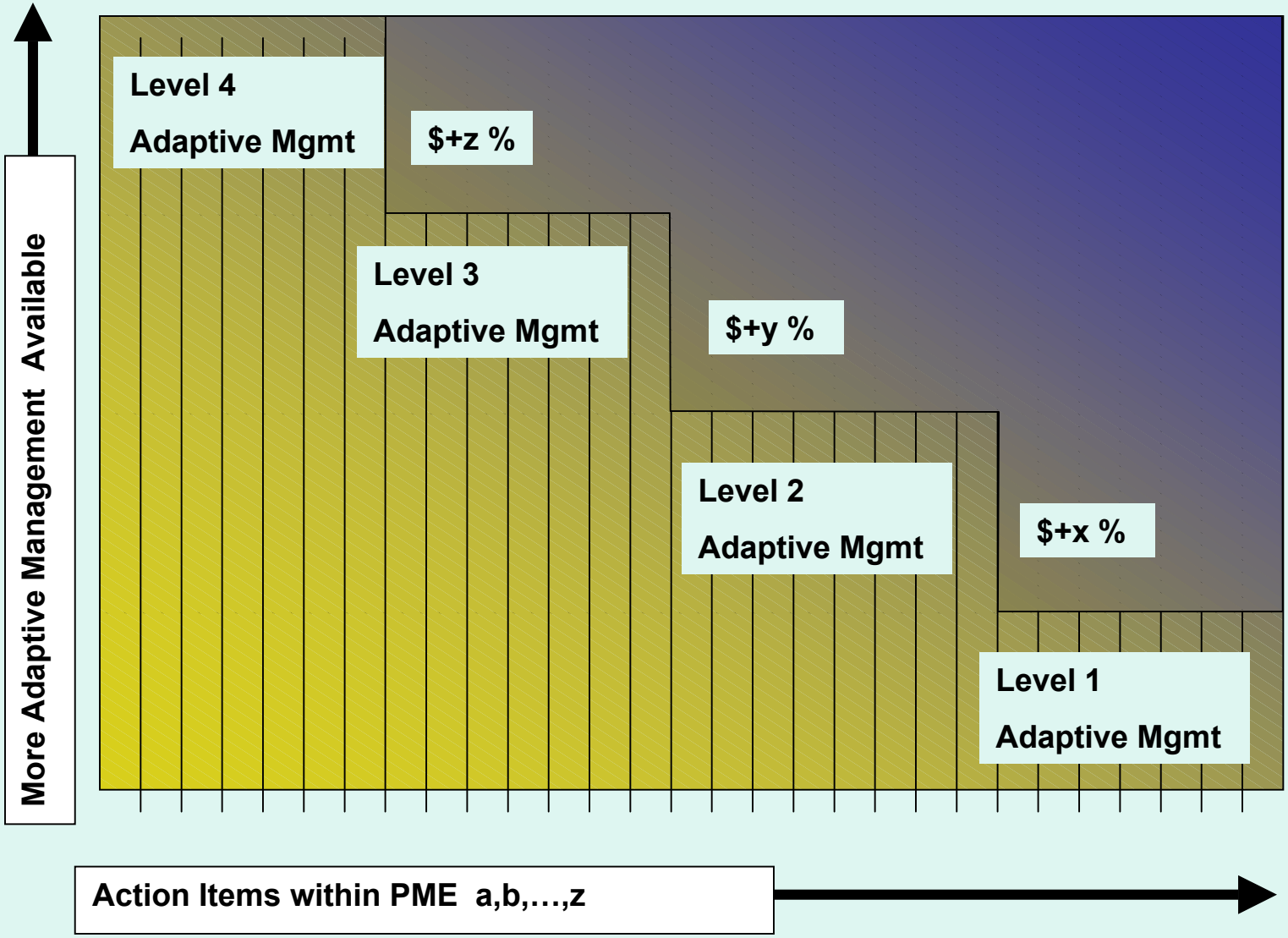
Level 3 Adaptive management (PMEs a-l...)

If agreement cannot be reached in Level 1,or 2 - Cost exposure ± y% from agreed or within a specific $ amount

Level 4 Adaptive management (PMEs a-d,)

If agreement cannot be reached at Level 1, 2 or 3- Cost exposure ± z % from agreed or within a specific $ amount

Schematic of Variable Adaptive Management for PMEs based on Cost Constraint



How would AM work for the Baker River Relicense?

Level 1 Adaptive management (All PMEs a-z...)

Every action is available to discuss and can change if agreement is reached.

Level 2 Adaptive management (PMEs a-r..)

If agreement cannot be reached in Level 1 - and Cost exposure is ± x% from agreed or within a specific $ amount

Level 3 Adaptive management (PMEs a-l...)

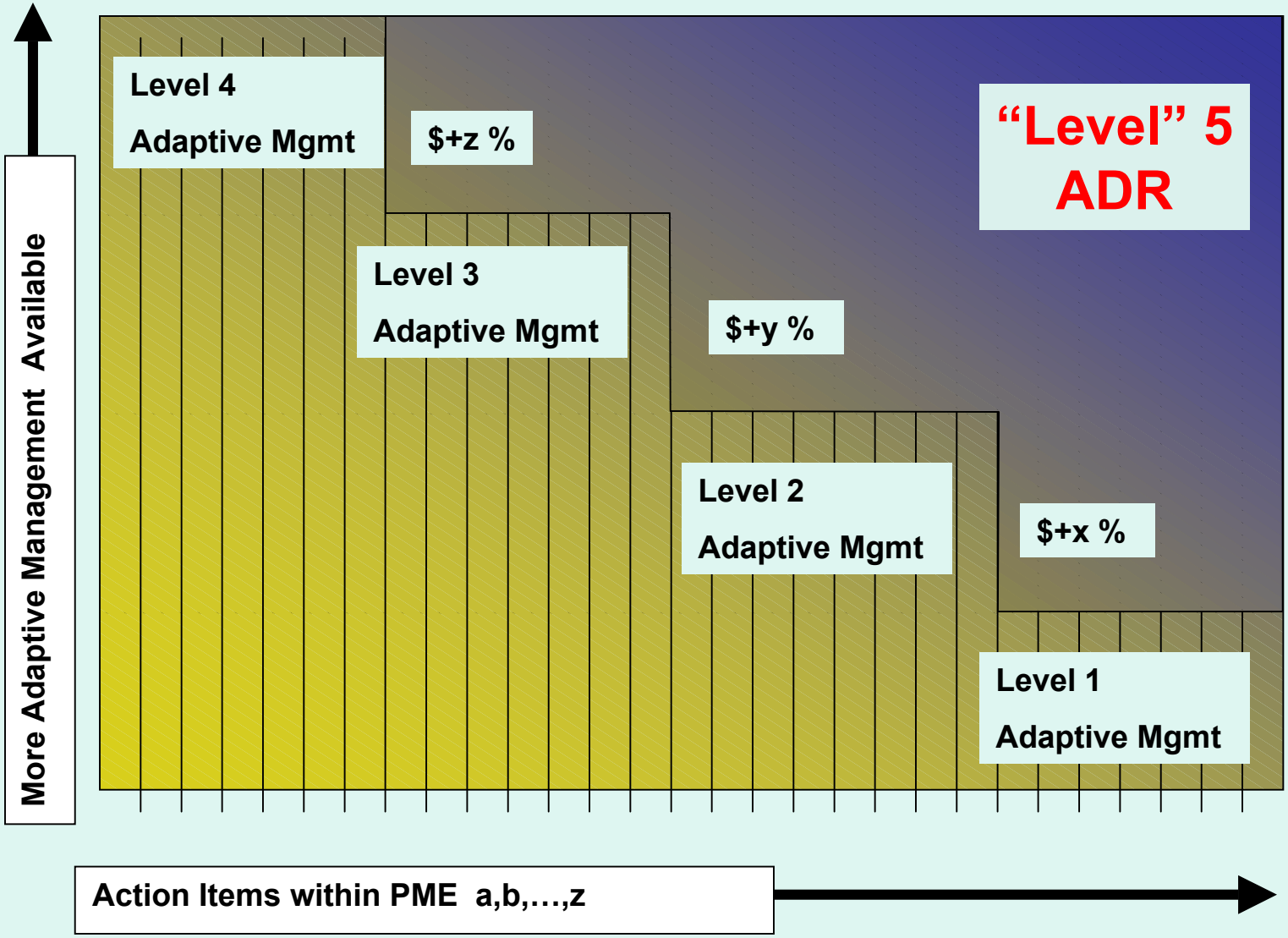
If agreement cannot be reached in Level 1,or 2 - Cost exposure ± y% from agreed or within a specific $ amount

Level 4 Adaptive management (PMEs a-d,)

If agreement cannot be reached at Level 1, 2 or 3- Cost exposure ± z % from agreed or within a specific $ amount

"Level 5" Dispute Resolution (a-z)

Schematic of Variable Adaptive Management for PMEs based on Cost Constraint



6.2 Baker River Coordinating Committee (BRCC)

- What is the BRCC?
- Why have the BRCC?
- What would the BRCC do?
- How would the BRCC be structured?

What is the BRCC?

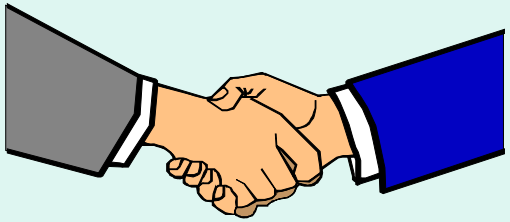
The BRCC is a committee composed of parties to the settlement who agree to meet to collaboratively reach decisions related to project and basin issues.

Why have the BRCC?

Adaptive Management calls for long-term relationships between the parties.

The BRCC will be used as the primary means of consultation and coordination between the parties in connection with the conduct of studies, the implementation of the Measures set forth in the Agreement and for dispute resolution.

What would the BRCC do?



- **Oversee-** The BRCC will serve as the primary body to monitor and evaluate compliance with the conditions of this agreement.

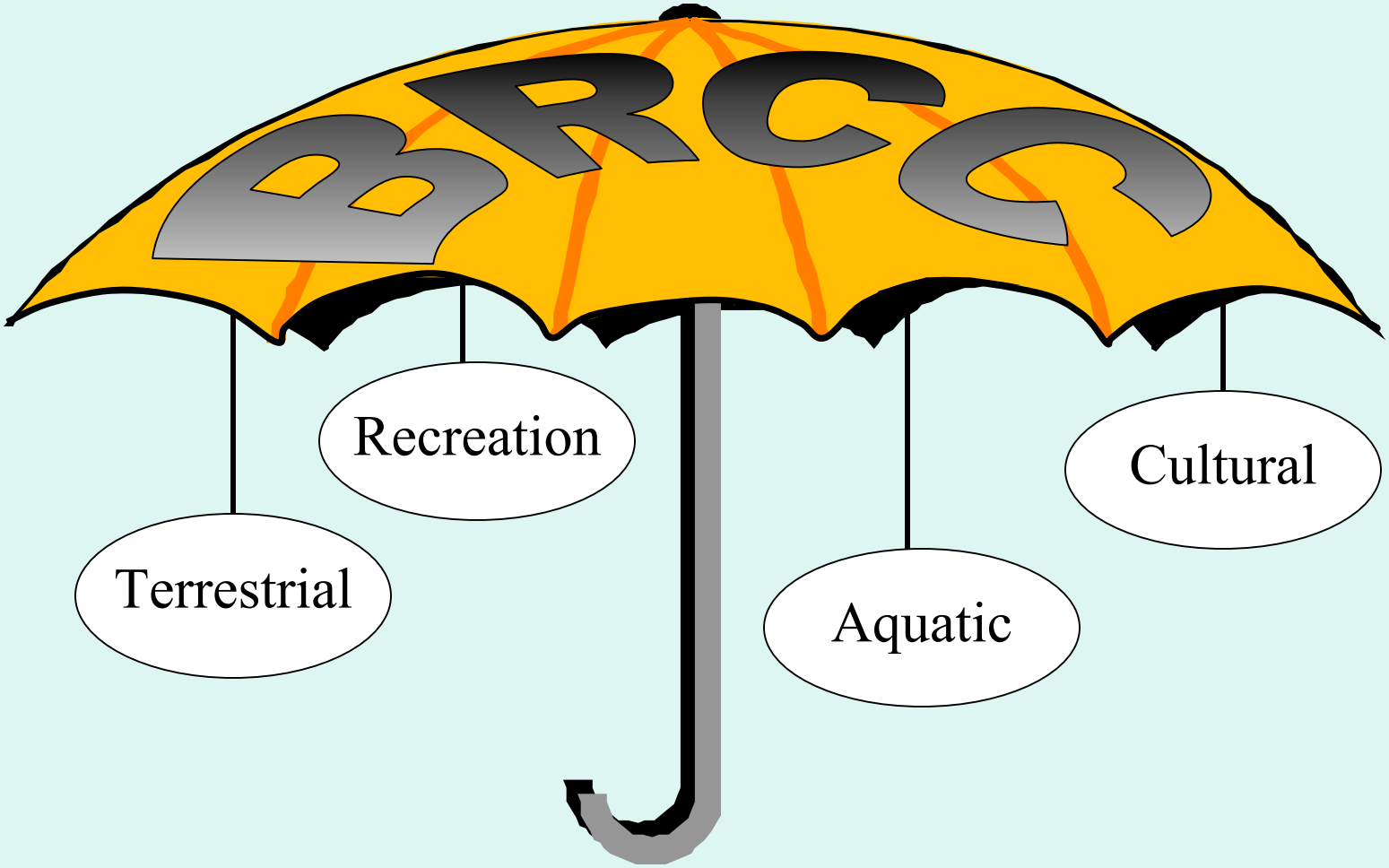
- **Collaborate -** Provide Forum to Develop and Recommend Management policy

  Approve, Monitor & Evaluate all studies based on best science and statistics

  Conduct adaptive management on results of studies within the scope of this agreement

  Oversee use of discretionary funds (HERC, TERF, RAM,etc.)

How would the BRCC be structured?



Independent topic subgroups act under the authority of the BRCC

6.3 Reservoir Elevation Management

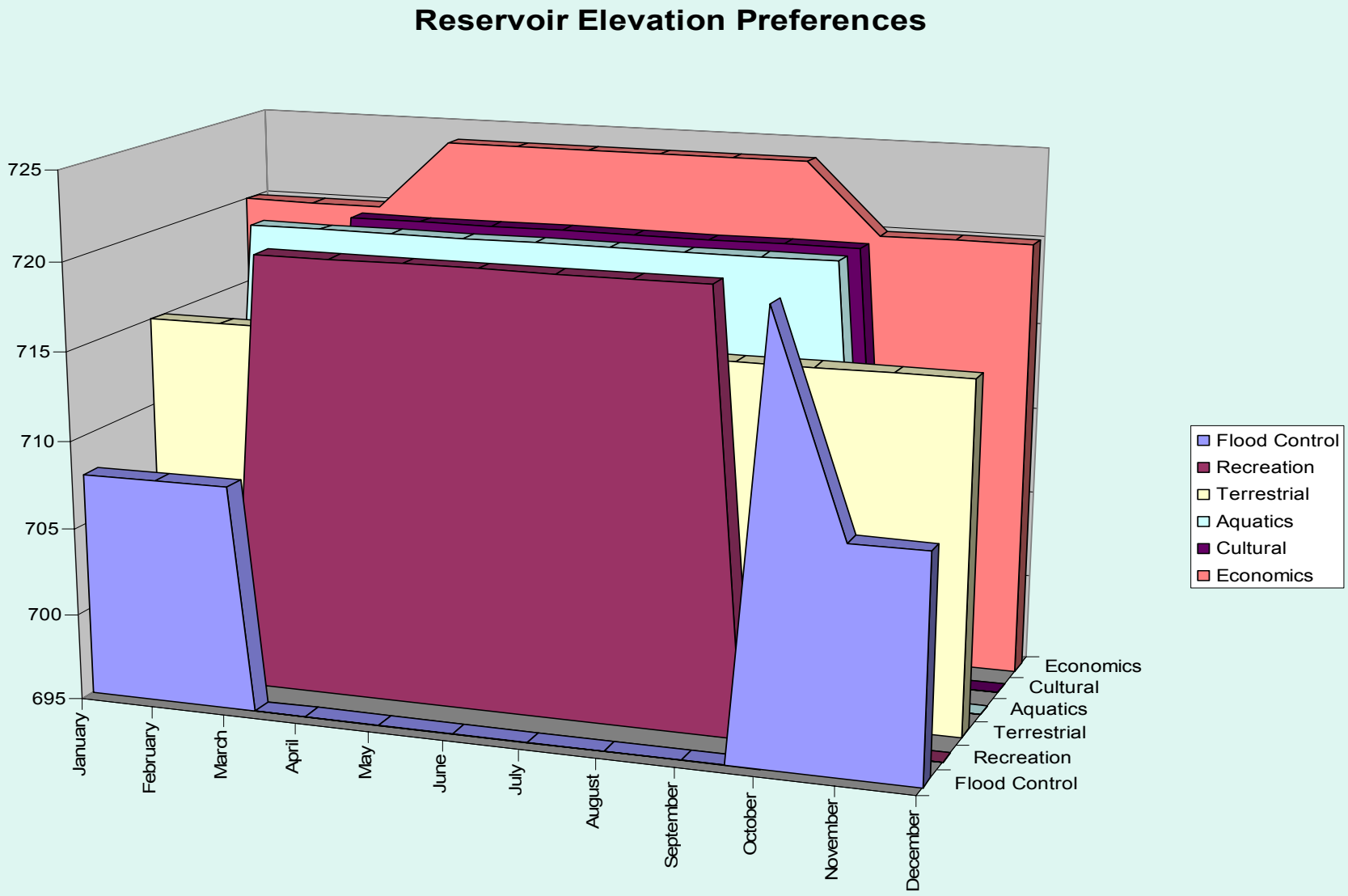
Competing Interests

- Flood Control - Mandate less than 707.8 October through March
  - Congressional mandate
  - Protection of Skagit Valley humans and property
- Terrestrial - Prefer Stable reservoir and 714 or less
  - Spring and fall forage
  - Amphibian breeding protection
  - Protection for aquatic nesting birds
- Cultural - Prefer higher than 714 March through October)
  - Erosion control exposure
  - Limit exposure to vandals
  - Protection and stability of sites
  - Preservation of organic materials

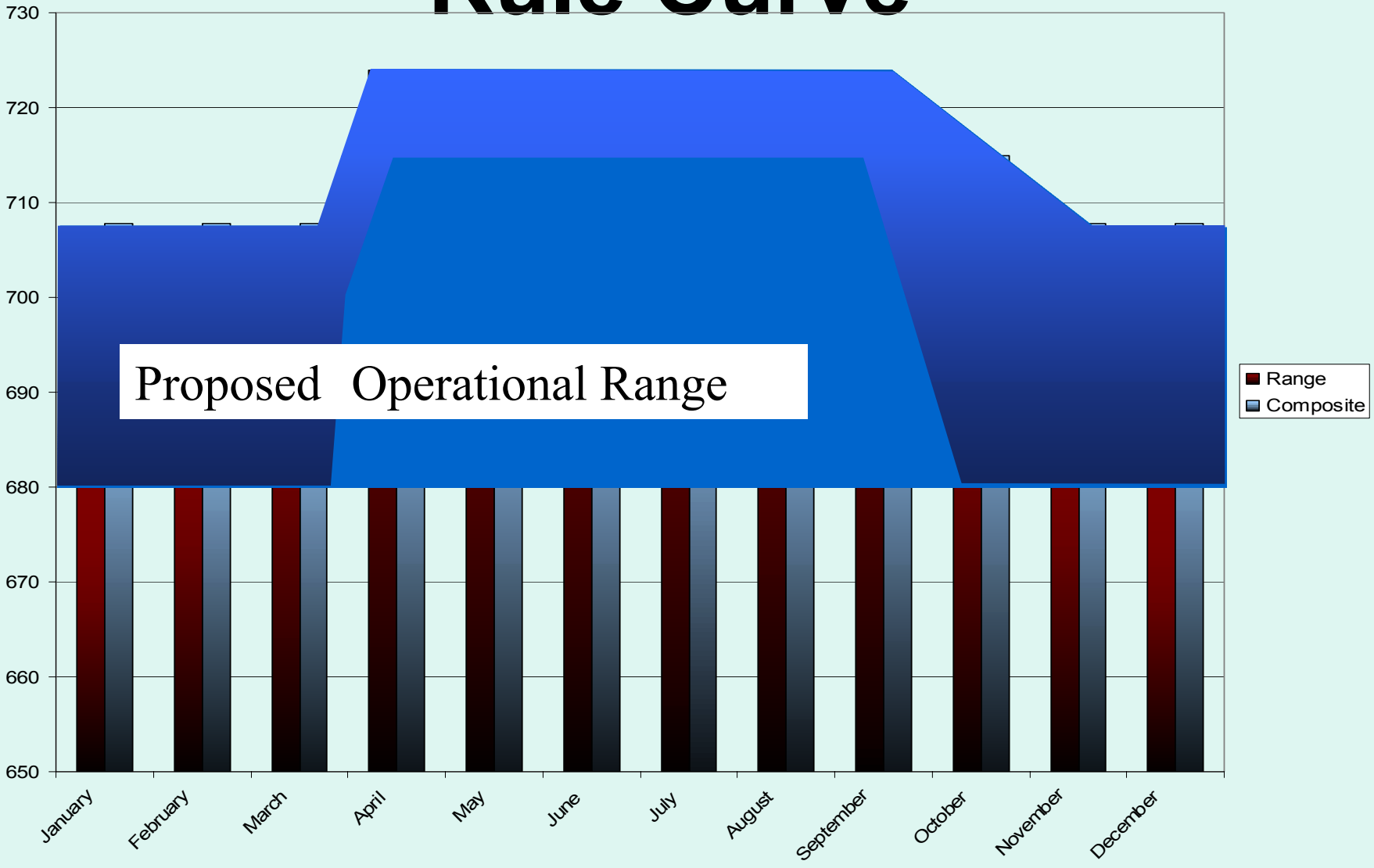
Competing Interests

- Recreation - Prefer higher than 712 March - October
  - Access to boat ramps
  - Lakeside camping sites
- Aquatics - Prefer both higher and lower than 715 spring/ Summer
  - Higher for Increased Aquatic habitat for Sockeye in lake
  - Lower for flood storage in Fall, more low gradient stream habitat
- Power - Prefer both higher and lower than 715 timing varies
  - Maximum power (Summer storage)
  - Maximum revenue (Winter draft)

Competing Interests



6.3 Reservoir Elevation Rule Curve



6.3 Reservoir Elevation Management

- Represents a blend of competing interests
- Protects cultural resources
- Retains flexibility for flood control and operations
- Limits within season fluctuations
- Provides long-term predictability and stability

Access Management

- Roads related to project operations
- Access to recreation sites
- Resource Protection
- Security for Project Facilities

Information, Interpretive and Educational Services and Facilities

- Visitor Information
- Interpretive Services
- Educational Programs

Attachment F – Flip Chart Notes

BAKER RIVER PROJECT RELICENCE

Cross Resource Workshop

March 4-6, 2003
CottonTree Inn
Mount Vernon, WA

Flip Chart Notes from Discussions

March 5, 2003
Large Group and Working Group Discussions

Large Group Discussion of PSE's "Shared Resources" Draft Proposed Actions

Education/Interpretive Services and Facilities

- How do your education plans fit into those of land management agencies? (not fully developed yet)

Reservoir Management

- Did you use HYDROPS model to do this? – No, we imposed it on HYDROPS model based on blending of interests.
- Have you addressed instream flows that would result under this operating program?
- As it relates to flood control storage, suggesting in this proposal that you maintain at current levels (74K)? – Yes.
- On terrestrial study, different species could benefit by different regimes – overall, keep stable (more dry land)

Working Group Discussions of Reservoir Management: Questions to Answer

a. How do we think that this action will affect our resources?
b. Does this action conflict with the interests of my organization or stakeholder group? If so, how?
c. Are there any cross resource conflicts or opportunities for synergy in this action? If so, what? If there's a conflict, how might we resolve it?
d. What's the level of agreement among us regarding this action?

Economics/Operations Working Group: Discussion of Reservoir Management

Existing and PSE Proposal: (PSE ops w/o flood event)

By 11/1: 16,000 acre-feet = elevation 715
By 11/15: 74,000 acre-feet = elevation 707.8
Until 2/28: maximum elevation 707.8

3/1-10/31: no restrictions in elevation
IPP in place, but not in license
PSE compensated for lost power generation

Suggestions:

By 9/1: 16,000 acre-feet
By 10/1: 74,000 acre-feet
Until 3/31: maximum elevation 707.8 = 74,000 acre-feet
4/1-4/30: maximum elevation 715 = 16,000 acre-feet
5/1-8/31: no restrictions

Existing Operation is at elevation 700'-702' instead of a max elevation of 707.8' to ensure that spilling isn't required at the beginning of a flood event.

This added "voluntary" storage of 5-6 feet results in a total storage of nearly 100,000 acre-feet based on ≈ 4,000 acre-feet of storage per foot of elevation.

Lake Shannon

- Need to clarify the rationale for elevation 401 or greater (for recreation) during summertime.
- Is this because of this being the minimum elevation to use the boat ramp? [answer in discussion period: yes.]

Surcharge

- Potential for up to 3 feet of surcharge to the top of the spillgates (up to elevation 727)
- This could provide up to an additional 12,000 acre-feet of storage (based on 4,000 acre-feet /foot elevation).

Dam Safety

- Upper and lower dam are in compliance with Dam Safety (FERC) and spillways can safely pass the probable maximum flood (PMF).

Answers to four questions:

a. Action affect resource?
   (-) Loss of power (flexibility) by lowering of the Baker pool for a longer period each year.

   (+) Longer period of time each year for flood control storage.

b. Action conflict with interests?
   - PSE neutral if compensation is provided.
   - Local governments' support of additional time periods for flood control storage.
   - Local governments still want 26,000 additional acre-feet of storage, up to a max of 100,000 acre-feet in FERC license.

- Additional clarification is needed on exactly what this proposal is as compared to existing operation.

c. Cross resource conflicts or opportunities for synergy?
   - Power generation vs. flood control
   - Interest(s) of other working groups

d. Level of agreement?
   - Proposal is in the right direction (better than existing) with amount of compensation and source of compensation needing to be identified

Aquatics Working Group: Discussion of Reservoir Management

List of Effects
Δ Pool Elevations

- Tributary access
- Delta, alluvial fan spawning
  – Affect function of timing
  – Magnitude, scour
- Smolt migration
- Reservoir rearing
- Benthic productivity
- Turbidity
- Fish passage facilities – operational range
- Impacts on recreational fisheries
- Spill (occurs more/less)
- Downstream fish barrier dam
  – List of effects (seasonal)
  – Δ Pool elevation

<u>Fall</u>

- Fall instream flow
  – Chinook spawning, etc.
  – All aquatic species
- Attraction to Baker River
- Transportation flows in Skagit
- Maintaining ecosystem function
- Opportunity to augment during extreme droughts

<u>Winter</u>

- Low flow augmentation
- Flood/scour protection

Spring

- Smolt migration
- Alevin protection
- Steelhead spawning (+/-)
- Side channel connectivity

Summer

- Side channel connectivity
- TBC

Aquatics Working Group: 4:00 p.m. Extended Meeting

3.1 Aquatic species management plan.

HERC

(a) + good idea
+ could spend to acquire more info in time frame
+ change acronym (consider it)
+ too wide open and vague
+ miscellaneous acct.

(b) [group to revisit]

3.1.2 Fish propagation and enhancement program

(a) + reduces sockeye production
+ captures more of the elements
+ gain for other species
+ preserves management flexibility
+ beach #4 plus

(b&c) - desire only native species
- rainbow trout: native vs. non-native
- chinook?
+/- recreational sport fishery

(d) positive

3.2 Fish passage

3.2.1 Upstream (Lower Baker)

- Action will have + effect
- May work well for analysis of species, but may not satisfy concerns about other fish species (lamprey?)

3.2.2 Connectivity (between dams)

- How do we achieve this most effectively?
- Does it require some type of facility? If so, what?
- It is a step-wise approach to evaluate
- May need a genetic component

(d) Positive

3.2.3 Downstream fish passage (both reservoirs)

- It is a "good thing"
- May be premature to specific sequential development of barge technology
- Acclimation ponds are a plus
- Make for simultaneous implementation at both reservoirs
- Performance criteria?

3.2.4 Downstream migration connectivity between upper and lower Baker

- Placeholder for bull trout, etc.
- Good proposal

Recreation Working Group: Discussion of Reservoir Management

Reservoir management:

- How will it affect our PMEs?
- It will establish minimum pool levels
- Have had several pool level events
- Can be less than 708'
- Giving up flexibility in operations
- Boat launches are operational at 715'
- Could be at 715' all summer – aesthetics an issue
- 3rd week of May – peak people/fishing through October
- Satisfies most of recreational boating needs
- Pool level – takes safety into account
- Dispersed camping increases
- Aesthetics graphed at 2' intervals
- Problem with drawdown during peak season – increases intrusion into drawdown zone
- Some, as per survey, appreciated drawn down
- Access issue overlaps with reservoir level management
- Safe operation of boats – liability issue
- Peak season – last 2 weeks of July, all of August with exception of 4th of July, nice weekends after Labor Day
- Low pool/elevation could affect Spring/Fall school programs
- We need to see HYDROPS/model – % of time 715' or above. Need a "full read"

- Trails not an issue as it relates to reservoir management (with few exceptions)
- Forest Service – issue as per people access onto draw down
- Law enforcement, education needs to increase with draw down
- Recreation – will adapt to proposal but with shift in type of recreation
- New proposal vs. historical operation practices – this is an improvement, i.e., boating access, accessibility to shoreline, etc.
- Shannon – the proposed appears to be a modest recc. for recreation (with HYDROPS model)
- Synergy – Recreation, terrestrial, cultural

Recreation Working Group: 4:00 p.m. Extended Meeting

Trails:

2.4.1 "Construct" trails to "establish" trails

- Mountain bikes are under-served
- Placeholder for possible Shannon Lake trail & possible town of Concrete application
- Cascade Trail connection
- Feasibility – Shannon to Baker
- Watchable wildlife – pond/wetland near (resort – trail panorama point.)
- RAM fund – possible use with later trail connection
- Rail Trail connection to "mountain trail"
- Water trail – support by "managing" of dispersed sites on lakes – route mapping necessary
- Shannon to Baker possible – portage arrangement with PSE to accommodate

Terrestrial Working Group: Discussion of Reservoir Management

How do we operate Upper Baker currently?

1. Full pool 724'
   Minimum operating pool 675'
   Joel's input: Flood control (existing agreement)
   - November 15 – February 28 – 707.8'
   - November 1 – 715'

   Proposal extends targets
   - October 1 – March 31 – 707.8
   - Additional flood control benefit during March to meet November dates, need to start drafting reservoir in August.

2. Average water year – How long to reach full pool (724') from 707.8? And 715' from 707.8'?

3. Support Recreation PME to extend boat ramps for use at lower elevations

Terrestrial constraints for pool operation:

1. Seasonal exposure in fluctuation zone during growing season. Spring/Fall 715'
2. Spring refill regime/fluctuation regime with respect to bird, small mammal and amphibian breeding.
3. Summer elevation to remain relatively constant.
4. Influence on surrounding wetlands.

Resources vary in reliance on reservoir:

Upland species browse (elk, grizzly) – location flexible, facultative

Bird nesting – Habitat facultative, direct mortality can occur – obligate osprey, swallows, shorebirds (ground nesters)

Amphibians – obligate, direct mortality can occur

Low mobility SPP: Mollusks – OBL, direct mortality risk

Wetland habitats (relative to Hydro/continuity with reservoir)

Greatest flexibility in constraints – Fall/Spring forage

Least flexibility in constraints – Amphibians

Questions:

- Can one reservoir be held relatively constant while the other is used for flood control?
- Is there a combination of the two that would allow water surface elevation to be held relatively constant?
- How many acre-feet of storage per foot of elevation at Baker? At Shannon?
- What are the implications of maintaining a constant pool at Shannon? March – June

Optimal operations regimes for wildlife at Baker

- March – May (end of flood control): $\leq$ 715', fluctuation $\leq$ 1'
    - Lets vegetation grow in inundation zone
    - Available for forage
    - Protects amphibians
- June – August: 720' – 724', fluctuation okay
    - Protects wetlands along shore from human disturbance
- September – transition to flood control (October)
- September 15th – 715' elevation preferred
    - Allows vegetation another growth phase
- October – February
    - Flood control mode – no specific wildlife constraint

- Tradeoff of the regime: doesn't allow flooding of reed canary grass whereas a full pool March – October might allow control of the grass.

Question:
- What elevation range supports most amphibian breeding at Baker Reservoir?

Hamer: Determine elevation zone within which fluctuation is used by amphibians during March – May.

Cultural Working Group: Discussion of Reservoir Management

- Assumption that full pool is always good – not always true
- Response to rapid pool fluctuation will vary according to sediment type
- Consider landform with regard to low pool level
- Stable is GOOD!
- Process for notification if rule curve is exceeded either: crisis; violation; unscheduled
- Unknown effect of rule curve on TCPs

Synergies
- Restricting boats in some areas (no wake zones)
- Promoting recreation and cultural values (i.e., canoes vs. jet skis)
- Vegetation management/site stabilization

Conflicts
- Wave action
- More people

March 6, 2003
Morning Working Group Meetings

Aquatics Working Group

3.3.1 Flow Regime
- List flow objectives – flow regimes vs. minimum flows
- Identify HYDROPS potential model "runs"
- Baker River basin hydrology mean and ranges – begin our understanding: study A-24 should be done next week (Phil H)
- Use the initial proposed action as a "place holder" for now until we can gain a better understanding as stated above
- Don't know instantaneous inflow, but know a daylong average inflow
- Look at flow over a wide range – can't look at the protection of fish based on an entire water year: must look instead at variability within water year. For example,

the model is based on 50% exceedance; one cold day at 90% exceedance can cause huge losses of fish
- Classify the water year types as HIGH, MEDIUM, LOW – we need to work details with the definitions
- PSE wants clear objectives for delivering water – when do we make the "call" on the hydrological year? (easily understandable)
- Transferring SCL definitions of protection actions because of basin hydrology isn't applicable – does not appear to be so now – need more info. Don't know.
- Action Item: Need to base flows on Baker River basin hydrology - with intent to integrate with flow events on the Skagit River
- May need some minimum flow for the Little Baker River
- What if the Skagit River flows provided some adaptive management decision thresholds? (Bob W.)
- A concept is to have (need some bounds) some surety numbers with some range or variable numbers
- PSE does not presently have the equipment capability to achieve some of the flow conditions discussed (but can model it)
- Future conditions will not be constrained by current generation equipment.

<u>Ramping</u>
- Proposed a 24-hour cycle
- Action Item: PSE is willing to integrate flows/ramping with what is occurring on the Skagit River – considering cumulative effects
- Ramping rates first look at Skagit River flows and fluctuation – mitigate Skagit increasing hydrograph, but need a rate that provides for the Little Baker River as well.
- How frequently are the downramps additive – or match SCL? Need an analysis of this.
- PSE to explain why Baker would not meet state standards if that is proposal
- Could "buffer" the Skagit River ramping, but the proposal seems to have a 6" downramp (take Baker off line for 6 hours?)
- Should add a critical flow in Skagit because that is where the biological sign is – look at multiple river transects (Phil H.)
- Safety should be a consideration: upramp 6"/hour. Have seen 1 or 2 feet per hour (Steve F.) Possibly 6-9" per hour (Phil H.) White River is 1'/hr, with target control of 6"/1/2 hr
- Where will we measure it? Perhaps on the Skagit River at Concrete, but we need some sample HYDROPS model runs.

<u>Amplitude and cycling</u>
- The lower the ramping rate and the lower the amplitude, the greater the fish survival – nothing was proposed for cycling.
- Action item: Amplitude and bar stranding for data analysis… different colonization rates for macroinvertebrates and fish fry/smolts. Dewatering the same band twice has the same effect as dewatering other bands.

Water quality state standards

- PSE and WDOE are continuing to work on the Baker River Project to address issues regarding state water quality standards – turbidity will be very hard to meet and may require some mitigation (resuspension at extreme low pool is one of the concerns)
- How do state water quality standards apply to this project?

Terrestrial Working Group

1.1 General Habitat Types

Q&A

- How were habitat amounts determined?
  – 22 acres for wet meadow (total 217)
- How do we keep "young deciduous" as it is?
  – look at it in terms of acre-years. We need to figure this out.
  – could get more acres or substitute habitat type.
- Be clear on what we're managing habitat for.

Overall: A thumbs up – a starting point
Concern: number of acres is *really* draft.

What process will we use to deal with concerns?

- Process for details and moving toward next steps
  – there has already been effort to use data (1st draft PMEs & D.P.A.)
  – need to agree on how to use data.
- Have we identified all the "buckets," i.e., all the habitat types we want to address?
- Re: acres of wetlands – WDFW policy interest: wants to see more than 1/1 ratio. More like 3:1 (enhanced:impacted), which is in line with their sensitive area ordinance
  – need to work through disagreement regarding policy application in this project
  – FERC might see this as "E" rather than "M"

Assumption underlying draft proposed action: High quality wetlands protected.

- Examine ratio of each habitat type
- State's interest: full replacement for what could be lost
- Review:
  – Methodology to get to acreage
  – How do we apply it?
  – Implementation strategy – what can we even do? ("buffers" might be part of answer)
- Should say "replace habitat value associated with/of the acres"

- Consider "buffering" as strategy

Have we hit all the habitat types? (based on PSE understanding of T7B)

How do we link analysis of species and habitat studies?
- Look at habitats 1st: right type/amount?
- Look at species: e.g. anything specific to chickadees that will affect the type and amount of habitat?
- **Action: Marty will put together how he got from T7B to D.P.A. (show the math)**

Other major assumption: With ACOE flood control, the "Without PSE" scenario would be for Lower Baker Dam to go away, and for Upper Baker reservoir to be operated at 700' full pool (minimum scenario for current flood control).

Document assumption
– Agree on set of assumptions.

1.1.2 Evaluate potential for vegetation fluctuation zone (may be conflict with Chinook spawning)
- Reservoir elevation management.
- Reservoir surcharge – that needs to be an adaptive management issue from terrestrial perspective.

1.2.1 Elk forage
- same assumptions as above, also from T7B +
  – additional acres for forage
- Need to look at temporary forage
- Need to flesh out assumptions (T7B, etc.)
- Elk study going on – might want to direct our efforts there (may change to "let's support them")
- Need to keep in mind what will be put in E.A. as placeholder.
- March meeting: timeline for how to get to draft E.A.
  – modification
- Think of any other criteria you want and bring it to the next meeting.

1.2.2 Grizzly Bears
- Assumption: this action would only happen if grizzly bear occupancy is documented during the 5 year period of the bear study.
- Some take issues with need for presence to provide forage (number is generous based on requirement for presence)
- USFS is doing enhancements to provide habitat (e.g., road closures)
- Suggestion: Buy on a schedule (e.g., in 10 years)
  – USFS sees this as mitigation
  – Other ways to meet this interest?

– access management
– core spring forage – bump up to optimum
– what else would be needed
– get info regarding how vegetation is being used for bears (could be adaptive management issue)
– do forage study 1st (as part of settlement)

– USFS is okay with study but only with something hard and fast up front
– Marty to redraft based on this discussion
– Access management- USFS work with Lloyd on [?] and evaluating road access/closures for grizzlies, elk, etc.
– Land acquisition, etc., goes through tribal consultation

1.2.3 Mountain Goats

- License can't obligate USFS to do that activity – ways around that?
  – could earmark money for mountain goat
  – USFS likes not [?]

Action: USFS to give ballpark cost.

- Is this a cross-resource issue with recreation group?

Note: We're getting into Mt. Baker Wilderness Area – what impact will this action have on this?

– USFS – Suggestion regarding "no wake" zone – may have some merit for terrestrial group concern.

1.2.4: same issues as 1.1.1
1.3.1: slam dunk?
1.3.2: slam dunk!
1.3.3: need to work with recreation group
1.3.4:
1.4.1: This is taken directly from what Laura and Laurel wrote
1.4.2:
1.5.1:

Overall – thumbs generally fairly "up" with understanding that we need to keep fleshing out, discussing underlying assumptions, etc.

Terrestrial Working Group Action Items from Morning Discussion

- Identify assumptions for land management items
- Show the group how conclusions were reached from first draft PMEs and study data
- Discuss and agree on how to use data to come up with numbers

Recreation Working Group

2.5 Developed Recreation Sites

Bayview: we may not be able to develop this to the point of Horseshoe Cove (LSR issues)

Resort:
Background: Predates UB Project

- Special use permit from USFS
- Interest: lake level control ($)
- Short operating season
- Structures/infrastructure in bad shape
- Capacity issue at developed sites/peak season use
- Resort is currently in Forest Plan (could be modified)

PSE's interest: lake level (goes away with rule curve)
USFS interest: serving that client group - other place; peak season occupancy in lakeside developed campgrounds

Kulshan:

- Reconfigure to make more attractive
- Extend utilities to additional sites (electrical hookups to 30% of sites and extend water and sewer)
  – Do feasibility study/adaptive management approach?
- Occupancy rates at Kulshan are lowest in Basin (not on the water)
- Aim: to modify Kulshan so it can accommodate large percentage of campers
- Jim's note: the only camping growth is in RV-style. This takes into account increased population age!
- Suggestion: Pave the road (approximately 1 mile). Federal funds available? Matching funds?
- Recognize flow (South to North) of more developed to less developed sites.

Dispersed Sites:

- O+M for maintenance.
- Resource protection (controlling [?] impacts associated sites)
- Issues – overflow
  – Elimination of some sites
  – Lower Sandy has elk and wetland and access issues (road drainage)
  – Consider seasonal closure for elk?
- Proposed action: include toilet facility at central sites (Lower Sandy, Lower Noisy and Anderson Point)
- Upper lakeshore roadside sites (Baker N. road)
- Human waste and trash is a problem

Trails:

- USFS concern: no mention specifically for bike trails – opportunity for loop trails? This is an underserved population.
- Maintenance issue on trails: we need to figure out a percentage to use for cost sharing on maintenance.

Swift Creek Trail:

- USFS turned down investment offer (conflict with critical habitats)
- One of the first trails in the Basin.
- We removed Swift Creek from our list.

Lake Shannon:

- Lake Shannon is the largest freshwater lake in Skagit County.
- Concern regarding recreational fishing: Skagit county needs time to study draft proposed actions to see how they might impact the needs of County residents.
- Currently, Lake Shannon is "really busy" only 1-2 days per year.
- Skagit County owns land in drawdown zone (Lake Shannon Scuba Park)

Aesthetics:

- Proposed actions deal mainly with structures plus reservoir bathtub effect.
- USFS interest seems to be the reservoir drawdown effect: they would like to have higher lake levels during peak seasons.
- It looks like the proposed rule curve could satisfy the USFS interest here.

General Comments:

- PSE putting together draft proposed actions was a big risk.
- Appreciation was expressed for PSE taking this step.
- Jim is generally pleased with the scope of what is being proposed.
- It represented a best effort by PSE to meet stakeholder interests.

Recreation Working Group Action Items from Morning Discussion

- Andy: Research formal master planning process to eliminate resort and rehabilitate site.
- Andy: "Talk to the boys" about matching funds to pave road to Kulshan.
- Get base case HYDROPS results out to participants.
- Get out proposal output (HYDROPS)
  – Meet with workgroups for Q&A regarding effects on various resource areas.
- Get out a 2nd draft proposal.

Economics/Operations Working Group

- CZMA consistency: is not a PME. All the items have to be done for the license.
- Submerged Lands: is not a PME, but a FERC requirement that the licensee control all lands within project boundary. DNR may go with blanket easement/lease for use of their lands by Baker Project.

- Low flow augmentation for continual water rights
  - Any augmentation flows have to be included within instream flows required of Baker Project (aquatics workgroup), not in addition to.
  - Requires new DOE regulations (possible use of "trust" program). Linking consumable water right to non-consumable water rights is a problem. Jerry Louthain will review with sponsors and DOE.
- Flood control
  - Congress set project's current flood control program since 1977: 74,000 acre-feet
  - Corps announced they are doing study of Baker Project flood control. Need to get scope, timing.

Economics/Operations Working Group Action Items from Morning Discussion

- May 1: Flood control: meet with Corps to define scope, timing.
- Legal team to research level of freedom.
- Barriers: Corps timing and scope.
- DOE needs to examine regulations (water rights).

March 6, 2003
Afternoon Discussions

Large Group Discussion: Where do we go from here?

Comments from FERC, PSE and Louis Berger (Steve Hocking, Kris Olin, Rob Mohn)

- Get a group to draft License articles based on 2nd draft PMEs
- Maybe 1 more round to PME doc – pull out PMEs substantially agreed upon and start writing draft 1st draft license articles
- Settlement Agreement – want it done by 4/04
  - There won't be extensions
- Some PMEs won't be fully ready – place in a post licensing plan (outline plan in License Articles)
- PDEA- September draft for public
  - Between now and then, go through several reviews
- Some PMEs become License Articles themselves
- Some PMEs become management plans
- PSE will put together plan for integrating writing of license articles and settlement language and present to Solution Team at its March meeting
- **Action: Steve Hocking will send Connie Freeland information on how license articles should be written, including an example, within the next two weeks.**

Facilitators' thoughts: next steps

- Workshop documentation within 1 week
- 2nd draft PMEs—use format started in Draft Proposed Actions
- Check-ins with stakeholder groups—April, May
- Solution team settlement process—March/April

Where Do We Go From Here? Based on FERC's timeline:

1. What can each working group get done by May 1, 2003? How will we do it?
2. What are the barriers to completing 2nd draft PMEs by May 1, 2003? How will we deal with them?
3. What are the cross resource issues? How will we discuss them?

Working Group Responses To These Questions

Recreation Working Group

Recreation Action Plan:

- Andy: By 3/14, expand table comparing "Draft Proposed Actions" with first draft PMEs.
- Andy: By 3/17, get feedback from all workgroup members.
- At March 24th meeting, review expanded table, walk through draft of Draft Proposed Actions
  - – Flag areas of low consensus.
  - – Setup 1 or 2 special workgroup meetings to resolve outstanding issues.
- By April 14, get out second drafts of Draft Proposed Actions
- At April 28th workgroup meeting, finalize, as much as possible, (may need to specify ranges) the 2nd Draft Proposed Actions
- By May 1st, Prepare 2nd draft of Proposed Actions, incorporating workgroup members' feedback (according to their interests.)

Recreation perceived barriers to completion:

- Not going to have full agreement by 5/1
  - – Document agreement and areas not agreed upon
- If added actions, cross resource implications may not have time to be addressed

Recreation cross-resource issues:

- Access
- Sensitive areas
- Education/info
- Suggest Recreation/Terrestrial meeting with cultural representative

Aquatics Working Group

Aquatics Action Plan (May 1):

1. Ramping
2. Amplitude
3. Cycling
   - for actions 1-3: Modeling a range, identify assumptions
   - 6"/hr and WDFW guidelines

- Email suggestions to PSE
- PSE runs model and shares results by the week of 3/24

4. WQ in stream
5. WQ in reservoir
   - For actions 4-5: How do state standards apply?
   - Bob and Nick to finish by first week of April
6. Fish propagation (questionably possible by 5/1)
7. Connectivity
8. Refine and provide a range of options for downstream fish passage (questionable/impossible by 5/1)
9. HERC
10. Augment/restore LWD & sediment
11. Upstream fish passage
12. Instream flows (impossible by 5/1)

Aquatics perceived barriers to completion:

- Work load
- Need info: e.g. HYDROPS & IFIM, understand flows
- Time - we need more for meetings
- Reservoir pool vs. instream flows

Aquatics cross-resource issues:

- Fish passage
- Law enforcement
- Reservoir pool vs. instream flows

Terrestrial Working Group

Terrestrial Action Plan:
The players with 4e authority need to be present in order for the working group to make these decisions. Our thoughts are that we can get done at least the first three of four tiers by May 1 (and, hopefully, all four tiers):

1. Agreement on issues to address
2. Commit to certain issues to be addressed through management plans developed after license issuance
3. Agreement on ranges of actions on land issues
4. Develop 2nd draft PMEs (detailed)

Terrestrial perceived barriers to completion:

- Time
  Possible solutions:
  - More frequent meetings
  - Need all TRWG participants involved
  - Use plant Teamlet to revise special status plant and weed PMEs offline. Bring revised drafts back to TRWG

Terrestrial cross-resource issues:

- Recreation/terrestrial group meeting with cultural reps:
  - access meeting
  - sensitive areas
- Reservoir management: keep telling what our optimum is

Economics/Operations Working Group

Econ/Ops Action Plan:

By 5/1:

- Baseline hydrology set
- Across workgroups: review 3 baseline precipitation levels: low, medium, high
- Review proposal changes in hydrology, e.g., flood control, ramping, instream flows
- Legal teamlet: Keith Brooks (FERC), Pamela Krueger (PSE), Siri Nelson (COE), and Sonja Wolfmann (WDFW AG) to review flood control

Econ/Ops perceived barriers to completion:

- Aquatics group sign-off on baseline
- Flood control: Corps timeline vs. relicensing schedule
- Low water flows and continued water rights:
  - Issue will be driven by instream flows (Aquatics WG)
  - Jerry to meet with sponsors [possible solution to not seek?]
  - Lack of regulations. DOE regulations need changing.

Econ/Ops cross-resource issues:

- Aquatics workgroup needs to review HYDROPS hydrology output for adequacy.
- Flood-control: all workgroups find this important.

Cultural Working Group

Cultural Action Plan:

- Follow-up information memo to group members.
- Pre-workgroup meeting work on Historic Properties Management Plan (Jessie & Chris) – annotated HPMP outline.
- April 8 workgroup meeting:
  - Review of HPMP and impact for next draft
  - Review of proposed cultural actions
  - Review of "missing" PMEs
  - Discussion of other resource proposed actions
- Tribal Liaison (Kelly) – work with tribe to get input on specific proposed actions
- After April 8th meeting – cross resource discussions with other team leaders to identify and schedule TWG meeting/discussion/classifications.

- (By May 1) Follow-up work on HPMP and proposed actions – 2nd draft.
- (By May 1) PDEA info.