Upper Columbia Basin Alternative Flood Control EIS

Scoping Document
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FINAL

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Scoping Document Abbreviation and Acronym Index

AFD	Albeni Falls Dam
BC	British Columbia
BiOp	Biological Opinion
BOR	Bureau of Reclamation
BPA	Bonneville Power Administration
CCT	Confederated Colville Tribes
cfs	Cubic Feet per Second
COE	Corps of Engineers
DEIS	Draft Environmental Impact Statement
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FC	Flood Control
FCRPS	Federal Columbia River Power System
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
GC	Grand Coulee Dam
ID	Idaho
IJC	International Joint Commission
IRC	Integrated Rule Curve
HH	Hungry Horse Dam
MDEQ	Montana Department of Environmental Quality
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MT	Montana
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NW	Northwest
POR	Pend Oreille River
PUD	Public Utility District
STOI	Spokane Tribe of Indians
TDG	Total Dissolved Gas
TMDL	Total Maximum Daily Load
UCBFCFO	Upper Columbia River Basin Flood Control and Fish Operations
US	United States
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USFWS	U.S. Fish and Wildlife Service
VARQ	Variable Discharge (“Q” is civil engineering shorthand for discharge)
WA	Washington
WDFW	Washington Department of Fish and Wildlife

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1. Introduction

Flood control and hydropower operations at Libby, Hungry Horse, and Grand Coulee Dams have altered the natural river hydrology of Columbia Basin headwaters. These reservoirs store the spring snowmelt runoff to control floods and release higher-than-natural flow in the fall and winter for power production. Listed fish populations in the Columbia Basin (Kootenai River white sturgeon, Columbia Basin bull trout, and several Columbia River salmon and steelhead stocks) require high spring flows, which historically were provided by snowmelt. The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) (collectively, the Services) have recommended actions in their 2000 Biological Opinions for operation of the Federal Columbia River Power System which would modify flow for the conservation and recovery of listed species. To help recover listed fish populations, the Corps of Engineers (Corps) and Bureau of Reclamation (Bureau) must determine alternative methods of operating Libby, Hungry Horse and Grand Coulee Dams.

The Corps operates and maintains 12 of the 14 Federal projects in the Columbia River Basin including Libby and Albeni Falls Dams located in the affected portion of the basin. Libby Dam is an important storage project providing 4.96 million acre feet (maf) of storage for system flood control and flow regulation to meet requirements of fish and power generation in the basin. The Corps has a major role in coordinating multiple uses of the system. It is responsible for managing flood control storage at all major reservoirs in the Columbia River Basin. The Bureau of Reclamation operates Grand Coulee and Hungry Horse Dams, two of the storage projects included in this portion of the basin. Because of its size (5.19 maf of storage in Lake Roosevelt) and key location, Grand Coulee Dam and Reservoir plays a prominent role in the coordinated operation of the Columbia River system. Storage at Hungry Horse (3.16 maf) is also very valuable because of its headwaters location; water released from Hungry Horse passes through many downstream powerplants.

Libby, Hungry Horse and Grand Coulee dams are operated for system flood control (Columbia River below Bonneville Dam). Libby and Hungry Horse dams also provide local flood control for downstream communities on the tributaries where they are located. The Corps and the Bureau are preparing a Federal Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). The EIS will evaluate flood control and other operational strategies along with directed operations intended to benefit fish in the Upper Columbia River Basin in response to the Services recent requirements pursuant to the Endangered Species Act (ESA). Those requirements call for Federal agencies to undertake various actions at Federal dams to assist in the recovery of threatened and endangered fish species listed under the ESA.

To obtain public input into the EIS process, a series of scoping meetings were held in the communities potentially affected by the proposed actions. Written input was also requested and received. The results of those meetings and correspondence have been compiled into this scoping document. This scoping document also contains the results of

meetings conducted with the Colville Confederated Tribe, Spokane Tribe and Confederated Salish and Kootenai Tribes on March 4, 2001, March 23, 2001 and May 4, 2001, respectively; public meetings held in the U. S. portion of the basin October 1, 2001 through November 30, 2001 to obtain public input; public and agency meetings conducted in Creston, B.C. Canada on January 24, 2002; and letters received to assist in setting the scope of the subject EIS.

The objectives of this scoping document are to:

- Document the input and participation of agencies, governments and other interested persons in the scoping process;
- Identify the issues to be addressed in the Draft Environmental Impact Statement (DEIS); and
- List the range of alternatives that were identified.

This scoping document is the first in a series of information pieces to update the public on the proposed project. The DEIS will further address comments and input received during the EIS preparation process.

2. Purpose and Need

2.1 Need

Flood control and hydropower operations at Libby, Hungry Horse, and Grand Coulee dams have altered the natural river hydrology of Columbia Basin headwaters. These reservoirs store the spring snowmelt runoff to control floods, and they release higher-than-normal flows in the fall and winter for power production. Listed fish populations in the Columbia basin (Kootenai River white sturgeon, Columbia Basin bull trout, and several Columbia River salmon and steelhead stocks) require high spring flows, which historically were provided by snowmelt. The U.S. Fish and Wildlife Service and National Marine Fisheries Service have recommended actions in their 2000 Biological Opinions for operation of the Federal Columbia River Power System, which would modify flows for the conservation and recovery of listed species. In order to help recover listed fish populations, the Corps of Engineers and Bureau of Reclamation must determine alternative methods of operation of Libby, Hungry Horse, and Grand Coulee dams and reservoirs.

2.2 Purpose

To implement operational actions at Libby, Hungry Horse and Grand Coulee dams that will provide recommended reservoir and flow conditions for listed anadromous and resident fish, consistent with authorized project uses.

3. Preliminary Alternatives

3.1 General

The alternatives presented in this section of the document originated from the scoping process conducted for the EIS. A brief description is presented below to identify the intent of each alternative without stating whether or not it will be considered in detail. Further evaluation and screening of these alternatives will be conducted during the EIS process to identify which alternatives will be carried forward for detailed analysis. Alternatives which meet the purpose and need, are practical and reasonable, and have an acceptable level of impacts, will be further investigated to select a preferred or recommended alternative.

3.2 Description of Alternatives

3.2.1 BASE-CRT 63 without Fish Flows

BASE-CRT 63 is the flood control operation described in the Columbia River Treaty Flood Control Operating Plan[1] as amended by the Columbia River and Tributaries Study, CRT 63[2]. Under this alternative Libby Dam and Hungry Horse Dam are regulated to meet the flood control rule curves as specified in the Columbia River Treaty Flood Operating Plan with no additional power drafts and no sturgeon or salmon releases. Table 1 includes the BASE-CRT 63 target reservoir elevations (current operation) for Libby, Hungry Horse and Grand Coulee dams on April 30 under various forecasts. It is the existing flood control operation but does not include flow augmentation for fish that is also included as part of current operations.

3.2.2 BASE-CRT 63 with Fish Flows

This is considered the No-Action Alternative. It consists of two parts. First, it includes the existing flood control and reservoir regulation procedure as described (BASE-CRT 63 alternative without fish flows) in paragraph 3.2.1 above. Second, it provides for releases from Libby, Hungry Horse and Grand Coulee dams to meet the fish flows called for in the 2000 Federal Columbia River Power System (FCRPS) BiOps dated December 20, 2000, and December 21, 2000. These releases include: 1) the summer flow augmentation from Grand Coulee Dam called for in the NMFS BiOp for juvenile salmon outmigration, as well as provision for fall flows for lower Columbia chum salmon spawning and incubation and 2) spring flow augmentation from Libby Dam for sturgeon reproduction and maintenance of minimum flows for bull trout from Libby and Hungry Horse dams called for from the USFWS BiOp.

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[1] Columbia River Treaty Flood Control Operating Plan, U.S. Army Corps of Engineers, North Pacific Division, Portland, October 1972, pp.29-30

[2] Review of Flood Control Columbia River Basin, Columbia River and Tributaries Study, CRT-63, U.S. Army Corps of Engineers, North Pacific Division, Portland, June 1991, pp. 36-49.

Table 1[3]					
April 30 Target Reservoir Elevation / Flood Control Draft					
Project	Flood Control Procedure	Forecast 80% of Average Runoff	Forecast 100% of Average Runoff	Forecast 120% of Average Runoff	Forecast 130% of Average Runoff
Libby Dam	BASE CRT63	2413.2’	2347.6’	2287.0’	2287.0’
	VARQ FC	2447.7’	2402.7’	2325.6’	2287.0’
	(Difference)	34.5’	55.1”	38.6”	-0-
Hungry Horse Dam	BASE CRT63	3521.3’	3504.6’	3482.3’	3471.4’
	VARQ FC	3508.0’	3491.0’	3485.0’	3485.0’
	(Difference)	-18.5’	-19.4’	+2.7	+13.6
Grand Coulee Dam	BASE CRT63	1267.6’	1229.4’	NA	NA
	VARQ FC	1265.2’	1225.5’	NA	NA
	(Difference)	-2.4’	-3.9’	-0-	-0-

[3] Source: “Status Report, Work to Date on the Development of the VARQ Flood Control Operation at Libby and Hungry Horse Dam”, January 1999, U.S. Army Corps of Engineers Northwestern Division North Pacific Division, Portland, OR, pp 5 & 7

For Hungry Horse Dam, minimum outflow would be determined monthly based on the official volume inflow forecast for Hungry Horse Reservoir for the April through August period. When April through August runoff forecast is greater than 1,790 thousand acre-feet (kaf), the minimum flow would be 900 cfs. When the monthly forecast is between 1,190 and 1,790 kaf, the minimum flow would be determined by linear interpolation between 400 and 900 cfs. When the forecast is less than 1,190 kaf, the minimum flow is 400 cfs. The minimum flow in the South Fork Flathead River can be lowered 145 cfs when the river reaches flood stage at the Columbia Falls gage. As a guideline for salmon flow augmentation releases during July and August, Hungry Horse may be operated in a manner that reduces impacts to other species while also releasing water to meet salmon flow objectives.[4]

For Libby Dam, the minimum flows and ramping rates were prescribed in the USFWS BiOp. Year-round instantaneous minimum flow remained at 4,000 cfs with the following variations for white sturgeon, and bull trout flows. Libby Dam would provide tiered volumes of water for sturgeon flow enhancement (as currently measured at Bonners Ferry) according to the Libby Dam April-August volume runoff forecast as follows in Table 2. Sturgeon flows would generally be initiated between mid-May and the end of June to augment lower basin runoff entering the Kootenai River. Volumes stored for sturgeon are being reexamined and new values may be reflected in the DEIS. Table 2 also shows minimum flows for bull trout. Salmon flows are provided in August by drafting the reservoir as deep as 20 feet from full pool (2459' to 2439').

Table 2

Flow Enhancement using Base CRT 63 with Fish Flows

Forecast runoff volume (maf) at Libby Dam	Sturgeon flow volume as measured at Bonners Ferry	Minimum bull trout flows from Libby Dam
0.00 < forecast < 4.80	Sturgeon flows not requested	6 kcfs
4.80 < forecast < 6.00	1.42	7 kcfs
6.00 < forecast < 6.70	1.77	8 kcfs
6.70 < forecast < 8.10	2.56	9 kcfs
8.10 < forecast < 8.90	3.89	9 kcfs
8.90 < forecast	4.77	9 kcfs[5]

[4] Source: 2000 Federal Columbia River Power System (FCRPS) Biological Opinion pg 9-63.

[5] Source: "Biological Opinion Effects to Listed Species From Operation of the Federal Columbia River Power System" by USFWS dated December 20, 2000 pg. 15

In addition to the flow volumes, the USFWS BiOp identifies the following ramping rates for Libby Dam as shown in Table 3.

Table 3						
USFWS BiOp Daily and Hourly Maximum Ramp Rates for Libby Dam						
Flow Range	Ramp Up Unit			Ramp Down Unit		
(in cfs)	Daily max cfs/day	Hourly max (cfs/hr) Oct. 1-Apr. 30	Hourly max (cfs/hr) May 1-Sept. 30	Daily max cfs/day	Hourly max (cfs/hr) Oct. 1-Apr. 30	Hourly max (cfs/hr) May 1-Sept. 30
4,000-6,000	5,000	2,000	1,000	500	500	500
6,000-9,000	5,000	2,000	1,000	1,000	500	500
9,000-17,000	10,000	3,500	2,000	2,000	1,000	1,000
>17,000	No limit	7,000	3,500	5,000	5,000	3,500

3.2.3 BASE-CRT 63 with Additional Flow Capacity at Libby Dam and Fish Flows

This alternative would provide sturgeon spawning and incubation flows at Bonners Ferry, Idaho as described in earlier alternatives. Libby Dam would be operated to the BASE-CRT 63 flood control rule curves, and would provide the sturgeon flow specified in the USFWS 2000 BiOp. The amount of water that could be released from Libby Reservoir would be increased by either installation of one or two additional turbines in the dam or the construction of features on the existing spillway that would allow its use without creation of unacceptable levels of dissolved gas in the river below the dam. A spill test planned in 2002 will establish current capabilities to safely spill. Once these measures have been implemented the anticipated flow capacity for release from Libby Dam would increase from 28,000 cfs to 35,000 cfs. The additional flow capacity would be used to achieve desired fish flows in accordance with the requirements of the BiOps. Operations would be controlled in accordance with the BASE-CRT 63 plan as described in paragraph 3.2.2, but with additional flow capacity the potential releases could be even higher than 28,000 cfs. Downstream flood control requirements would still be met on both a local and a system basis.

3.2.4 VARQ without Fish Flows

VARQ (variable discharge, or variable Q [“Q” is Civil Engineering shorthand for discharge]) is an alternative to the current flood control operations for Libby, Hungry

Horse and Grand Coulee dams. The current flood control operations at these projects use water supply forecasts to establish the amount of flood control space that is required each year. In high runoff years, more space is allocated for flood control than in low runoff years. The VARQ alternative is also designed around the concept of flood control storage varying based on the water supply forecast, but reduces drafting of the reservoir except in years with high forecast runoff. Thus, under VARQ the probability of refilling the reservoirs would be increased. This modified flood control regulation is designed to improve the multi-purpose operation of these reservoirs by defining an operation that would better ensure reservoir refill and approximate more natural snow melt runoff condition of higher spring flows in rivers. The April 30th draft requirements and flood control space in Libby and Hungry Horse would be reduced from the present requirements except in years with high forecast runoff. This procedure is intended to increase reliability of and the volume available for the releases from Libby and Hungry Horse projects during refill (after April 30th). To offset the reduced flood control storage at Libby and Hungry Horse projects, Grand Coulee Reservoir flood control storage would be increased for each of the VARQ alternatives to ensure adequate downstream protection below Bonneville Dam. In years where the inflow volume runoff forecast is high, the operation would not change from current operations. A comparison of possible reservoir elevations on April 30th under existing and VARQ flood control procedures is presented in Table 1.

Table 4 demonstrates how the VARQ operation at Libby and Hungry Horse dams would modify the timing of the flows for flood control purposes, less during the winter drawdown period and more during the spring runoff, as compared to the Base-CRT 63, the current operation.

Table 4

Distribution of Simulated Monthly Average Flows at Key Points on the Columbia River

	Jan (kcfs)	Feb (kcfs)	March (kcfs)	April (kcfs)	May (kcfs)	June (kcfs)
Columbia River at Birchbank, BC						
VARQ FC	65.6	65.4	59.5	43.9	101.8	135.3
BASE CRT63	73.4	67.1	60.8	41.5	98.3	130.2
Difference	-8.1	-1.7	-1.3	+2.4	+3.5	+5.1
Columbia River at The Dalles, OR						
VARQ FC	149.8	175.9	202.7	240.3	324.6	330.3
BASE CRT63	158.0	179.1	207.5	240.6	317.7	321.4
Difference	-8.2	-3.2	-4.7	-0.3	+6.9	+8.9

Note: Values are from the 1928-1978 flood control hydro-regulations.

The data presented above are preliminary and indicate the impact that VARQ operation would have on average monthly stream flows. The study effort to prepare the DEIS will further refine this evaluation.[6]

3.2.5 VARQ with Fish Flows

This alternative employs the same flood control and reservoir regulation procedure as the VARQ alternative described above. In addition, this alternative provides for the releases from Libby, Hungry Horse and Grand Coulee dams to meet the fish flows called for in the 2000 FCRPS BiOps. This modified flood control regulation is designed to improve the multi-purpose operation of these reservoirs by defining an operation that would better ensure reservoir refill and approximate more natural snow-melt runoff conditions of higher spring flows in rivers.

Fish flows described in the 2000 FCRPS BiOps for Libby and Hungry Horse dams are similar to BASE-CRT 63 with fish flows. VARQ with fish flows and BASE-CRT 63 with fish flows would be managed the same. The available volume of water for fish flows would be greater for the VARQ alternative when compared to the BASE-CRT 63 alternative.

For Libby Dam, the minimum flows and ramping rates were prescribed in the USFWS BiOp. Year-round instantaneous minimum flow remained at 4,000 cfs with the following variations for white sturgeon, salmon augmentation, and bull trout flows. Tiered volumes of water for sturgeon flow enhancement would be provided from Libby Dam according to the April-August volume runoff forecast at Libby. The final sturgeon volumes would be based on further studies.

Sturgeon flows would generally be initiated between mid-May and the end of June to augment lower basin runoff entering the Kootenai River below Libby Dam.

3.2.6 VARQ with Physical Stream Changes near Bonners Ferry, Idaho

This alternative was formulated to reduce the adverse effects of higher fish flows in the Kootenai River from Libby Dam to Kootenay Lake, B.C., particularly in the Bonners Ferry area. Discussions with the local representatives from the Bonners Ferry area and representatives from the Idaho Department of Fish and Game have suggested that flow is but one factor in a complex system that affects the recovery of several endangered species. These entities believe that the amount of flow in the river may be secondary to favorable velocities and a more stable substrate. Essentially, this option would involve operations as described for VARQ above plus the construction of in-water structures along the river to create zones with favorable velocities, turbulence and substrate needed for spawning. Structures could include bendway weirs, barbs, grade control weirs, revetments, cribwalls, and boulder clusters. Each of these features would be placed so as

[6] Source: report "The Effects of VARQ at Libby and Hungry Horse On Columbia River System Flood Control" August 1998 prepared by U.S. Army Corps of Engineers Northwestern Division North Pacific Region P.O. Box 2870 Portland, Oregon

to achieve targeted velocities through specific zones of the river. The structures could be supplemented with the construction of favorable substrate by placement of select materials in the zones controlled by flow structures.

3.2.7 VARQ with Additional Flow Capacity at Libby Dam and Fish Flows

This alternative was included to address the USFWS BiOp requirement for increased flow releases from Libby Dam to 35,000 cfs under the VARQ flood regulation procedure to meet the white sturgeon recovery flows in the Bonners Ferry area of the Kootenai River, Idaho. The amount of water that can be released from Libby Reservoir would be increased by either installation of one or two additional turbines in the dam or the construction of features on the existing spillway that would allow its use without creation of unacceptable levels of dissolved gas in the river below the dam. A spill test planned in 2002 will establish current capabilities to safely spill. Once these measures have been implemented, the anticipated flow capacity for releases from Libby Dam would increase from 28,000 cfs to 35,000 cfs. The additional flow capacity would be used to achieve desired fish flows in accordance with the requirements of the BiOps. Operations would be controlled in accordance with the VARQ plan as described above, but with additional flow capacity the potential releases could be even higher than 28,000 cfs. Downstream flood control requirements would still be met on both a local and a system basis.

3.2.8 VARQ with Modified Flathead Lake Flood Control

This alternative would provide a better assurance of refill for Flathead Lake, Hungry Horse Reservoir and Libby Dam Reservoir as well as approximating more natural snow-melt runoff conditions of higher spring flows. The flood control regulation of Libby and Hungry Horse dams would be the same as described for the VARQ alternative presented above in sections 3.2.2 and 3.2.3. Changes would be made to the Flathead Lake flood control regulation that would better ensure refill. Flathead Lake, currently, is drawn down from a full pool elevation of 2893' to elevation 2883' by April 15th of each year, then refilled to 2890' by the end of May and to full pool in June. This alternative would better ensure refill by varying the amount of drawdown required based on the water supply forecast. In years when the volume forecast was low, the lake would not be drawn down to 2883'. Analysis would be required to establish a set of rule curves for the lake under this alternative.

3.2.9 Integrated Rule Curves (IRC)

This alternative was considered to better approximate natural snow-melt flow conditions in the rivers and to improve reservoir refill. Montana Fish, Wildlife & Parks has developed a set of rule curves that integrates ESA concerns with the need for flood control. IRC operations would call for modified reservoir draft points by April 30th for Libby and Hungry Horse dams. IRCs and VARQ would both draft Libby and Hungry Horse reservoirs less than with BASE-CRT 63 in years with medium and low runoff forecasts. However, IRCs would draft more than VARQ as a provision for power generation. During the recent public meetings, representatives from the Montana Fish,

Wildlife & Parks identified VARQ as meeting all of the constraints and needs that had been identified through the development of their integrated rule curves.

3.3 Summary of Alternatives

The following table illustrates the relationship of each of the alternatives considered:

Table 5			
Comparison of Upper Columbia Basin Alternatives			
Features	Operating Mode		
	BASE-CRT 63	VARQ	IRC
Without fish flows at Libby and Hungry Horse Dams	X	X	
With fish flows at Libby and Hungry Horse Dams	X	X	X
With stream changes near Bonners Ferry, Idaho		X	
With additional flow capacity at Libby Dam	X	X	
With new Flathead Lake regulations		X	

4. The Scoping Process

The first step in the process to produce an EIS following development of the purpose and need, is to establish the scope of the study. The two lead agencies, the U.S. Army Corps of Engineers and the Bureau of Reclamation conducted meetings in 7 cities in the affected basin areas and consulted with numerous local, state and Federal agencies to better define the issues, concerns and opportunities. The notice of intent to prepare a DEIS for Upper Columbia Basin Alternative Flood Control and Fish Operations at Libby Dam, Montana; Hungry Horse Dam, Montana; and Grand Coulee Dam, Washington was published in the Federal Register on October 1, 2001. Invitation letters were mailed out to over 2000 interested parties in the Columbia Basin announcing a series of seven meetings that were being conducted October and November 2001 to receive public comment on the conduct of investigations leading to the preparation of a DEIS. The seven meetings were conducted in: Grand Coulee, Washington, October 29, 2001; Newport, Washington, October 30, 2001; Bonners Ferry, Idaho, November 1, 2001; Portland, Oregon, November 8, 2001; Libby, Montana, November 13, 2001; Kalispell, Montana, November 14, 2001; and Eureka, Montana, November 15, 2001. Approximately 280 people attended these meetings, ranging from less than 10 people in Portland, Oregon to about 90 people attending the meeting in Newport, Washington. Each of these meetings was conducted in a similar manner beginning with an open house from 6-7 PM and followed by a workshop type meeting from 7-9:30 PM. Materials distributed at these meetings were: October 1, 2001, Federal Register notice; October 12, 2001 invitation letter; statement of need and purpose dated March 30, 2001; Frequently Asked Questions; schedule for the EIS; Public Comment Form; excerpt from the Services' 2000 Biological Opinions; Hydropower and the ESA; and brief description of flood control in the Columbia River Basin. In addition, the materials provided as handouts at the public meetings were posted on a web site along with additional materials describing VARQ in detail.

The workshop portion of each meeting included a greeting by a representative of the Federal Project near the meeting site, an overview of the EIS objective and process by one of the Federal Project Managers, a facilitated question and answer session, breakout sessions allowing participants to form into groups and make comments and recommendations for consideration, and an opportunity for anyone who wished to present a statement for consideration. In Portland, Oregon, the public meeting was preceded by a meeting for government representatives to inform those government agencies located in the Portland area of the process. Summaries of the comments received at each of these meetings were recorded.

A formal comment period for receipt of written comments extended through November 30, 2001. Public comments on the scope of the EIS will continue to be accepted and considered throughout the study. The formal scoping process was established to encourage the majority of the scoping comments to be made in the beginning when they were most beneficial for directing the EIS preparation effort.

Information obtained from other meetings conducted with the Colville Confederated Tribe, Spokane Tribe, and Confederated Salish and Kootenai Tribes on March 4, 2001, March 23, 2001, and May 4, 2001, respectively (Appendix E). Public and agency meetings conducted in Creston, B.C. Canada on January 24, 2002 were also summarized (Appendices C and D).

5. Results of Scoping

During the breakout sessions at each of the scoping meetings, staff collected comments and recommendations from each of the groups. These were recorded and reviewed by the participants during the meetings. After the meetings were all completed, the input received was summarized and tabulated. The tabulated data were then sorted by category and by river reach.

In addition to the meeting comments, comment forms and letters from agencies and interested parties were also received. These comments were also summarized and tabulated. The summaries of all comments are provided in Appendices A through E. Comments were further summarized and input into the following. For those reaches not listed, no comments were received. An analysis of the following environmental elements will be completed for each alternative. This will ensure compliance with environmental planning under the National Environmental Policy Act (NEPA).

The EIS will address the potential impacts that could result from each alternative. The analysis will evaluate how implementation of an alternative would compare with continuing existing operations.

Flood Control (flooding, erosion, forecasting, reservoir changes, etc.)

Lake Koocanusa – Consider changes in:

- Frequency and duration of reservoir levels
- Frequency of refill to elevation 2449'
- Flow release capacity (assume refers to 35,000cfs)
- Shoreline erosion

Libby Dam to Kootenay Lake – Consider changes in:

- Zero damage baseline elevation (damage occurs above 1764'/25,000 cfs)
- Hydrograph from the natural hydrograph
- Operation of Libby Dam involving timing and volume of flow releases
- Erosion rates on levees near Bonners Ferry, ID
- Forecasts if the Moffett and Wortmann forecast is used
- Forecasts if the number of years used is increased
- River elevation when 35,000 cfs is released from Libby Dam
- Flow releases before this EIS is finalized
- Operation of septic systems and wells near Libby, MT
- Seepage rates and groundwater intrusion
- Flood damages and increased pumping due to higher river levels

Flathead Lake – Consider changes in:

- Frequency and duration of lake levels
- Maintaining within 6" of full lake levels between June 15th and October 1st
- The new drought management operation
- The VARQ alternative that would increase duration of full lake levels
- The coordination agreement between Hungry Horse Dam and Kerr Dam operations
- Frequency of reaching elevation 2892' and resultant impacts on wetlands

Kerr Dam to Lake Pend Oreille – Consider changes in:

- The river stage in the Pend Oreille River Valley

Lake Pend Oreille – Consider changes in:

- Frequency and duration of lake levels
- Flood damages
- Reservoir evacuation procedures when spring runoff arrives too late

Albeni Falls Dam to Columbia River – Consider changes in:

- Flood damages
- Well water levels
- Impacts on septic tanks and drainfields
- Timing of discharges
- The 100 year base flood flow at Albeni Falls Dam
- Operation at Albeni Falls Dam
- Coordination between Albeni Falls Dam and Box Canyon Dams
- Box Canyon FERC license conditions regarding river elevations of 2041' at Cusick, WA
- Ability to drain Calispell and Trimble Creek watersheds in the spring before increased discharges from Hungry Horse Dam pass through Lake Pend Oreille
- Impacts to emergency flood evacuation and damage reduction procedures
- Forecasting techniques required to avoid increased flood frequency
- Irrigation and water supply facilities
- Dike maintenance
- Bank erosion

Grand Coulee Dam to mouth – Consider changes in:

- Public access and social issues related to drawdown
- Filling the irrigation water storage

System wide – Consider changes in:

- The responsibilities of the various projects to provide system flood control
- Application of integrated rule curves to include all rivers in Washington

ESA/BiOp

Libby Dam to Kootenay Lake – Consider:

- Peer review of the BiOp
- Consider solutions for sturgeon recovery other than flow
- Impact of August flows on sturgeon eggs

Columbia River Basin – Consider:

- Conflicts between life histories of listed species
- Flexible alternatives for burbot, bull trout and cutthroat trout
- Covering all actions in BiOp

Water Quality/Water Quantity

Lake Koocanusa - Consider changes in:

- Total dissolved gas below Libby Dam
- Seasonal temperature
- Nutrient flushing
- Nutrient distribution
- Contribution of water quality treatment from wetlands

Libby Dam to Kootenay Lake – Consider changes in:

- Total dissolved gas below Libby Dam
- Seasonal temperature
- Septic tank and drainfield inundation
- Contribution of water quality treatment from wetlands

Hungry Horse Reservoir – Consider changes in:

- Sediment and nutrient transport balance
- Temperature
- Ecology

Hungry Horse Dam to Flathead Lake – Consider changes in:

- Sediment and nutrient transport balance
- Temperature
- Ecology

Flathead Lake – Consider changes in:

- Sediment and nutrient transport balance

- Temperature
- Ecology
- Septic tank and drainfield inundation
- Drinking water systems

Kerr Dam to Lake Pend Oreille – Consider changes in:
- Septic tank and drainfield inundation
- Drinking water system inundation

Albeni Falls Dam to Columbia River – Consider changes in:
- Water quality of drinking water systems
- Contamination from septic systems
- Contamination from upstream mining activities
- Box Canyon Dam's ability to meet the FERC total dissolved gas requirements

Lake Roosevelt – Consider changes in:
- Water quality from resuspension of contaminated lake bed sediments
- Movement of contaminants
- Water temperature
- Redistribution of nutrients
- Redistribution of heavy metals
- Water quality needed to support fish farming activities
- Influence of wetlands on water quality

Grand Coulee Dam to mouth – Consider changes in:
- Resuspension of contaminated lake bed sediments

System wide – Consider changes in:
- Water quality temperature
- Mobilization of sediment
- Nutrient flushing
- Distribution of nutrients
- Influence of wetlands
- Water quality from modified spill frequency
- The ability of downstream dams to meet state and federal water quality standards
- Operation that would reduce the level and duration of TDG
- Structural features that would reduce the level and duration of TDG
- The relationship of the TMDL program
- Mitigation measures to reduce the impact on temperature and TDG
- The system accounting for water quantity and quality

Recreation

Lake Koocanusa - Consider changes in:

- Boat launch access
- Fishing activity
- Boating activity
- Marina usage
- Days the beaches are usable (Rexford Beach was given as an example)
- Regional recreation and tourism activity

Libby Dam to Kootenay Lake – Consider changes in:

- Stream fishing for rainbow trout

Flathead Lake – Consider changes in:

- Marina use
- Gas sales to boats
- Fishing activity
- Flathead Basin recreation and tourism activity

Lake Pend Oreille – Consider changes in:

- Utilization of lake side properties
- Days the recreational beaches are usable
- Regional recreation and tourism income

Albeni Falls Dam to Columbia River – Consider changes in:

- Recreational use of the river

Lake Roosevelt – Consider changes in:

- Rental of houseboats on the lake
- Fishing activity
- Regional recreation and tourism activity

Power

Libby Dam to Kootenay Lake – Consider changes in:

- Timing of the power production
- Production to meet the loss of power
- Energy and peak power production at Libby Dam
- Operating flexibility

Hungry Horse Dam to Flathead Lake – Consider changes in:

- Energy and peak power production at Hungry Horse Dam
- Operating flexibility

Kerr Dam to Lake Pend Oreille – Consider changes in:

- Energy and peak power production at Kerr Dam
- Operating flexibility

Albeni Falls Dam to Columbia River – Consider changes in:

- Timing of power production
- Value of power produced at Albeni Falls Dam
- Energy and peak power production at Albeni Falls Dam
- Operating flexibility
- Energy and peak power production at Box Canyon under higher and longer spring runoff

Grand Coulee Dam to mouth – Consider changes in:

- Energy and peak power production Grand Coulee Dam
- Operating flexibility
- Operation of Banks Lake that could impact power production

System wide – Consider changes in:

- Timing of system hydropower production
- Firm power production
- Peak energy production
- Power production at non-treaty facilities
- System operating flexibility
- Sale price of power
- Energy reliability
- Mid-Columbia Coordination Agreement
- Canadian Treaty power production
- Non-hydropower production needed to replaced lost energy
- Production needed for replacement of lost power

Fisheries

Lake Koocanusa - Consider changes in:

- Twelve native species and five introduced species of fish
- Fish habitat above the dam
- Overwintering population of bull trout
- Waterfowl nesting
- Wildlife use
- Fish spawning
- Canadian threatened and endangered species
- Habitat enhancement programs and activities

Libby Dam to Kootenay Lake – Consider changes in:

- The scientific approach to sturgeon recovery presented in the ESA BiOp, to include having independent individuals validate the

findings, providing data that forms the basis of flows, conducting peer reviews, and considering solutions other than flows such as hatcheries
- Biota within groundwater
- Resident trout populations
- Wild larval sturgeon
- Burbot
- Rainbow and cutthrout trout
- Kootenai River bull trout
- Impacts on fertilized sturgeon eggs caused by August salmon flows

Kootenay Lake – Consider changes in:
- Wildlife use
- Waterfowl nesting
- Habitat enhancement programs and activities
- Canadian threatened and endangered species

Hungry Horse Reservoir – Consider changes in:
- The "native species assemblage" a population of native fish in Hungry Horse Reservoir of Northwest significance

Hungry Horse Dam to Flathead Lake – Consider changes in:
- Bull trout river flows which begin in May (ref: Dr. Jack Stanford Yellow Bay Biological Station)

Flathead Lake – Consider changes in:
- Fish flows from the lake to meet the needs of bull trout, cutthroat trout and salmon, all listed species
- Bull trout and cutthrout trout populations
- River pike entering the lake
- Small fish populations affected by weed and vegetation growth

Kerr Dam to Lake Pend Oreille – Consider changes in:
- Bull trout and resident non-listed fish
- Fish habitat by segment
- Flow conditions and determine whether the change is good or adverse to fish

Lake Pend Oreille – Consider changes in:
- Tribes' bass hatchery operation

Albeni Falls Dam to Columbia River – Consider changes in:
- Resident fish displacement caused by high flows
- Resident fish impacts due to increased turbidity and dissolved gas

Lake Roosevelt – Consider changes in:

- Fishery impacts from lower lake levels
- Resident sport fishery
- Fishery resources including food sources
- Spawning impacts
- Fish stranding
- Fish farming activities
- WDFW fish rearing program

System wide – Consider changes in:

- System operations required by all items in the BiOp
- Management of ESA listed fish and conflict with the migration of burbot, particularly the high flows in the winter months of December through February
- Mid Columbia summer Chinook
- Coho
- Pacific lamprey
- Sockeye
- Sturgeon
- Idaho's salmon and steelhead populations
- Tributary access for spring and fall spawners
- Nutrient available for peak fish growing season
- Benefit to native fish species
- Other river operations to benefit fish including dredge material management (Rice and Tern Island, navigation channel dredging)

Cultural

Albeni Falls Dam to Columbia River – Consider changes in:

- The Tribes' ability to manage cultural resources
- Preservation of 400 sites due to changes in water elevations

Lake Roosevelt – Consider changes in:

- Exposure of burial sites along Lake Roosevelt (22 sites and portions of 18 sites are exposed)
- Communication between security staff to protect sites
- Operation of Banks Lake that may expose cultural sites
- Mitigation and or armoring of the sites to protect them from exposure

System wide – Consider changes in:

- Funding to implement Sec. 104 of the National Historic Protection Act when power production is replaced by flood control
- Coordination with affected Tribes

Economic (Note: This was added by the scoping meetings)

Lake Koocanusa - Consider changes in:

- Local Canadian economy
- Employment
- Regional recreation and tourism income

Libby Dam to Kootenay Lake – Consider changes in:

- Outfitting business in Libby, MT
- Regional recreation and tourism income; Bonners Ferry economy when the river exceeds 1758' elevation
- Costs to repair river bank damage
- Pumping costs
- Property damage
- Property value
- Responsibility for damages
- Seepage impacts
- Dike damage

Kootenay Lake – Consider changes in:

- Ferry operations

Flathead Lake – Consider changes in:

- Regional tourist industry income
- Recreational boat moorage and fuel sales business

Lake Pend Oreille – Consider changes in:

- Tourism
- Jobs
- Tax revenues
- Property values
- Responsibility for payment of damages
- Regional recreation and tourism income

Albeni Falls Dam to Columbia River – Consider changes in:

- Operation/mitigation to avoid detrimental economic impacts
- Claims and payment under FEMA flood insurance
- Small businesses and local community economy from changes in floodway
- Responsibility for payment of damages
- Tax revenues
- Property values
- The need for more flood insurance

Lake Roosevelt – Consider changes in:

- Regional tourist industry from a perception of degraded water quality related to a reservoir drawdown
- Houseboat rentals
- Fishing activities
- Tribal industries
- Regional recreation and tourism income

System wide – Consider changes in:

- Economic base
- Living standards
- Cost to the taxpayer
- Responsibility for payment of damages
- Operation/mitigation to avoid detrimental economic impacts
- Regional recreation and tourism income

Property Values

Libby Dam to Kootenay Lake – Consider changes in:

- Property values based on added risk to wells, drainfields, septic systems, and structures
- Property value due to erosion and sloughing of banks

Kootenay Lake – Consider changes in:

- Watershed planning activities

Lake Pend Oreille – Consider changes in:

- Property values and rights
- Lake front property values

Albeni Falls Dam to Columbia River – Consider changes in:

- Property values with added concern for erosion, bank stabilization and river fluctuation issues

Lake Roosevelt – Consider changes in:

- Irrigation withdrawals from Lake Roosevelt.

Grand Coulee Dam to mouth – Consider changes in:

- Lake access
- Social issues

System wide – Consider changes in:

- Private dam operations
- Siltation of existing dams
- Flood risk throughout the basin

- Flood risk in the basin above Grand Coulee Dam
- River features required to restore the natural connectivity between river and floodplain
- The hydrologic regime to more closely mimic natural conditions property values from reservoir and river shorelines affected by each alternative

Equity

Lake Koocanusa - Consider:
- Human costs vs. fish

Libby Dam to Kootenay Lake – Consider:
- The needs of people vs. benefit for fish for river flows above elevation 1764'

Flathead Lake – Consider:
- Human costs vs. fish
- Economy for water supplied to anadromous fishery
- Social, economic, and environmental impacts vs. ESA needs
- Impacts on businesses, the irrigators and recreators to meet ESA needs
- The lake ecology, fisheries and sensitive wetlands to meet ESA needs

Albeni Falls Dam to Columbia River – Consider:
- Human costs vs. fish
- Flooding to save fish
- County tax base
- Fish flows effects on property values

System wide – Consider changes in:
- Energy and economic stability required for environmental protection
- Benefits to people before benefiting fish
- Power supply costs that are balanced by an equal benefit for fish
- Impacts on people as a part of the environmental equation
- Operation that balance cost and benefits between lower and upper river basin
- Operation required by Idaho State decisions that impact Washington State
- Operation of the system that benefits the environment and economy equally

Coordination (agencies commitment to existing project purposes/outputs)

Lake Koocanusa - Consider changes in:

- Promised lake refill in the summer
- Expected/promised use of recreation facilities built originally
- The authorized flood control and hydropower purposes of Libby Dam
- The promises made in the U.S./ Canadian Treaty

Libby Dam to Kootenay Lake – Consider changes in:

- The authorized hydropower, flood control and recreation purposes of Libby Dam (reported as currently 78% power, 21.6% flood control and 0.4% recreation)
- Expectations of Bonners Ferry residents for flood protection
- Operation to 35,000 cfs in this or another EIS

Kootenay Lake – Consider changes in:

- Treaty agreement regarding inflow to Kootenay Lake
- Columbia River Treaty operation involving Canadian public process

Hungry Horse Reservoir – Consider changes in:

- Coordination between Hungry Horse Dam and Kerr Dam

Hungry Horse Dam to Flathead Lake – Consider changes in:

- Coordination required with PPL Montana and Confederated Salish and Kootenai Tribes

Flathead Lake – Consider changes in:

- Operation of Kerr Dam and the coordination required with PPL Montana and Confederated Salish and Kootenai Tribes
- Coordination between Hungry Horse Dam and Kerr Dam
- Promises made in the System Operation Review study
- The agreements documented in the 1962 M.O.U. for maintenance of Flathead Lake levels
- The Kerr Dam FERC license requirements and data developed by the utility
- The Flathead Tribes' new drought control management plan under development

Kerr Dam to Lake Pend Oreille – Consider changes in:

- Operation of Kerr Dam and the coordination required with PPL Montana and Confederated Salish and Kootenai Tribes
- Coordination between Hungry Horse Dam and Kerr Dam

Lake Pend Oreille – Consider changes in:

- Operation for Albeni Falls Dam contained in Senate Document #9 October 1, 1947

Lake Roosevelt – Consider:

- Tribal coordination and input
- Input from local people who have experience on the lake
- Coordination and consultation with Colville Tribes
- The current operation as a pre-implementation of the Lake Roosevelt drawdown
- The operation will require further changes to the mitigation for resident fish losses
- Coordination of August drawdown with B.C. Hydro

Grand Coulee Dam to mouth – Consider:

- Banks Lake storage

System wide – Consider:

- The NEPA documentation for the system will require continual public input throughout the process
- Operation to meet the BiOp sturgeon flows considered in this EIS should involve a scientific advisory board
- Operation considered in this EIS should utilize engineering and hydrologic studies from independent qualified sources
- Operation will require an accounting system for water releases
- Cooperation and coordination between dam operators
- Promised system outputs including power production, flood and drought control, irrigation and economic stimulus
- Flood protection as an undue risk on people who have developed in the floodplain over the last 50 years
- Granting Idaho cooperating agency status under 50 CFR 1501
- Clarify purpose and need statement
- Operation responsibility for the dams to either a shoreline or fisheries agency
- Acceptance of non-federal scientific input
- Public review of this EIS process
- Operations need to be coordinated with involved Native Americans

Agriculture

Libby Dam to Kootenay Lake – Consider changes in:

- Impacts to agriculture when river stages exceed elevation 1764' (reference the Harp's Economic Analysis Study)
- Flow frequency above elevation 1764'

Albeni Falls Dam to Columbia River – Consider changes in:

- The ability to till and plant the fields due to changes in spring run-off

Lake Roosevelt – Consider changes in:

- The ability of irrigation pump intakes to draw water

System wide – Consider changes in:

- The rate structure for electric and water rates to farmers and riverside dwellers

Air quality

Lake Koocanusa- Consider changes in:

- Wind blown lake sediments (increased dust)

Lake Roosevelt – Consider changes in:

- Wind blown lake sediments

Grand Coulee Dam to mouth – Consider changes in:

- Air quality from wind blown sediments (increased dust)

Appendix A

Summary of Public Input at U.S. Scoping Meetings

Appendix A

The comments found in this Appendix were summarized from the verbal comments received during each of the scoping meetings held in the United States.

Comments received were initially listed simply in the order received. Following this listing they were sorted into of 13 categories and 12 river reaches as follows:

Scoping Comment Categories

- Flooding (including reservoir water levels, forecasting)
- ESA/BiOp
- Water Quality
- Recreation
- Power (system generation)
- Fisheries
- Cultural (historic)
- Economic
- Property values
- Equity
- Coordination (Local involvement, trust, process, tribal/native)
- Agriculture
- Air quality

River Reaches

- Libby Reservoir – Lake Koocanusa
- Libby Dam to Kootenay Lake
- Kootenay Lake
- Hungry Horse Reservoir
- Hungry Horse Dam to Flathead Lake
- Flathead Lake
- Kerr Dam to Lake Pend Oreille
- Lake Pend Oreille
- Albeni Falls to Columbia River
- Grand Coulee Reservoir- Lake Reservoir
- Grand Coulee Dam to mouth
- Columbia River Basin

On the following sheets, in areas left blank no comments were received on that particular topic for that particular reach. The comments listed are summaries of the notes taken at scoping meetings testimony and during break out sessions.

Upper Columbia Basin Alternative Flood Control EIS
FLOODING (Includes Reservoir Water Levels, Forecasting)

#	Reaches	Comment 1	Comment 2	Comment 3	Comment 4	Comment 5	Comment 6	Comment 7
1	**Libby Reservoir-Lake Koocanusa**	Evaulate the effects of lake/reservoir fluctuations on shoreline erosion, waterfowl, nesting, wildlife, spawning.	Evaluate the change in operations and the effect on the level (elevation) of drawdown. Describe how this will change with VARQ versus present operations and describe the benefits of VARQ versus existing operations.					
2	**Libby Dam to Kootenay Lake**	Describe what occurs in the river (by segment) with VARQ, not just the reservoirs. Demonstrate the relationship to "natural hydrograph". How does VARQ impact groundwater and the bio at within the groundwater?		Describe and evaluate economic & environmental costs as they relate to damage to river banks, flooding, health issues, groudwater, riparian ecology, erosion because of flow augmentation above 1764' and/or 25,000 cfs.	The zero damage baseline elevation needs to be established and be realistic. Elevations above 1764' cause damage.	Reevaluate the models and technical aspects of VARQ. Examine the Kuehl-Moffett and Wortmann-Morrow forecasts and use more years data than they did.	Describe the difference between what is being evaluated in this EIS and the 35,000 cfs flow regime proposed with added flow capacity.	Need to provide a discussion of operations for the years 2002 until 2005 when VARQ may be implemented.
3	**Kootenay Lake**							
4	**Hungry Horse Reservoir**							
5	**Hungry Horse Dam to Flathead Lake**							
6	**Flathead Lake**	Build into VARQ some management alternatives for Flathead Lake so that it can maintain full elevation for summer tourist months.	Allow for Flathead Lake to maintain elevation between 5/1 and 10/1. Coordinate releases from HH with realeses from Kerr Dam to maintain summer elevations. Describe relationship between MOU, operations of HH and Kerr currently and with VARQ.					
7	**Kerr Dam to Lake Pend Oreille**							
8	**Lake Pend Oreille**	Describe VARQ flood control impacts to Lake Pend Oreille and to the river.						
9	**Albeni Falls Dam to Columbia River**	Place more emphasis on flood control than other uses. How will VARQ effect Pend Oreille River (POR) in summer? Describe annual flows in POR and how people can be protected from flooding. Describe timing of discharges and effects on both Lake Pend Oreille and the river and towns/property downstream of Albeni Falls.	Evaluate forecasting techniques and ability to avoid flooding downstream of Albeni Falls. Will changes in operations and timing of those changes at HH require changes at Albeni Falls thus resulting in more or greater flooding downstream.					
10	**Grand Coulee Reservoir - Lake Roosevelt**	Need to consider Integrated Rule Curves for Grand Coulee. Consider operating plans for all rivers in Washington similar to plan adopted for Montana.	Describe current drawdown and effects of wind and water erosion. Described how this will change with VARQ. How much farther must lake be drawn down?					

Upper Columbia Basin Alternative Flood Control EIS
FLOODING (Includes Reservoir Water Levels, Forecasting)

#	Reaches	Comment 1	Comment 2	Comment 3	Comment 4	Comment 5	Comment 6	Comment 7
11	**Grand Coulee Dam to mouth**							
12	**Columbia River Basin**	Need to consider Integrated Rule Curves for Grand Coulee. Consider operating plans for all rivers in Washington similar to plan adopted for Montana.						

Upper Colubmia Basin Alternative Flood Control EIS
ESA

#	Reaches	Comment 1	Comment 2	Comment 3	Comment 4	Comment 5
1	**Libby Reservoir-Lake Koocanusa**					
2	**Libby Dam to Kootenay Lake**	l. Use a better scientific approach to sturgeon recovery. Revisit the BiOp. Have independent individuals validate the BiOp. 2. Provide the data and information that forms the basis for the sturgeon recovery flows in the BiOp. 3. Consider and conduct a peer review of the alternative for recovery of the sturgeon prepared by Idaho Fish and Game and local scientists. 4. Look at solutions and recruitment techniques, other than flows. Consider use of hatcheries to recover sturgeon. 5. The USFWS listed only the 11 miles of the Kootenai River below Bonners Ferry as critical habitat for sturgeon when the whole river reach below Libby Dam is involved in providing fish flows.	August flows from Libby Dam for salmon adversely impact the fertilized sturgeon eggs.			
3	**Kootenay Lake**					
4	**Hungry Horse Reservoir**	Consider the effects on "native species assemblage" a population of native fish in the Hungry Horse reservoir of Northwest significance.				
5	**Hungry Horse Dam to Flathead Lake**	Increased discharges for bull trout begin in May, (ref: Dr. Jack Stanford, Yellow Bay Biological Station).				
6	**Flathead Lake**					
7	**Kerr Dam to Lake Pend Oreille**					
8	**Lake Pend Oreille**					
9	**Albeni Falls Dam to Columbia River**					
10	**Grand Coulee Reservoir - Lake Roosevelt**					
11	**Grand Coulee Dam to mouth**					
12	**Columbia River Basin**	1. How are conflicts in listed fish managed under ESA? 2. If Burbot are listed they could not tolerate the high flows in winter (Dec.-Feb.). Alternatives considered need to be flexible to facilitate winter migration of Burbot. 3. Bull trout and cutthroat trout now must be considered equally with salmon possibly causing a change in the release of water for fish from Flathead Lake and Hungry Horse Dam. 4. If a species is delisted under ESA, will that action affect the findings of this EIS?	Increase the scope of this EIS to cover all items in the BiOp requiring action by the Corps.	Implementation date in the BiOp for VARQ of October 19, 2001 is not being met.	Is August flow augmentation necessary? Measure August flows against the effects of drafting Lake Roosevelt and against drafting reservoirs at John Day and in the Snake River.	Evaluate the need for and the impacts of the August flow augmentation, including effects on sturgeon recruitment; this is not a return to natural river conditions.

Upper Colubmia Basin Alternative Flood Control EIS
WATER QUALITY

#	Reaches	Comment 1	Comment 2	Comment 3
1	**Libby Reservoir-Lake Koocanusa**	Describe how VARQ and other alternatives change water quality in terms of temperature, TDG, nutrient flushing, redistribution of nutrients, wetlands, septic systems on a year around basis. How do these changes impact the ecology of the reservoirs and river segments?		
2	**Libby Dam to Kootenay Lake**	Describe how VARQ and other alternatives change water quality in terms of temperature, TDG, nutrient flushing, redistribution of nutrients, wetlands, septic systems on a year around basis. How do these changes impact the ecology of the reservoirs and river segments?		
3	**Kootenay Lake**			
4	**Hungry Horse Reservoir**			
5	**Hungry Horse Dam to Flathead Lake**			
6	**Flathead Lake**	Consider flooding and its impacts on septic and drinking water systems.		
7	**Kerr Dam to Lake Pend Oreille**	Consider flooding and its impacts on septic and drinking water systems.		
8	**Lake Pend Oreille**	Consider flooding and its impacts on septic and drinking water systems.		
9	**Albeni Falls Dam to Columbia River**	Describe how drawdown in Lake Roosevelt impacts the distribution of heavy metals.		
10	**Grand Coulee Reservoir - Lake Roosevelt**	Describe how VARQ and other alternatives change water quality in terms of temperature, TDG, nutrient flushing, redistribution of nutrients, wetlands, septic systems on a year around basis. How do these changes impact the ecology of the reservoirs and river segments?	Describe how drawdown in Lake Roosevelt impacts the distribution of heavy metals.	Fish farms act as the "canary in the cage". Describe existing water quality conditions in Lake Roosevelt and how they will change with VARQ and other alternatives.
11	**Grand Coulee Dam to mouth**			
12	**Columbia River Basin**	Describe how VARQ and other alternatives change water quality in terms of temperature, TDG, nutrient flushing, redistribution of nutrients, wetlands, septic systems on a year around basis. How do these changes impact the ecology of the reservoirs and river segments?		

Upper Colubmia Basin Alternative Flood Control EIS
RECREATION

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**	Describe how VARQ will change operations of reservoirs and how those changes will effect recreation, tourism and the related economics.	
2	**Libby Dam to Kootenay Lake**	Describe how VARQ will change operations of reservoirs and how those changes will effect recreation, tourism and the related economics.	
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**	Describe how VARQ will change operations of reservoirs and how those changes will effect recreation, tourism and the related economics.	
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**	Describe how VARQ will change operations of reservoirs and how those changes will effect recreation, tourism and the related economics.	
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**	Describe how VARQ will change operations of reservoirs and how those changes will effect recreation, tourism and the related economics.	
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**	Describe how VARQ will change operations of reservoirs and how those changes will effect recreation, tourism and the related economics.	
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**	Describe how VARQ will change operations of reservoirs and how those changes will effect recreation, tourism and the related economics.	

Upper Columbia Basin Alternative Flood Control EIS
POWER

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**	Describe how VARQ changes timing of power production and the impacts of those changes on the sale (value) of power.	
2	**Libby Dam to Kootenay Lake**	Describe how VARQ changes timing of power production and the impacts of those changes on the sale (value) of power. Discuss how the lost power would be replaced.	
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**	Describe how VARQ changes timing of power production and the impacts of those changes on the sale (value) of power. How will this impact non-federal power producers and production (e.g. Box Canyon/Pend Oreille PUD). Discuss how the lost power will be replaced.	
10	**Grand Coulee Reservoir - Lake**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**	Describe how VARQ changes timing of power production and the impacts of those changes on the sale (value) of power. Discuss how the lost power would be replaced.	

Upper Columbia Basin Alternative Flood Control EIS
FISHERIES

#	Reaches	Comment 1	Comment 2	Comment 3
1	**Libby Reservoir-Lake Koocanusa**			
2	**Libby Dam to Kootenay Lake**	August flows from Libby Dam for salmon adversely impacts the fertilized sturgeon eggs.	Consider the impact on rainbow trout.	Define the biological response expected from implementation of VARQ.
3	**Kootenay Lake**			
4	**Hungry Horse Reservoir**	Consider the effects on "native species assemblage" a population of native fish in the Hungry Horse reservoir of Northwest significance. (ref: the IJC Report)		
5	**Hungry Horse Dam to Flathead Lake**	Increased discharges for bull trout begin in May, (ref: Dr. Jack Stanford, Yellow Bay Biological Station).		
6	**Flathead Lake**	Bull trout and cutthroat trout now must be considered equally with salmon possibly causing a change in the release of water for fish from Flathead Lake and Hungry Horse Dam.		
7	**Kerr Dam to Lake Pend Oreille**	Look at effects on resident fish (bull trout and resident non-listed fish) and habitat by segment. Good flows at one location may be detrimental elsewhere.		
8	**Lake Pend Oreille**	Look at effects on resident fish (bull trout and resident non-listed fish) and habitat by segment. Good flows at one location may be detrimental elsewhere.		
9	**Albeni Falls Dam to Columbia River**			
10	**Grand Coulee Reservoir - Lake Roosevelt**	Resident sport fishery and fishery resources impacts of pool fluctuation and flushing of Lake Roosevelt. Impacts for food resources.	Address impacts to downstream species as a result of VARQ.	
11	**Grand Coulee Dam to mouth**			
12	**Columbia River Basin**	Work in Lower Columbia could be reduced to enhance fish (Rice and Tern Island, navigation channel dredging).	Evaluate the need for and the impacts of the August flow augmentation, including effects on sturgeon recruitment; this is not a return to natural river conditions.	

Upper Columbia Basin Alternatiave Flood Control EIS
CULTURAL / HISTORIC

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**	VARQ delay preservation of 400 sites due to reduced window of opportunity with modified ramping rates.	
10	**Grand Coulee Reservoir - Lake Roosevelt**	Concern for greater exposure of burial sites along Lake Roosevelt. (22 sites and portions of 18 sites are exposed). Consider mitigation such as armoring the sites, providing better security communication and/or funding improved law enforcement	
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Upper Columbia Basin Alternative Flood Control EIS
ECONOMIC

#	Reaches	Comment 1	Comment 2	Comment 3
1	**Libby Reservoir-Lake Koocanusa**	Consider economic impacts in Canada	Consider the local economic changes caused by Lake Koocanusa pool elevations/ Libby Dam operation including property values, employment, recreation, etc.	Describe how VARQ will change operations of reservoirs and how those changes will effect recreation, tourism and the related economics.
2	**Libby Dam to Kootenay Lake**	Consider the economic impacts of higher flows at Bonners Ferry. Adverse economic impacts begin at river elevations of 1758' and above. (See discussions under ag) Discuss who is responsible for compensating economic losses and paying the cost of levee repairs.	Describe how VARQ will change operations of reservoirs and how those changes will effect recreation, tourism and the related economics.	
3	**Kootenay Lake**			
4	**Hungry Horse Reservoir**	Describe how VARQ will change operations of reservoirs and how those changes will effect recreation, tourism and the related economics.		
5	**Hungry Horse Dam to Flathead Lake**			
6	**Flathead Lake**	Describe how VARQ will change operations of reservoirs and how those changes will effect recreation, tourism and the related economics.		
7	**Kerr Dam to Lake Pend Oreille**			
8	**Lake Pend Oreille**			
9	**Albeni Falls Dam to Columbia River**	Evaluate the impacts on small businesses and local communities because of increased flows, i.e. wells, floodway expansions, etc. Consider whether the Corps can buy out the expanded floodway.		
10	**Grand Coulee Reservoir - Lake Roosevelt**	Describe the drop in concession revenues on Lake Roosevelt including houseboat rentals, etc. Also consider the loss in tourism revenue due to a perception of water quality problems caused by reservoir drawdown.	Describe how VARQ will change operations of reservoirs and how those changes will effect recreation, tourism and the related economics.	
11	**Grand Coulee Dam to mouth**			
12	**Columbia River Basin**	Apply the economic analysis requirements of the Regulatory Flexibility Act. Take a balanced approach to comparing economic impacts, such as meeting power and energy needs with environmental impacts. Address the compensation of damages and the cost of the project to the tax payer	Describe how VARQ will change operations of reservoirs and how those changes will effect recreation, tourism and the related economics.	

Upper Columbia Basin Alternative Flood Control EIS
PROPERTY VALUES

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**	There will be impacts to flooded properties. Discuss who will be responsible and who will pay for damages.	Describe and evaluate economic and environmental costs as they relate to property damage because of flow agumentation above 1764' and/or 25,000 cfs.
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**	There will be impacts to flooded properties. Discuss who will be responsible and who will pay for damages.	
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**	There will be impacts to flooded properties. Discuss who will be responsible and who will pay for damages.	
9	**Albeni Falls Dam to Columbia River**	There will be impacts to flooded properties. Discuss who will be responsible and who will pay for damages.	
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**	There will be impacts to flooded properties. Discuss who will be responsible and who will pay for damages.	

Upper Columbia Basin Alternative Flood Control EIS
EQUITY

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**	Consider the needs of people when providing fish flows from Libby Dam Reservoir.	
2	**Libby Dam to Kootenay Lake**	Consider the needs of people at Bonners Ferry and limit fish flows to river elevation 1764'	
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**	Make the primary purpose the protection of people. Prioritize benefits to people rather than fish.	
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**	Ensure that environmental and economic impacts are considered equally. Provide a balanced solution. Don't provide lower river benefits at the expense of upper river residences. Consider Washington State impacts from Idaho State decisions. Operate dams??	

Upper Columbia Basin Alternative Food Control EIS
COORDINATION

#	Reaches	Comment 1	Comment 2	Comment 3	Comment 4	Comment 5	Comment 6	Comment 7	Comment 8
1	**Libby Reservoir-Lake Koocanusa**	Determine whether the alternatives being considered violate promises/agreements made to locals; the authorized purposes of Libby Dam for flood control, recreation and power generation; or the U.S./Canadian Treaty. (Reference: 1975 Western News – history of construction)	Libby Dam economic benefits reported at these meetings as 78% power, 21.6% flood control and 0.4% recreation. Would the Corps be obligated to accept the flows in the BiOp if they caused river stages of 1770 at Bonners Ferry and resulted in flooding that the dam was designed to prevent?	Public concern that the flow capacity increases to 35Kcfs at Libby Dam must be the subject of an EIS. What is the next action, if summer spill test indicates need for dam modification to meet the 35Kcfs flow capacity? Who will comment on the spill test? How will any dam modifications be funded? When would they be constructed?					
2	**Libby Dam to Kootenay Lake**	The City of Bonners Ferry objects to the VARQ alternatives, with or without fish flows.							
3	**Kootenay Lake**	Consider the impact on Kootenay Lake and maintain coordination with Canada regarding Columbia River Treaty operations. Involve Canadian public in the process.							
4	**Hungry Horse Reservoir**								
5	**Hungry Horse Dam to Flathead Lake**	Allow for Flathead Lake to maintain elevation between 5/1 and 10/1. Coordinate releases from HH with releases from Kerr Dam to maintain summer elevations. Describe relationship between MOU, operations of HH and Kerr currently and with VARQ.							
6	**Flathead Lake**	Determine whether the alternatives violate the 1962 M.O.U. for maintenance of Flathead Lake levels. The System Operation Review EIS promised that Flathead Lake would not be impacted by Hungry Horse operation. Consider the Kerr Dam FERC license requirements and data developed by the utility. Coordinate with the Flathead Tribes' new drought control management plan under development							
7	**Kerr Dam to Lake Pend Oreille**								
8	**Lake Pend Oreille**								
9	**Albeni Falls Dam to Columbia River**								
10	**Grand Coulee Reservoir - Lake Roosevelt**	NEPA was violated by pre-implementation of the Lake Roosevelt drawdown. (Nethercutt)	Consider more of a balance between resident fishery and salmon in the management of Lake Roosevelt. Resident fish losses have been mitigated with net pens and now this mitigated fishery is subject to further adverse impacts to meet salmon flows.	Coordinate the August draw down with B.C. Hydro.					
11	**Grand Coulee Dam to mouth**	Have there been any investigations into feasibility of additional water storage in Banks Lake to capture more spring run off in drought years? Consider damming another coulee to operate parallel to Banks Lake. In dry years could be pumped back to Lake Roosevelt to flush fish.							

Upper Columbia Basin Alternative Food Control EIS
COORDINATION

#	Reaches	Comment 1	Comment 2	Comment 3	Comment 4	Comment 5	Comment 6	Comment 7	Comment 8
12	**Columbia River Basin**	Assess impacts by river reach / by community.	Set up a water accounting system to track water as it moves through the system.	Accept public input to the scoping process at all stages of the EIS, maintain periodic coordination with local resource committee, accept locally established alternative and document how public input was used to make decisions. Conduct mid-point meetings to provide status. Ensure that individuals and communities have an equal opportunity for input with Federal agencies. Provide public attendance at meetings between Federal agencies. Provide technical data for various audiences with different levels of understanding. Use cooperating agencies or others in preparing documents.	Recommend a scientific advisory board under this EIS process to review the 2000 BiOp to determine the advisability of the recommended sturgeon recovery flows. Consider restoration features other than flows.	Utilize engineering and hydrologic studies from independent qualified sources in preparation of the EIS. (Bill Michalk) The Resource Advisory Group could provide assistance in oversight. (Patty Perry is the point of contact @ 208-267-3519)	Public concern that the ESA BiOp process was conducted by USFWS and NMFS without public input or oversight and USFWS/NMFS will determine the preferred alternative in this EIS. Which law, NEPA or ESA, has the priority when they are in conflict?	Involve Native Americans	A water accounting system for the entire drainage needs to be developed.

Upper Columbia Basin A lternative Flood Control EIS
AGRICULTURE

#	Reaches	Comment 1	Comment 2	Comment 3	Comment 4
1	**Libby Reservoir-Lake Koocanusa**				
2	**Libby Dam to Kootenay Lake**	Evaluate impacts to agriculture at elevations above 1764'. Refer to A. Harp's Economic Analysis Study. Obtain local information in making this assessment.	Describe runoff during high flows (above 1764')	Consider farming and public uses in management of the river.	Describe and evaluate costs as they relate to dike damage, seepage, crop damage, pumping costs, because of flow augmentation above 1764' or 25,000 cfs.
3	**Kootenay Lake**				
4	**Hungry Horse Reservoir**				
5	**Hungry Horse Dam to Flathead Lake**				
6	**Flathead Lake**				
7	**Kerr Dam to Lake Pend Oreille**				
8	**Lake Pend Oreille**				
9	**Albeni Falls Dam to Columbia River**	Consider the effects of drawdown on irrigators, wells, water supply and conversely with higher water the effects on dikes, currents, erosion, habitat, & water quality.			
10	**Grand Coulee Reservoir - Lake Roosevelt**	Evaluate the additional 2' drawdown in Lake Roosevelt and how it will adversely impact irrigation withdrawals and could restrict irrigation withdrawals throughout the Columbia Basin.			
11	**Grand Coulee Dam to mouth**				
12	**Columbia River Basin**	Evaluate the additional 2' drawdown in Lake Roosevelt and how it will adversely impact irrigation withdrawals and could restrict irrigation withdrawals throughout the Columbia Basin.			

Upper Columbia Basin Alternative Flood Control EIS
AIR QUALITY

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**	Evaluate the air quality impacts related to drying of sediments in the reservoir area and resulting wind blown dust problems	
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**	Consider the adverse affects of the 2' draw down on air quality from drying of reservoir sediments and resultant wind carried dust. These sediments may be contaminated by the mining operations in B. C.	
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Appendix B

Summary of U. S. Written Comments

Appendix B

The comments found in this Appendix are summaries of the comments received from the written input. The written input was collected from the comment forms available at each of the scoping meetings and from letters received during the scoping process. Authors of the comments have been catalogued. They have not been identified in this Appendix.

Comments received were initially listed simply in the order received. Following this listing they were sorted by one of 13 categories and 12 river reaches as follows:

Scoping Comment Categories

- Flooding (including reservoir water levels, forecasting)
- ESA/BiOp
- Water Quality
- Recreation
- Power (system generation)
- Fisheries
- Cultural (historic)
- Economic
- Property values
- Equity
- Coordination (Local involvement, trust, process, tribal/native)
- Agriculture
- Air quality

River Reaches

- Libby Reservoir – Lake Koocanusa
- Libby Dam to Kootenay Lake
- Kootenay Lake
- Hungry Horse Reservoir
- Hungry Horse Dam to Flathead Lake
- Flathead Lake
- Kerr Dam to Lake Pend Oreille
- Lake Pend Oreille
- Albeni Falls to Columbia River
- Grand Coulee Reservoir- Lake Reservoir
- Grand Coulee Dam to mouth
- Columbia River Basin

On the following sheets, in areas left blank no comments were received on that particular topic for that particular reach. The comments listed are summaries of the Comment Forms and correspondence received during and following the scoping meetings.

#	Reaches									
1	**Libby Reservoir-Lake Koocanusa**	**Letter M**: If your operations would allow the lake to fill to 2449' it would be much appreciated.	**Letter NN**: It is inappropriate to separate flow capacity from Reservoir operational changes. The timing of flows can not be properly analyzed unless the volume/capacity is known and vice versa. The state objects to the severance of flow volume/capacity from operational changes in the NEPA analysis.							
2	**Libby Dam to Kootenay Lake**	**Letter O**: Run spill test when necessary (when pool is full).	**Letter P**: Lots of economic harm with 35,000 cfs discharge (septics, wells, structures, erosion)	**Letter T**: 1. Against the 35,000 cfs discharge. 2. Had water within 31 feet of their well during 25-27,000 cfs flows in 1996-97.	**Letter NN**: It is inappropriate to separate flow capacity from reservoir operational changes. The timing of flows can not be properly analyzed unless the volume/capacity is known and vice versa. The state objects to the severance of flow volume/capacity from operational changes in the NEPA analysis.					
3	**Kootenay Lake**									
4	**Hungry Horse Reservoir**									
5	**Hungry Horse Dam to Flathead Lake**									
6	**Flathead Lake**	**Letter V**: Flathead Lake needs to attain full pool.	**Letter X**: Wetlands are being drained on north & south shores when lake level doesn't reach 2892'.	**Letter KK**: Maintain the level of Flathead Lake at 2893' during the recreation season of June 15 - Oct. 1 of each year, with no more than 6 inches tolerance. Although the prospect of assuring the refill of Hungry Horse is desirable, there is no mention of how the VARQ change at HH Reservoir could affect the level of Flathead Lake or how it will work in concert with the ACOE's prposed rule curve change for Flathead Lake.						
7	**Kerr Dam to Lake Pend Oreille**	**Letter DD**: VARQ needs to include a detailed evaluation of the effect of discharges from HH on the Pend Oreille River valley for the full ranges of stages that may occur on the Pend Oreille River.								
8	**Lake Pend Oreille**	**Letter J**: How do you get rid of excess water if you hold too much in the reservoir. It is too late when the spring runoff comes. Flooding is too expensive and should override fish concerns.	**Letter DD**: VARQ needs to include a detailed evaluation of the effect of discharges from HH on the Pend Oreille River Valley for the full ranges of stages that may occur on the Pend Oreille River.							

Upper Columbia Basin Alternative Flood Control EIS
FLOODING (Including Reservoir Water Levels, Forecasting)

#	Reaches									
9	**Albeni Falls Dam to Columbia River**		**Letter F**: 1. Hardships from flooding and getting to work. 2. Need coordination between Albeni Falls & Box Canyon.	**Letter J**: How do you get rid of excess water if you hold too much in the reservoir. It is too late when the spring runoff comes. Flooding is too expensive and should override fish concerns.	**Letter K**: 1. Property owners, flooded significantly in 1996 & 1997. 2. Operational changes at Hungry Horse exacerbated flooding of the Pend Oreille in Spring 1996. 3. 1997-Pend Oreille Lake was not drawn down sufficiently (to 2048'). If it had been drawn down flooding would have been less.	**Letter Z:** 1. Box Canyon holds backwater on Albeni Falls but is constrained by 2 FERC license conditions. (Hold elevation at Cusick to 2041 and backwater can not exceed 2 feet at Albeni Falls). Early spring runoff forecasts are inaccurate. Can't predict actual snow pack near the end of the snow season and can't predict what the runoff pattern will be. The Calispell and Trimble Creek Valleys need time in the spring to drain before discharges from HH can be passed through the Pend Oreille (see comment letter)	**Letter DD**: VARQ needs to include a detailed evaluation of the effect of discharges from HH on the Pend Oreille River valley for the full ranges of stages that may occur on the Pend Oreille River. Study determined 100 year base flood at Albeni Fall is 159,000 cfs. Dikes along the Pend Oreille are not Corps certified and would be overtopped in 100 yr flood. 2. Could have major flooding with releases from HH when the Pend Oreille is at a high stage.	**Letter NN:** Additionally would VARQ flows change any flooding related concerns in the Pend Oreille River below Albeni Falls Dam?	**Letter RR:** Bank sloughing during high flows, dike destabilization and maintenance	**Letter SS:** In average years, will the flow of water impact banks, water temperature, fish and plant growth?
10	**Grand Coulee Reservoir - Lake Roosevelt**		**Letter C**: Stop lowering the lake	**Letter H:** If floods look like they will happen or water is not needed for electricity, fill the irrigation canals out of GC earlier.						
11	**Grand Coulee Dam to mouth**									
12	**Columbia River Basin**	**Letter I**: Water melt and runoff is not a science.	**Letter K**: Can not predict with accuracy the volume and timing of water runoff in high runoff years.	**Letter W**: NO. Don't change existing flood control program. VARQ provides for the silting of the dams making them useless.	**Letter Z:** 1. Scoping document states that VARQ will not increase the chance of flooding. This is not true. The timing and magnitude of releases at HH will have a major impact on Pend Oreille between Albeni Falls and Box Canyon due to the topography of the river and it will increase the chance of flooding. 2. Proposal is ignorant of how the current system operates and the flooding below HH.	**Letter AA:** VARQ has fatal flaw by assuming that flood control is met by lowering Grand Coulee. Doesn't protect against flooding between HH & GC.	**Letter CC**: If VARQ increases chances of flooding, the governor will expect to see measures that will mitigate or eliminate the harms to the region.	**Letter NN: 1.** Needs clarification of which version of VARQ is being analyzed. 2.Idaho will not support system flood control responsibilities being passed from Libby reservoir to any other lakes or reservoirs in Idaho. Flood control operations take precedence over natural resource protection. Idaho fishery resources have already suffered dramatically in Lake Pend Oreille due to Corps flood control operations.		

Upper Columbia Basin Alternative Flood Control EIS
ESA

#	Reaches											
1	**Libby Reservoir-Lake Koocanusa**											
2	**Libby Dam to Kootenay Lake**	**Letter O**: Look at using hatchery stocks (of sturgeon?)	**Letter P**: Look at using hatchery stocks (of sturgeon?)	**Letter S**: Resident of Kootenai Valley: Want EPA study on white sturgeon and related issues as they may impact NEPA. BiOp is speculative and a "great experiment" with many adverse impacts and limited benefits.	**Letter S**: Disappointed that white sturgeon has been muddled into larger study.	**Letter AA**: Improve flows for bull trout at one location while impacting habitat for bull trout downstream.	**Letter MM**: Columbia River white sturgeon.	**Letter NN**: 1. Unclear if VARQ would benefit sturgeon with more consistent flows than past operations. 2. Consider potential listing of the burbot. May need to alter VARQ and/or reconsult. New BiOp may change flow regime.				
3	**Kootenay Lake**	**Letter MM**: Provincial rare and endangered fish species.										
4	**Hungry Horse Reservoir**											
5	**Hungry Horse Dam to Flathead Lake**											
6	**Flathead Lake**	**Letter X**: Don't overlook the endangered fish species in Flathead Lake for the endangered species downstream.										
7	**Pend Oreille**											
8	**Lake Pend Oreille**	**Letter NN**: How will VARQ changes in flow releases from HH Dam influence the Corps ability to maintain higher winter pool levels in Lake Pend Oreille as part of the USFWS BiOp for bull trout?										
9	**Albeni Falls Dam to Columbia River**	**Letter R**: It is a bit ironic that we citizens have to protect ourselves and our property against the government because of biological opinons to protect fish which may not be effective and often times are not.										

#	Reaches											
10	**Grand Coulee Reservoir - Lake Roosevelt**	**Letter II**: Comments on BiOp incorporated by reference. Specific studies laid out to meet technical and legal standards for an adequate EIS.										
11	**Grand Coulee Dam to mouth**											
12	**Columbia River Basin**	**Letter I**: It is time to stop trying to run people off their land and send the river(s) back to wilderness levels.	**Letter K**: Needs proof that operational changes are even necessary for the benefit of fish.	**Letter O**: Don't manage for one species. Consider all species.	**Letter P**: One species management, not taking burbot or trout into consideration.	**Letter Q**: This is single species management. Others become at risk due to their own needs.	**Letter R**: 1. Agency will continue to use flawed science to achieve desired outcome. 2. Repeal ESA and downsize EPA.	**Letter U**: Hope efforts to save salmon and sturgeon can avoid impacts to bull trout.	**Letter Z**: There is no current scientific information that demonstrates that increase flows improve resident fish populations. There is increased TDG, fish are washed downstream, increased turbidity. Bull trout impacted downstream.	**Letter NN:** There is an ongoing dispute re: summer flow augmentation for salmon and its detrimental effect on juvenile sturgeon recruitment. Summer flows are unnatural and pose another unknown variable for white sturgeon.	**Letter OO:** There is a legal requirement to "conserve endangered species and threatened species yet the scoping document only discusses" avoiding jeopardy". 2. The environmental document should describe how some measures in the BiOp were selected to be included in the range of alternatives and others were not. 3. The EIS should identify any required action from the BiOps and describe how this proposal responds to this requirement.	**Letter RR:** Repeal ESA

Upper Columbia Basin Alternative Flood Control EIS
WATER QUALITY

#	Reaches					
1	**Libby Reservoir-Lake Koocanusa**					
2	**Libby Dam to Kootenay Lake**	**Letter HH**: TDG standards should not be exceeded below Libby Dam. The EIS should disclose water quality impacts of the operation of the dams.	**Letter NN**: How does VARQ affect seasonal temperatures in the Kootenai River?			
3	**Kootenay Lake**					
4	**Hungry Horse Reservoir**	**Letter HH**: Evaluate operation of HH on WQ in Flathead River and Lake. HH operations could affect sediment and nutrient transport balances and temp and aquatic ecology in both. Contact Ron Steg. TMDL mgr. At MDEQ (406)444-7423				
5	**Hungry Horse Dam to Flathead Lake**	**Letter HH**: Evaluate operation of HH on WQ in Flathead River and Lake. HH operations could affect sediment and nutrient transport balances and temp and aquatic ecology in both. Contact Ron Steg. TMDL mgr. At MDEQ (406)444-7423				
6	**Flathead Lake**	**Letter HH**: Evaluate operation of HH on WQ in Flathead River and Lake. HH operations could affect sediment and nutrient transport balances and temp and aquatic ecology in both. Contact Ron Steg. TMDL mgr. At MDEQ (406)444-7423				
7	**Kerr Dam to Lake Pend Oreille**					
8	**Lake Pend Oreille**					

Upper Columbia Basin Alternative Flood Control EIS
WATER QUALITY

#	Reaches					
9	**Albeni Falls Dam to Columbia River**	**Letter Z**: 1.Need to address impacts of high flows on drinking water systems. Contamination can come from septics, upstream mining activities. 2. This proposal is in conflict with FERC requirements to reduce TDG at Box Canyon.	Letter RR: Issue is safe drinking and recreation water and wells below AFD	**Letter E**: 1. Albeni Falls & Box Canyon Dams should coordinate river level. 2. Need to avoid land & septic tanks being at risk to be contaminated.		
10	**Grand Coulee Reservoir - Lake Roosevelt**	**Letter HH**: Contaminated sediments in Lake Roosevelt: The Colville Tribe has asked EPA to help it ensure that the sediments do not affect the health of its people. Especially concerned about dioxin and other contaminants (metals) in exposed sediments. An Expanded Site inspection report will be available in Spring 2002	changed operations could have a significant adverse effect on the environment because of the contaminants found in the Upper Columbia River and Lake Roosevelt. 2. Need field studies that provide a quantative understanding of the nature and extent of contamination in the sediments, the impact of changing operations on the transport of sediments and changes in risk to human health and the environment.	**Letter II**: 1. Studies need to be conducted to adequately characterize and consider the risk to human and environmental health in Lake Roosevelt. Other studies needed to determine the effects that changing dam operations would have on sediment transport. 2. Studies fall into 3 categories: Sediment characteristics & transport; Human health; and Ecological health. 3. Changes in lake level and residence times can effect the concentration and distribution of contaminants in its water and sediment and on its shorelines.	**Letter JJ:** 1. There are extensive contaminated sediments in Lake Roosevelt within and upstream from the Colville Reservation. Changes in lake levels affect the movement of these contaminated sediments and increase the likelihood that Tribal members and Tribal natural resources, as well as the general public and public resources, will be exposed to increased levels of a variety of extremely harmful contaminants. 2. Need to investigate and analyze potential serious impacts to human health and the Reservation environment that will result from changes in drawdowns of Lake Roosevelt.	
11	**Grand Coulee Dam to mouth**					
12	**Columbia River Basin**	**Letter BB:** Consider water quality standards for temperature, TDG.	**Letter EE**: Determine the effects of the potential increase in frequency of spill and impacts from dissolved gas on aquatic organisms. Include potential increases, under the VARQ proposal in the frequency, duration and magnitude of dissolved gas saturation above the 100% downstream of each of the dams on the Flathead, Clark Fork, Pend Oreille and Kootenay Rivers. Include BC Dams. Examine whether potential increases in dissolved gas production could be offset by operational and/or structural modifications at each of the dams. Costs and effectiveness of mitigation measures should be addressed.	**Letter GG:** Address impacts to water temperature as well as impacts on the ability of downstream dams to meet state and federal water quality standards. 2. Efforts should be coordinated with the TMDL program for the Columbia River related to TDG and temperature.	**Letter HH:** 1. EIS should fully describe existing problems with temperature and TDG in the Columbia River system and identify the role of dams and dam operations in creating thermal and TDG conditions that impact aquatic resources, especially listed species. 2. EIS should predict how proposed methods of operating dams would negatively affect temperature and TDG in the Columbia River and describe alternatives and mitigation measures that would minimize existing and predicted impacts of dams and dam operations on temperature and TDG. EIS should evaluate operations of the dams on the fate, mobilization, and transport of sediment presently stored in river and project reservoirs and how operating the dams differently could modify reservoir and river shorelines and affect landowners.	

Upper Colubmia Basin Alternative Flood Control EIS
RECREATION

#	Reaches		
1	**LibbyReservoir-Lake Koocanusa**	**Letter VV**: Recreation is important in Lk Koocanusa for fishers.	**Letter M**: Many of recreational facilities built with the original COE promise of lake refill can not be used if the summer lake elevation is kept only at 2439'.
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**	**Letter X**: Low lake levels had dramatic economic impact on recreation/tourism business in 2001.	
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**	**Letter B:** 1. Address social issues related to drawdown including drawdown and pimpact on access.	
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

POWER

#	Reaches						
1	**Libby Reservoir-Lake Koocanusa**						
2	**Libby Dam to Kootenay Lake**						
3	**Kootenay Lake**	**Letter MM**: Power generation at non-treaty facilities.					
4	**Hungry Horse Reservoir**						
5	**Hungry Horse Dam to Flathead Lake**						
6	**Flathead Lake**						
7	**Kerr Dam to Lake Pend Oreille**						
8	**Lake Pend Oreille**						
9	**Albeni Falls Dam to Columbia River**	**Letter Z**: 1. Power generation at Box Canyon will be impacted by holding water at HH. Thermal sources will be needed - need to address. 2. The effect of higher and longer spring runoff also reduces Box Canyon generation.					
10	**Grand Coulee Reservoir - Lake Roosevelt**	**Letter D**: USBR lowering of Banks Lake could jeopardize Power and WDFW fish rearing program.					
11	**Grand Coulee Dam to mouth**						
12	**Columbia River Basin**	**Letter A:** Energy shortage = Environmental damage.	**Letter I**: Electricity produced was reliable, economic and clean until 1995.	**Letter Z**: There seems to be a disconnect between the need for energy in the region and moving ahead with this proposal based on little scientific evidence, which has large implications on power generation.	**Letter CC:** Evaluate the effect on the power system as VARQ affects power reliability or costs.	**Letter RR:** Water and electrical rate increases need compensation from beneficiaries.	**Letter UU:** Energy costs will rise because of this project thus affecting the economy. Keep increase to a minimum.

#	Reaches					
1	**Libby Reservoir-Lake Koocanusa**	**Letter LL:** Consider threatened and endangered species in Canada and how they might be affected.	**Letter MM**: 1. Fish and fish habitat enhancement programs and activities. 2. Non-fishery fish species.	**Letter VV:** Address operational impacts on fish and fish habitat upstream of Libby Dam. Lake Koocanusa and upper Kootenay River support bull trout; fish overwinter in Montana. 12 native species and 5 introduced in upper Kootenay drainage.		
2	**Libby Dam to Kootenay Lake**	**Letter O**: Negative effects of spilling water over Libby Dam on resident trout populations.	**Letter NN**: What effect will increase summer water released from Libby Dam for salmon flow augmentation below GC Dam have on the fish populations in the Kootenai River in Idaho. Include in the consideration wild larval sturgeon, burbot, Kootenai River bull, rainbow and cutthroat trout.			
3	**Kootenay Lake**	**Letter LL:** Consider threatened and endangered species in Canada and how they might be affected.	**Letter MM**: 1. Fish and fish habitat enhancement programs and activities. 2. Non-fishery fish species.			
4	**Hungry Horse Reservoir**					
5	**Hungry Horse Dam to Flathead Lake**					
6	**Flathead Lake**	**Letter X**: River pike entering lake and small fish populations affected by weeds and vegetation growth in number resulting from low lake levels.				
7	**Kerr Dam to Lake Pend Oreille**					
8	**Lake Pend Oreille**					

#	Reaches					
9	**Albeni Falls Dam to Columbia River**	**Letter AA**: Resident fish are impacted not only by displacement during high flows, but also by increased turbidity (from erosion) and TDG from spilling.	**Letter AA**: How will flooding affect the Tribe bass hatchery operation?			
10	**Grand Coulee Reservoir - Lake Roosevelt**	**Letter G**: Do not lower the lake and impact fish spawning	**Letter H**: 1. Too much drawdown impacts spawning fish. 2. Don't fluctuate lake levels as much as they have been recently.Fish are stranded.	**Letter D**: USBR lowering of Banks Lake could jeopardize Power and WDFW fish rearing program.		
11	**Grand Coulee Dam to mouth**					
12	**Columbia River Basin**	Letter BB: Consider impacts to all non- ESA treaty reserved resources (Mid Columbia summer chinook, coho, Pacific lamprey, sockeye and sturgeon)	**Letter HH**: Impact to fisheries and recreational uses. Include alternatives and mitigation measures that restore, to the extent possible, the natural connectivity between rivers and their historical flood plains to promote more natural hydrologic regimes, ecological functions, habitat availability & biodiversity.	**Letter NN**: Will proposed change benefit Idaho's salmon and steelhead? How would VARQ reliase change tributary access for spring and fall spawners and nutrient availability during the peak growing season?	**Letter OO:** Describe how any proposed action will benefit native fish species.	

Upper Columbia Basin Alternatiave Flood Control EIS
CULTURAL / HISTORIC

#	Reaches		
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**	**Letter PP**: Need to demonstrate Corps has authority to change operations of Albeni Falls Dam. Proposed modification's rule, curve reduce the Tribe's and Corps' ability to manage cultural resources.	**Letter TT**: Consult with affected Tribes regarding resource impacts
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**	**Letter PP:** Drafting of Banks Lake 4 feet will expose cultural sites. Has the Corps scoped and budgeted for the effects ?	
12	**Columbia River Basin**	**Letter PP**: Change from power production to flood control changes Section 106 (NHPA) funding sources from BPA to Congress. Has Corps calculated increased budgetary obligations and will the money be there?	Letter PP: Communicate with the Kalispell Tribe

#	Reaches				
1	**Libby Reservoir-Lake Koocanusa**				
2	**Libby Dam to Kootenay Lake**	**Letter O**: 1. TDG could ruin an economic industry in Libby. Could impact outfitting as a business.			
3	**Kootenay Lake**	**Letter MM**: Transportation infrastructure (ferries).			
4	**Hungry Horse Reservoir**				
5	**Hungry Horse Dam to Flathead Lake**				
6	**Flathead Lake**	**Letter X**: Economic impact to the tourism industry is dramatic from low water.	**Letter KK**: 1. Take into consideration any adverse impact such changes would have upon the social, economic and ecological environment of Flathead Lake. 2. Scoping mtg. attendees felt that no serious consideration had been given to the social, environmental or economic impacts that implementation of VARQ might have upon Flathead Lake.	**Letter V**: The Corps is draining "out" water supply to anadromous fish and failing to account for significant adverse impact on our economy around Flathead Lake.	
7	**Kerr Dam to Lake Pend Oreille**				
8	**Lake Pend Oreille**				
9	**Albeni Falls Dam to Columbia River**	**Letter RR:** Issue is to avoid or mitigate detrimental economic impacts locally (below AFD)	**Letter SS:** Is FEMA at risk for more payouts. County tax base could be affected.		
10	**Grand Coulee Reservoir - Lake Roosevelt**	**Letter B**: Look at social and economic issues related to water levels.			
11	**Grand Coulee Dam to mouth**				
12	**Columbia River Basin**	**Letter O**: Prevent economic impacts.	**Letter R**: Environmental movement has made a disaster of the economic base of the NW.	**Letter BB**: Consider economic impacts to Tribal cultural values (living standards, premature releases, lack of flows for fishing).	**Letter KK:** Look into all the ramifications that such alterations might have upon the entire basin, including Flathead Lake, and not just those specific reservoirs and waterways that their agency have jurisdiction over.

Upper Columbia Basin Alternative Flood Control EIS
PROPERTY VALUES

#	Reaches					
1	**Libby Reservoir-Lake Koocanusa**	**Letter MM:** Riparian owners.				
2	**Libby Dam to Kootenay Lake**	**Letter Q**: At any flows over 25,000 cfs much property is at risk (wells, drain fields, septic systems, structures and erosion).	**Letter S**: Property damage due to erosion and sloughing; no plan to repair damages to private owners, farmers, etc. Flooding in Montana and Idaho; health and personal saftey issue resulting from flooding and increased ground water table along the river, high water flow effects on septic and water well systems; lower property values/property damage.			
3	**Kootenay Lake**	**Letter MM:** Riparian owners.				
4	**Hungry Horse Reservoir**					
5	**Hungry Horse Dam to Flathead Lake**					
6	**Flathead Lake**					
7	**Kerr Dam to Lake Pend Oreille**					
8	**Lake Pend Oreille**					
9	**Albeni Falls Dam to Columbia River**	**Letter RR:** Issue is destabilized property rights, values, tourism, jobs, tax revenues.	**Letter SS:** Property values could decrease. Might have to buy expensive flood insureance. Could we go from floodplain "C" to "A".	**Letter K**: Concern about erosion and bank stabilization. Fluctuations cause loss of property.	**Letter F**: If just saving fish, effects on property too great.	
10	**Grand Coulee Reservoir - Lake Roosevelt**					
11	**Grand Coulee Dam to mouth**					
12	**Columbia River Basin**					

Upper Columbia Basin Alternative Flood Control EIS
EQUITY

#	Reaches													
1	**Libby Reservoir-Lake Koocanusa**													
2	**Libby Dam to Kootenay Lake**	**Letter P**: Create a win win for humans and ESA species.												
3	**Kootenay Lake**													
4	**Hungry Horse Reservoir**													
5	**Hungry Horse Dam to Flathead Lake**													
6	**Flathead Lake**	**Letter V**: 1. The Corps fails to consider the effects of operations on Flathead Lake. The human cost vs. fish. 2. The Corps is draining "out" water supply to anadromous fish and failing to account for significant adverse impact on our economy around Flathead Lake.	**Letter KK**: Give equal & due consideration to the social, economic, and environmental impacts, the property owners and businesses, the irrigators and recreators, the lake ecology, fisheries and sensitive wetlands of Flathead Lake as is given to the fisheries and ESA needs.											
7	**Kerr Dam to Lake Pend Oreille**													
8	**Lake Pend Oreille**													
9	**Albeni Falls Dam to Columbia River**	**Letter E**: Humans come first, then fish.	**Letter J**: Flooding for fish is inappropriate.	**Letter SS:** County tax base could be affected.	**Letter OO**: People should come before fish. EIS should have a directive that people be protected first, then fish.									
10	**Grand Coulee Reservoir - Lake Roosevelt**	**Letter G**: Environmentalist are too high & might do more damage than good.												
11	**Grand Coulee Dam to mouth**													
12	**Columbia River Basin**	**Letter A**: Energy stability = Economic stability = Environmental protection	**Letter C:** Environmentalists have too much power	**Letter F**: Humans come first, then fish	**Letter I**: 1. People before fish. 2. Look at 100 year cycles of fish.	**Letter K**: 1. Dams are for power and should not be compromised for the benefit of fish. 2. Who is responsible if the proposed changes have an adverse impact on people.	**Letter N**: 1. Opposed to any water released from Libby, HH and GC for fisheries. 2. Fish should be the last consideration in water management.	**Letter P**: Not good for humans or recreationists.	**Letter R:** Environmentalists have never admitted to being wrong. 2. How can environmentalists believe in evolution and think everything will stay the same if man is removed.	**Letter U:** Assume minimal impact on power supply but worth it for the fish.	**Letter X:** Don't overlook the human impact.	**Letter Y:** The Corps and USBR should carefully consider any changes and the possible impacts on people, people with everything to lose.	**Letter Z:** BiOp is an opinion that might work. Will the impact on people be part of the environmental equation?	**Letter RR**: Pristine critical areas safety and use should come before fish.

#	Reaches												
1	**Libby Reservoir Lake Koocanusa**	**Letter M**: Many of recreational facilities built with the original COE promise of lake refill can not be used if the summer lake elevation is kept only at 2439'.	**Letter Q**: Original purpose of Libby Dam was flood control & hydro. With each ESA action that purpose is farther and farther away and closed to going back to natural system. If so, shut the dam down and buy everyone out.	**Letter LL**: It would be useful to receive a list and short analysis of potential impacts in Canada and to draw attention to those requiring more analysis.									
2	**Libby Dam to Kootenay Lake**	**Letter P**: Talk to locals; take a river trip.	**Letter Q**: Original purpose of Libby Dam was flood control & hydro. With each ESA action that purpose is farther and farther away and closed to going back to natural system. If so, shut the dam down and buy everyone out.										
3	**Kootenay Lake**	**Letter LL**: It would be useful to receive a list and short analysis of potential impacts in Canada and to draw attention to those requiring more analysis.	**Letter MM**: Consider the Canadian portion of the Kootenay River and wildlife.	**Letter MM**: Watershed planning activities and non-power related licenses.									
4	**Hungry Horse Reservoir**	**Letter HH**: HH needs to coordinate with Kerr Dam operations (PPL Montana & Confederated Salish and Kootenai Tribes). Clayton Matt, mgr. Flathead Indian Reservation (406)675-2700.	**Letter KK**: A coordinated effort between Hungry Horse Reservoir and Kerr Dam is necessary.										
5	**Hungry Horse Dam to Flathead Lake**	**Letter HH**: HH needs to coordinate with Kerr Dam operations (PPL Montana & Confederated Salish and Kootenai Tribes). Clayton Matt, mgr. Flathead Indian Reservation (406)675-2700.											

#	Reaches												
6	**Flathead Lake**	**Letter HH**: HH needs to coordinate with Kerr Dam operations (PPL Montana & Confederated Salish and Kootenai Tribes). Clayton Matt, mgr. Flathead Indian Reservation (406)675-2700.	**Letter KK**: A coordinated effort between Hungry Horse Reservoir and Kerr Dam is necessary.										
7	**Kerr Dam to Lake Pend Oreille**												
8	**Lake Pend Oreille**	**Letter L**: Request to consider Senate Document #9 10/1/47 outlining dam & dam operations proposed for Albeni Falls area.											
9	**Albeni Falls Dam to Columbia River**												
10	**Grand Coulee Reservoir - Lake Roosevelt**	**Letter B**: Tribes should have more input. 1. VARQ seems to be reasonable; levels could be dealt with in a less radical fashion. Happy with the results of fishing and the focus of the project which is in constrant fluctuation.	**Letter C**: Listen to local people who have experience on the lake.	**Letter D**: Concern meeting was held without proper notice during hunting season. Feels drawdown is done deal; mtgs are just window dressing.	**Letter G**:1. Let some of the old timers tell the Corps & BR people how they should use common sense. 2. Work with local people who understand the lake and its operation.	**Letter H**: Check with local people.	**Letter II:** The Corps & USBR need to initiate appropriate government to government consultation with the Colville Tribes regarding propose changes in dam operations.						
11	**Grand Coulee Dam to mouth**												

Upper Columbia Basin Alternative Food Control EIS
COORDINATION

#	Reaches												
12	**Columbia River Basin**	**Letter K**: Need better cooperation and coordination between dam operators.	**Letter N**: Water should be used as originally intended, ie. Power, flood and drought control, irrigation and economic stimulus.	**Letter R**: Unless comments within preapproved agenda, they are disregarded.	**Letter U**: Should have considered these species during the planning stages of the dams.	**Letter Y**: The dams have been in place for 50 years and the area has developed with their protection. To change the operations would put undue risk on the people of the area.	**Letter Z:** 1. Address each stretch of river independently. 2. NEPA needs to look at proposal on a project by project and stretch of river by stretch of river scenario.	**Letter FF:** Need a water right permit if there are any surface water diversions, may need a HPA.	**Letter NN:** Idaho requests that they be given cooperating agency status pursuant to 50 CFR 1501.	**Letter OO:** The scoping document does not identify a clear purpose and need.	**Letter QQ**: The Corps knows how to build dams. They should leave the operations to either a shoreline or fisheries agency.	**Letter RR:** Public needs best available science and to be able to provide input intermediately. Issue is that there is a need for intermediate public access and input with updated best availabel science.	**Letter U**: Explain how dam operations of private utilities mesh with VARQ at the federal facilities: do these operations pose a threat to the success of VARQ?

Upper Columbia Basin A lternative Flood Control EIS
AGRICULTURE

#	Reaches		
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**	**Letter H**: Pump intake goes out of water.	
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**	**Letter Z**: Impacts will be great to farmers, electric and water rate payers and river dwellers.	

#	Reaches		
1	**Libby Reservoir-Lake Koocanusa**	**Letter M**: If Lake Koocanusa is filled only to 2439' (20' below full) large areas of valley are left as dusty weed choked plains.	
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**	**Letter B**: Air quality degraded with reservior drawdown - impacts breathing.	**Letter II**: Changes in dam operations can have a profound effect on the lake's hydrology and may have a significant effect on the location and distribution of contaminants in the lake and surrounding areas. Could affect air quality by exposing sediments.
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Appendix C

Summary of Canadian Agency and Public Input

Appendix C

The comments found in this Appendix are summaries of comments received from Canadian agencies and from public oral input during meetings held on January 24, 2002 in Creston, B.C.

Comments received were initially listed simply in the order received. Following this listing they were sorted by one of 13 categories and 12 river reaches as follows:

Scoping Comment Categories:

- Flooding (including reservoir water levels, forecasting)
- ESA/BiOp
- Water Quality
- Recreation
- Power (system generation)
- Fisheries
- Cultural (historic)
- Economic
- Property values
- Equity
- Coordination (Local involvement, trust, process, tribal/native)
- Agriculture
- Air quality

River Reaches:

- Libby Reservoir – Lake Koocanusa
- Libby Dam to Kootenay Lake
- Kootenay Lake
- Columbia River Basin

Upper Columbia Basin Alternative Flood Control EIS
FLOODING

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**	Trapped storage at Libby and Duncan should be considered.	Make a 10 year low, average and high projection of reservoir levels. Aim for reservoir levels that are no lower than 10 feet below full.
2	**Libby Dam to Kootenay Lake**	What are the impacts - Flood control and erosion mitigation responsibilty	Water & Land air Protection: A. 100 and 200 year flood is the basis for permit/zoning-information on Kootenay Lake is available. B. Photo history is available. C. Breakwater/levess were built at various flood protection levels. D. records on septic systems is slos available E. Duncan Reservoir may be available to offset the risk of high lake levels (Kootenay Lake).
3	**Kootenay Lake**	Will we consider changes in Ducan Reservoirs? May be used for balancing	Water & Land air Protection: A. 100 and 200 year flood is the basis for permit/zoning-information on Kootenay Lake is available. B. Photo history is available. C. Breakwater/levess were built at various flood protection levels. D. Records on septic systems is also available E. Duncan Reservoir may be available to offset the risk of high lake levels (Kootenay Lake).
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**	Will we consider sediment input? Probably not unless we see impacts from VARQ. We need to provide sediment data we have to date.	Consider the risk in winter forecasts

#	Reaches	Comment 3	Comment 4	Comment 5	Comment 6
1	**Libby Reservoir-Lake Koocanusa**				
2	**Libby Dam to Kootenay Lake**	Concerned about the August flush and impact on fish and data on die off of fish.			
3	**Kootenay Lake**	BC Hydro is currently doing studies on the Duncan Reservoir and Kootenay Lake.	Trapped storage at Libby and Ducan should be considered.	Concern of the City of Nelson is connected to the operation of Duncan Reservoir.	Flooding on Kootenay Lake may occur as low as 1752'. Zero damage is set at 1755' consider a change in zero damage for Kootenay Lake.
4	**Hungry Horse Reservoir**				
5	**Hungry Horse Dam to Flathead Lake**				
6	**Flathead Lake**				
7	**Kerr Dam to Lake Pend Oreille**				
8	**Lake Pend Oreille**				
9	**Albeni Falls Dam to Columbia River**				
10	**Grand Coulee Reservoir - Lake Roosevelt**				
11	**Grand Coulee Dam to mouth**				
12	**Columbia River Basin**				

Upper Columbia Basin Alternative Flood Control EIS
ESA

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**	Concern are sturgeon stock still available in the Kootenay River - Recruitment, not many have matured to adults. Spawn in the 11 - miles above Shorty's Island.	
3	**Kootenay Lake**	A. Consider Canadian rare and endangered species - western grebe & forester tern. B. Consider Duck lake levels.	
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**	How does this action fit into the Biological Opinions?	Where are we with respect to recovery of sturgeon?

Upper Columbia Basin Alternative Flood Control EIS
WATER QUALITY

#	Reaches	Comment 1	Comment 2	Comment 3	Comment 4
1	**Libby Reservoir-Lake Koocanusa**				
2	**Libby Dam to Kootenay Lake**	How will the study address TMDL's, particularly TDG?	Releases from Libby do not draw from the bottom and don't pass nutrients.	How much of a silt build up is there behind Libby.	
3	**Kootenay Lake**				
4	**Hungry Horse Reservoir**				
5	**Hungry Horse Dam to Flathead Lake**				
6	**Flathead Lake**				
7	**Kerr Dam to Lake Pend Oreille**				
8	**Lake Pend Oreille**				
9	**Albeni Falls Dam to Columbia River**				
10	**Grand Coulee Reservoir - Lake Roosevelt**				
11	**Grand Coulee Dam to mouth**				
12	**Columbia River Basin**	How are issues of TDG and other water quality issues addressed	Consider how chemical spills are dealt with on any of these reservoirs.	Water & Land Air Protection has an emergency spill response plan. Federal dams have a communication plan to address emergencies	Consider the contribution of each project in the system to TDG.

Upper Columbia Basin Alternative Flood Control EIS
RECREATION

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**	Concern for recreation investment on Lake Koocanusa dependent on full pool in summer recreation season. Can live with 10 ' drawdown, beyond 10', the recreation activities are impacted.	
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Upper Columbia Basin Alternative Flood Control EIS
POWER

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**	Define non-firm energy.	Will VARQ cause a change in power production an a need for alternate power production? Change will be about 1%. But change the timing. Consider climate change in the EIS.

Upper Columbia Basin Alternative Flood Control EIS
FISHERIES

#	Reaches	Comment 1	Comment 2	Comment 3
1	**Libby Reservoir-Lake Koocanusa**	Fisheries in Lake Koocancusa must be considered - sturgeon		
2	**Libby Dam to Kootenay Lake**			
3	**Kootenay Lake**	Are flows into Duck lake and the bass fisheries being considered?	Do Canadian fisheries get the same consideration?	Concern about bass killed in Duck Lake.
4	**Hungry Horse Reservoir**			
5	**Hungry Horse Dam to Flathead Lake**			
6	**Flathead Lake**			
7	**Kerr Dam to Lake Pend Oreille**			
8	**Lake Pend Oreille**			
9	**Albeni Falls Dam to Columbia River**			
10	**Grand Coulee Reservoir - Lake Roosevelt**	Can Salmon stocks be restored above Grand Coulee Dam?		
11	**Grand Coulee Dam to mouth**			
12	**Columbia River Basin**			

Upper Columbia Basin Alternative Flood Control EIS
CULTURAL/HISTORIC

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**	Erosion of First Nation Lands	
3	**Kootenay Lake**	Erosion of First Nation Lands	
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**	Environment Canada & Dept. of Indian Affairs will be required to make a call on the impacts on rare endangered species.	Impacts on First Nation Lands.

Upper Columbia Basin Alternative Flood Control EIS
ECONOMIC

#	Reaches	Comment 1	Comment 2	Comment 3
1	**Libby Reservoir-Lake Koocanusa**			
2	**Libby Dam to Kootenay Lake**			
3	**Kootenay Lake**	Determine the value of the reservoir storage of Duck Lake - What is the economic impact of Duck Lake downstream?		
4	**Hungry Horse Reservoir**			
5	**Hungry Horse Dam to Flathead Lake**			
6	**Flathead Lake**			
7	**Kerr Dam to Lake Pend Oreille**			
8	**Lake Pend Oreille**			
9	**Albeni Falls Dam to Columbia River**			
10	**Grand Coulee Reservoir - Lake Roosevelt**			
11	**Grand Coulee Dam to mouth**			
12	**Columbia River Basin**	Will there be consideration of economic impacts?	Benefit analysis will atempt to quantify the benefits and costs on each side of the border. Who will provide?	Open up dialogue with Canadian agencies to develop benefits & costs. BC Hydro will be looking at the flood damages based on levels/ flows from the Corps. Daily time stop model, levels at Kootenay Lake and Koocanusa flows in between.

Upper Columbia Basin Alternative Flood Control EIS
PROPERTY VALUES

#	Reaches	Comment 1
1	**Libby Reservoir-Lake Koocanusa**	
2	**Libby Dam to Kootenay Lake**	
3	**Kootenay Lake**	
4	**Hungry Horse Reservoir**	
5	**Hungry Horse Dam to Flathead Lake**	
6	**Flathead Lake**	
7	**Kerr Dam to Lake Pend Oreille**	
8	**Lake Pend Oreille**	
9	**Albeni Falls Dam to Columbia River**	
10	**Grand Coulee Reservoir - Lake Roosevelt**	
11	**Grand Coulee Dam to mouth**	
12	**Columbia River Basin**	

Upper Columbia Basin Alternative Flood Control EIS
EQUITY

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**	Will Canadian issues get equal consideration?	If the benefits and costs favor us or Canada, who makes the decisions?

Upper Columbia Basin Alternative Flood Control EIS
COORDINATION

#	Reaches	Comment 1	Comment 2	Comment 3
1	**Libby Reservoir-Lake Koocanusa**	Is there relation with the IJC? Does it include First Nation Provincial Government?	Address responsibilty to mitigate damage to dikes, ets.	Consider access to fisheries
2	**Libby Dam to Kootenay Lake**			
3	**Kootenay Lake**	There is talk about opening the IJC order for Duck Lake and Kootenay Lake.	Consider change to the IJC order for Duck Lake.	Consider impacts on Duck Lake - IJC roles consider altering the IJC rule to restore/maintain bass fishery.
4	**Hungry Horse Reservoir**			
5	**Hungry Horse Dam to Flathead Lake**			
6	**Flathead Lake**			
7	**Kerr Dam to Lake Pend Oreille**			
8	**Lake Pend Oreille**			
9	**Albeni Falls Dam to Columbia River**			
10	**Grand Coulee Reservoir - Lake Roosevelt**			
11	**Grand Coulee Dam to mouth**			
12	**Columbia River Basin**	Legal obligation to consult with Canada? A. Is this the only meeting? B. Will we answer the questions? C. Will consultation program allow submissions?	Studies are being reviewed by BC Hydro and contributing studies. Agency access important.	How does this affect the Columbia River Treaty? Address power and flood control.

Upper Columbia Basin Alternative Flood Control EIS
COORDINATION

#	Reaches	Comment 4	Comment 5	Comment 6	Comment 7
1	**Libby Reservoir-Lake Koocanusa**				
2	**Libby Dam to Kootenay Lake**				
3	**Kootenay Lake**	Can the concern the Duck Lake be addressed in this EIS?	The Duck Lake issue has been disussed at the Board of Control		
4	**Hungry Horse Reservoir**				
5	**Hungry Horse Dam to Flathead Lake**				
6	**Flathead Lake**				
7	**Kerr Dam to Lake Pend Oreille**				
8	**Lake Pend Oreille**				
9	**Albeni Falls Dam to Columbia River**				
10	**Grand Coulee Reservoir - Lake Roosevelt**				
11	**Grand Coulee Dam to mouth**				
12	**Columbia River Basin**	Controller of Water Rights (Jim Mattison) requested copies of comments and issues.	Clarify the purpose and scope, does it consider fish flows?	When will the detailed information be provided for comment?	Enviromental Assessment Act Canada: A. Consider mitigation for impacts. A process similar to NEPA could be triggered under this Act. Fisheries Ocean responsible agency - Indian Affairs Canada.

Upper Columbia Basin Alternative Flood Control EIS
COORDINATION

#	Reaches	Comment 8	Comment 9	Comment 10	Comment 11
1	**Libby Reservoir-Lake Koocanusa**				
2	**Libby Dam to Kootenay Lake**				
3	**Kootenay Lake**				
4	**Hungry Horse Reservoir**				
5	**Hungry Horse Dam to Flathead Lake**				
6	**Flathead Lake**				
7	**Kerr Dam to Lake Pend Oreille**				
8	**Lake Pend Oreille**				
9	**Albeni Falls Dam to Columbia River**				
10	**Grand Coulee Reservoir - Lake Roosevelt**				
11	**Grand Coulee Dam to mouth**				
12	**Columbia River Basin**	Consider Kootenay Lake Board of Control issues: possibly natural flows vs. VARQ flows need to be compared.	Fisheries Oceans: What is formal process for advising this agency of the EIS findings?	Provincial expectation that studies will be completed before VARQ is implemented.	Need to design a system of getting studies to Canadian agencies.

Upper Columbia Basin Alternative Flood Control EIS
COORDINATION

#	Reaches	Comment 12	Comment 13	Comment 14	Comment 15
1	**Libby Reservoir-Lake Koocanusa**				
2	**Libby Dam to Kootenay Lake**				
3	**Kootenay Lake**				
4	**Hungry Horse Reservoir**				
5	**Hungry Horse Dam to Flathead Lake**				
6	**Flathead Lake**				
7	**Kerr Dam to Lake Pend Oreille**				
8	**Lake Pend Oreille**				
9	**Albeni Falls Dam to Columbia River**				
10	**Grand Coulee Reservoir - Lake Roosevelt**				
11	**Grand Coulee Dam to mouth**				
12	**Columbia River Basin**	Requested a summary of issues to date-scoping document, list of isssues anticipated-provide a list of issues and reports for biliography. See January 2nd list of issues.	Comments on scoping will be accepted at any time.	Can the decision be appealed under the IJC or Boundary Waters Treaty?	This will amend the Columbia River Treaty Flood Control Operating Plan. If a change is in the plan, the operating committee would address the apporval. Consider Kootenay Lake, Lake Koocanusa lake levels and increased flood risk.

Upper Columbia Basin Alternative Flood Control EIS
COORDINATION

#	Reaches	Comment 16	Comment 17	Comment 18
1	**Libby Reservoir-Lake Koocanusa**			
2	**Libby Dam to Kootenay Lake**			
3	**Kootenay Lake**			
4	**Hungry Horse Reservoir**			
5	**Hungry Horse Dam to Flathead Lake**			
6	**Flathead Lake**			
7	**Kerr Dam to Lake Pend Oreille**			
8	**Lake Pend Oreille**			
9	**Albeni Falls Dam to Columbia River**			
10	**Grand Coulee Reservoir - Lake Roosevelt**			
11	**Grand Coulee Dam to mouth**			
12	**Columbia River Basin**	How will the study details be provided.	What role will the IJC play in this decision.	Who do you work with in Canada on Treaty matters?

Upper Columbia Basin Alternative Flood Control EIS
AGRICULTURE

#	Reaches	Comment 1
1	Libby Reservoir-Lake Koocanusa	
2	Libby Dam to Kootenay Lake	
3	Kootenay Lake	
4	Hungry Horse Reservoir	
5	Hungry Horse Dam to Flathead Lake	
6	Flathead Lake	
7	Kerr Dam to Lake Pend Oreille	
8	Lake Pend Oreille	
9	Albeni Falls Dam to Columbia River	
10	Grand Coulee Reservoir - Lake Roosevelt	
11	Grand Coulee Dam to mouth	
12	Columbia River Basin	

Upper Columbia Basin Alternative Flood Control EIS
AIR QUALITY

#	Reaches	Comment 1	Comment 2	Comment 3	Comment 4
1	**Libby Reservoir-Lake Koocanusa**	Where do they draw water from Libby?			
2	**Libby Dam to Kootenay Lake**	Concern about the erosion of dikes in the Kootenay river flats: Who will take the responsibility to correct this?	Concern to the raise in water surface of Kootenay Lake and Impact on adjacent dikes and farming activities.	Seepage from high river levels in an issue/concern in BC too.	
3	**Kootenay Lake**	How do you feel about their concern to keep water level up in Duck Lake?	Duck Lake is impacted by small drawdowns.	How will the change in the way Libby is regulated affect Kootenay Lake?	Why has Kootenay Lake fluctuated so much lately?
4	**Hungry Horse Reservoir**				
5	**Hungry Horse Dam to Flathead Lake**				
6	**Flathead Lake**				
7	**Kerr Dam to Lake Pend Oreille**				
8	**Lake Pend Oreille**				
9	**Albeni Falls Dam to Columbia River**				
10	**Grand Coulee Reservoir - Lake Roosevelt**				
11	**Grand Coulee Dam to mouth**				
12	**Columbia River Basin**	Do we forecast snowpack this year?	How do the smaller tributaries affect the decision to draft the reservoir and affect fisheries.		

Appendix D

Summary of Canadian Written Comments

Appendix D

This Appendix has summarized comments received in writing from Canadian resource agencies and from the general public in written format. Letters were received from agencies and the public in response to the notice of intent and notification of the scoping meetings. In addition, written comments were submitted during the scoping meetings.

Comments received were initially listed simply in the order received. Following this listing they were sorted by one of 13 categories and 12 river reaches as follows:

Scoping Comment Categories:

- Flooding (including reservoir water levels, forecasting)
- ESA/BiOp
- Water Quality
- Recreation
- Power (system generation)
- Fisheries
- Cultural (historic)
- Economic
- Property values
- Equity
- Coordination (Local involvement, trust, process, tribal/native)
- Agriculture
- Air quality

River Reaches:

- Libby Reservoir – Lake Koocanusa
- Libby Dam to Kootenay Lake
- Kootenay Lake
- Columbia River Basin

Upper Columbia Basin Alternative Flood Control EIS
FLOODING (Including Reservoir Water Levels, Forecasting)

#	Reaches	Comment 1	Comment 2	Comment 3	Comment 4
1	**Libby Reservoir-Lake Koocanusa**	Letter D: Maintain the elevation at 2449' to avoid need to draw down in August.	Letter D: Fill reservoir to 2459' in spring and draw the water down as natural spring runoff.		
2	**Libby Dam to Kootenay Lake**				
3	**Kootenay Lake**	Letter A: Concern on increased likelihood of flooding around Kootenay Lake.	Letter A: Concern for increased erosion of river banks and levees and seepage.	Letter B: Damage elevation at Nelson is 1755', however, it may be closer to 1752'.	Letter E: Flood control should be main objective of dam operation.
4	**Hungry Horse Reservoir**				
5	**Hungry Horse Dam to Flathead Lake**				
6	**Flathead Lake**				
7	**Kerr Dam to Lake Pend Oreille**				
8	**Lake Pend Oreille**				
9	**Albeni Falls Dam to Columbia River**				
10	**Grand Coulee Reservoir - Lake Roosevelt**				
11	**Grand Coulee Dam to mouth**				
12	**Columbia River Basin**				

Upper Columbia Basin Alternative Flood Control EIS
FLOODING (Including Reservoir Water Levels, Forecasting)

#	Reaches	Comment 5	Comment 6	Comment 7	Comment 8
1	**Libby Reservoir-Lake Koocanusa**				
2	**Libby Dam to Kootenay Lake**				
3	**Kootenay Lake**	Letter E: Project is successful now, don't need any improvements or changes.	Letter F: Worry about high water levels.	Letter F: What is normal snowmelt with global warming, El Nino and general climatic changes?	Letter G: Placing riprap along dikes reduces erosion; more riprap will reduce erosion and improve fish.
4	**Hungry Horse Reservoir**				
5	**Hungry Horse Dam to Flathead Lake**				
6	**Flathead Lake**				
7	**Kerr Dam to Lake Pend Oreille**				
8	**Lake Pend Oreille**				
9	**Albeni Falls Dam to Columbia River**				
10	**Grand Coulee Reservoir - Lake Roosevelt**				
11	**Grand Coulee Dam to mouth**				
12	**Columbia River Basin**				

Upper Columbia Basin Alternative Flood Control EIS
FLOODING (Including Reservoir Water Levels, Forecasting)

#	Reaches	Comment 9	Comment 10	Comment 11	Comment 12
1	**Libby Reservoir-Lake Koocanusa**				
2	**Libby Dam to Kootenay Lake**				
3	**Kootenay Lake**	Letter G: Homes, roads, powerlines all rely on dikes for protection.	Letter G: Benefit of the UCBFCFO is that it prevents flooding and provides power.	Letter G: Concern regarding dike erosion.	Letter G: If higher flows are necessary for fish and fish habitat, need to provide assistance against dike erosion.
4	**Hungry Horse Reservoir**				
5	**Hungry Horse Dam to Flathead Lake**				
6	**Flathead Lake**				
7	**Kerr Dam to Lake Pend Oreille**				
8	**Lake Pend Oreille**				
9	**Albeni Falls Dam to Columbia River**				
10	**Grand Coulee Reservoir - Lake Roosevelt**				
11	**Grand Coulee Dam to mouth**				
12	**Columbia River Basin**				

Upper Colubmia Basin Alternative Flood Control EIS
ESA

#	Reaches	Comment 1	Comment 2	Comment 3
1	**Libby Reservoir-Lake Koocanusa**			
2	**Libby Dam to Kootenay Lake**			
3	**Kootenay Lake**	Letter A: Concern for Canadian listed species including bull trout, white sturgeon and burbot in Kootenay Lake.	Letter A: Concern for white sturgeon, burbot, Umatilla dace, mottled sculpin and shorthead sculpin in the Columbia River downstream of Keenleyside Dam.	Letter A: Provided a lengthy list potentially impacted by increased frequency of higher flows in the Creston Valley Wildlife Management Area.
4	**Hungry Horse Reservoir**			
5	**Hungry Horse Dam to Flathead Lake**			
6	**Flathead Lake**			
7	**Kerr Dam to Lake Pend Oreille**			
8	**Lake Pend Oreille**			
9	**Albeni Falls Dam to Columbia River**			
10	**Grand Coulee Reservoir - Lake Roosevelt**			
11	**Grand Coulee Dam to mouth**			
12	**Columbia River Basin**			

Upper Colubmia Basin Alternative Flood Control EIS
WATER QUALITY

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**	Letter B: Increased spill may be required at times, which will result in TDG and power impacts.	Letter B: Need to address TDG entering the Canadian system as a result of spills from Libby Dam.
3	**Kootenay Lake**	Letter A: Concern for TDG, temperature and contamination, nutrients, productivity.	
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Upper Colubmia Basin Alternative Flood Control EIS
RECREATION

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**	Letter A: On going concern over the operation of the reservoir and impacts to recreation.	
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Upper Columbia Basin Alternative Flood Control EIS
POWER

#	Reaches	Comment 1	Comment 2	Comment 3
1	**Libby Reservoir-Lake Koocanusa**			
2	**Libby Dam to Kootenay Lake**	Letter B:Concern that there is not formal process in place for Canadian entities to be provided with information specific enough to accurately evaluate the potential impacts of the proposed flow regimes on their operations and the environment.	Letter B: Implementation of VAR Q could raise and lower Kootenay Lake and River elevations to greater extremes than previously seen. Need to quantify.	Letter B: changing the flow regime will impact Canadian generation energy totals and energy profile.
3	**Kootenay Lake**	Letter A: Concern on impacts on the non-treaty storage and power generation.	Letter G: Benefit of the UCBFCFO is that is prevents flooding and provides power.	
4	**Hungry Horse Reservoir**			
5	**Hungry Horse Dam to Flathead Lake**			
6	**Flathead Lake**			
7	**Kerr Dam to Lake Pend Oreille**			
8	**Lake Pend Oreille**			
9	**Albeni Falls Dam to Columbia River**			
10	**Grand Coulee Reservoir - Lake**			
11	**Grand Coulee Dam to mouth**			
12	**Columbia River Basin**			

Upper Columbia Basin Alternative Flood Control EIS
FISHERIES

#	Reaches	Comment 1	Comment 2	Comment 3
1	**Libby Reservoir-Lake Koocanusa**	Letter D: For all the studies completed, there is not improvement in fish and their habitat.	Letter D: No benefits in the way Libby Dam is operated. Try another method.	Letter D: No evidence that the former studies and fish flushes have improved the quanitity or quality of fish habitat.
2	**Libby Dam to Kootenay Lake**	Letter B: Ecosystems have adapted to managed flow regimes, changes may result in subtle impacts not readily apparent, offset or mitigated.	Letter B: Lower winter Kootenay Lake Levels will affect flows out of the lake and have the potential for causing fisheries concerns for the Kootenay and Columbia Rivers.	
3	**Kootenay Lake**	Letter A: Ecosystems have adapted to managed flow regimes, changes may result in subtle impacts not readily apparent, offset or mitigated.	Letter A: Concern for fish and fish habitat, fisheries in Kootenay Lake, and Columbia River, investments made in fish and wildlife enhancement.	Letter A: Concern related to Kokanee production in Kootenay Lake, rainbow trout.
4	**Hungry Horse Reservoir**			
5	**Hungry Horse Dam to Flathead Lake**			
6	**Flathead Lake**			
7	**Kerr Dam to Lake Pend Oreille**			
8	**Lake Pend Oreille**			
9	**Albeni Falls Dam to Columbia River**			
10	**Grand Coulee Reservoir - Lake Roosevelt**			
11	**Grand Coulee Dam to mouth**			
12	**Columbia River Basin**			

Upper Columbia Basin Alternative Flood Control EIS
FISHERIES

#	Reaches	Comment 4	Comment 5	Comment 6
1	**Libby Reservoir-Lake Koocanusa**			
2	**Libby Dam to Kootenay Lake**			
3	**Kootenay Lake**	Letter A: Impact of VARQ could result in spring and summer water levels rising sooner and higher than they currently do in Duck Lake.	Letter A: VARQ could affect wildlife in high flow years.	Letter F: High water in 1997 caused damage to fisheries.
4	**Hungry Horse Reservoir**			
5	**Hungry Horse Dam to Flathead Lake**			
6	**Flathead Lake**			
7	**Kerr Dam to Lake Pend Oreille**			
8	**Lake Pend Oreille**			
9	**Albeni Falls Dam to Columbia River**			
10	**Grand Coulee Reservoir - Lake Roosevelt**			
11	**Grand Coulee Dam to mouth**			
12	**Columbia River Basin**			

Upper Columbia Basin Alternatiave Flood Control EIS
CULTURAL / HISTORIC

#	Reaches	Comment 1
1	**Libby Reservoir-Lake Koocanusa**	
2	**Libby Dam to Kootenay Lake**	
3	**Kootenay Lake**	
4	**Hungry Horse Reservoir**	
5	**Hungry Horse Dam to Flathead Lake**	
6	**Flathead Lake**	
7	**Kerr Dam to Lake Pend Oreille**	
8	**Lake Pend Oreille**	
9	**Albeni Falls Dam to Columbia River**	
10	**Grand Coulee Reservoir - Lake Roosevelt**	
11	**Grand Coulee Dam to mouth**	
12	**Columbia River Basin**	

Upper Columbia Basin Alternative Flood Control EIS
ECONOMIC

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**	Letter D: No benefits in the way Libby Dam is operated. Try another method.	
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**	Letter F: High water in 1997 caused damage to property.	
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Upper Columbia Basin Alternative Flood Control EIS
PROPERTY VALUES

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**	Letter A: Operation impact on the reservoir and impact on property values.	
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Upper Columbia Basin Alternative Flood Control EIS
EQUITY

#	Reaches	Comment 1
1	**Libby Reservoir-Lake Koocanusa**	
2	**Libby Dam to Kootenay Lake**	
3	**Kootenay Lake**	
4	**Hungry Horse Reservoir**	
5	**Hungry Horse Dam to Flathead Lake**	
6	**Flathead Lake**	
7	**Kerr Dam to Lake Pend Oreille**	
8	**Lake Pend Oreille**	
9	**Albeni Falls Dam to Columbia River**	
10	**Grand Coulee Reservoir - Lake Roosevelt**	
11	**Grand Coulee Dam to mouth**	
12	**Columbia River Basin**	

Upper Columbia Basin Alternative Food Control EIS
COORDINATION

#	Reaches	Comment 1	Comment 2	Comment 3	Comment 4	Comment 5
1	**Libby Reservoir-Lake Koocanusa**					
2	**Libby Dam to Kootenay Lake**	Letter B: Look forward to the implementation of a streamlined process for receiving additional information.				
3	**Kootenay Lake**	Letter A: Not enough information to understand the proposed operations.	Letter A: Studies are needed, time is limited and there are limited resources.	Letter A: May impact BC initiatives to improve fish and habitat.	Letter A: There is an expectation of further consultation in BC.	Letter A: Further analysis is needed to demonstrate that the benefits of the proposed opertion, which are expected to be realized in the US, outweigh the costs of the impacts, including impacts in BC.
4	**Hungry Horse Reservoir**					
5	**Hungry Horse Dam to Flathead Lake**					
6	**Flathead Lake**					
7	**Kerr Dam to Lake Pend Oreille**					
8	**Lake Pend Oreille**					
9	**Albeni Falls Dam to Columbia River**					
10	**Grand Coulee Reservoir - Lake Roosevelt**					
11	**Grand Coulee Dam to mouth**					
12	**Columbia River Basin**					

Upper Columbia Basin Alternative Food Control EIS
COORDINATION

#	Reaches	Comment 6	Comment 7	Comment 8	Comment 9
1	**Libby Reservoir-Lake Koocanusa**				
2	**Libby Dam to Kootenay Lake**				
3	**Kootenay Lake**	Letter A: Need a review strategy that coordinates BC water planning process with BC and US operational changes.	Letter C: The Friends of West Kootenay Parks strongly support all action that would help mitigate the damage that has occurred to wetlands and species that depend on them.	Letter F: Need to communicate.	Letter G: Study completed for the Creston Valley Dyking District outlining the effects of water flow on the concerned dikes.
4	**Hungry Horse Reservoir**				
5	**Hungry Horse Dam to Flathead Lake**				
6	**Flathead Lake**				
7	**Kerr Dam to Lake Pend Oreille**				
8	**Lake Pend Oreille**				
9	**Albeni Falls Dam to Columbia River**				
10	**Grand Coulee Reservoir - Lake Roosevelt**				
11	**Grand Coulee Dam to mouth**				
12	**Columbia River Basin**				

Upper Columbia Basin A lternative Flood Control EIS
AGRICULTURE

#	Reaches	Comment 1	Comment 2
1	Libby Reservoir-Lake Koocanusa		
2	Libby Dam to Kootenay Lake		
3	Kootenay Lake		
4	Hungry Horse Reservoir		
5	Hungry Horse Dam to Flathead Lake		
6	Flathead Lake		
7	Kerr Dam to Lake Pend Oreille		
8	Lake Pend Oreille		
9	Albeni Falls Dam to Columbia River		
10	Grand Coulee Reservoir - Lake Roosevelt		
11	Grand Coulee Dam to mouth		
12	Columbia River Basin		

Upper Columbia Basin Alternative Flood Control EIS
AIR QUALITY

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Appendix E

Summary of Tribes Written Comments

Appendix E

This Appendix is a compilation of comments received from interested tribes during pre-scoping meetings held during the summer of 2001. They are not considered to be the outcome of government-to-government discussions.

Comments received were initially listed simply in the order received. Following this listing they were sorted by one of 13 categories and 12 river reaches as follows:

Scoping Comment Categories:

- Flooding (including reservoir water levels, forecasting)
- ESA/BiOp
- Water Quality
- Recreation
- Power (system generation)
- Fisheries
- Cultural (historic)
- Economic
- Property values
- Equity
- Coordination (Local involvement, trust, process, tribal/native)
- Agriculture
- Air quality

River Reaches:

- Flathead Lake
- Grand Coulee/Lake Roosevelt
- Grand Coulee Dam to Mouth

Upper Columbia Basin Alternative Flood Control EIS
FLOODING

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**	Corps has a new flood control study. With implementation, lake would be higher. Would it be reasonable to incorporate changes in the 2000 BiOp/VARQ process.	
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**	Concern regarding water levels and impact to Ferry system.	Concern regarding refill of Lake Roosevelt in summer of 2001.
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Upper Colubmia Basin Alternative Flood Control EIS
ESA

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**	Action agencies have responsibility to assess BiOp's effects on resources and to develop suitable mitigation measures.	
11	**Grand Coulee Dam to mouth**	Tribal concerns not fully included in BiOp process and need to bring up in NEPA process.	
12	**Columbia River Basin**		

Upper Colubmia Basin Alternative Flood Control EIS
WATER QUALITY

#	Reaches	Comment 1	Comment 2	Comment 3	Comment 4	Comment 5
1	**Libby Reservoir-Lake Koocanusa**					
2	**Libby Dam to Kootenay Lake**					
3	**Kootenay Lake**					
4	**Hungry Horse Reservoir**					
5	**Hungry Horse Dam to Flathead Lake**					
6	**Flathead Lake**	Increased spill with higher reservoir levels will require evaluation of water quality (TDG) and cultural resource effects.				
7	**Kerr Dam to Lake Pend Oreille**					
8	**Lake Pend Oreille**					
9	**Albeni Falls Dam to Columbia River**					
10	**Grand Coulee Reservoir - Lake Roosevelt**	Contaminants sampling should also include the Spokane arm of the reservoir.	Analysis needs to consider effect on water retention time and resuspension of contaminants.	Analysis needs to consider effects on TDG, TMDL's and temperature effects at Grand Coulee.	Need to study nutrients in Lake Roosevelt and the impacts from the new BiOp operations. Look at retention time.	Need ability to stipulate need of studies of contaminated sediments.
11	**Grand Coulee Dam to mouth**	Contaminated sediments are a concern. Are new rule curves needed to manage water movement of sediments.				
12	**Columbia River Basin**					

Upper Colubmia Basin Alternative Flood Control EIS
RECREATION

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**	Boat ramps may need to be extended.	
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Upper Columbia Basin Alternative Flood Control EIS
POWER

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Upper Columbia Basin Alternative Flood Control EIS
FISHERIES

#	Reaches	Comment 1	Comment 2	Comment 3
1	**Libby Reservoir-Lake Koocanusa**			
2	**Libby Dam to Kootenay Lake**			
3	**Kootenay Lake**			
4	**Hungry Horse Reservoir**			
5	**Hungry Horse Dam to Flathead Lake**			
6	**Flathead Lake**			
7	**Kerr Dam to Lake Pend Oreille**			
8	**Lake Pend Oreille**			
9	**Albeni Falls Dam to Columbia River**			
10	**Grand Coulee Reservoir - Lake Roosevelt**	Concern regarding sturgeon in the reservoir.	Concern regarding fish entrainment through the dam and the impact the changes will make on this loss.	
11	**Grand Coulee Dam to mouth**	Ecosystems have adapted to managed flow regimes, changes may result in subtle impacts not readily apparent, offset or mitigated.		
12	**Columbia River Basin**			

Upper Columbia Basin Alternatiave Flood Control EIS
CULTURAL / HISTORIC

#	Reaches	Comment 1	Comment 2	Comment 3	Comment 4	Comment 5	Comment 6
1	**Libby Reservoir-Lake Koocanusa**						
2	**Libby Dam to Kootenay Lake**						
3	**Kootenay Lake**						
4	**Hungry Horse Reservoir**						
5	**Hungry Horse Dam to Flathead Lake**						
6	**Flathead Lake**	Increased spill will require evaluation of cultural resource effects.	Concerns include potential vandalism of sites as they are exposed by drawdowns and erosion, both in reservoirs and along streams				
7	**Kerr Dam to Lake Pend Oreille**						
8	**Lake Pend Oreille**						
9	**Albeni Falls Dam to Columbia River**	Any sampling programs should be approved by the Tribe to avoid impacts to cultural resources.	How will STOI proposed MOA tie in with NHPA Section 106 process?	Additional impacts to cultural resources will require additional mitigation.	Professional cultural resources managers need to be involved in up front planning and processes.	Funding for the Tribes patrolling of cultural resources sites needs to be factored into funding.	Exposure during drawdown. New mititgation plan to offset impacts to Cultural Resources. CCT has a 15-year and 5 year cultural resources plan that needs updating. Need to coordinate with BPA.
10	**Grand Coulee Reservoir - Lake Roosevelt**						
11	**Grand Coulee Dam to mouth**	Concern about the affects to grave sites above Chief Joseph and the erosion at those sites.					
12	**Columbia River Basin**						

Upper Columbia Basin Alternative Flood Control EIS
ECONOMIC

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**	If fish decline, the Tribes will be impacted.	
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Upper Columbia Basin Alternative Flood Control EIS
PROPERTY VALUES

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Upper Columbia Basin Alternative Flood Control EIS
EQUITY

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Upper Columbia Basin Alternative Food Control EIS
COORDINATION

#	Reaches	Comment 1	Comment 2	Comment 3	Comment 4	Comment 5	Comment 6
1	**Libby Reservoir-Lake Koocanusa**						
2	**Libby Dam to Kootenay Lake**						
3	**Kootenay Lake**						
4	**Hungry Horse Reservoir**						
5	**Hungry Horse Dam to Flathead Lake**						
6	**Flathead Lake**	Address peak flows above and below Kerr Dam.	How do action agencies integrate formal government to government consultation with NEPA scoping?	Need identify specific studies to the Tribes; may want to be involved in.			
7	**Kerr Dam to Lake Pend Oreille**						
8	**Lake Pend Oreille**						
9	**Albeni Falls Dam to Columbia River**						
10	**Grand Coulee Reservoir - Lake Roosevelt**	Air quality, water quality, sediment issues, cultural and fisheries effects and funding of programs.	Early identification of process(es) to address all resources issues (ie. Cultural, fish and contaminants)	STOI would like early opportunity for input into COE flood control study to make sure that resource concerns are incorporated.	NEPA needs to be complete before implementation.	Tribe wants input into who is going to do what studies.	Need to have scoping meeting at Coulee Dam.
11	**Grand Coulee Dam to mouth**	Concern about NMFS requiring lots of actions but they are not responsible or accountable for implementation.	Concern about target flows in conflict with treaty rights in meeting the ecosystem needs for the tribe. Operations in conflict with CCT's needs in reservoir management.	Type of process to bring together impacts to Banks Lake under a separate NEPA document. Need to look at cumulative effects.			
12	**Columbia River Basin**						

Upper Columbia Basin A lternative Flood Control EIS
AGRICULATURE

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**	Amount of water pumped to Banks Lake and what is impact to the reservoir and river?	
11	**Grand Coulee Dam to mouth**		
12	**Columbia River Basin**		

Upper Columbia Basin Alternative Flood Control EIS
AIR QUALITY

#	Reaches	Comment 1	Comment 2
1	**Libby Reservoir-Lake Koocanusa**		
2	**Libby Dam to Kootenay Lake**		
3	**Kootenay Lake**		
4	**Hungry Horse Reservoir**		
5	**Hungry Horse Dam to Flathead Lake**		
6	**Flathead Lake**		
7	**Kerr Dam to Lake Pend Oreille**		
8	**Lake Pend Oreille**		
9	**Albeni Falls Dam to Columbia River**		
10	**Grand Coulee Reservoir - Lake Roosevelt**		
11	**Grand Coulee Dam to mouth**	Impact on airborne contaminated sediment is a concern.	
12	**Columbia River Basin**		

Appendix F

Basin Map

Major Northwest Dams

The dams on this map generally represent the largest projects and those that have a significant role in river system management. A complete list of projects in the basin can be found in Appendix A. Acronyms and abbreviations are defined on page 76.

1. **BONNEVILLE** Columbia River, USACE
2. **THE DALLES** Columbia River, USACE
3. **JOHN DAY** Columbia River, USACE
4. **McNARY** Columbia River, USACE
5. **PRIEST RAPIDS** Columbia River, Grant Co. PUD
6. **WANAPUM** Columbia River, Grant Co. PUD
7. **ROCK ISLAND** Columbia River, Chelan Co. PUD
8. **ROCKY BEACH** Columbia River, Chelan Co. PUD
9. **WELLS** Columbia River, Douglas Co. PUD
10. **CHIEF JOSEPH** Columbia River, USACE
11. **GRAND COULEE** Columbia River, USBR
12. **KEENLEYSIDE** Columbia River, BC Hydro
13. **REVELSTOKE** Columbia River, BC Hydro
14. **MICA** Columbia River, BC Hydro
15. **CORRA LINN** Kootenay River, W. Kootenay
16. **DUNCAN** Duncan River, BC Hydro
17. **LIBBY** Kootenai River, USACE
18. **BOUNDARY** Pend Oreille River, SCL
19. **ALBENI FALLS** Pend Oreille River, USACE
20. **CABINET GORGE** Clark Fork River, WWP
21. **NOXON RAPIDS** Clark Fork River, WWP
22. **KERR** Flathead River, MPC
23. **HUNGRY HORSE** Flathead River, USBR
24. **CHANDLER** Yakima River, USBR
25. **ROZA** Yakima River, USBR
26. **ICE HARBOR** Snake River, USACE
27. **LOWER MONUMENTAL** Snake River, USACE
28. **LITTLE GOOSE** Snake River, USACE
29. **LOWER GRANITE** Snake River, USACE
30. **DWORSHAK** N.F. Clearwater River, USACE
31. **HELLS CANYON** Snake River, IP
32. **OXBOW** Snake River, IP
33. **BROWNLEE** Snake River, IP
34. **BLACK CANYON** Payette River, USBR
35. **BOISE RIVER DIVERSION** Boise River, USBR
36. **ANDERSON RANCH** Boise River, USBR
37. **MINIDOKA** Snake River, USBR
38. **PALISADES** Snake River, USBR
39. **PELTON** Deschutes River, PGE
40. **ROUND BUTTE** Deschutes River, PGE
41. **BIG CLIFF** N. Santiam River, USACE
42. **DETROIT** N. Santiam River, USACE
43. **FOSTER** S. Santiam River, USACE
44. **COUGAR** McKenzie River, USACE
45. **GREEN PETER** M. Santiam River, USACE
46. **DEXTER** Willamette River, USACE
47. **LOOKOUT POINT** Willamette River, USACE
48. **HILLS CREEK** Willamette River, USACE
49. **MERWIN** Lewis River, PP&L
50. **YALE** Lewis River, PP&L
51. **SWIFT** Lewis River, PP&L
52. **MAYFIELD** Cowlitz River, TCL
53. **MOSSYROCK** Cowlitz River, TCL
54. **GORGE** Skagit River, SCL
55. **DIABLO** Skagit River, SCL
56. **ROSS** Skagit River, SCL
57. **CULMBACK** Sultan River, Snohomish Co. PUD
58. **LOST CREEK** Rogue River, USACE
59. **LUCKY PEAK** Boise River, USACE
60. **GREEN SPRINGS** Emigrant Creek, USBR