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A	**Hal Lindstrom** Ellensburg, WA			
A-1	*Goals & Objectives*	ES	I'm in general agreement with the goals and objectives. They are worthy of support from all who live in the Yakima Subbasin	Comment Noted
A-2	*Mission Statement*	ES-1	Suggest an addition to the mission statement. "Restore sustainable populations of salmon, steelhead, and other at-risk species *and to prevent additional species becoming at-risk* through collaborative, economically sensitive efforts …"	Refer to YSPB for deliberation - The Board considered this suggestion and feels that the existing Vision statement adequately expresses its intent.
A-3	*Where's Kittitas Co.?*	ES-1	Where is Kittitas County? As a resident I believe it inexcusable for Kittitas County not to be an active member of the Planning Board. Geographically it is crucial the County be involved. I would ask if the County is involved in any constructive way.	- Kittitas County chose not to become members of the Yakima Subbasin Fish and Wildlife Planning Board, but participated in the public review process through the Kittitas County Conference of Governments. Several technical experts with extensive knowledge of the County participated in the planning process.
A-4	*Treaty Rights in contemporary context*	ES-3	Guiding Principle #3: The Yakama Nation should accept (perhaps they do) that full restoration of their Reserve and Treaty rights may be (likely is) impossible to affect given the level of degradation that has occurred. If Planning goals are to be achieved, it will necessitate a level of economic foregoing that will require considerable sacrifice for some. (At a later point I note that 'costs of implementation are to be shared' – something to the effect, and I'm supportive) Politics are a large factor in successful pursuit of this effort, and unless there is a shared burden (both actual and perceived) from costs of implementation, not much will ultimately happen	Comments regarding "politics" noted. Treaty Rights by their nature are established by the treaty of 1855 and the Board cannot or diminish these rights. The Nation, as a member of the YSPB, recognizes the limits of habitat restoration given the amount of habitat capacity displaced by 200 years of settlement i.e., what no longer exists cannot be restored.
A-5	*Biological objective*	ES-	The fifth Biological Objective needs to be beefed up. As it stands the phrase	

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	re ESA	11	"as fully as possible" at the end of the statement renders it largely meaningless. There should be substantial agreement on a better position regarding collective responsibility for achieving goals of the ESA. Would it help to state it "*Strive to be consistent with the ESA recovery goals and Clean Water Act requirements. Periodic assessments to be made that gauge the degree of success toward achieving the objective."*	- Comment noted
B	**Scott Woodward** Richland, WA Tapteal Greenway Association			
B-1	*Jet Skis / Salmon life cycles*	2-237	I cannot find any reference in this document about the impact of motorboat traffic on the migrating salmon on the lower Yakima River. In the past few years three things have combined to raise this question; 1. Improved clarity of the river has given me direct visual contact with the migrating salmon. In particular with the Fall Chinook because the water is so low and clear. I can actually watch these fish come up the lower section of the Yakima along the Chamna reach. 2. More salmon in the past few years have given me more instances to view the fish. 3. More boat traffic up the lower section of the Yakima River. The advent of the big jet boats and the increasing number of jet skis has made the Yakima River a very popular place to get away from law enforcement. All this has raised a very interesting question about the impact of motorized boats on the migration of the fish. I have watched with great disdain as the salmon attempt to move through the narrow shallow Chamna channel only to be scattered by jet skis or a jet boat skimming over the tops of these fish heading upstream. Needless to say the fish are scattered and I often wonder what impact this harassment has on these fish. I know there are much greater concerns and your plan has addressed these concerns. It has been a huge undertaking that you are all to be congratulated on, however, I needed to add this concern that was not addressed in the document.	Refer to technical staff Noted as data gap - Do we have data on this issue? Raise this issue as a key uncertainty. Using motorboats during important migration times. We have no data to confirm that there is an effect from boat traffic on Fall Chinook, we are checking with YKFP to monitor these conditions in the late summer.
C	**Andy Dittman** NOAA Fisheries			

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C-1	*Spring Chinook Hatcheries*	2-146	Include in text: At least three genetically distinct stocks of spring Chinook salmon have been identified in the Yakima River. Increased levels of straying due to hatchery rearing or acclimation/release practices may have negative genetic and ecological impacts on existing wild populations. Furthermore, the success of supplementation efforts for Spring Chinook salmon depends on the efficacy of acclimation in insuring successful imprinting and homing and ultimately reestablishing naturally spawning salmon in underutilized and restored habitat.	The success of supplementation efforts depend on additional factors such as habitat condition, adaptive fitness of the supplemented stock, out of subbasin effects, etc which are recognized in the experimental design for the Cle Elum Supplementation and Research Facility (CESRF). The Plan now contains direct links to those designs and the methods that are being used to resolve those uncertainties.
C-2	*Key Findings for Spring Chinook*	2-147	Include in text: Increased levels of straying due to hatchery rearing or acclimation/release practices may have negative genetic and ecological impacts on existing wild populations. Furthermore, the success of supplementation efforts for Spring Chinook salmon depends on the efficacy of acclimation in insuring successful imprinting and homing and ultimately reestablishing naturally spawning salmon in underutilized and restored habitat.	See response to C-1 above.
C-3	*Table 3-1 correction*	3-4	"Spatial scales of homing and the efficacy of hatchery acclimation facilities" . This NMFS project is pc (partially complete) not c (complete) as indicated in column 5. please correct.	This column in the Draft Subbasin Plan does not refer to the status of the project but the status of the inventory of the project for Subbasin planning. This table on the status of the Inventory (Table 3-1) will not be included in the Final Draft, and will be replaced by a table that summarizes the programs and projects in the Yakima Subbasin.
C-4	*Add as a "Key Finding" to YKFP S1*	4-25	**1.Key Finding YKFP S1 (?)** **2. Observed effect or phenomenon** Increased levels of straying due to hatchery rearing or acclimation/release	Refer to technical staff Go to staff See above.

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			practices may have negative genetic and ecological impacts on existing wild populations. Furthermore, the success of supplementation efforts for Spring Chinook salmon depends on the efficacy of acclimation in insuring successful imprinting and homing and ultimately reestablishing naturally spawning salmon in underutilized and restored habitat. **3. Cause/Hypothesis** Naturally spawning supplemented Spring Chinook salmon will not impact the migratory behavior and spawning distribution wild fish. Proper acclimation and release strategies results in successful imprinting and homing and can facilitate reestablishment of naturally spawning salmon in underutilized and restored habitat. **4. Confidence that effect is actually occurring** - High **5. Level of confidence in causal relationship -** High **6. Relative contribution to causal relationship -** Medium **7. Level of impact to focal species -** 1? **8. Level of Impact to Ecosystem or Watershed?** **9. Biological Objective (Reduce/Eliminate Negative Causes, Improve/Maintain positive causes)** Document spatial and temporal scales of homing in wild and supplemented fish and assess the efficacy of acclimation facilities for minimizing straying and contributing to wild salmon recovery. **10. Strategy to reduce/eliminate or improve maintain** Conduct a series of studies examining the effects of hatchery rearing and release practices on olfactory imprinting and the subsequent patterns of homing and straying in an effort to identify strategies that will minimize straying and negative interactions between wild and hatchery fish. **11. Currently Addressed?** Partially, under ongoing research by NOAA fisheries but complete studies have been recommended for BPA funding when funds are available under BPA proposal #200301400. **12. Strategy to mitigate effect**	These effects are well documented in the experimental design for the Cle Elum Supplementation and Research Facility, and there is currently ongoing research on this, and other, potentially negative effects of supplementation on both target and non-target populations. Actual design of studies to resolve uncertainties is a function of available funding, scale of effect, and available expertise. The level of detail here is beyond the scope of the Subbasin plan.
C-5	*Add as a "Key Finding" BW &*	4-25	**1.Key Finding BW?**	Refer to technical staff Go to staff

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	Ecosystem processes		**2. Observed effect or phenomenon** Transfer of water between rivers or tributaries (e.g. Block Rock Project) can result in improper imprinting or straying of in-basin salmon and false attraction of out-of-basin salmon. **3. Cause/Hypothesis** Water transfers and release associated with the Black Rock reservoir project may have critical implications for homing and straying of salmonids in the entire upper Columbia River. **4. Confidence that effect is actually occurring -** Low **5. Level of confidence in causal relationship -** Medium **6. Relative contribution to causal relationship -** Medium **7. Level of impact to focal species --** 1? **8. Level of Impact to Ecosystem or Watershed -** 1 **9. Biological Objective (Reduce/Eliminate Negative Causes, Improve/Maintain positive causes)** Minimize impacts of Black Rock Project on salmon homing and straying in the upper Columbia River. **10. Strategy to reduce/eliminate or improve maintain** Conduct studies to assess the potential impact of water transfer and release strategies on olfactory imprinting and homing of upper Columbia salmonids in general and specifically the impacts of such water diversions on Yakima River salmon. **11. Currently Addressed? --** No **12. Strategy to mitigate effect** Identify water volumes and release strategies for that minimize negative impacts on salmon homing and identify critical homing cues that impact homing success. 13. Currently Addressed? - No	See above, also chapter 2 was modified to include potential future effects. This question is being examined by the Black Rock study. As with the previous comment, the level of detail here is beyond the scope of the Subbasin Plan. The plan does recognize the effects of false attraction flows and recommends the control of spill, as would be the case with the Black Rock project.
D	**David Mitchell** Richland, WA			
D-1	*General comment on permit approval*	NA	Much of the Yakima Sub-basin and Riverfront is owned by the public. My wife and I have been working for over five years now to prevent erosion and	Comment noted

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	process re shoreline		sediment harmful to salmon along our property in Richland on the Yakima River. Our JARPA was filed in 2000, and the various governmental agencies have still not permitted this project which all agencies involved have said is a good idea. The average land owner doesn't have the patience or the thousands of dollars necessary to even get the permits and studies necessary, let alone the construction costs, to help protect their portion of the River or Sub-basin (Our project was funded several years ago by a Dept. of Ecology grant through a Conservation District application and has been in repeated danger of losing this funding because of the years of delays obtaining the necessary permits). Our project has shown all involved, including our governmental agencies, how impossible it is to help protect salmon, habitat, and our land by following the legal steps necessary. I hope you have better luck than we did. It appears when governmental agencies get together, things get done. Highways get built, permits get issued, studies are completed. Until this is made easier for landowners and interested conservation groups, our own governmental system will continue to thwart efforts at restoring sustainable and harvestable populations of salmon, steelhead, and other at-risk species.	
E	**Dale Landon** West Richland, WA Richland Rod & Gun Club			
E-1	*Extended Comment period*	NA	Thank you for extending the comment period. The Plan is detailed and contains a large amount of information that needs to be considered and digested prior to making comment. Two weeks just wasn't sufficient time to allow for an adequate review.	Comment noted
F	**A. Donald Larsen**, Ph.D. NOAA Fisheries			

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F-1	*Spring Chinook Hatcheries*	2-146	Larsen et al. (2004) demonstrated that approximately 40-50% of the hatchery Spring Chinook produced by the Cle Elum Supplementation and Research Facility (CESRF) sexually mature at 2 years of age (otherwise known as "minijacks"). This is approximately 5 times the estimate of early male maturation in wild spring Chinook salmon in the Yakima River. As has been shown in other facilities, the hatchery environment may be potentiating early maturation beyond natural levels. Hundreds of thousands of the early maturing hatchery males may residualize in the basin after release and cause negative genetic and ecological impacts. The ecological concerns include competition for space and food, food depletion and predation on emerging salmonids and other species. Furthermore, early male maturation translates into a 20-25% reduction in anadromous adult production. Laboratory based studies have shown that modulation of growth rate at specific times of the year can reduce the incidence of precocious maturation. Studies are ongoing at the CESRF aimed at developing rearing protocols to produce fish with morphological, physiological, and life-history attributes similar to their naturally reared cohorts. Larsen, D.A., Beckman, B.R., Cooper, K.A., Barrett, D., Johnston, M., Swanson, P., and Dickhoff, W.W. (2004). Assessment of high rates of precocious male maturation in a spring chinook salmon supplementation hatchery program. Transactions of the American Fisheries Society. 133, 98-120.	The success of supplementation efforts depend on additional factors such as habitat condition, adaptive fitness of the supplemented stock, out of subbasin effects, etc which are recognized in the experimental design for the CESRF. The Plan now contains direct links to those designs and the methods which are being used to resolve those uncertainties.
F-2	*Add Key Findings for Spring Chinook*	2-147	Add: Larsen et al. (2004) has shown that approximately 40% of the male hatchery spring Chinook produced at the Cle Elum Supplementation and Research Facility undergo precocious maturation at age 2 (minijacks) and research is being conducted to reduce these rates using growth rate modulation	See response to F-1 above
F-3	*Change Table 1-3*	3-4	2002, 2003 BPA Growth Modulation in Spring Chinook Salmon Supplementation NMFS this project is pc (partially complete) not c (complete) as indicated in column 5. please correct.	This column in the Draft Subbasin Plan does not refer to the status of the project but the status of the inventory of the project for Subbasin planning. This table on the status of the Inventory (Table 3-1) will not be

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				included in the Final Draft, and will be replaced by a table that summarizes the programs and projects in the Yakima Subbasin.
F-4	*Add to "Key Findings" at YKFPS1*	4-25	**Add: 1.Key Finding YKFP S1 (?)** **2. Observed effect or phenomenon** Larsen et al. (2004) has shown that approximately 40-50% of the male hatchery spring chinook produced at the Cle Elum Supplementation and Research Facility undergo precocious maturation at age 2 (minijacks) and research is being conducted using growth rate modulation stratagies to reduce these rates for this and other supplementation programs. **3. Cause/Hypothesis** High growth rates at certain times throughout juvenile development and energy rich hatchery diets cause unnaturally high rates of precocious male maturation in Yakima hatchery spring Chinook. **4. Confidence that effect is actually occurring -** High **5. Level of confidence in causal relationship -** High **6. Relative contribution to causal relationship -** Medium **7. Level of impact to focal species** As high as 25% increase in returning adult spring Chinook to basin **8. Level of Impact to Ecosystem or Watershed - ?** **9. Biological Objective (Reduce/Eliminate Negative Causes, Improve/Maintain positive causes)** Document precocious male maturation rates in the wild stock and reduce levels in hatchery population to a level comparable to that of the wild stock. **10. Strategy to reduce/eliminate or improve maintain** Conduct a series of studies employing combinations of variation in fry emergence timing, seasonal growth rate modulation, and dietary energy content to regulate the proportion of the male population that undergoes precocious maturation. **11. Currently Addressed?** Yes, ongoing research under BPA contract #200203100	Refer to technical staff These effects are well documented in the experimental design for the Cle Elum Supplementation and Research Facility, and there is currently ongoing research on this, and other, potentially negative effects of supplementation on both target and non-target populations. Actual design of studies to resolve uncertainties is a function of available funding, scale of effect, and available expertise. The level of detail here is beyond the scope of the Subbasin plan.

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			12. Strategy to mitigate effect Reduce precocious male maturation levels as low as possible through growth rate modulation techniques without compromising the health and survival of the hatchery spring Chinook population. **13. Currently addressed -** ?	
G	**Mark Naulty** West Richland, WA CRC			
G-1	*Draft lacks the specific character-istics of a "Plan"*	All	I wouldn't characterize this document as a "plan." It is an excellent assessment. The closest thing to a real plan is Chapter 4, which is essentially the rankings of all the ideas and projects. When I think of a plan, I think of a document that says to the reader; if you give me $3 million, this is exactly what I'm going to do with it. Chapter 4 tries to do that, but it is so broad with no real hierarchy, the main entity (NWPC) might be bewildered as to exactly what's got priority. I think some specifics have to be laid out ahead of time so that NWPC has reasonable assurance that when they write a check on Monday, the subbasin group will commence work on Tuesday. There is so little construction of a concrete plan here that it leaves the reviewer at a loss. If the reviewer can't see it, it's possible the grantor of monies may not either. I think the argument might be that much of that specificity comes in the salmon recovery phase. I would be careful thinking that. This is the time to lay out your "plan" for what you want the salmon recovery phase to look like. Some specificity and hierarchy is warranted in the plan.	Chapter 4, the Management Plan does present a prioritization of strategies designed to reverse the factors that are reducing or constraining salmonid production (e.g., low/high temp, sediment transport, low/high flow, lack of riparian/floodplain side channel habitat), or to protect areas that are currently or potentially productive. Chapter 4 identifies categories of actions suitable for NWPCC to fund. Other entities will sponsor specific project and non-project actions to fit within those categories, and thus be eligible for BPA funding. See the preamble to the Subbasin Plan for more detail regarding the purpose and uses of the plan
H	**Gene Jenkins** Selah, WA			
H-1	*Public comment periods too short, perhaps illegal*	All	The public comment period opening on April 6 and closing on April 23rd is too short and may be in violation of state and Federal requirements.	In response the public review period for the draft was extended to May 6, 2004 for a total of 31 days.

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H-2	*Not a Local public process*	All	Local input was not sought for the draft plan. It was prepared by bureaucrats and public officials for the government. Local non-governmental input was never actually sought. Myself and others were constantly assured that local input would be sought prior to adoption of the plan by the Board.	Despite the very short schedule for plan preparation, there have been over 30 public Board meetings, 8 public presentations of the process, 3 Board Public Hearings on the draft, a Citizens Review Committee, a Management Plan Advisory Committee, an aquatic and a technical advisory committee, each of which have met numerous times, a newsletter, an interactive website, and a staff presentations program. The Board is currently reviewing public comments to date on the draft. The Board does not "approve" the plan, but is responsible for delivering a plan to the NPCC which has been developed according to it to their specifications The NPCC will review the plan and hold a public review process of its own.
H-3	*Additional storage*		The plan is hard to read and difficult to follow. Its only redeeming point is that there is finally some recognition that a new storage facility is needed, especially if any signinfc9iant progress is to be made toward returning the basin to normative flows.	The draft is a complex document assembled in little time. Its readability is being improved. Comment noted on storage.
H-4	*Planning Board is missing Kittitas County*		It is interesting that this group has written a Sub-basin Plan without any input from a principal governmental entity, the Kittitas County Board of Commissioners. The plan should note that, as well as the fact that it could be of value to Kittitas County residents.	See response to A-3 regarding the participation of – Kittitas County.

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H-5	*Institutional arrogance*		It is insulting to have any governmental agency or bureaucrat tell any member of the public that you are in effect ignorant, you need to be educated.	Comment noted
H-6	*Pre-settlement conditions*		I find it interesting the all-consuming desire to take things back to the pre-settlement conditions. In Yakima county alone you have 200,000 people, for good or bad the population is here and a realistic way to assist the interactions must be sought. What this plan seems to be advocating is the removal of the population and population activities in all areas that may have conflicts.	The term "pre-settlement" conditions are a useful "reference condition" to understand the life cycle habitat requirements of indigenous fish and wildlife, so that restoration and protection strategies are "scientifically" the right actions to take. The Conceptual Foundation of the draft plan (Chap 2) clearly states that the basin is an ever-changing natural and cultural environment, and will always be so. The YSPB's Vision statement (ES-2), recognizes the fact of existing customs, cultures, and economies within the basin and commits to their enhancement. The term pre-settlement is being replaced in the final Subbasin Plan by the term pre-1850, and will be more thouroughly defined and discussed in the plan to clarify its meaning and the reason for its use.
H-7	*Benefits to wildlife and fish from farming and grazing*		It is a biologic fact that farming and grazing and in some case logging have had positive impacts to the amount and diversity of wildlife and fish. …… Agriculture has committed time, energy and money to enhance environments for fish and wildlife ……. I see no evidence in the document that these efforts have been taken into account or acknowledged.	the contributions of agriculture to reverse or mitigate human alterations of the basin's natural ecosystem are considerable and laudable, though not always directed at, or beneficial to, indigenous species. Refer to the Inventory of projects

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				and programs in Chapter 3.
H-8	*Restricting grazing*		References regarding restricting grazing on 90% of government lands are disturbing, especially when you take into consideration that there is no grazing on large tracks of government land at the present time. ……..You may find that 90% of government owned lands are not being grazed. The Plan should be looking at the possibility of implementing prescriptive on all government owned lands to imitate what the plan references as prescriptive burns. ……. .	This objective has been clarified to reflect lands that are currently grazed.
H-9	*Tax impacts of restricting grazing on private lands*		The plan seems to be calling for the restriction of grazing on private lands by 50% by 2015. Does the Board intend to reduce the economic input and tax base that agriculture contributes in the basin? … Agriculture and livestock is a significant economic engine that generates considerable tax income for various local governmental al entities.	Language in the plan has been changed to better reflect the intent of improving grazing management.
H-10	*Negative impacts of conservation*		This document makes a number of suggestions concerning irrigation and irrigation practices. Including the removal of diversion structures, head works and other in-stream structures. The piping of ditches and headwork outlets etc. I would suggest that you take a serious look at what occurred in the Yakima Tieton Irrigation District when they piped their entire system and the effects of that **conservation activity** on the entire YTID service area. The man made wet lands disappeared. The flow in Cowiche Creek was significantly reduced because of the elimination of a portion of the return flows. Conservation can be advantageous however it does have a down side and those down sides need to be presented also.	Comment noted. Such impacts are acknowledged, but these project consequences are in the direction of the pre-1850 condition, e.g., water conserved by such projects stays in its watercourse of origin.
H-11	*Use of reference materials that have not been peer reviewed.*		There seems to be an ever-increasing problem in using documents that have not gone through a scientific review process. In order for science to be science it has to be repeatable. What concerns me most is that without peer review we may never know if a majority of the reference material is valid. This should concern everyone who is associated with this project.	The technical committees evaluated the quality of the information used in the plan. The Independent Science Review Panel of the NPCC will also examine the adequacy of the science in the draft.

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H-12	*Co. Tax base*		Buying property for restoration and enhancement reduces the tax base of the county	Comment noted
I	**Kale Gullet** NOAA Fisheries			
I-2	*Main-stem aggradation above Wapato Dam disconnects side channel habitat*		In other areas (i.e. upstream of Wapato Dam), aggradation of the channel has resulted in the mainstem channel becoming "perched" above the floodplain (i.e. the main channel is no longer the low point in the floodplain), which turns the surficial aquifer into "dead storage" or a static head level throughout the year. The "perched" channel also results in disconnection of side channels during low flow times of year (winter in the Union Gap reach) as illustrated below."--below is a picture of Spring Creek (a spring fed side channel of the Yakima River) unable to return to main channel because of sediment aggradation and bar formation at the Creek mouth. I don't doubt that Wapato dam forces localized aggradation a few hundreds of feet above the dam itself. However, I do doubt that the backwater effect of wapato dam extends far enough upstream to the point where slackwater bedload accumulations have plugged spring creek's confluence with the Yakima River. I think that the Union Gap anticline would have a much greater damming influence (wrt groundwater as well) on the Yakima River at high stage than Wapato dam, especially during geomorphically competent streamflow events—I don't think Wapato dam is in play--its ½ a mile downstream from the contraction point and only raises the low water surface elevation about 8 feet. Throw into the equation a railroad, interstate highway (the I-82 bridge upstream catches a significant amount of crap), state highway, an abandoned highway, a trailer park or two (complete with revetments) and I think you have the variables to predict why Spring creek may be plugged. Alterations to floodplain, channel, and hyporheos habitats are most likely cumulatively attributable to sediment transport imbalances along both the Naches and Yakima Rivers upstream of this locale, significant flow regulation, and floodplain revetments... (among other problems) Wapato dam is but a small voice in a choir of bigger problems that are affecting the lower end of the Union Gap reach..	We have examined the flood profiles and the width of Union Gap, I-82 bridge, and the dam and conclude that the Wapato Dam does act as the control point for this portion of the valley. The plan does recognize all of the other influences on sediment transport, and the need to better characterize sediment dynamics of the system to reduce uncertainty regarding the effects of structures such as Wapato Dam, levees and other infrastructure that acts as levees, increase sediment inputs, etc. The document has also been altered to make more clear the relatively low level of effect that changes in sediment transport currently have on fish productivity.

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J	**Victoria Clark** Kennewick, WA			
J-1	*Don't reduce recreational access*		The Management plan proposes eliminating access to mountain wetlands – will these recreational places be replaced? Will restricting access be a preferred restoration method? Request that recreational access to protected areas be maintained. Want continued recreational access to floodplain restoration areas. Will funding be provided to pay for restricting grazing in protected areas?	In most cases, managing access and educating users of an area is preferable to restricting access.
J-2	*What is the duration of the Plan and implementation*		What is the duration of the project? Will funds be available after the 20 years in the Vision ? The quality of riparian areas is getting worse. Will there be resources left to work with in 9-13 years? Not sure the water will be available. Would like to see the plan for 50 years or more.	The current plan is for 10-15 years, and it is difficult to plan much further than that. The Plan will likely be revisited and amended over a longer period of time as the NPCC is committed to fund environmental mitigation under the Northwest Power Planning Act
J-3	*What are the numerical benchmarks?*		What is the benchmark? What is the goal for number of fish? It would be good to address that. Everyone needs to share the responsibility. Great the some progress has been made places but want to make sure that it is carried through with prime habitat left in Simcoe-Toppenish. How many of the fish in the plan will come from our area? How much are we doing?	At the broadest scale, the benchmarks are viability and harvestability of the salmon stocks in the basin. Specific objectives are not laid out in the plan due to the lack of verifiable relationships between habitat protection and enhancement and actual population response.
J-4	*Benefits of cooperation*		I support the Yakima Subbasin plan and would like to thank the members of the board for working together to develop solutions to protect a wonderful resource. I appreciate the fact that the board had the vision to look at the problems and address each individual issue that affects the basin as an entire eco-system. A balance can be reached that will benefit all those that depend on the Yakima river. The fish, wildlife, habitat and people as well as the health of the river itself will improve as each solution is implemented. Thank you for working together to develop a workable plan for the region.	Comment Noted

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K	**Captain Eneas** White Swan, WA			
K-1	*What's the duration of gov funding for fencing off shoreline ?*		How long will funding be available to property owners who volunteer for fencing off land? Worried that he will lose the funding for setting aside land for fish and wildlife. Worried that funding will run out and leave property owners with no compensation	See the response to J-2 above. Any contract should define the duration of the commitment and compensation.
	Is plan voluntary ?		What happens is you own property on a major fish way, will the recommendations in the plan still be voluntary?	The SBP in not a regulatory document. It is a guide for funding projects of willing applicants.
K-2	*Water rights*		Some water rights have already been taken from owners – without water rights the land is worthless	Comment noted .The SBP cannot "take" water rights.
K-3	*Out of basin effects*		How many salmon get caught by the Asian market? If they catch the fish they should have to pay for restoration	These issues are addressed in the Pacific Salmon Treaty. While there are undoubtedly violations of the treaties, government signatories are subject to economic sanctions and forfeit of the catch and vessels if they are in violation. The US coast guard does have high seas patrols to enforce the treaty and has confiscated numerous vessels over the last several years.
L	**Heath Mellotte** West Richland			
L-1	*Will program monies be available for sewage plant upgrades ?*		The guiding principles state that flow and quality of water are key indicators. Will this program have funds for improving water treatment? For example, the West Richland water treatment plant has class B effluent, not usable for irrigation. Will this program have money available to improve to Class A.	Unlikely. Such projects are usually funded by the federal government grants under the Clean Water Act.
M	**Wendall Hannigan** White Swan, WA			

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M-1	*Improve Quality and flow of water*	4-4	Guiding principle #2, hope that we do improve the quality and flow of the water	Comment noted See page
M-2	*Two reference conditions for the Hydrograph*		There are two reference conditions for the hydrograph, before and after the dams were built. Once received a letter from the Forest Service stating the logging did not affect the hydrograph	Comments noted See page
M-3	*Amend Guiding Principles*		Principle #3 needs to include economic concerns of the Yakama Nation, such as irrigated agriculture, in addition to natural resources. Principle #4 that the plan is based on voluntary actions, allow parties of the TFW agreement to go back on their commitments Principle #6 that costs be related to benefits. Through the years there was no mention of cost/benefits for big dams and projects the government wanted. Cost /benefit leaves out too many things that have value or importance.	Principle #3 – The Board determined that this concern was included within the principles already Principle #4 – Funded projects include contractual commitments Principle #6 – BPA rate funding pays for projects and programs. This principle has been amended in the final Subbasin Plan
M-4	*Out of basin implications/effects*		Urge the Board to consider the survival of the fish in the main-stem Columbia, or work done in the basin will not matter	These matters are not within the jurisdiction of the Yakima Subbasin Fish and Wildlife Planning Board, but the final subbasin plan will contain sections discussing out-of-subbasin effects on fish numbers and productivity. The Subbasin plan will be converted into amendments to the NPCC's 2000 Fish and Wildlife Program, which will have the responsibility for the entire Columbia Basin.

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M-5	*Science and the ISRP*		Do not trust science, the ISRP is not really independent, there is no such thing. For example, with spring chinook when they go out into the Ocean scientists do not know where they go.	Comment noted
M-6	*Public Input*		Told Commissioner Lewis 6 years ago that it was easier to go to Washington DC and talk to senator and congressmen than to talk to the county commissioners. This still seem to be the case.	Comment noted
N	**Clifford Casseseka** Toppenish, WA			
N-1	*Concerns re Yakama Nation participation*		Have concerns about this plan in regard to Yakama Nation participation	Refer to YSPB
N-2	*Yakama Nation ceded lands, participation in YKFP, and the NW Power Planning Act*		Why is the Yakama Nation being limited to this plan when they have ceded lands all along the east of the Cascades? Only the Yakama Nation is responding to the ESA, with the YKFP. Why are Yakama Nation interests limited to satisfying the NW Power Act?	The Yakama Nation is participating in other Subbasin Plans outside the Yakima Watershed. For more detail please contact Yakama Nation Fish and Wildlife programs. The Co-managers (The Yakama Nation and WDFW) invited the members of the Board to the table to conduct Subbasin Planning. It is the Board's intent to be consistent with ESA in this planning effort. We can not address your question "Why are Yakama Nation interest limited to satisfying the NW Power Act?" Please contact Yakama Nation

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				Fish and Wildlife programs or your Council Members.
N-3	*Non-indian land/water use re water quality on the Yakama reservation*		Concerns about water quality. Non-Indians with land within the reservation reject Yakama Nation jurisdiction, let their cattle walk in the stream and leave their waste. There is much sediment in the water because of irrigation practices. What is the plan going to do about these practices?	The plan has identified unmanaged grazing impacts as limiting habitat function and population productions for both fish and wildlife species. Therefore, actions to address these impacts may qualify for funding from BPA mitigation and enhancement funds.
N-4	*Concern re mining practices/well water*		Concerned about gravel mining and mining practices. Contamination of aquifers so that people cannot drink their well water.	Comment noted. The plan does call for development of physical models to restore gravel mines to the functioning floodplain.
N-5	*Yakama Nation has only one seat on the YSB*		The Board has many counties and cities but only one seat for the Yakama Nation. How does the Board make decisions? Consensus decision making sounds good, but it never works. The economic interests always win out. Toppenish, WA	One seat representation is sufficient when consensus decision-making is the standard.
	Yakama peoples not available to participate right now; plan language needs to be in "layman"; what you hear tonight may differ from what policy people say		The room would be full but this is the gathering season, people are up in the woods. The tribal elders cannot understand the vocabulary in the plan, it need to be put plan text in layman's language. Disagrees with science, it is just another religion Listen to what the Yakama Nation people say tonight. Because you will get another view when you talk to the policy people.	There will be other public participation opportunities for the Plan; readability problems in a science based document are always problematic, but we are working to lessen that problem; comment noted re science and religion; the Yakama Nation representative on the Board functions as, and represents the Nations "policy people."
N-6	*Forest Service not on the Board ?*		Why isn't the US Forest Service on the Board?	Members of the Board are elected representatives of general purpose governments. The USFS is a public agency.
O	**Casey Barney**			

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	Toppenish, WA			
O-1	*Plan should involve Yakama Nation forests*		The plan should involve Yakama Nation forests, not just water	The Subbasin Plan does consider Yakama Nation forests in its evaluation. For more information please contact Yakama Nation Fish and Wildlife programs.
O-2	*Subbasin planners have no connection or authority, relative those persons, facilities that caused fish to decline*		Why has ESA come about – because of the people whose dams and management caused the fish to decline. Not these same people want to do this subbasin plan	The causes of fish decline are numerous and pervasive and occur at sea, on land, and in rivers, streams and estuaries. They started with European settlement and commercial harvests in the late 19th and early 20th centuries before dams were built and managers came on the scene. The Subbasin Plan contains strategies to apply restoration funding to effectively reverse declines and restore healthy populations.
O-3	*Yakama Nation Cultural Program should be involved*		Don't see anything about cultural resources in the plan, the cultural resources program should have been involved in the planning process	A Yakama cultural programs representative has been involved in the public participation process.
O-4	*Forest is a key tribal resource; elected tribal officials not at public meetings; Tribal elder expertise needed*		The forest is our supermarket and drugstore Concerned that elected tribal officials not hear tonight Expertise of tribal elders should be used in the plan	Comments noted
O-5	*Nation should be lead entity in the plan*		The treaty is not mentioned in the plan, because of it the Nation should be one of the lead entities in this plan to save the fish	The Nation, along with the WDFW, is a Co-manager of the fisheries and therefore lead entity on the Subbasin Plan. The Co-

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				managers do have primary responsibility for the plan and have enlisted the participation of the YSPB to give the plan local knowledge, support and legitimacy.
O-6	*Will the Plan be amended ?*		Will there be a process for amending the plan in the future?	It is likely the plan will have a process for amendment over time to reflect changing conditions and new scientific findings.
P	**Joanna Meninick** Toppenish, WA		Spoke in Yakama language, summary may be provided	Await translation for inclusion within the comment/response record
Q	**Hal Lindstrom** Ellensburg WA			
Q-1	*Kittitas Co. role ?*		What roles has Kittitas County taken in this process? Yakima County and Benton County are listed as part of the Board, but why not Kittitas Co.?	See Perry Huston comments below and response to A-3 above.
R	**Perry Houston** Ellensburg, WA Kittitas County Commissioner			
R-1	*In response to Mr. Purcell's question (above)*		Outlined the history of Kittitas County's involvement in Subbasin Planning and the Yakima Subbasin Fish and Wildlife Planning Board. Kittitas County chose not to be a part of the board and wanted to participate in other ways, including the 2514 Watershed Plan. Kittitas County also helped to provide a forum for WDFW and the Yakama Nation (Co-Managers) to present the Draft Subbasin Plan and receive public comment through the Kittitas County Conference of Governments	
S	**Carol Ready** Ellensburg, WA Kittitas County Water Purveyors			

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S-1	*Subbasin Plan is redundant to the Watershed Plan – but does provide a benefit*		The plan is unnecessary because of the presence of the Watershed Plan. Does believe however that the Subbasin Plan does a good job of helping synthesize all of the projects/plans information. The Plan pulls it all together.	The Yakima Watershed Plan (2514) is not a functional equivalent to the Subbasin Plan. Its primary purpose (water resources supply and management) is different than the Subbasin Plan (fish and wildlife mitigation for impacts of the Columbia Basin Hydo-system). The Watershed Plan does not address fish and wildlife protection and restoration in any direct sense, nor does it include or reference a coherent body of science on the life cycle needs of fish and wildlife based upon an examination of focal species.
S-2	*No impositions on land owners*		Wants to insure that landowners are not imposed on in this process.	Sub-plan involves willing applicants for restoration project funding
T	**M. Janet Nelson** Easton, WA			
T-1	*Chapter 1*	17	There was no discussion of the sources of DDT (a banned pesticide since 1970's) or what is currently being done to reduce or eliminate pesticides in water. The part about the solids in the water was not clear. (Found this later in Chapter 4 page 31. Should have been in the discussion above also. The info. Was much more succinct and understandable in chapter4)	Comment noted Information has been added to chapter 1.
T-2	*Chapter 4*	9	A major way that beaver are lost is when they plug up culverts on roads and become a nuisance to private landowners and county road people. They are eventually trapped, killed or removed and the wetlands they create are diminished. I would like to see studies done on ways to circumvent the plugging. I know that beaver pipes have been used in some places and wonder if there is potential for some innovative culvert design. Landowners and county governments need some education and help in dealing with	Comment noted.

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			beaver problems. Maybe a program to address this should be developed. I personally have been fighting this battle for years at Kachess Ridge Community. Most of the Lodge Creek drainage is within our community and we have significant wetlands in our 200 acre community forest. The stream goes under Via Kachess from community property through a culvert onto my property. Beaver have settled in the drainae several times in the years I have been here. They built up tremendous dams (I have seen as many as 5 or 6), enhancing the fishing, and wildlife in general, perhaps raised the water table?, and then they start to plug up the culvert. The county road crew cleaned out the culvert periodically until winter when they had the beaver trapped out. Once a long time ago, at my suggestion, they put in a screen in front of the culvert which worked but they still had the beaver trapped out. (In past years I have gotten literature from various sources on handling the problem which I have the County Road Dept.) After the beaver are gone the dams break down gradually until the stream is back to its meandering self. There were beaver in the stream again last summer and they built a dam but haven't seen any "beaverdence" so far this spring. Anyway a program to help maintain and manage beavers would go a long way to helping wetlands in general.	
T-3	*Chapter 4*	11	Not being familiar with Black Rock Reservoir: Where would it be located? Why are conservationists against it when fish and wildlife biologists and he Yakama's support it? Sounds like this is an important part of fish restoration.	Additional information has been supplied about the Black Rock project.
T-4	*Chapter 4*	32	Encouraging the use of Phosphorous free fertilize by homeowners would help with algae problems and perhaps could be used by farmers as well? ALSO: There are some agricultural programs in which Spelt is grown over winter and used as a winter forage for cattle. The spelt reaches down into the deep root area that most crops miss and uses up the fertilizers that have escaped toward the water table, helping reduce pollution and bringing the nutrients back to the surface to be recycled. This is being done on a farm near Othello by on organic beef farmer. (saw in on a tour of the area at the Othello Sandhill Crane Festival.)	Comment noted.
T-5	*Chapter 4*	48	From what I have seen, Beaver enhance the retention of snowmelt and spring water I the area behind their dams. We have year around springs, which feed the ponds the beaver create. The water is more gradually released into Lake Kachess.	Comment noted.

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T-6	*Chapter 4*	49	Brook Trout flourish in Lodge Creek when the beaver ponds are functioning. Perhaps other fish could utilize the stream also if reintroduced and Kachess Dam is made more accessible for fish. Silvers spawn there in the fall. ALSO: I would like to think there is the possibility of working with private landowners in the area to improve habitat. There is also a small dam and pond on Swamp Creek which goes into the Yakima River from Swamp Lake. It is private property and the owners may be amenable to working to enhance the habitat there.	Comment noted.
T-7	*In General*		I enjoyed reading the Draft Plan. It is full of interesting information and the management plans seem logical. It also had information helpful for understanding the SageBrush steppe and Sage Grouse better in reviewing the Wild Horse Windfarm Plan.	Comment noted. Thank you.
U	**Dave Burgess and Matt Polacek** Large Lakes Research Team			
U-1	*In General (Upper Yakima Reservoirs)*		Matt Polacek and myself attended the presentation of the Yakima Subbasin Plan in Cle Elum on the 8th of April 2004. One aspect of the plan, which we feel needs more attention, is that of the Upper Yakima Reservoirs (Cle Elum, Kachees, Kachelus, Easton, Bumping and Rimrock). We feel that it is important to include these reservoirs in the Subbasin Plan to be considered for future funding when the need arises. As development encroaches, reservoir use increases and more fish species are introduced there will most definitely be a need for future projects on the reservoirs of the Yakima Basin. Such projects are especially important if listed species or species of concern (bull trout, cutthroat trout, steelhead to name a few) associated with the operation of the Upper Yakima Reservoirs could possible affected via direct or indirect interactions. Such projects may be required sooner rather than late if we wish to remain complaint with the current version of the Wild Salmonid Policy with respect to ecological interactions. This statement is made in reference to the potential introduction of coho salmon and the proposed fish passage to be added to the Cle Elum Reservoir. Should these actions be approved and executed, it is imperative we ascertain some level of baseline data, which would permit	Not voicing their comments to Kittitas County but to forward to the YSPB Refer to pages in the Plan Comment noted. Management plan recommends similar projects. See RM&E section of the management plan.

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			future evaluations of said actions and determine if there has been a detectable impact on the aquatic community. Due to the current uncertainties in Bonneville Power Administration (BPA) Projects, funding for such projects may not be a priority. However, it is still necessary to include potential areas of study within the plan should the current fiscal status of BPA change. Furthermore, having included the upper Yakima Reservoirs within the Subbasin Plan demonstrates our commitment to these systems and that it is not merely an afterthought which will lend support when pursuing alternative funding sources such as the United States Bureau of Reclamation (USBOR). If you require anymore input regarding reservoir/large lake systems please contact us and we'd be happy to assist wherever needed. We have also sent this letter to John Easterbrooks regarding our interest in pursuing funds for projects in the Upper Yakima Basin as well as the capabilities of the Large Lakes Research Team. Once again please feel free to contact us should you have any questions or comments. Thank you for your time.	
V	**Chuck DeJournette** Yakima, WA			
V-1	*In general*		I would like to speak briefly about protective listing of salmon on West U.S. Coastal areas and inland tributaries. The basic decision positions seem to range from eliminating the Endangered Species Act to listing all migratory fishes. The effort to resolve the issue has proliferated on the West Coast for over fifty years. Historically, an early legal question was settled in Colonial times with the Great Pond Decision about public access to waters of fifty acres in size. The allowance was given to conduct business on the water or beach and to catch fish therein. More recently in California, with the endangered listing of Winter Run population of salmon, the court was asked on one hand to wait until all Populations of Oncorhynchus Tschawitscha, King Salmon, were closer to Extinction of list on Winter Run. The latter prevailed and from a low count of 191, the hatchery production at a new experimental station in Shasta Dam,	Comments noted.

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			Ca. area to over 5, 000 returning adults. The Hatchery is the Livingston Stone facility. A somewhat similar resolution rests between the Washington Bldg. Industry Association and NOAA. With the position of the Bldg. Association, one might see the foxes put in charge of the management of the chicken coop. In any case, the ESU or Evolutionary Significant Units are of importance. Since there are some who believe that hybrids and hatchery fish are not as reliable or successful in their evolutionary cycle, I prefer a definition for ESU as Ecologically Sustainable Unit which could contain populations of fish, riparian habitat, water units such as Esturarian, ocean, or spawning, including combinations of these. It is clear and obvious that all factors must be compatible and beneficial to the migratory fish or they will surely perish. Addendum: In the Columbia River, the Summer Spill should not be called a spill which indicates a loss, but a beneficial use. It is a flushing flow to aid downstream juveniles to complete their restricted journey to the sea. We should start to consider a decision to try to maintain a viable indicator species and salmon food and recreation resource, or forget migratory fish problems. The latter seems to be the preferred long term plan. Respectfully, Chuck DeJournette	
W	**Steven E. George** Moxee, WA Hop Growers of Washington WA State Dairy Federation			
W-1	*Natural River flow*		- Two concerns: A) The plan does not state how the river can be returned to natural flow conditions while maintaining our current water delivery structure. It should state that additional water supply combined with new management operations could create an opportunity for more natural type flows, but that this cannot happen without significant water supply augmentation. B) I have not seen detailed information that a so-called "natural" flow state will produce more fish than the current water flow management. It also depends on the	A) We anticipate we will need to improve the existing water delivery infrastructure to reduce conveyance loss, especially in the lower river and on the tributaries. We expect that this is a stepped

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			type of fish being produced. Our current management flow may be the best for our renowned trout fishery. While changing may enhance anadromous type fish, it could have a negative affect on those fish currently in the system.	process items for each time frame) 1)Short term actions such as purchase and transfer 2)Medium term actions such as improved efficiency of the irrigation districts and management of flow with automated system 3) Long term such as improved natural and artificial storage or development of out-of-subbasin supplies B) Historic (natural flow) conditions supported a large, self-sustaining, population, therefore as we move in that direction we expect to see higher production in the Yakima Subbasin. Changing conditions that will enhance anadromous fish may or may not negatively or positively impact resident forms.
W-2	*Basin Water Supply*		- This document should be more proactive on supporting additional water augmentation for our basin. The watershed plan supports this as the major element for moving us into the future. Additional water supply is the only element that will allow river operations to be significantly modified, and it has wide public support throughout the basin.	As pointed out in the document the watershed plan . . . whereas this plan is more focused on fish and wildlife issues and how augmentation could be beneficial for fish and wildlife production if managed for this purpose.
W-3	*Pre-development Conditions (ie.1850)*		- While I understand this term is a bench mark for what is considered a habitat recovery goal, there are some concerns surrounding it. This statement is perceived as recommending doing away with all civilized structure and moving everyone out of the basin. I would recommend that it be replaced with	We recommend that we need to establish an agreed upon benchmark that we are certain that supported large self

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			different terminology.	supporting populations of fish and wildlife, predevelopment conditions as used in the YSB is such a benchmark. and that we should establish achievable goals based on the benchmark and with existing limitations in mind. And that this benchmark is or should be used in determining whether BPA funds for fish and wildlife enhancement should be expended on a given project or strategy.
X	**David Morgan** USFWS			
X-1		ES-13	See para about passage; it only mentions 4 of 5 reservoirs re: passage barriers; ought to include Rimrock too (for BT, not sockeye)	Document will be amended to reflect this comment.
X-2	*Bull trout siting*	2-170	2nd para; don't say "anadromous form of BT not found"; instead: "the current status of anadromy in BT in the Yak B is unknown"; WDFW (Andersen) has recently seen a bull t that (based on morphological features) appeared to be smolting in Ahtanum Cr	Document will be amended to reflect this comment.
X-3	*B T abundance and local pop.*	2-171	New Recovery Criteria (not in draft BT Rec Plan) based on 2/18/04 BT Recovery Team meeting (will be in final Rec Plan, currently on hold): there are 17 (not 12) local populations in the Yak B; the estimated abundance among all local pops for migratory adults is 3500 (not bet 2550 and 3050).	Document will be amended to reflect this comment.
X-4	*Update B T data*	2-173	Please note that the BT stocks, as originally written in 1998 when BT were listed, do not reflect the most up-to-date info, and thus this page might confuse readers, esp since p 172 has the current info but does not name all 17 local pops (see previous comment). Ex: Table 2-10 has 13 pops; the 4 missing ones are: NF Tieton, Waptus L, Taenum, and Deep Cr (a local pop, not merely a tributary); also, under Teanaway R it should say "N and W fork" under core area	Document will be amended to reflect this comment. However, need further evidence on population in Taneum to include.
X-5	*Edit: BT locations*	2-178	3rd bullet- please insert " in areas such as" after the word high (b/c there may be other locations where this applies, and these are merely the two obvious examples).	Document will be amended to reflect this comment.

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X-6	*Edit BT locations Reservoirs*		3rd bullet- please insert " in areas such as" after the word high (b/c there may be other locations where this applies, and these are merely the two obvious examples). 6th bullet- this comment applies to all 5 reservoirs (no passage)	Document will be amended to reflect this comment.
X-7	*BT edits*	2-205	1st bullet- lack of passage has harmed BT too, so add a line about that 13th bullet- specifically, this applies to BT Last bullet- dewatered "seasonally"	Document will be amended to reflect this comment.
X-8	*BT siting at Prosser*	227	There was a BT sighting near Prosser w/in the last few years (not sure by whom); might want to change language	Document will be amended to reflect this comment.
X-9		242	Ditto	Document will be amended to reflect this comment.
X-10	*1SD of HRV*	4-15	Regarding the HRV approach, I like it; but you might want to spell out that in some instances managing w/in +/- 1SD of HRV might not cut it biologically (ex: for parameters that are near biological limits)	Identification of +/- 1 Standard Deviation (SD) will not be an objective of the plan. This objective is being changed.
X-11	*Black Rock Res*	4-17	Black Rock Res: I would not endorse this (yet); it might be a very good idea, or a disaster; more analysis needed- I think you should write something to that effect	Document will be amended to reflect this comment.
X-12	*Harm to BT*	4-47 HE1	Has harmed BT too	Document will be amended to reflect this comment.
X-13	*Harm to Bt*	4-55 BT2	Has harmed BT too	Comment noted.
Y	**Jim Fitch** MPAC			
Y-1	*Edit Principle # 6*	ES-5	on #6 in the Guiding Principles list (page ES-3 and elsewhere in the main report), which says: "6) That the cost of plan actions be estimated in relation to benefits. Alternatives that achieve the highest benefit/cost ratio are preferred. Costs of habitat/species restoration should be mitigated and distributed equitably;" The second sentence is technically not correct. You can only derive a ratio if you can express benefits and costs in the same measurement units. Normally, we measure costs in dollars and we try to measure benefits in dollar	At their May 12 meeting the Board amended Guiding Principle #6 to replace the term " highest cost/benefit ratio" to "highest benefits relative to costs"

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			terms. However, when it comes to environmental and habitat improvements, not all of the benefits (and perhaps not all of the costs) can be measured in dollar terms. [Technically, you might be able to place a dollar value on improved habitat if, for example, you could attribute so many additional fish to run per year, and then assign a dollar value to each additional fish. But we can seldom say how many additional fish would result, and placing a dollar value on each one is difficult because they are not necessarily going to be harvested or consumed.] Anyhow, I think you see the problem. Suggest modifying the second sentence in # 6 to read as follows: "While it is recognized that it is often difficult to place a dollar value on improvements in ecosystems and in fish and wildlife habitat, the plan will strive to choose those alternatives that provide the greatest benefits for the least cost."	
Y-2	*Clarify what is "strategy" and what is "findings" – consistency of terms refer to Wildlife (ES15 &16) for a way to clarify*	ES-12 To ES-16	The Key Findings and Management Strategies presented on pages ES-12 to ES-16 of the draft are, to my thinking, the most important pages in the report. I know that you took a long time in boiling down lengthy and detailed analyses in the main report to these five pages. In particular, as a reader I find that I do not always understand what is finding and what is strategy. Sometimes, the term "it is recommended" is used, rather than stating that something is a strategy or objective. And in some places the term "should be" is used, which leaves the feeling that something is preferable but perhaps not that important. The wording and phraseology in the wildlife section (ES-15&16) read somewhat differently from that in the fisheries section. In the wildlife part, the progression from finding to related objectives and strategies stands out more distinctly than it does in the fisheries section, and this enhances understanding. For uniformity, I recommend that pages ES-12-13-14 be re-worked to follow the same type of phraseology that is seen in the wildlife write-up.	Document will be amended to reflect this comment.
Z	**Jack Clark, YSPB** City of Kennewick			
Z-1	*Key concepts need more prominence*		Introducing some of the key concepts in the plan seems to be hidden and not strategically placed for instance "pre-settlement conditions" or "flip flop"…	Document will be amended to reflect this comment.
Z-2	*Change Table*	1-12	Table 1-3 - This table should be changed in column 5 (% Change 1990-2020) because all of the percentages reflect 1990 to 2020! There is a small area of	Document will be amended to reflect this comment.

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			the City of Kennewick within the Yakima subbasin. There is development of residential and commercial areas ongoing and will continue.	
Z-3	*re levy in W. Richland*	1-21	Floodplains and Flood Control - There is a levee built by USACOE in West Richland for flood control…could also be expanded in this area to reflect lower Yakima flood plain delta	Levees and not specifically detailed relative to their location.
Z-4	*Side-stream habitats have been ignored in plan*	1-26	Fish Resources - It should be noted that there are sidestreams (irrigation wasteways or ephemeral streams) from upland irrigation practices or other sources that enter the Yakima River system. These provide habitat for spawning, rearing and refuge. (Looks good in the management plan in Chapter 4) For the most part these particular water systems have been ignored but provide excellent habitat. There should be more information presented on this particular aspect of the river basin.	See chapter 2 (assessment). There are key uncertainties to these streams and waterways.
Z-5	*Explain "flip Flop"*	1-18 & 23	"flip flop" - This is the first time in the plan that this term is introduced…it becomes important in Chapter 2 (Fish Assessment) and Chapter 4 (Management Plan). It should have a better definition developed within the Chapter to acquaint the reader with its meaning	See definition section or definition found in chapter 2 (assessment).
Z-6	*Incomplete para.*	4-16	Page 16, I think I can begin to understand the concept of "*Water conservation for reliability versus fish habitat."*…the first paragraph under this heading needs completion	Document will be amended to reflect this comment.
Z-7	*Black Rock*		Black Rock Reservoir should not sound like an endorsement but conceptually say what its purpose and objective are! Yakima River Basin Watershed Plan did note the Black Rock Reservoir, it did look at increasing storage capacity by increasing reservoir capacity at the high elevations and some consideration of Aquifer Storage Recovery (ASR) systems for municipal drinking water.	Document will be amended to reflect this comment. Refer to response to Steve G. comments
Z-8	*"pre-settlement" explain and expand on – ifto be used as a baseline*	4	"pre-settlement conditions" - this term is first introduced in Chapter 2 (Fish Assessment page 81)…from this readers perspective the term needs more attention in this section of the document…if it is going to be used as any type of baseline indicator or starting point…also this concept if valued should also deal with wildlife side of the document.	See response H-6 . The term presettlement will be replaced by pre-1850 and will be defined more throroughly in the documents and preamble.
AA	**Jim Person** Selah, WA			
AA-1			Lives in Wenas area • Hears that salmon recovery will affect every stream, keep use hundreds of feet away from stream	The Yakima Subbasin plan is non-regulatory. Comment is noted on taxes.

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			• His taxes are up 68% because the county tax base has been reduced by land taken off the rolls • Don't know how subbasin plan relates to Critical Areas Ordinance, there always seems to be something pushing on him	
BB	**Frank Wesselius** Yakima, WA			
BB-1	*Gov. needs to allow property owners to channelize rivers*		Concerned about lack of government action and maintenance where it is needed • Salts and silt are getting the rivers because of government inaction • Property owners are unable to channel the rivers now, which is necessary because of the dams. When the state made property owners stop channelling it caused floods. Note the Naches is ¾ mile wide where it used to be 1/8 wide, causing more dirt and soil to move down the river • Headgates have to be moved back • Now there is mud in the lower Yakima because of this erosion • The ranch he rented when he was 14 to raise cattle was once 112 usable acres, now only 16 left • Advise the Board to look at government inaction, flawed science, personal and political agendas	The Subbasin plan addresses concerns regarding erosion and streambank stability (i.e. cottonwood recruitment etc.) , and recommends strategies to reverse these problems.
BB-2	**Frank Hendrix** Scientist with WSE			
BB-3	*Disagree with stated impacts of grazing on wildlife*		• The plan is based on non-scientific references • The plan says habitat is reduced by grazing. This may have been true in then past but not now. Scientific data says managed grazing is actually beneficial for wildlife • The recommendation to reduce grazing as a goal of the plan would casue of loss of $10 million in sales tax and should not happen	The ISRP will review the science used in the plan. Highly managed grazing can be compatible with fish and wildlife production if it is designed for that purpose. The plan does not call for reductions in grazing. The plan recommends improved management of grazing.
CC	**Betsy Bloomfield** Ellensburg, WA			
CC-1	*Compliment on*		Was part of the request for input on the plan, participated in the work. The	Comment Noted. Thank you.

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	draft		people who created the plan did a huge job very well.	
DD	**Cindi Confer** *WDFW*			
DD-1	*Limiting factor" "poor regulation of domestic livestock grazing… Source:.*	4-8	Two comments on the Objectives: Objective 6 –Initiate restoration should be the first objective under this source. Objective # 4 - to me reads that we are going to have grazing on 90% of public lands to improve degraded shrub steppe habitat. I assume that the objective is saying that where you do currently, or in the future, have grazing, that 90% of that grazing should be done in a way that improves habitat condition. I certainly don't expect our agency to start grazing our lands again to try and improve habitat. Also, grazing done to improve habitat is much more labor intensive than the type of grazing we have had in the past – both for the permittee and for the agency. Bottom line, this objective needs to be clarified and then looked at to see if it is realistic to achieve.	This objective has been clarified.
FF	**Dale Landon** Richland Rod & Gun Club			
FF-1	*general*		It is obvious that much time and effort has been expended on the Plan. The plan appears to be complete and comprehensive. Although, as evident from the acknowledged holes in the document, some portions will still require revision.	Comment Noted
FF-2	*Plan lacks identi-fication of short term mitigations to the effects of the non-natural hydrograph*	4	It appears that many biological and habitat problems identified in the Plan stem from the non-natural hydrograph that most reaches of the Yakima experience. The mitigation of these impacts and possible return of the stream to more natural flow conditions is heavily weighted on the improvement of irrigation management practices, and for some portions of the subbasin an out-of-basin water source. This will be the key to recovery efforts and most likely the most difficult and costly. Unfortunately, there is little provided in the tables in Section 4 on specific methods to, in the short term, mitigate impacts. Such things as reducing leakage from water transfer structures (canals) and better irrigation practices that reduce water usage and runoff can improve stream flow and water quality. Adding specific proposed mitigation measures in these instances would provide for a more easily implemented plan,	Plan identifies strategies that can be used to address this issue. Refer to the new preamble, which explains that that the prupose of this plan is to identify general strategies rather thanto be specific actions. See response to comment G-1 above.

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			although it is acknowledge that the plan likely will become more politically sensitive if specific mitigation measures were implemented.	
FF-3	*Given conflicting objectives, the Plan needs a clearer direction toward improving the viability of the ecosystem*	4-16	It is pointed out that on Page 4-16 that the benefit of water conservation is viewed differently if one looks at reliability for irrigation needs vs. protection of fish and the entire ecosystem. It is recognized that this Plan has some conflicting objectives. One is to help in the economic viability of the subbasin the other is to protect and restore the system to a viable self-sustaining ecosystem. A clearer direction is needed in the Plan to focus efforts toward improving the viability of the ecosystem and this may require some hard decisions and money to improve flows on the River. Otherwise, the decision likely will be left in the hands of the courts, which is the one thing that this Plan is trying to avoid.	The purpose of the plan is to provide direction to BPA for spending mitigation dollars. The discussion referred to points out that BPA should only spend dollars on actions that conserve water for fish.
FF-4		4-34 PR D1a nd 4-40 PR D1 A	Predation from bird populations. Predation from birds, specifically from cormorants and pelicans is having impacts to fish survival. Casual observation and from studies conducted by the Yakima-Klickitat Fisheries Project indicate that predation is significant. Currently both of these birds are protected either under state or federal protected species actions. A reassessment of protection for these birds is warranted. In particular, if population growth in the birds out numbers that for salmon. It seems counter productive to spend money on increased salmonid populations when there is an increasing population of these predatory species.	This is a non-regulatory document and it will not reassess ESA listings and other state and federal laws. Studies will continue to determine the level of impact and strategies to address the level of impact For example, information to date indicates that higher flows reduces the success of predators.
GG	**Board** South Yakima Conserv District			
GG-1	*General*		Thank you for the opportunity to provide input on the 2004 Yakima Subbasin Plan. It is apparent that you have spent a great deal of effort in a very short time to develop the plan. Given the importance of salmon and other wildlife resources to the Yakima basin and the financial resources invested in their recovery, conducting restoration efforts in a comprehensive, systematic, prioritized manner makes a great deal of sense. Yet the plan still needs a great deal of effort before it could become a viable strategy. The plan could be significantly strengthened by incorporating a balanced perspective instead of only one viewpoint, by more carefully basing	Refer to preamble to be added to Chapter 1.

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			objectives on available data, and following your own guiding principle of estimating costs in relation to benefits. *Need for balanced perspective.* In the initial draft plan reviewed by our staff, it appears that the plan was written solely by individuals focused only on protecting fish and wildlife regardless of consequences for human uses of our natural resources. This single-focus has resulted in a lack of the complex balancing act that is essential when we discuss any natural resource issues -- especially when we discuss water resources in the semi-arid portions of the basin. For example, the plan does not discuss how to balance current water uses against the amount of water needed for fish. The plan's recommendation is to "restore the normative hydrograph" rather than "restore the normative hydrograph in the Yakima River as much as possible without reducing water availability to current holders of water rights." Another example: The section on shrub-steppe habitat discusses the 60% habitat losses that have occurred since the 1800's – without explaining that increased human settlement and crop production were the causes of these habitat losses and, further, that as long as people choose to live and work in the basin, the percent of shrub-steppe habitat will remain low. After reading the plan, one gets the impression the authors would prefer to return to pre-settlement conditions, if we could just remove the humans that disrupt so much of the fish and wildlife habitat. Indeed, the frequent references to pre-settlement conditions throughout the document suggests that "return to pre-settlement conditions" is an unstated goal and value of the Board.	
	The plan objectives do not appear to be consistent with the data presented.		*Objectives not based on data.* The plan objectives do not appear to be consistent with the data presented. For example, while one of the key recommendations of the plan is to reduce temperatures in the Yakima River by increasing flows, no data are provided in the plan supporting this objective. Instead, the plan includes three references suggesting that increasing flows would **not** effectively decrease temperatures: (1) Mary Lilga's research found no relationship between temperature and flow. Instead, 70% of the variability in water temperature was explained by air temperature. (2) The temperature simulations conducted by the U.S. Geological Survey found that temperatures were *lower* in four different regulated scenarios than simulated natural	The strategies in the plan are intended to move the temperatures back to a natural regime. The studies you point out recognize that the intensity and timing of temperature alterations of temperature patterns have been dramatically altered by regulation of flow and associated infrastructure.

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	it is unclear to us how much of the information presented as "science" is simply one perspective on a complex issue		conditions in August. While the plan mentions that mean temperatures throughout the entire irrigation season were higher at Prosser and Kiona in simulated 1981 conditions than under simulated natural conditions, the plan did not include what seems an important detail – the decrease in temperature even if all uses of the reservoirs were entirely eliminated would be only approximately 1–1 ½ °C (Simulation of Streamflow Temperatures in the Yakima River Basin, Washington, April-October 1981, John J. Vaccaro, U.S. Geological Survey WRIR 85-4232, 1986, page 70). (3) Finally, page 4-18 acknowledges that "Obviously, in the pre-settlement environment the Subbasin was able to produce large amounts of salmon from these same geographic areas that had less than optimal temperatures." All of these support a hypothesis that increasing flows *per se* will not decrease temperature. The plan reaches the conclusion on page 4-18 that one key difference between pre-settlement conditions and current temperature conditions is the lack of side channel habitat, yet we were unable to find data in the plan demonstrating that existing side channel habitat in the Yakima River is cooler than the mainstem. After reading the plan, it is unclear to us how much of the information presented as "science" is simply one perspective on a complex issue. Certainly broad statements like "Suitable ecosystem attributes can be achieved by managing human interference in the natural habitat forming processes and by use of technology to support these process" (which we translate to mean there is enough water to meet both human and fish needs) sound more like an assumption and a hope rather than a statement of fact. *Lack of economic costs/benefits.* The plan did not include the economic costs and benefits as stated in the plan's guiding principles. How could the Board have decided which management alternatives were most appropriate without data on costs and benefits? We realize that in the short timeframe in which you were given to develop this complex, detailed plan, there was simply not enough time to include everyone	The plan does recognize that there were high temperature issues prior to water development, but that these conditions were largely mitigated by high degree of habitat and thermal diversity. See Stanford and Snyder Reaches Report The quoted statement applies to many aspects of ecosystem management. For example SYCD's use of technology to reduce sediment loading in the lower Yakima. Both the YSB and the BPA recognize that the plan would be greatly improved by formal economic analysis. BPA will perform further economic analysis during the Columbia Basin Fish and Wildlife Program amendment process and economic analysis will also occur during future BPA project funding cycles.

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			in the draft planning process. We hope you will see our comments as they are intended – constructive ways to strengthen your plan. Attached are additional, specific comments for your consideration. If you have questions about the comments, please feel free to contact Marie Zuroske of our staff at 837-79	
GG-2	*What will be balanced?*	ES-3	p. ES-3 "The underlying premise of the YSPB's *Mission* and *Vision* is to prepare and implement a balanced plan of action…" To what balance does this refer? The balance between competing uses of resources (e.g., water supply needed for salmonids versus water supply needed for residential, commercial, and agricultural uses)? The balance between short-term costs versus long-term benefits? Or some other balance?	The YSPB's objective is to restore fish and wildlife resources while protecting existing customs and cultures within the basin.
	Define "normative hydrograph"		p. ES-3 "That the quality of water and a near natural timing and quantity of water flow (normative hydrograph) are principle indicators of a healthy river ecosystem." The term "normative hydrograph" means different things to different people. Because "normative hydrograph" is a key concept on which several major recommendations of the plan are based, it would be helpful to define exactly what "normative hydrograph" means to you, especially as it relates to the mainstem of the Yakima River.	The sentence referred to does define what "normative hydrograph" means relative to the Yakima Subbasin Plan.
	We are especially interested in how you propose to distribute costs equitably		p. ES-3 "That the costs of plan actions be estimated in relation to benefits." And "Costs of habitat/species restoration should be mitigated and distributed equitably." These are excellent guiding principles. The costs/benefits analysis was not included in the public review draft plan but is such an important element of the plan that the analysis should be completed and the draft plan re-released for public review prior to submittal to the Northwest Power and Conservation Council. We are especially interested in how you propose to distribute costs equitably.	See response above regarding BPA economic analysis and funding cycles.
	What kind of productivity is		p. ES-3 "That balanced sustainable resources management recognizes these basic precepts: a) that the physical and biological environments are functionally interdependent relative to productivity;…" What kind of productivity? Salmonid productivity? Overall ecosystem productivity? Agricultural productivity?	Yes, productivity in its broadest sense.

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	referred to ? *The record numbers of returning salmon suggest that this scientific principle (#4) is more a value statement than science*.		p. ES-5 "Viable native fish and wildlife populations are dependent upon the natural environment and the natural processes that sustain them." If the record salmon and steelhead runs in the last few years were to continue, would this constitute a viable fish population? If so, the fish have managed to succeed even without normative flows, interconnected floodplains, extensive over-stories of cottonwoods, and the other key elements described in the plan as being essential to recovery efforts. The record numbers of returning salmon suggest that this scientific principle (#4) is more a value statement than science.	The current returns show a rebound largely because of the very normative flow conditions that occurred during the years 1996-97, and 1998 (because of the hold over flows in the reservoirs), and the more recent favorable ocean conditions. It should be noted the recent high returns are less than 10 percent of estimated historic average returns.
GG-3	*Existing agricultural irrigation practices provide the same hydrological functions as natural flow conditions*	ES-7,8	p. ES-7-8 "Under pre-development conditions, vast alluvial flood plains were connected to complex webs of braids and distributory channels. These large hydrological buffers spread and diminished peak flows, promoting infiltration of cold water into the underlying gravels." Under the current cultural practices of our agricultural-based society, are not two of the same essential functions occurring via irrigation practices? Peak flows are diminished because water is held in the reservoirs for later, widespread distribution. Water is percolated through the ground to shallow aquifers, which slowly discharge to the Yakima River. The differences in *function* appear to be less side-channel habitat and the temperature of the incoming groundwater – not diminished peak flows and a shrinking flood plain.	The current irrigation return regime does not mimic the natural hydrograph relative to timing. In addition, in the lower river there have been dramatic (over 50 percent) reductions in the quantity of flow on a yearly basis.
GG-4	*Regarding restoration of natural flow regime: again this seems a statement of hope rather than a calculated estimate based on actual experience of water management in the*	ES-12	p. ES-12 "Restoration of natural flow regime." It is our understanding that to restore the natural flow regime in the Yakima River, two changes would be required: (1) the storage of water in reservoirs would have to be eliminated or severely reduced and (2) the Yakima River would have to be allowed to flood. Yet on page ES-14, the plan states that "restoration of a normative flow regime can be accomplished by the purchase, transfer, or lease of water rights; changes in flow management, conservation; and increased natural and artificial storage." Where are the estimates of how much water can be saved by each of these activities? Again, this seems a statement of hope rather than a calculated estimate based on actual experience of water management in the	The plan does not recommend elimination of reservoirs or actions that would increase flood risks. It recommends strategies that can move towards normative flows without increasing flood hazard and impacting TWSA. Floodplain property owners are currently subjected to major flood events as occurred in 1996.

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	basin.		basin. On what basis do you believe people living and working in the floodplains will support return to "natural" flows (i.e., massive, destructive floods resulting in millions of dollars of damages)?	Restoration of floodplains will reduce flood risks to these residents.
	no data was included in the plan supporting the hypothesis that the glacial lakes could have a measurable effect on the temperature of the Yakima River.		ES-12 The plan dismisses the Bureau of Reclamation's RiverWare model as inadequate because the model does not include the effects from the glacial lakes. Yet no data was included in the plan supporting the hypothesis that the glacial lakes could have a measurable effect on the temperature of the Yakima River.	The Riverware model is not dismissed relative to its usefulness for the BOR's unique purposes. But it has its limitiations relative to the purposes of the Subbasin Plan. It is not designed to model or incorporate water quality parameters such as temperature. It is well understood that lakes have dramatic effects on downstream water temperatures. The lack of information on this effect in the Yakima Subbasin is listed as a Key Uncertainty that should receive further study.
GG-5	*Explain what would changing reservoir manage-ment levels would do re humans ?*	ES-14	p. ES-14 Changing management of reservoir levels. It would be helpful to include an explanation of what effect this recommendation would have on the amount of water available for human uses.	This questions is another Key Uncertainty that should receive further study. The comment implies that managing reservoir flows with greater consideration to fish survivability and production is not a human use, when in fact the YSB's Vision and Mission is to enhance local economies by restoring the fishery resource, a decidedly human use objective. Such management would not involuntarily alter BOR contracts

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				for delivery of water, but could engender changes in water levels for recreation and other acitvites..
GG-6	*How many enrolled tribal members*	1-11	p. 1-11 It would be more informative to include the actual numbers of enrolled tribal members in 1990 and 2000 instead of simply stating that the numbers grew.	We will request this information from the YN and if it is provided we will incorporate this information into the plan.
GG-7	*NTU's to Nephelometic* *Need to update: DDT levels in the Yakima have improved, reductions in TMDL have occurred*	1-17 ,18	The reference to NTUs (national turbidity units) should be (Nephelometric turbidity unit). p. 1-17 and 1-18 The data included on DDT and suspended sediment in the Yakima River are outdated and give the reader a false impression of actual conditions in the Yakima River. When the U.S. Geological Survey conducted its 1999 synoptic survey under the National Water-Quality Assessment Program, overall they found fewer detections and lower concentrations of DDT and its metabolites throughout the Yakima Basin. In the mainstem of the Yakima River, only one sample was detected at 0.001 ug/L. (USGS presentation to NAWQA Liason Committee, May 10, 2001; data not yet published). The reductions called for in the TMDL for suspended sediment have largely occurred. Ecology sampled the Yakima River during the irrigation season of 2003 and found 85% and 78% reductions in suspended sediment loads from Sulphur Creek Wasteway and Granger Drain, respectively. The Roza-Sunnyside Board of Joint Control has sampled the two largest sources of suspended sediment identified in the TMDL since 1997 and also found significant reductions in loads (see http://www.svid.org/wcwg.htm	This will be fixed. We are seeking an update on TMDLs from the Washington State Department of Ecology Same as above
GG-8	*Change from metric*	1-20	It would be helpful to change the units for flow from cubic meters per second to the more commonly used cubic feet per second.	We will attempt to use consistent units in the final plan.
GG-9	*Disagree that reservoir storage has reduced the frequency , magni-tude and duration of floodplain inundation*		The conclusion that "The result has been a reduction in the frequency, magnitude and duration of flood plain inundation because of reservoir storage" doesn't make sense. By applying roughly three acre-feet of irrigation water from April to October to hundreds of thousands of acres of irrigated cropland, water is applied over a larger area and for a longer duration than during pre-settlement floods.	Appling irrigation to areas that were not, and currently are not floodplain, does not mimic normal floodplain function or the ecological role of flooding in the natural formation and maintenance of fish and wildlife

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				habitat.
GG-10	*No obvious balance between improved eco-system function and protection of life and property*	1-22	"As important as floods are to bioproduction and properly functioning riverine ecosystems, they can cause damage to man-built structures and features, as well as pose a threat to human safety." While the plan includes a brief description of the damage floods can cause, in the plan's objectives related to flooding there appears to be no balancing act between the competing objectives of (1) improved ecosystem function versus (2) improved protection of human life and property.	Comment Noted. Improving ecosystem functions and protecting life and property from flooding are not competing objectives. Actually improving ecosystem function as regards riverine processes will generally, improve the protection of life and property by such effects as moderating flood characteristics, restoring shoreline stability, improving natural flood water retention capacity. .
GG-11	*We are unaware of any data supporting this statement*.	2-243	"During the summer months, a massive growth of aquatic vegetation occurs in the entire length of the mainstem in this assessment unit." We are unaware of any data supporting this statement. We have anecdotal information on the extent of growth in different reaches of the lower river but nothing detailed enough to support this statement."	Yes, there is no published document regarding this recent phenomena. However, increasing aquatic vegetation growth has been repeatedly and independently observed by lower valley residents and numerous agency personnel, including the SYCD.
GG-12	*This was probably true ten years ago, but is it still accurate?*	2-246	"Other water quality problems in the reach include…pesticide concentrations among the highest in the United States." This was probably true ten years ago, but is it still accurate? If you have recent data supporting this statement, it would be helpful to include the reference.	We lack recent data that documents water quality improvements since this date was published. We will consider any refernces that can be provided ?
GG-13	*Need to update inventory data here*	3-5	The reference to NRCS's "Wildlife Incentives Improvement Program" should be "Wildlife Habitat Improvement Program" and its status is partially complete ("on-going" would be more accurate) rather than "not yet started." Similarly, NRCS' Environmental Quality Incentives Program and WSCC's Conservation Reserve Enhancement Program are on-going rather than "not yet started	Comments Noted.
GG-	*Please improve the*	4-8	"Promote the management recommendations made by Connelly et al (2000)	All references are now included.

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14	*reference or include a summary of the report*		for livestock grazing in sage grouse habitats." Please either include the complete reference in the list of references, or even better, include a summary of Connelly's recommendations.	
GG-15	*On what basis do you believe it is possible to improve grazing practices of 50% of all private lands by 2015? Or ever?*		"Implement livestock grazing practices that improve habitat condition for all focal species on 50% of private lands by 2015." On what basis do you believe it is possible to improve grazing practices of 50% of all private lands by 2015? Or ever? Even with over $13 million of cost-share and loan money invested from 1997-2002 in the lower valley, the highest participation rate of government-funded BMPs in watersheds receiving intense scrutiny and funding was only 11% of the irrigated acres of the watershed (draft "Conservation Practices and Water Quality Trends in Sulphur Creek Wasteway and Granger Drain Watersheds, 1997-2002, South Yakima Conservation District, March 2004).	This objective has been revised. See Key Findings Table.
GG-16	*What adequate hydrology?*	4-9	p. 4-9 "Provide adequate hydrology to reconnect habitats in the regulated tributary and mainstem floodplain areas by 2015." Exactly what is "adequate hydrology?" A certain amount of water? Timing of water availability? It would be helpful to include an objective measure by which you intend to measure "adequate."	Yes, both amount of water and timing adequate to support life history needs of the species using these focal habitat.
GG-17	*Basis for 50% restoration of floodplain conditions?*	4-10	p. 4-10 On what basis was the 50% goal chosen for restoring floodplain/riparian wetland conditions? Where are the data suggesting that 50% is needed rather than 35% or 75% or some other number entirely?	This objective has been revised.
GG-18	*cottonwood stands ?*	4-11	p. 4-11 Why establish new cottonwood stands in **all** potential riparian locations? What data suggests that all locations are necessary to restore function?	This objective has been revised.
GG-19	*Within 1 SD of what temperature*?	4-15	What temperature are you assigning to pre-settlement conditions? Without identifying the temperature during pre-settlement conditions, this becomes a meaningless objective.	This objective has been revised. The Plan Will no longer utilize 1 Standard Deviation.
GG-20	*Plan should recommend removal of the "use it or lose it"*	4-16	It has been our experience that water conservation efforts will likely have little effectiveness until water laws are changed to remove the "use it or lose it" provisions. Perhaps consider adding a strategy to the recommendations to assist water uses in their legislative efforts to change what amounts to a	This issue is outside the scope of this planning effort.

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	provisions in law (i.e., relinquishment).		crippling provision.	
GG-21	*If the Wapato reach is good to excellent fish habitat- why does it need restoration?*	4-16	"This is especially true given the low temperatures of the water that pass over Wapato and Sunnyside Dam and could provide an even larger area of near normative thermal environments in this area of good to excellent habitat conditions." If the Wapato Reach is currently considered good to excellent habitat, why is this reach singled out as a high priority for *restoration* efforts on page 4-10?	The Wapato reach has good to excellent structural integrity as habitat (i.e. low amount of development, few levees, etc.) but there is loss of habitat area due to low flows and blockage of side channels
HH	**Anna Lael** Ellensburg, WA Kittitas County Conservation District			
HH-1	*Correction (?) diversion dams*	1-20	Line 11- Something is wrong with this sentence. The diversion dams on the Yakima River are not "maintaining screening structures that were installed in order to prevent upstream migration of adults…" They are allowing upstream migration and preventing entrainment.	The document will be changed to reflect this comment.
HH-2	*Coleman and Caribou creeks are referenced as historic habitat*	2-158	Figure 2-F12- The historic distribution indicated on this map doesn't fit with what I've seen in other reports. It appears that Wilson, Naneum and Cooke Creek were habitat. I've seen previous references to Coleman and Caribou Creek as historic habitat and am surprised to see that you all don't consider them historic habitat.	There is little conclusive data either way, development of benchmarks and site specific management plans for these creeks may resolve this uncertainty.
HH-3	*Map error*	2-159	Figure 2-F13. Why is there a gap in rainbow trout presence between the mouth of Cooke and Caribou Creeks and the upper reaches of those streams? That seems to be an error	We have updated the map.
HH-4	*Fish passage barriers in Teanaway and Big creek incorrect*	2-196	The figure showing fish passage barriers, etc is incomplete and possibly incorrect in the Teanaway and Big Creek. Please contact me for more information	Comments noted. WDFW is in the process of a map revision.
HH-5	*Teanaway project to reduce water*	2-201	In reference to the Teanaway River for Riparian/Flood Plain Condition and Function, Water Quantity and Water Quality:	Comment noted. This project is being added to the Inventory.

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	temps	203	The project referenced in the middle of page 201 (DOE granted funds to implement actions to reduce water temperatures) was subcontracted by Ecology to the KCCD. For a copy of the final report see: http://www.kccd.net/Current%20Projects/Teanaway%20Monitoring/Teanaway.pdf That project (Implement Actions to Reduce Water Temperatures in Teanaway) will be completed in the next month. It included tree planting in riparian and floodplain areas, water quality monitoring (sediment, flow and temperature) and on-farm irrigation improvements. Ballard ditch is no longer a gravity diversion. The landowners have converted to ring wells or other pump systems and all but one are sprinkle irrigating. There is only one other small ditch, that I am aware of that has not converted to a pump system and sprinklers in the Teanaway. There is a follow-up project, the Teanaway Basin Restoration Project, that will continue water quality monitoring, involve more tree planting, and include installation of bank revetments.	
HH-6	*Stafford creek is on north fork of Teanaway*	2-203	Stafford Creek is a tributary of the North Fork Teanaway- not the Middle Fork Teanaway	Correction made.
HH-7	*Wilson Creek group*	2-206	Does the Wilson Creek group also include Reecer, Currier and Dry Creeks	Yes, correction made.
HH-8	*Number of structures in the Wilson and Manastash creek systems*	2-209	This figure does not begin to portray the number and location irrigation diversions and other structures in the Wilson Creek or Manastash systems. We can provide some of the structure locations, but data is not yet final. At the very least, the text should mention the stream assessments currently underway in North Yakima and Kittitas Counties. We have logged over 160 miles of streams. Please contact me for additional information	Comment noted and changes made to text.
HH-9	*Additional creeks for Wilson and Cherry groups*	2-212	Table 2-F13. The Wilson Creek system should include mention of Parke, Cooke and Caribou Creeks. They are tribs to Cherry, but should be mentioned anyway- especially considering Cooke is listed as historic habitat. Also if Dry, Reecer and Currier Creeks are part of this group, they should be mentioned	Comment noted
HH-10	*Missing decimal*	2-13	A decimal point appears to be missing in the 2nd paragraph. Should be lower 2.4 miles, not 24 miles	Correction made.
HH-	*Wilson creek*	2-	The Wilson Creek group riparian zones are affected by development and	Correction made.

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11	*impactst*	215	roads, as well as agriculture	
HH-12	*Incorrect flow data on Manastash crk*	2-216	The discussion of Manastash Creek and where it goes dry in the summer months doesn't appear to be correct. Please contact us for more information	Contact made.
HH-13	*Big Creek passage barrier has been corrected*		The last two sentences of this page do not account for the project ongoing in Big Creek. The fish passage barrier has been corrected and fish screens installed by WDFW with funding from BPA. The KCCD is working with the Big Creek irrigators to install piping and sprinklers. Saved water will be dedicated to the water trust.	Correction made.
HH-14	*Update water quality project data in upper Yakima* *-no mention of wildlife and urban bacteria sources*	2-219	The water quality section should reference the current and pending TMDL activities. The Upper Yakima River Suspended Sediment and Pesticide TMDL is in the implementation phase with the first goal set for 2006. The Wilson Creek Bacteria TMDL is being developed. A temperature TMDL is proposed for next year. The bacteria discussion under the Wilson creek Group does not reference wildlife or urban runoff, both major potential sources. Substantial work is underway to identify bacteria sources and potential BMPs.	Correction made.
HH-15	*EDT not applicable to Wilson system*	2-297	EDT analysis mentioned in the first paragraph is likely not applicable to the Wilson system because the current model lacks data for the Wilson group. KCCD staff are working or trying to work with YN folks responsible for EDT in order to provide data	EDT data sets were not the only information used in making the conclusions in this paragraph.
HH-16	*Inventory has lots of errors*	3	This inventory has LOTS of errors- projects are listed multiple times, projects that were proposed but are now essentially dead are listed, some projects that are complete are listed at NYS. It would take too much time to list them all in these comments. If you'd like my input, please call me	Comment noted, major changes to inventory have occurred.
HH-17	*Using "pre-settlement as benchmark is not realistic*	4	The repeated references to pre-settlement conditions is troubling. While the need for a benchmark is understood, using pre-settlement as the benchmark and goal is not realistic. Reconnecting all the floodplain side channels is not possible- that would require removal of major interstates and other infrastructure	Use of pre-settlement conditions as a benchmark is warranted, and inclusion of objectives relative to such benchmarks is a necessary component of objectives if progress toward conditions which favor native species is to be documented. Using these conditions as a benchmark for comparison does not imply that fully attaining these

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				conditions is the goal of the plan. The Mission Statement and Guiding Principles adopted by the Board explicitly acknowledge the role of the modern economy in the subbasin. We have changed the terminology in the document to reflect these concerns. Reconnection of off-channel habitats would not necessarily require the removal of major interstates and other infrastructure, although it would require reconfiguration of those severed connections. For example, a section of !-90 in Kittitas Co,. is being revamped and in concert major historic floodplain connnections are being re-established as a part of the project.
HH-18	*Storm water is an issue, grazing is a useful tool, 50' buffer is arbitrary, remove MWH*	4-57	Stormwater runoff- Is an issue in Kittitas, as well as Ellensburg Loss of Riparian Zone in creek from grazing - Fencing of the riparian areas is a useful tool for re-establishing vegetation, but grazing should not be restricted as it too is a useful tool in managing those areas. Also, the 50' buffer is an arbitrary choice that does not allow flexibility based on the specific conditions at a site. The last row of this table references working with BPA and MWH. MWH should be removed as they are not the only engineering option for addressing diversions	Comment Noted. Unrestricted grazing would not be a useful management tool,.. We are unaware of scientific data that indicates the utility of buffers less than 50 feet in width for fish and wildlife habitat, which is the purpose of this plan. Lesser buffers could be funded from other funding sources.
II	**J. Eric Glover** Yakima, WA			

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II-1	*General Comments*		The Yakima Subbasin Plan often discusses the concept of restoring "normative flows" or "a more normative hydrograph" in describing its overall ecosystem recovery strategy or vision. Reclamation would like to emphasize the point that the term "normative" should be viewed from both a natural and a cultural standpoint. For example, the Independent Scientific Group (ISG) convened by the Northwest Power Planning Council (NPPC) recommended that normative ecosystems be viewed from a natural-cultural perspective and suggested that human development and its consequences be considered integral parts of the ecosystem (ISG 1999). Reclamation, therefore, recommends that any discussion of normative ecosystems consider this natural-cultural perspective that balances the needs of natural resources with the needs of human development and public interests. There are several statements in your document like the following: "Manage the system differently" or "change flip-flop". It might be reasonable to add a statement somewhere that indicates that Reclamation would need to effect such changes if these changes are related to the Yakima Project. Before such changes could occur, analyses would be required to evaluate effects on project operations and current Reclamation obligations. Federal laws and regulations would also apply prior to any such changes (e.g., NEPA). Normally, such a process would not begin without a formal request to Reclamation for the proposed change	Comment noted. See the Vision and Guiding Principles in Chapter 4 for references to normative flows and maintenance of the culture, customs and economy of the Yakima Subbasin.
II-2	*Perhaps the YSPB should factor in the status of threatened species in their cost/benefit analysis of proposed projects so that additional consideration is given to potential projects that will benefit these critical stocks in the*	ES-3,	**Guiding Principle 6** states that "alternatives that achieve the highest benefit/cost ratio are preferred." Does the Yakima Subbasin Plan intend to give equal weight to all species of salmon and steelhead when determining the cost/benefit ratio of proposed projects or will threatened species be given additional consideration even though cost/benefit ratios may not be as high for these species? An example of this can be illustrated by the Ecosystem Diagnosis and Treatment (EDT) analysis of restoration value or production value of modeled reaches in the Yakima River Basin. In the EDT analysis the reach with the highest restoration value is one of the lower Yakima River mainstem reaches. According to this analysis, restoration of this reach would produce the greatest percentage increase in returning adult salmon when compared to all other reaches. However, the majority of fish produced in this reach as a result of restoration activities are thought to be fall Chinook, a	Restoration of this reach would have the largest impact on the overall abundance and productivity of anadromous fish in the Yakima Basin. This is primarily due the large number of life histories which use this reach, and the environmental conditions within the reach with restrict or eliminate the full expression of those life histories in this reach. So the benefit of restoring this reach is large across several

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	Yakima River Basin		species that is currently doing fairly well in this basin. Restoration of this reach will do little to improve the status of steelhead, which are listed as threatened. Perhaps the YSPB should factor in the status of threatened species in their cost/benefit analysis of proposed projects so that additional consideration is given to potential projects that will benefit these critical stocks in the Yakima River Basin.	species. Increasing survival in this reach can be expected to benefit the watershed as a whole, including listed species.
II-3	*Consider habitat "blocking" give priority to Key habitat areas with willing sellers*	ES-3	**Guiding Principles:** Consideration should be given for habitat "blocking" to increase the likelihood of achieving proper function. Key areas with many willing sellers of high value habitat should probably be given higher priority than areas with few willing sellers.	Comment noted
II-4	*Clarify statements*	ES=5	**Scientific Conceptual Foundation of the Yakima Subbasin Plan:** The Yakima Subbasin Plan states that "Suitable ecosystem attributes can be achieved by managing human interference in the natural habitat forming processes and by use of technology to support those processes. The use of technology to circumvent natural ecological processes should be avoided, if possible." These two sentences appear to be contradictory and the term "use of technology" is not defined. The meaning and purpose of these sentences are very unclear and confusing to the reader as currently worded. By "use of technology" are you referring to artificial production from hatcheries? Please clarify this section.	The language has been modified to reduce the confusion.
II-5	*Clarify statement*	ES-6	**Scientific Conceptual Foundation of the Yakima Subbasin Plan:** Principle 11 states, "A thorough threats assessment separates the stresses or factors impinging on target viability from the sources of stress or anthropogenic causes of impairment." This statement is poorly worded and needs clarification.	This statement has been modified.
II-6	*Do a sockeye pilot project on one reservoir first*	ES-14	The objective to reintroduce sockeye to two reservoir systems by 2007 does not appear to be realistic. A pilot project on one reservoir before work commences on a second reservoir may be preferred. Making possible mistakes during the implementation on two reservoirs at once may not be the best approach given the high cost of this type of project.	This objective has been changed to reflect this comment.
II-7	*More balanced discussion on human impacts to fishery*	1-11 1-14	A more balanced discussion of the wide variety of human impacts to the fishery is needed. This discussion should include a lengthy review of diking, highway development and disconnection of side-channel habitat, gravel mining impacts, railroad development, and home construction and other	This section of the document is the overview of the subbasin and describes the general characteristics of the basin, and

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			development in the floodplains. Data exists and can be found in Eitemiller et. al. (2002)	is not a discussion of the causal factors for fish decline.
II-8	*Sockeye- changes in reservoir operations in most cases cannot correct access problems associated with low tributary flows*	2-205	**Key Findings:** The findings suggest that for sockeye introduction to be successful, access to tributary habitat is essential, and that management of reservoir water levels can create obstructions to access of tributaries for bull trout spawning migrations. It should be noted that under most conditions bull trout migrate into the spawning tributaries. Problems have arisen at some sites during drought years when reservoirs are drawn down and flows in the spawning tributaries are quite low. Changes in reservoir operations could not correct possible access problems associated with low tributary flows. Given that sockeye spawning run timing is May through August, a thorough discussion of possible reservoir management issues associated with reintroduction of sockeye should be included earlier in Chapter 2. (See also Page 2-202.) More detail is needed regarding specific management modifications that might be needed for successful sockeye introduction.	Sockeye reintroduction and the associated impacts are recognized as a Key Uncertainty in the plan and will be the focus of further study.
II-9	*Need more detail on flow augmentation*	2-20	**Key Findings:** Low flow reduces/eliminates habitat availability/quality/diversity, including impacts to riparian plant community maintenance and establishment. This finding needs additional detail. According to our records, several reaches in the assessment unit have higher than natural flows during seasons of the year, and flow augmentation in those areas would not likely constitute a normative implementation measure. More detail on specific areas, or reaches is needed and more detail on which months of the year flow augmentation measures are desirable should be determined. Similar information is needed for both the Naches and Yakima Rivers.	Such information and additional maps have been added to Chapter 2.
II-10	*Higher predation risk at Wanawish dam than at Prosser dam*	2-247	**Key Findings:** Predation risk to salmonids is high at Prosser Diversion Dam. Our understanding has been that the risk is even higher at Wanawish Dam. Clarification is needed here.	Read the text for clarification of the issues at Prosser Dam.
II-11	*INVENTORY SECTION (Chap 3)*	3-7	Yakima River Basin Water Enhancement Project is ongoing and will continue for several more years (2015 and beyond). Funding is provided by Reclamation and Washington State, and not by BPA at least at this point in	Comment noted

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			time.	
II-12	*MANAGEMENT PLAN (Chapter 4)* *Re: the reduction of peak flows on the Natches during flip flop*	4-16 ?	**Background on Subbasin-specific Aquatic Objectives and Strategies:** In this section the document indicates that water conserved below Union Gap would reduce peak flows on the Naches River during flip-flop. This would only occur as a result of conservation between Parker Diversion Dam and the mouth of the Naches River and the benefit could be moderated by the need to meet increased target flows over Parker Diversion Dam due to the same conservation actions.	By reducing demand from the WIP and SVID diversions, the flows required to be routed through the Naches to meet demand would necessarily be reduced, regardless of conservation measures upstream of that point.
II-13	*There are legal considerations and implications related to moderating flip flop, as well as, in any current year, considerations regarding the coming year*	4-17	"Flip-flop" flow management was historically developed in response to Federal Court Rulings (Quackenbush) and was endorsed in certain State Court Rulings (Acquavella). Legal considerations and implications with respect to the modification of "flip-flop" are necessary in this discussion. In the discussion about moderating flip/flop based on Total Water Supply Available (TWSA) estimates it should be recognized that the flip/flop operation was developed to address concerns about refilling the reservoirs while protecting spring Chinook redds. As such it is basically a "forward" looking operation and the risks associated with moderating flip/flop in any one year are more associated with precipitation and runoff in the coming winter than TWSA estimates for the current year. While a good TWSA estimate in the spring may indicate lower risk to refill the following winter, the risk associated with not being able to predict the next winter's precipitation still needs to be taken into account.	The discussion of "flip flop" has been greatly expanded to provide many different perspectives on this flow management regime.
II-14	*Modifying river operations for cottonwood regeneration*	4-17	There is a discussion of the potential for modifying river operations in excellent water years to enhance cottonwood regeneration on the Naches River. It is suggested that this modification could occur on the order of once every 20 years to maintain cottonwood regeneration. The modification is described as a reduction in flip/flop but flows during the flip/flop period in September and October would not apparently be altered on either the Naches or Yakima arms of the system. Rather the proposal calls for flows on the Naches arm to be higher in the early summer than flows would be during the subsequent September/October flip/flop period. It should be noted that flows in the lower Naches River, below the mouth of the Tieton River, are generally	The proposal calls for managing the pattern of flows in the spring to allow for cottonwood establishment, which may require minor modifications in flow management.

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			higher in the spring and early summer than flip/flop flows that fall. This appears to always be the case in excellent water years when TWSA is high. By late spring to early summer the lower Naches is only minimally regulated and high flows exist above those seen during September until natural runoff subsides. As such it appears that no modification in river operations would be needed to meet the outlined goal for black cottonwood regeneration	
II-15	*It appears incorrect to conclude that steelhead passage was blocked at Roza for an extended period*	4-19	It is stated that "that the Upper Yakima was blocked to Steelhead passage for several (fish) generations" but no citation is provided. While there has been speculation to that effect, Reclamation is unaware of any data that is definitive with respect to this issue. There is some salmon passage data available for Roza Dam from the early 1950's that shows that steelhead did pass Roza Dam after the end of the irrigation season as well as in the early spring. These data indicate that steelhead were, at most, blocked to passage for short periods each year, and were not blocked completely for several successive years. As such it appears incorrect to conclude that steelhead passage was blocked at Roza for an extended period	Text has been modified to reflect this.
II-16	"*Gap to Gap*"	4-25	Specific mention of the ongoing Gap-to-Gap improvement project is justified here. Parties may need funding assistance from BPA in the future for project improvements	The Yakima River Basin Water Enhancement Project (YRBWEP) is mentioned in the Inventory section.
II-17	*COMMENTS ON SPECIFIC FINDINGS* *Perform a sockeye pilot project on just one reservoir first*	4-24	**Key Finding – Basin Wide Watershed and Ecosystem Processes (KS 2)** The objective to reintroduce sockeye to two reservoir systems by 2007 does not appear to be realistic. A pilot project on one reservoir before work commences on a second reservoir may be preferred. Making possible mistakes during the implementation on two reservoirs at once may not be the best approach given the high cost of this type of project	See above.
II-18	*Set TWSA targets for elimination of flip flop.*	4-24	**Key Finding – Basin Wide Watershed and Ecosystem Processes (BW):** Set TWSA targets for reduction/elimination of flip-flop. TWSA targets are currently formulated and allocated as ordered under the federal 1945 Consent Decree. This allocation and formulation process was endorsed under the Acquavella Adjudication process by the Yakima County Superior Court	Comment noted. The Plan anticipates that a water availability event that satisfies all needs for TWSA and increased flexibility for flow management would be a relatively rare occasion.

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II-19	*Which flow fluctuations : hourly, diurnal, or longer ? Examine fluctuations to see if they are a problem.*	4-31	**Key Finding – Lower Yakima Habitat (F4) :** Does this refer to a reduction in the hourly (or even shorter) flow fluctuations, diurnal fluctuations, or fluctuation which occur on a longer periodicity? Hydrographs for the lower Yakima River should be examined to determine to what extent fluctuations are a potential problem. As noted elsewhere in the table, SOAC (SOAC 1999) did examine fluctuations at Parker Dam and found them to be significant relative to the base flows. At Granger, however, fluctuations on a daily basis are relatively minor (Reclamation 2000), generally on the order of 1-2%.	The text refers to daily or weekly flow fluctuations.
II-20	*Fluctuations at Parker appear to be from upstream reaches rather than at Wapato*	4-36	**Key Finding – Mid Yakima Floodplain (F4):** Fluctuations at Parker appear to be generated in upstream reaches of the river rather than as a result of Wapato and Sunnyside Diversion operations. Fluctuations of a magnitude similar to what is seen at Parker are in evidence at Umtanum and Roza (Reclamation 2000).	The text has been changed.
II-21	*Take care when extrapolating bull trout studies from steeper gradient streams to the Yakima tribs*	4-41	**Key Finding – Mid Yakima Floodplain Biological: Key Uncertainties (BT 6) :** Care should be taken in extrapolating results from other north central Washington mid-Columbia tributary bull trout studies to the Yakima. Streams like the Wenatchee River and Methow River are considerably steeper than the Yakima River. For example, Lake Wenatchee, which contains adfluvial bull trout, is located at about river mile 54 on the Wenatchee River. River mile 54 on the Yakima River is near the Yakima-Benton County line, about 60-70 miles downstream of the closest bull trout spawning area. In fact, on the Wenatchee River, most of the identified bull trout spawning areas are less than 100 miles from the Columbia River while on the Yakima they are mostly 150-200 miles upstream.	Comment noted. Determining the relationship between use of the lower river and distance to spawning habitat would be accomplished by implementation of the recommended study.
II-22	*Why not a fish ladder on Wenas dam instead of dam removal ?*	4-45	**Key Finding – L Elevation Tributaries Habitat – Key Uncertainties (A4):** Does Wenas Creek have sufficient annual flow above Wenas Dam to support steelhead? Why not a fish ladder alternative rather than or as well as dam removal?	We have changed this objective. Evidence indicates that Wenas does have sufficient flow (i.e longer flow duration than Satus Creek which supports a healthy population) to have supported steelhead, and currently does support rainbow trout.
II-23	*Clarify the finding*	4-49	**Key Finding – H Elevation Yakima – Biological (BT4):** It is unclear	Text has been changed.

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	re Box Canyon or Gold Creek		whether this finding deals with Box Canyon Creek or Gold Creek. The hypothesis refers to the lack of connection between the Box Canyon Creek populations and other bull trout populations outside of the Keechelus basin. The Box Canyon Creek population of bull trout is connected to the Mineral/Kachess River population in the Kachess Reservoir basin whereas the Gold Creek population is the only population in Keechelus Reservoir basin	
II-24	*Methods to eliminate brook trout from bull trout habitat may result in undue and excessive harm to bull trout populations*	4-49 4-55 4-61	**Key Finding – H Elevation Yakima – Biological (GEN1) – Page 4-49 (also Mid and H Elevation Naches – Biological (Gen1) :** Competition and interbreeding with brook trout has reduced bull trout population viability. The subbasin plan calls for eliminating brook trout from presently occupied or suitable bull trout habitat. This biological objective and strategy (selective removal) is not likely feasible without further damaging sympatric bull trout populations. Methods to eliminate brook trout from bull trout habitat may result in undue and excessive harm to bull trout populations in these areas	Comment noted. This action was based on discussion with Yakima Basin bull trout Management Unit Team as the least invasive method of brook trout removal.
II-25	*Sockeye reintroduction ?*	4-55	**Key Finding – Mid Elevation Naches Biological – Key Uncertainties (Gen3):** Kokanee genetics could interact with reintroduced sockeye salmon in Rimrock Reservoir. Sockeye salmon are not to our knowledge, planned for reintroduction into Rimrock Reservoir. Passage facilities at Tieton Dam have never been planned or suggested at this location	This concern is more related to the known escape of kokanee from Rimrock and the potential effect of these fish interbreeding with introduced sockeye populations in the watershed.
II-26	*Regarding rainbow young of the year growth rates*	4-60	**Key Finding – Mid Elevation Yakima – Biological (St14):** This refers to young- of-the-year growth rates for juvenile rainbow trout. Pearsons and Leider (1994) looked at the abundance of rainbow trout in the upper Yakima basin and compared the Yakima rainbow trout densities to other streams in the region. They found that the rainbow trout densities in the Yakima were lower than in other streams and speculated, due the low numbers of young-of-the-year fish captured in their sampling, that this could be due to poor young-of-the-year survival, although they did not actually measure survival rates. They speculated that the lower survival might be due to flow related factors but cautioned that "further research needs to be conducted prior to any statements about carrying capacity of limiting factors can be adequately addressed or discussed." They also reported that the difference in rainbow trout densities between the Yakima River and the other rivers included in their review may be explained by the relatively low productivity in the Yakima River. They reported that total dissolved solid levels, to which productivity is directly	Comment noted. The plan calls for further research on the productivity of the Upper Yakima, especially for young of the year fish.

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			related, were higher in the other river basins by a factor of 2 to 6 times in comparison to the Yakima.	
II-27	*BOR disagrees that habitat availability limits spring Chinook productivity*		Key Finding – Mid Elevation Yakima – Biological – Key Uncertainties (P0P1b) – Page 4-60: **Spring Chinook population is currently limited by habitat availability. Reclamation disagrees with this assertion. In addition, the YSPB should further identify which life stage they are referring to in relation to this assertion.**	Spring Chinook populations have not expanded as anticipated in the design of the CESRF supplementation plan. The plan recognizes that habitat availability is a possible reason for this lack of response and suggests further study. All Key Uncertainties in the plan, such as in this case, call for further study prior to implementation of actions.
II-28	*To save $$, can trial introduction be completed without committing to passage facilities?*	4-16	**Key Finding – H Elevation Naches Habitat – Key Uncertainties (NE2):** Habitat surveys, trial introduction to tributaries to determine spawning success. Can trial introduction be completed without committing to passage facilities? This could allow the testing of viability of reintroduction without the loss of millions of taxpayer dollars for possibly ineffective passage facilities.	Yes, trap and haul operations or involuntary spawning of adults in selected reaches would allow this type of assessment prior to investing in passage facilities.
JJ	**Jim Milton** Coordinator TCWRA			
JJ-1	*Include previous PowerPoint diagrams showing how documents such as YWP, LFA, SBP etc. are integrated*		The July 1, 2002 contract between BPA and the Council to implement Subbasin Planning was based upon the 2000 amendments to the NW Power Act. These amendments included expanding the role of local governments, interest groups and stakeholder and other state and federal land and water resources managers over traditional planning efforts by fish and wildlife co-managers. The DRAFT Plan reflects the fact that the Yakima Subbasin Fish and Wildlife Planning Board has benefited from the participation of members who were also active in development of the Watershed Management Plan Yakima River Basin, January 2003. These members have provided a broad understanding of both efforts and how they are integrated and can complement each other. The same may not be true of others who might read this plan without the same background. Others might not appreciate how much these plans	Comment noted We are working on such a diagram for inclusion.

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			complement each other and help provide broad based citizen support for the Subbasin Plan. Others have raised concern, about the "balance" of this Subbasin Plan with respect to trade-offs in water use and the resultant social or economic impacts. Furthermore how this Plan might impact the future of the basin given such planning terms as "pre-settlement conditions" and the desire for more "normative flows." Together the Watershed Plan and Subbasin Plan provide not just for fish and wildlife enhancement but also for future municipal and industrial water supply, and for reliability of irrigation water supply and for water quality Past presentations to the TCWRA Board, by Subbasin Plan participants, have included a power point presentation with diagrams of how the Watershed Plan, which addresses water supply, water quality and habitat, and the Subbasin Plan fit together. Also included were other related planning efforts, such as Limiting Habitat Factors Analysis, and related funding provided by the Salmon Recovery Board. It would be very helpful to include such a diagram in the Subbasin Plan and an explanation on how the various planning and implementation efforts complement each other and are integrated. This might not only help public understanding of how these planning efforts work together but how, together, they provide a degree of "balance" in providing a better future for the citizens and fish and wildlife of the basin.	
KK	**Pat Monk** Ellensburg, WA Fisheries Biologist			
KK-1	*General*		Thank you for the opportunity to comment on the report. Overall the report is well organized and readable. The approach of segregating the basin in to more or less homogeneous environments, and choosing key species to represent those environments, is well done and makes sense. In some cases the report appeared to rely on dated sources, with little emphasis on gathering new information. Following are comments on specific portions of the report	
KK-2	*RSJBOC-TMDLs*	1-17	The lower Yakima suspended sediment and pesticide TMDL has been implemented by the Roza-Sunnyside Board of Joint Control. The project has	Comment noted, the text is changed.

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			resulted in improved water temperatures (http://www.svid.org/wcwg.htm	
KK-3	*Water temp from reservoir releases not from hypolimnion*	1-19	The discussion on water temperature is based on a **false premise. Yakima Basin storage reservoirs do not release water from the hypolimnion (except Rimrock).** It's not clear the author uses the correct definition of *hypolimnion: The layer of water in a thermally stratified lake that lies below the thermocline, is noncirculating, and remains perpetually cold.* Yakima basin reservoirs were constructed on the top of old lakes. Basically the dams were built right at the lake outlets, putting a layer of water on top of the old lake. The dams release water from about 30-100 feet below the water surface, and the water surface is constantly drawn down while releases are being made. The hypolimnion remains in the old lake, below the level of the release gates. There is no ability to release cold water from the deepest levels of the reservoirs (excepting Rimrock). Your conceptualization of water temperatures, and factors affecting them, is highly speculative and it should not directly form the basis for any management actions. The speculative water temperature scenarios you describe inspire low confidence. A review of water quality studies, and a new water temperature modeling effort, are appropriate activities given the lack of certainty regarding the current information.	We believe that at least two of the three reservoirs, Cle Elum and Kechellus, include areas downstream of the old lake outlets, and the lake outlets were modified and deepened to maximize the amount of drawdown available for these reservoirs. Otherwise these reservoirs would have low pool levels which approximate the natural lake levels prior to dam construction, which they do not have. The text has been altered to reflect a better description of the release patterns, but for at least part of the year, water temperature at depths of 30-100 feet below the surface would be significantly colder that the natural lake outlet temperature. We agree that a new water temperature modeling effort is warranted, and should be performed prior to implementation of any further management actions to modify existing thermal regimes.
KK-4	*Accurate est. of historic runs*	1-26	Historic runs to the Yakima Basin were estimated from 200,000 +. The previous subbasin summary discussed a number of historic abundance estimates for each run, recognizing the speculative nature of the figures. The subbasin summary prepared by Berg (2001) is recommended as a source for a more comprehensive treatment of this subject.	The text has been clarified, species specific numbers can be found in Chapter 2.

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KK-5	*Vague judgment re "dev/natural balance since 1850"*	1-34	It's really unclear what is meant by a statement such as "Development since 1850 has not produced a balance in the natural and cultural elements of the ecosystem..." This is vague, purely a value judgment, not a scientific concept. What is meant by balance? Is there some ideal human population density, or some appropriate amount of water appropriation (just enough, not too much), or some okay numbers of ponderosa pines per acre of riparian zone?	Comment noted, the text has been altered.
KK-6	*It is very unlikely that the statement "the historical spawning distribut-ion of summer steelhead included virtually all accessible portions of the Yakima Basin" …is true.*		The issue of environmental gradients (1-36) is well described in the report, and while the overview of steelhead (2-157) is very good, the concept is dropped when discussing historic distribution of steelhead. For example, in many places in the report (example on 2-157, 2-262), the following phrase appears: "...the historical spawning distribution of summer steelhead included virtually all accessible portions of the Yakima Basin..." This makes absolutely no sense. Yakima Basin streams range from over 4,000 down to 400 feet in elevation above sea level. With all of the geologic, hydrologic, and climatic changes that occur over such a wide range of habitat types, steelheads, which have specific habitat requirements, would not be found spawning or rearing throughout a watershed with such a variety of habitats. Your maps of historic steelhead distribution also reflect this problem, putting steelhead in to bull trout spawning and early rearing habitat, waters that are too cold for steelhead production. **Table 2-F4**. These numbers are not steelhead redds, but adult escapement	Comment noted. The historic distribution of steelhead does present special problems in that it would not be unexpected for the resident forms of rainbow trout to occupy the upper range of the species. The text in the map and body of the document has been changed. Comment noted.
KK-7	*Mid-December bull trout spawning ? ?*	2-175	I don't believe there's evidence of **Yakima** bull trout stocks spawning as late as mid-December.	Comment noted, the text has been changed.
KK-8	*Bull trout not limited by spawning habitat availablity*	2-178	Key Findings For Bull Trout. Bull trout **are not limited by spawning habitat availability**. You have not demonstrated bull trout are spawning habitat limited, or provided any references to support the assertion, which appears in many places throughout the report. The factor limiting bull trout production is typically juvenile rearing habitat. There's an enormous amount of literature on this topic. Spawning habitat rarely limits salmonids with a long term (1-2 years), stream-obligate rearing phase, such as bull trout, rainbow trout, spring chinook, or coho. Rather, juvenile rearing habitat typically limits such populations. This is a fundamental concept in salmonid ecology.	We agree that, in general, bull trout populations are limited by juvenile rearing habitat, but that does not preclude the possibility that a specific population (as mentioned in the text) can be spawning habitat limited, especially where that habitat is also subjected to high levels of harassment.

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			I have attached a report on bull trout critical habitat factors, you may feel free to use any portion of the discussion or graphs.	
KK-9	*Add key finding on Sockeye: lack of passage to lakes*	2-186	One key finding for sockeye you might want to include is the lack of fish passage to lake habitats.	It is included in several key findings in other locations in the document.
KK-10	*Discussion on water temp is suspect*	2-246	Again, your discussion of water temperatures is suspect. All the factors you suggest play a role, however the dominant factor affecting water temperatures is air temperature. Somewhat higher temperatures than what are expected? This doesn't make sense.	Comment noted The text has been altered to better reflect the intent.
KK-11	*Update discussion on lower Naches*	2-269	The discussion of the lower Naches is dated. The USBR purchased the power plant, and subordinated power production to instream flows, alleviating the problem you identify with summer low flows. The is no longer a "bypass reach	This project is not currently fully implemented, but the text is out of date and has been revised.