

Draft October 25, 2002

Snake River

Summary of Modeling Assumptions for Mainstem Hydro Operations (Changes in bold type)

Project	NMFS' 2000 Biological Opinion	Council Preferred Alternative	
Upper Snake	427 kaf (50-year average yields 180 kaf)	427 kaf (50-year average yields 180 kaf)	
Brownlee	Mar-Apr: full at 2077' May: draft to 2069' (110 kaf) Jun: fill to 2077' Jul: min draft 2050' (237 kaf + 100 kaf US shaping) Aug1-15: min draft 2050' Aug16-Sep30: min draft 2045' Oct-Nov: min flow 9,000	Mar-Apr: full to 2077' May: draft to 2069' (110 kaf) Jun: fill to 2077' Jul: min draft 2050' (237 kaf + 100 kaf US shaping) Aug1-15: min draft 2050' Aug16-Sep30: min draft 2045' Oct-Nov: min flow 9,000	
Dworshak	Sep-Apr15: min flow Apr16-Aug: 14 Kcfs max flow Aug: draft limit 1520'	Oct-Jun: 95% refill curve Jul 31: 1584' target Aug 15: 1562.5' target Aug 31: 1538' target Sep 30: 1520' target	
Lower Granite	Apr16-Aug: near MOP Flow targets Apr3-Jun20: 85-100 Kcfs (priority to June refill) Jun21-Aug: 50-55 Kcfs Spill: 60 Kcfs night (30 Kcfs for modeling) Cap: 60 Kcfs (120% gas) (30 Kcfs for modeling)	Apr16-Aug: near MOP Flow targets not supported, do not drive water management Spill: 60 Kcfs night (30 Kcfs for modeling) Cap: 60 Kcfs (120% gas) (30 Kcfs for modeling)	
Little Goose	Apr16-Aug: near MOP Spill: 45 Kcfs night (22.5 Kcfs for modeling) Cap: 45 Kcfs (120% gas) (22.5 Kcfs for modeling)	Apr16-Aug: near MOP Spill: 45 Kcfs night (22.5 Kcfs for modeling) Cap: 45 Kcfs (120% gas) (22.5 Kcfs for modeling)	
Lower Monumental	Apr16-Aug: near MOP Spill: 40 Kcfs 24 hours/day Cap: 40 Kcfs (120% gas)	Apr16-Aug: near MOP Spill: 40 Kcfs 24 hours/day Cap: 40 Kcfs (120% gas)	
Ice Harbor	Apr16-Aug: near MOP Spill: 45 Kcfs day/105 night (75 Kcfs for modeling) Cap: 105 Kcfs (120% gas) (75 Kcfs for modeling)	Apr16-Aug: near MOP Spill: 45 Kcfs day/105 night (75 Kcfs for modeling) Cap: 105 Kcfs (120% gas) (75 Kcfs for modeling)	

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Upper Columbia River
Summary of Modeling Assumptions for Mainstem Hydro Operations
(Changes in bold type)

Project	NMFS' 2000 Biological Opinion	Council Preferred Alternative	
Mica	Negotiate with BC Hydro to release non-treaty water in July and August	Negotiate with BC Hydro to release non-treaty water in July and August	
Arrow	Store up to 1 maf in treaty space in low water years for release to enhance migration flows for juveniles.	Store up to 1 maf in treaty space in low water years for release to enhance migration flows for juveniles.	
Libby	VARQ flood control Jan-Apr15: min flow Jun: refill May-Jul: sturgeon & bull trout Aug: draft limit 2439'	VARQ flood control IRC draft limits Jan-Jun: 95% refill curve May-Jun: new sturgeon flows Jul-Sep: even outflows Sep: draft limit 2449' 2439' limit for driest 20%	
Hungry Horse	VARQ flood control Jan-Apr15: fish curves Jun: refill Aug: draft limit 3540' dry years 480 kaf or 3530'	VARQ flood control IRC draft limits Jan-Jun: 95% refill curve Jul-Sep: even outflows Sep: draft limit 3550' 3540' limit for driest 20%	
Albeni Falls	Oct-Apr: keep at 2051'	Oct-Apr: keep at 2051'	
Grand Coulee	VARQ flood control Jan-Apr15: fish curves Jun: refill Aug: 130 kaf (Banks Lake) Aug: draft limit 1280' dry years 1278' Nov-Apr: flow for Chum Dec-May: flow for Vernita Bar	VARQ flood control Jan-Jun: 95% refill curves Jan31: 1270' min Feb28: 1260' min Mar-Apr15: 1250' min Apr16-30: 1255' min May31: 1265' min June30: 1290' (full) July31: 1286.5' target Aug31-Dec31: 1283' target Nov-Apr: flow for Chum Nov-Dec: priority to elevation Dec-May: flow for Vernita Bar Jan-May: priority to min flow	

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Lower Columbia River Summary of Modeling Assumptions for Mainstem Hydro Operations (Changes in bold type)

Project	NMFS' 2000 Biological Opinion	Council Preferred Alternative	
Priest Rapids	Flow targets for Vernita Bar Dec-May: 50 to 70 kcfs Apr10-Jun: 135 Kcfs - (priority to June refill)	Flow targets for Vernita Bar Dec-May: 50 to 70 kcfs	
John Day	Apr16-Sep: elevation 262.5' Oct-Apr15: elevation 265' Spill: 60% night (30% for modeling) Cap: 150 Kcfs (120% gas) (75 Kcfs for modeling)	Apr16-Sep: elevation 262.5' Oct-Apr15: elevation 265' Spill: 60% night (30% for modeling) Cap: 150 Kcfs (120% gas) (75 Kcfs for modeling)	
McNary	Flow targets Apr10-Jun: 220-260 Kcfs (priority to June refill) Jul-Aug: 200 Kcfs Spill: 136 Kcfs night (68 Kcfs for modeling) Cap: 136 Kcfs (120% gas) (68 Kcfs for modeling)	Flow targets not supported, do not drive water management Spill: 136 Kcfs night (68 Kcfs for modeling) Cap: 136 Kcfs (120% gas) (68 Kcfs for modeling)	
The Dalles	Spill: 40% 24 hours/day Cap: 230 Kcfs (120% gas)	Spill: 40% 24 hours/day Cap: 230 Kcfs (120% gas)	
Bonneville	Chum flows (to maintain specified tailwater elevation) Nov1-Nov15: 125 Kcfs Nov16-Apr: 145 Kcfs Spill: 120 Kcfs night/75 day (97.5 Kcfs for modeling) Cap: 90-150 Kcfs (120% gas) (97.5 Kcfs for modeling)	Chum flows (to maintain specified tailwater elevation) Nov1-Nov15: 125 Kcfs Nov16-Apr: 145 Kcfs Spill: 120 Kcfs night/75 day (97.5 Kcfs for modeling) Cap: 90-150 Kcfs (120% gas) (97.5 Kcfs for modeling)	