

Attachment 2

Remand Hydro Key Issues - - Updated **June 23, 2006**

Topic Area	Issue (date discussed)	Reference Documents	Next Steps (who/when)	Disposition
Hydro				
Delayed Mortality	Competing hypotheses: <ul style="list-style-type: none"> • Hydro • All H (PWG: 4/27/06, 5/18/06, 6/8/06) (HAWG: 4/11/06)		<ol style="list-style-type: none"> 1. Both hypotheses documented 2. Fact sheets to be developed for July 10 mtg 3. ISAB review in August 	
COMPASS Model	<ul style="list-style-type: none"> • Which data sets & ESUs • Alternatives • Need for independent science peer review??? • Need for formal decision analysis process??? (PWG: 4/7/06, 4/13/06, 4/14/06, 5/11/06, 5/18/06, 5/25/06, 6/1/06, 6/15/06) (HAWG: 4/20/06, 5/2/06, 5/9/06, 5/15/06)		<ul style="list-style-type: none"> • Options under development by passage modeling group • Preliminary modeling results to PWG July 20 	
Flood Control & URC Ops	(1) Issues related to URC probabilities – manage actions up to 4/10 vs. modified probabilities; where is the discretion vs. constraints (PWG: 1/26/06, 1/27/06)	<ul style="list-style-type: none"> • Flood Control Study Regional Agency Review Briefing • Summary of Storage Projects Meetings March 31 and April 30 	<ul style="list-style-type: none"> • PWG discussion on January 26, HAWG discussion on May 23 of historical operations and drivers • Analysis of hydro reg model results, especially scenarios B & D 	

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	(2) Issues related to flood control management – forecasting and risk (PWG: 1/26/06, 5/18/06)	Flood Control Elevations (PWGFC.xls) • System Flood Control Review	<ul style="list-style-type: none"> • Favorable response to forecasting wkgp workplan • Workshop June 13-14 • Corps developing PA language to bring to PWG 	
	(11) Compensating draft at GCL for VARQ (consult EIS) (PWG: 1/26/06)	Reconnaissance Study (SFCR Summary.doc)	Changes would need to be analyzed in Flood Control Study	
	Flood Control Study (PWG: 1/26/06, 5/25/06)	<ul style="list-style-type: none"> • Libby Variable December Final • Libby Forecast Model Using Principal Components Regression June2004 • CRITFC Flood Control Forecast Info Paper 01-27-06 	<ul style="list-style-type: none"> • Discussed at PWG May 25 • Corps will collaboratively develop Project Management Plan with regional interests] • Following PMP, options back to PWG (Corps/____) 	
Flow Management	(6) Defining role of flow targets in managing 'buckets' (include normative hydrograph) (PWG: 1/26/06, 2/17/06)	<ul style="list-style-type: none"> • 4ab Flow Comparison • 4c 10 Increase Flow Velocity • The Dalles Average Daily Flows • CRITFC Early Reservoir Refill Information Paper 	Pending PWG discussion of hydro reg, passage model, and analysis of other impacts. <ul style="list-style-type: none"> • Phase 1 Hydro reg results completed with refinements underway • Analysis of other impacts by July • Preliminary passage model 	
	(5) Define shape (normative hydrograph, filling holes, flat, etc.) for optimum benefits and fish status (e.g., normative hydrograph) (PWG: 1/26/06, 5/18/06)			

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	<p>(4) Timing and probability of summer refill by June 30 – what are the factors that drive tradeoffs</p> <p>(8) Tradeoffs and resolution of competing fish priorities – chum, Hanford Reach, (CCT), URBs, sturgeon, bull trout, lamprey</p> <p>(HAWG: 5/23/06)</p> <p>(9) Tradeoffs and resolution of conflicting demands – MT tailrace and reservoir drafts, Banks Lake, reshaping of MT outflows, maintenance (e.g., GCL) water retention time GCL</p> <p>(PWG: 1/12/06, 6/1/06)</p>	<ul style="list-style-type: none"> • CRITFC Libby Flow Memo • CRITFC Normative or Peaking Hydrograph Information Paper • Collaborative Remand Fact Sheet (Libby Horse fact sheet11-29-05.doc) • Genesis of BiOp “Refill to URC by April 10” Percentages (Refill history.doc) 	<p>results by late July</p>	
	<p>Additional Upper Snake water</p> <p>(PWG: 5/25/06)</p>		<p>Resolved unless PWG decides further discussion is necessary (see PWG notes 5/4/06)</p>	
	<p>Additional opportunities for flow aug from Lower Snake & Upper Columbia</p>			
Load Following	<p>(7) Short-term flow fluctuations (hourly, daily, weekly)</p> <p>(PWG: 1/27/06, 4/13/06, 5/18/06) (HAWG: 4/11/06, 4/20/06, 4/25/06, 5/2/06, 5/30/06)</p>	<ul style="list-style-type: none"> • CRITFC Short Term Flow Fluctuations Information Paper 	<ul style="list-style-type: none"> • HAWG discussions on _____ • CRITFC/OR/FPC analysis to incorporate biological data for PWG discussion July 13 • CRITFC to articulate issues for PWG discussion July 13 	

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Canadian Operations	(3) Opportunities/implications of Canadian operations (PWG: 1/27/06, 3/9/06, 6/1/06, 6/8/06, 6/15/06) (HAWG: 6/12/06)	<ul style="list-style-type: none"> • 2000 BiOp Entity Report Final Draft (BiOp 2000 Final Draft 1.doc) • Columbia River Treaty Summary (Ex 2 – TreatySum.doc) • Mar 18 Letter 	Draft principles and criteria from subgroup to PWG on June 15. Subgroup will further refine draft and frame issues for PWG discussion June 29.	
Transportation	Summer Transport by truck vs barge, or no transport after August 31 st . (PWG: 1/27/06, 3/30/06)	<ul style="list-style-type: none"> • Truck vs Barge PWG 	<ul style="list-style-type: none"> • CRITFC will check on response to info paper. • Further technical discussion to occur. • CRITFC/NPT to provide issue paper on transport, past August 31st, by July 13 	
	Transport vs In-River <ul style="list-style-type: none"> • PWG assignment to subgroup March 30 • Transport sub-group met & reported back to PWG May 4 • Technical input from some resource managers submitted to HAWG May 30 (PWG: 3/2/06, 5/4/06, 5/18/06) (HAWG: 5/30/06, 6/12/06)	<ul style="list-style-type: none"> • 4-13-06 Transport Notes • 4-24-06 Transport Notes • Salmon Managers Collaborative Spread the Risk Transportation Proposal (72-06.doc) 	<ul style="list-style-type: none"> • Technical discussion at June 27 HAWG • HAWG to frame issues for PWG discussion June 29 	
Juvenile Dam Passage	Early curtailment of summer spill (PWG: 1/27/06) (HAWG: 5/23/06, 5/30/06)	<ul style="list-style-type: none"> • Passage Timing Forecast Methods 	Subteam developed method alternatives HAWG currently framing issues for PWG	

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	Late fall/winter bypass operations for detection of SR fall Chinook (PWG: 1/27/06, 5/18/06)	<ul style="list-style-type: none"> • PIT Tag Extension Fact Sheet • 2005 O&M Report for 1-24-06 	Corps framing options for PWG discussion in July (PWG July 13)	
	Breaching/below MOP (John Day spillway crest, Lower Granite 10" below MOP, 4 SR dams at spillway crest, MCN at MOP) (PWG: 1/27/06, 3/9/06, 3/29/06, 4/7/06, 4/13/06)		<ul style="list-style-type: none"> • Discussed at PWG on several occasions. • Letter to Am Rivers from the Corps on behalf of fed agencies; letter from NOAA to CTUIR indicating modeling of scenarios deferred. 	
	Spring Creek Spill			
Configuration Issues		<ul style="list-style-type: none"> • RSW Schedule Dft 	Discuss configuration and frame issues at HAWG June 27	
Adult Passage	Adult passage (PWG: 3/30/06, 4/27/06, 5/4/06)		Technical subgroup reviewing passage survival estimates. Final refinement of estimates expected end of June (PWG June 29)	
	Shared Savings (PWG: 1/5/06, 1/27/06, 4/6/06, 4/27/06, 6/1/06)		Deferred for now	
	Kelts (PWG: 3/30/06, 5/11/06)		Discussed in May Actions under development	

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	(14) Dissolved Gas Management (PWG: 4/13/06, 4/18/06, 5/18/06, 6/8/06)		<ul style="list-style-type: none"> • Discussed at PWG May 18 • Corps to summarize information on proposed actions to get to TDG target, costs and expected performance, bring to PWG • Additional discussion in PWG expected July/August 	
	(12) Power and fish emergencies (PWG: 2/2/06)	<ul style="list-style-type: none"> • TMT Emergency Protocols • Emergency Operations Comparison 	Anticipated proposal from AAs on fish emergencies	
Temperature	(10) Temperature management at/with DWR to balance wild and hatchery benefits (PWG: 6/1/06, 6/15/06)			
	Temperature management at Grand Coulee		CRITFC developing issue paper to PWG on June 29	
Non-ESA	Lamprey passage (PWG: 1/27/06)	<ul style="list-style-type: none"> • Adult Lamprey Passage Management Plan • COE Pacific Lamprey Management and Research Program 		