

# John Day

## Review Summary

The John Day Subbasin Plan is a good start, but it is not complete. Generally, it is responsive to the Council's Subbasin Planning Technical Guide and is consistent with the eight principles of the Council's 2000 Fish and Wildlife Program. The plan lacks an analysis of the trajectories of ecosystem change, its synthesis of existing information from the basin is incomplete, and a weak monitoring and data management program make it unlikely that the plan will effectively achieve its conservation and restoration goals. The late start in preparing the plan was a major hindrance, especially in the John Day where face-to-face discussion with stakeholders is important to work through differences and reach consensus on issues.

The Assessment overview provides a good general context for fish and wildlife resources in the John Day subbasin and for its economic base. It is one of the better assessment overviews; however, some information that belongs in the overview and assessment is found in the Management Plan and in the presentation on bull trout. Discussion of future trends and outcomes, and discussion of the effects of ocean conditions are weak or missing.

The Assessment is generally well done for the ESA listed species, but incomplete in the treatment of resident aquatic focal species. The text does not adequately discuss the status and ecology of terrestrial wildlife and plants. The plan omits large amounts of existing information on aquatic and terrestrial ecosystems in the John Day basin.

Although the Assessment provides a general discussion of the effect of the environment on fish and wildlife, it is brief and did not include important information from published research done in the John Day Basin. Quantitative analyses and syntheses are incomplete or lacking for aquatic species.

The Assessment provides a general description of the subbasin and its fish and wildlife species. The John Day planners did address viability needs for some aquatic species, but they should make a greater effort in determining what each species is likely to need to persist (core and sub-populations, connectivity, distribution, population sizes etc.) as a basis for assessing alternatives to meet these needs and to establish program priorities. Historical and future conditions are not assessed rigorously. EDT analyses are incomplete and QHA analyses are missing for aquatic focal species. Overall, the Assessment does not provide an adequate basis for planning the conservation and restoration of aquatic resources. The Assessment is relatively complete for terrestrial resources.

The Inventory contains thorough lists of projects, but the effectiveness of projects and their remaining gaps need to be better assessed and summarized. Some information on socio-economic issues is given in the Management Plan.

# Review Checklist

<p><b>I. The Subbasin Assessment</b>          (See generally pages 4-6, 9-10 of the Technical Guide; the checklist is derived from 18-24 of the Technical Guide.)          Reviewers should consider the soundness, completeness, analytical approach, and transparency (documentation of methods and decision-making process) of the following components of a subbasin assessment.</p>			
<p><b>I. A. Subbasin Overview</b>  <i>General Question to be addressed: Does the assessment provide the geographical, demographical, and environmental context for fish and wildlife resources in this subbasin? The Council specifically asked that the independent scientific review evaluate whether the subbasin assessment was thorough and substantially complete. The following checklist is to aid reviewers in that determination.</i></p>			
<p><b>I. A.1. General Description</b></p>		<p>(Y)es, (P)artial, (N)o</p>	<p>Need for additional treatment (0-4)</p>
I.A.1.1	<p>Does the assessment provide a general orientation to the subbasin (location, size, distinguishing natural and cultural features, land use, land ownership) and an overview of jurisdictional authorities (state, county, federal lands, tribal lands and fishing rights)?</p>		
	<p>Reviewers: The Assessment gives an adequate description of the subbasin's location, natural features, and a good general orientation to land ownership and land uses throughout the subbasin. There is a good general description of the economic base of the subbasin. The plan does not provide an adequate discussion of jurisdictional authorities or tribal fishing rights.</p> <p>The plan should discuss existing policy statements reported in the plan within the context of its planning objectives. Examples of what they should discuss include: "... allow management to maximize productivity of timberlands, " and " ... preserve agricultural lands and agriculture."</p>	Yes	1
I.A.1.2	<p>Does the assessment provide a general description of the subbasin's macro-environment (geology, climate and weather, land cover, vegetation) and of the subbasin's water resources (hydrography and watersheds, hydrologic regimes, water quality, riparian and wetland resources), water uses, and modifications to water resources (hydropower projects and operations, water diversions, channel modifications)?</p>		
	<p>Reviewers: The physical environment is briefly but adequately described in a section on water resources and hydrologic trends. The Assessment includes a discussion of water quality and a listing of 303(d) listed streams. However, the description of changes in timing and magnitude of stream flow is too brief and does not adequately describe historical changes.</p>	Yes	1
I.A.1.3	<p>Does the assessment provide a general description of anthropogenic disturbances to the aquatic and terrestrial environment, organized by the source of disturbance (urbanization, agriculture, forest practices, water development, mining, transportation, and other)?</p>		

<p>Reviewers: Anthropogenic disturbances are described briefly in the subbasin description and regional context section. The description of environmental conditions for bull trout is the first place that the plan adequately describes historical and current land use and resource use. If appropriate, the discussion on the effect of disturbances on bull trout should be generalized and put it into the overview section. We note that Table 7 has the same information as Table 6.</p>	<p>Yes</p>	<p>2</p>	
<p>I.A.1.4</p>	<p>Does the assessment provide a list of native and non-native fish and wildlife species present in this subbasin including those species that:</p> <ul style="list-style-type: none"> <li>a. have been designated as threatened or endangered under the Federal Endangered Species Act or state equivalents,</li> <li>b. have been recognized by applicable federal, state, or local resource management agencies, or by the Nature Conservancy or state heritage program, as being especially rare or significant in the local area,</li> <li>c. have special ecological importance within the subbasin,</li> <li>d. are recognized by Native American tribes as having special cultural or spiritual significance, or</li> <li>e. are not native to this subbasin?</li> </ul>		
<p>Reviewers: The assessment provides a list of species that are state or federally listed or have importance to American Indian tribes; however, other ecologically important species such as sculpins, suckers, and amphibians, are not discussed except as included in the list of native species.</p>	<p>Yes</p>	<p>0</p>	
<p>I.A.1.5</p>	<p>Does the assessment identify plants that have been designated as threatened or endangered under the Federal Endangered Species Act or state equivalents, and/or that are recognized by Native American tribes as having special cultural or spiritual significance, or (optional) that have special ecological importance within the subbasin?</p>		
<p>Reviewers: The Assessment describes plant species that have been identified as threatened or endangered by the federal ESA or the state.</p>	<p>Yes</p>	<p>0</p>	
<p><b>I.A.2. Subbasin in the Regional Context</b></p>		<p><i>(Y)es, (P)artial, (N)o</i></p>	<p><i>Need for additional treatment (0-4)</i></p>
<p>I.A.2.1</p>	<p>Does the assessment describe how this subbasin fits within its regional context (size in relation to the total Columbia Basin, placement within the ecological province and relationship to other subbasins in this province, qualities that distinguish this subbasin from others in the province)?</p>		
<p>Reviewers: The description of the subbasin within a regional context and important ecological functions of the subbasin within the region are adequate. The Assessment clearly identifies unique characteristics of the John Day basin and their importance for the region.</p>	<p>Yes</p>	<p>0</p>	
<p>I.A.2.2</p>	<p>Does the assessment describe this subbasin's relationship to Endangered Species Act planning units (NOAA Fisheries-designated evolutionarily significant units (ESU) and U.S. Fish and Wildlife Service-designated bull trout planning units.<sup>1</sup>) where this information was available during the planning process?</p>		

<sup>1</sup> The USFWS bull trout planning hierarchy includes, from large areas to small, distinct population segments, recovery units, recovery sub-units, core populations, core areas, and local populations. A subbasin would typically correspond to a recovery unit or sub-unit.)

<p>Reviewers: This section of the Assessment is excellent for anadromous fish and gives a better discussion of their relationship to ESU units than most other plans. However, the presentation is not adequate for terrestrial species. Terrestrial issues from the Walla Walla and Lower Snake subbasins are referenced and this information should be considered for relevance to the John Day subbasin.</p>	<p>Yes</p>	<p>1</p>
<p>I.A.2.3</p>	<p>Does the assessment summarize external environmental conditions that might have an effect on fish and/or wildlife in this subbasin (the ocean, the estuary, the mainstem downstream from the subbasin, and, as relevant, upstream areas and adjacent subbasins)?</p>	
<p>Reviewers: The Assessment discusses linkages to the mainstem Columbia and briefly discusses ocean and estuary conditions. The plan should discuss how the effects of external factors would be distinguished from the effects of restoration activities in the basin. Models used by PFMC, ODFW, and NMFS could contribute to such an analysis. The effects of climate are discussed in a later section.</p>	<p>Yes</p>	<p>2</p>
<p>I.A.2.4</p>	<p>Does the assessment identify macroclimate and human occupation and use trends that may affect hydrological or ecological processes in this subbasin over the long-term (50 years into the future and beyond)?</p>	
<p>Reviewers: The discussion of trends in human actions in the overview and regional context is extremely weak. The future is not considered except in the section on bull trout and at the start of the Management Plan. This information should be in the Assessment. Future trends in water and land use are not adequately discussed.</p>	<p>Yes</p>	<p>2</p>
	<p><b>Summary comments and evaluation on the Subbasin Overview:</b> Does the assessment provide the geographical, demographical, and environmental context for fish and wildlife resources in this subbasin?</p>	
<p>Reviewers: The Assessment overview provides a good general context for fish and wildlife resources in the basin. It is one of the better assessment overviews, however some information that belongs in the overview and Assessment is found in the Management Plan and in the presentation on bull trout. Elements that are weak or missing are future trends and outcomes, and ocean conditions.</p>	<p>Yes</p>	<p>2</p>

<b>I.B. Species Characterization and Status</b>		
<p><i>General question: Does the assessment adequately describe the current status of fish and wildlife focal species?</i></p> <p>Note to reviewers: for this section of the review, the checklist should be applied to each focal species. Please identify which species your evaluation applies to in the comment field. Use the ranking fields (Y,P,N; 0-4) to give an overall evaluation across all focal species. Note differences among approaches to species in the comment field. If necessary, once the plans are received, assignments will be made to cover an individual species or a series of focal species.</p>	<p>(Y)es, (P)artial, (N)o</p>	<p><i>Need for additional treatment (0-4)</i></p>
<p>I.B.1. Does the assessment identify a series of focal species that will be used to characterize the status of fish and wildlife species within the subbasin? These should include one or more wildlife, resident fish, and, where present, anadromous fish species. Anadromous fish may also be included in subbasins where they were historically present and where there is a reasonable probability that these fish could be restored to sustainable levels. Criteria suggested for selecting focal species include a) designation as Federal endangered or threatened species, b) local ecological significance,<sup>2</sup> and c) cultural significance.</p>		
<p>Reviewers: The Assessment identifies five aquatic species and eleven terrestrial species based on ESA or state listings, cultural importance to American Indian tribes, ecological importance, or value as game species.</p> <p>The Assessment adequately describes the status and ecology of the focal aquatic species: Chinook salmon, steelhead trout, redband trout, westslope cutthroat trout, and bull trout. The plan could consider an assessment of native species that are not anadromous or subject to human harvest such as sculpins or suckers. The degradation of major terrestrial habitat types since Euro-American settlement is described.</p>	<p>Yes</p>	<p>1</p>
<p>I.B.2. Does the assessment identify and characterize focal species populations; i.e. delineate unique population units and, as applicable and where information is available, meta-populations, subpopulations and/or other genetic/behavioral groupings used by scientists or managers?</p>		
<p>Reviewers: The Assessment provides an adequate characterization of the populations of aquatic focal species, given the availability of data. The characterizations of wildlife species are more general (Appendix D), and plant populations are briefly discussed. Data on VSP parameters are provided for the listed species: steelhead, spring chinook, and bull trout. This level of detail may not be available for the other aquatic and terrestrial focal species.</p>	<p>Yes</p>	<p>?</p>
<p>I.B.3. Does the assessment describe the current and historic status of each focal species population and summarize available population data (abundance, productivity, spatial structure, etc., with particular emphasis on trend data)?</p>		

<sup>2</sup> Species that could be considered under the ecological significance criterion might include those that: a) are particularly rare within the subbasin (regardless of ESA classification), or b) perform a particularly important or unique ecological function.

Reviewers: The Assessment provides good coverage of steelhead, spring chinook, and bull trout. However, resident fish-bearing streams are not assessed through the use of QHA or other assessment models, apparently because of a lack of time. The plan omits large amounts of existing information on aquatic and terrestrial ecosystems in the John Day subbasin.	Partial	2
I.B.4. Does the assessment describe the population's life history, including identifying distinct life stages?		
Reviewers: Again, the Assessment provides good coverage of steelhead, spring chinook, and bull trout. For other species, generic life histories are given. For these species, the Assessment needs more specificity.	Partial	2
I.B.5. Does the assessment characterize the genetic diversity of the population, especially regarding possible effects of artificial production? Specifically does the assessment describe the historic and current status of introductions, artificial production, or captive breeding programs in this subbasin or affecting the subbasin through straying or other means, and describe the relationship between the artificial and naturally produced populations?		
Reviewers: There are no anadromous hatchery introductions in the John Day Subbasin. The available genetic information for salmonids is analyzed to determine the effects of declines on diversity. The genetic integrity of redband trout and trout hatchery programs are well described. This type of information is not generally available for terrestrial focal species. Again, there may be more information available in the published literature.	Yes	?
I.B.6. Does the assessment describe historic and current harvest, including both in-subbasin harvest and downstream or ocean harvest affecting the focal species?		
Reviewers: Harvest of aquatic focal species is briefly described. The historical and current harvest practices are described but not in detail. Information on resident species is incomplete. Harvest of various terrestrial focal species is described in Appendix D.	Partial	2
<b>Summary comments and evaluation on the Species Characterization and Status Subsection:</b> Does the assessment adequately describe the current status of fish and wildlife focal species?		
Reviewers: The Assessment is generally well done for ESA listed species, but incomplete in the treatment of resident aquatic focal species. The text does not adequately discuss the status and ecology of terrestrial wildlife and plants. The plan omits large amounts of existing information on aquatic and terrestrial ecosystems in the John Day subbasin.	Partial	2

### I.C. Environmental Conditions

*General question to be addressed: Does the assessment adequately describe the effect of the environment on fish and wildlife populations?*

<b>I.C.1. Environmental Conditions within the Subbasin</b>		<i>(Y)es, (P)artial, (N)o</i>	<i>Need for additional treatment (0-4)</i>
I.C.1.1	Does the assessment describe the current condition of the environment in this subbasin, and characterize the condition of the environment under the following reference conditions: a) historic, <sup>3</sup> b) potential, <sup>4</sup> c) future/no new action, <sup>5</sup> and the potential condition of aquatic and terrestrial habitats within the subbasin? Does the assessment include a determination of the difference between current conditions and the various reference conditions?		
Reviewers: The historical and current condition of the environment is described specifically for redband and westslope cutthroat trout. Expected future conditions are not described. Analysis by EDT is not completed for anadromous focal species, apparently because of a lack of time. Similarly, resident focal species are not analyzed by QHA. The terrestrial assessment is strictly habitat oriented.		?	3
I.C.1.2	Does the assessment classify 6 <sup>th</sup> field HUCs (or other appropriate assessment units) within the subbasin according to the degree to which each area has been modified and the potential for restoration?		
Reviewers: An assessment is conducted on 5 <sup>th</sup> field HUCs. Some tables are presented, but the plan is based on incomplete analyses, and needs to be completed with discussion and synthesis of the information.		Partial	3
<b>I.C.2. Out-of-Subbasin Effects and Assumptions</b>			
I.C.2.1	Does the assessment identify factors outside of the subbasin that have a significant effect on each focal species, with particular attention to bottlenecks? These might include effects associated with upstream conditions, downstream conditions, and, in the case of migratory wildlife, conditions in adjacent subbasins. Outside effects are particularly relevant for anadromous fish and may include mainstem passage and habitat, estuary conditions, ocean conditions, and harvest.		
Reviewers: The Assessment refers to TOAST for out-of-subbasin effects. Categories of external effects are listed with brief explanations. The plan should more completely evaluate how the effects of external factors will be distinguished from the effects of restoration activities in the basin.		Partial	2
I.C.2.2	For each focal species, does the assessment establish assumptions for each external effect that can be used to calculate the effects of external conditions on the productivity and sustainability of fish and wildlife within this subbasin?		
Reviewers: The presentation is too brief. EDT analyses need to be completed specifically for predictions on out-of-subbasin effects.		Partial	2

<sup>3</sup> The historic condition refers to the state of the environment at the time of European settlement, or 1850.

<sup>4</sup> The potential condition is defined as the optimal condition for the subbasin in the year 2050, but it acknowledges cultural modifications that are not reversible such as urbanization.

<sup>5</sup> The future/no new action condition is the state of the environment in 2050 assuming that current trends and current management continues.

<b>I.C.3. Environment / Population Relationships</b>		
For each focal species, does the assessment identify, for each life stage, environmental factors that are particularly important for the species' survival and determine the characteristics that constitute optimal conditions for species health? Does the assessment describe and make a finding regarding the environment's ability to provide such optimal conditions, or conditions that support the long-term viability of these populations.		
Reviewers: The Assessment identifies key environmental factors related to the survival of different life history stages for each aquatic focal species. However, in general, the assessment needs more synthesis. The bull trout discussion is based on the recovery plan and it was well done. The Assessment is well done for terrestrial focal species in Appendix D. The plan should have reviewed the results of past habitat restoration projects in the John Day subbasin.	Partial	3
<b>Summary comments and evaluation on the Environmental Conditions Section:</b> Does the assessment adequately describe the effect of the environment on fish and wildlife populations?		
Reviewers: The Assessment provides a general discussion of the effect of the environment on fish and wildlife though it is brief and has not included some important information and results of publications from the John Day basin. Quantitative analyses and syntheses are incomplete or lacking for aquatic species.	Partial	2
<b>I.D. Ecological Relationships</b>		
<i>Question to be addressed: Does the assessment describe the key inter-species relationships and the key functional relationships?</i>	(Y)es, (P)artial, (N)o	<i>Need for additional treatment (0-4)</i>
<b>I.D.1. Inter-species Relationships</b>		
Does the assessment identify important inter-species relationships or interactions, both positive and negative, with specific attention to relationships between anadromous fish and wildlife and specifically identify: 1) wildlife species and habitats that may be influenced, positively or negatively through direct effects of changes in fish abundance or fish community composition; 2) fish species and habitats that may be influenced, positively or negatively, through direct effects of changes in wildlife abundance or wildlife community composition; and 3) key species relationships within this subbasin based on the above?		
Reviewers: Inter-species interactions are briefly discussed separately for fish and for wildlife, however the discussion of inter-species interactions of fish and wildlife species is too brief. Smallmouth bass are identified as a non-native competitor, but one that has socio-economic benefits. However, the plan should show the ecological costs of smallmouth bass as well.	Partial	2
<b>I.D.2. Processes and Functions</b>		
Does the assessment identify key ecological functions for species within this subbasin and assess the current status of ecological processes and functions in the subbasin?		

Reviewers: Key ecological functions are further discussed in the management plan. The presentation is good for terrestrial species, but weak for aquatic species. The links between terrestrial and riparian habitat are noted and should be developed more completely.	Yes	2
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<b>I.E. Interpretation and Synthesis / Limiting Factors and Conditions</b>		
<b>I.E.1. Limiting Factors and Conditions</b>		
Does the assessment describe: <b>1) Historic factors or conditions</b> that led to the decline of each focal species and of ecological functions and processes? <b>2) Current key factors or conditions</b> within and without the subbasin that inhibit populations and ecological processes and functions relative to their potential.		
Reviewers: EDT is used to identify limiting factors for anadromous species, but time limitations prevented all reaches from being assessed. Only 889 reaches of the 1266 total stream reaches were rated for habitat quality using 24 attributes. Limiting factors are described in more detail for some species by 5th field watersheds in appendices G through K. QHA analysis is not conducted for resident focal aquatic species.	Partial	3
<b>I.E.2. Key Findings</b>		
Is the knowledge gained through the assessment synthesized in regard to: 1) the status of species, 2) the status of the subbasin environment, 3) the biological performance of focal species in relationship to the environment, 4) the health of the overall ecosystem, 5) potential conflicts and compatibilities between individual species and ecological processes, 6) a determination of the key factors that impede this subbasin from reaching optimal ecological functioning and biological performance?		
Reviewers: The Assessment needs more discussion on points 3, 4, 5, and especially 6. Some of this information is included in the management plan in the working hypothesis/desired conditions/objectives/strategies section. There is not enough basic information provided in the Assessment to complete a proper synthesis.	Partial	3
<b>I.E.3. Subbasin-wide Key Assumptions/Uncertainties (“Working Hypothesis”)</b>		
Does the assessment describe the key assumptions (including uncertainties) that have been made in the “Key Findings” above, and document the data sources and/or analytical tools relied upon?		
Reviewers: The key factors and assumptions are listed. Uncertainties are not clearly identified. It is difficult to determine the sources of the information.	Partial	2

	<p><b>Overall impression and evaluation of the Assessment:</b>  Does the assessment adequately synthesize the information regarding the health and functioning of this subbasin ecosystem? Does it adequately: a) bring together the single-species and community assessments to form a holistic view of the subbasin’s biological and environmental resources, b) provide a foundation for the development of scientific hypotheses concerning ecological behavior and the ways that human intervention might prove beneficial? As needed elaborate on your evaluation of the various Sections enumerated above. If the plan provides additional analysis beyond what is laid out above in the checklist please comment here (e.g., socio-economic descriptions or analysis).</p>		
Reviewers: The Assessment provides a general description of the subbasin and fish and wildlife species. It should, however, make a greater effort in determining what each species (especially ESA species) is likely to need (core and sub-populations, connectivity, distribution, population sizes etc.) to persist. Historical and future conditions are not assessed rigorously. EDT analyses are incomplete and QHA analyses are missing for aquatic focal species. Overall, the assessment is not adequate for planning for aquatic resources. It is relatively complete for terrestrial resources.	Partial	3	

<p><b>II. The Inventory</b>  <i>(This checklist section was developed from pages 11-12 of the Technical Guide.)</i>  Reviewers should consider the soundness, completeness, analytical approach, and transparency (documentation of methods and decision-making process) of the following components of a subbasin inventory, specifically whether the inventory includes an assessment of the adequacy of current legal protections, plans, and projects to protect and restore fish, wildlife, and ecosystem resources. Does the inventory adequately synthesize past activities and their biological achievements? Planners were requested to, as applicable, describe the extent to which these programs and activities extend beyond the subbasin to a larger scale (provincial and basin-wide).</p>			
<b>II.A. Existing Protection</b>		(Y)es, (P)artial, (N)o	Need for additional treatment (0-4)
II.A.1	Does the inventory identify areas with protections through stream buffers, municipal or county ordinances, conservation designations, or water resources protection?		
Reviewers:	The inventories are thorough but not spatially explicit. Maps would be helpful.	Yes	1
II.A.2	Does the inventory assess the adequacy of protections for fish, wildlife, and ecosystem resources?		
Reviewers:	The extensiveness existing protections is assessed, but not their adequacy. Many of the subbasins have had problems with this, so assessing the extensiveness of existing protections is a good start.	No	3
<b>II.B. Existing Plans</b>			
II.B.1	Does the inventory identify and review applicable local, state, tribal, and/or federal fish and/or wildlife management plans and water resource management plans that affect fish and wildlife?		
Reviewers:	The Inventory provides an extensive list and discussion of existing programs.	Yes	0

II.B.2	Does the inventory assess the extent to which existing plans are consistent with the subbasin assessment and their adequacy in protecting and restoring fish, wildlife, and ecosystem resources? (It is possible that this analysis is done in another section of the plan, e.g. in the management plan.)		
Reviewers: Major programs are listed, but the plan is awaiting the results of other planning (e.g. TMDL) before assessing consistency.		No	3
<b>II.C. Management Programs / Restoration and Coordination Projects</b>			
Does the inventory identify management programs implemented through on-the-ground restoration and conservation projects that target fish and wildlife or otherwise provide substantial benefit to fish and wildlife? These include, at a minimum, those implemented within the past five years regardless of funding source.			
II.C.1	Does the inventory identify ongoing or planned public and private management programs or initiatives that have a significant effect on fish, wildlife, water resources, riparian areas, and/or upland areas? <sup>6</sup>		
Reviewers: Programs and projects are listed and described.		Yes	0
II.C.2	For each management program (or project where not clearly part of an overarching management program), does the inventory describe the program, project or activity; identify the management or lead entity; identify how the program/project was authorized and who is responsible for implementation; identify the funding source; and identify the relationship to other activities in the subbasin?		
Reviewers: Programs are listed, but inter-relationships are not adequately summarized.		Yes	1
II.C.3	For each management program (or project where not clearly part of an overarching management program), does the inventory identify limiting factors or ecological processes the activity is designed to address?		
Reviewers: Programs and projects are given in Appendix L, but many do not address limiting factors. Some information is given in the management plan. Better organization is needed.		Yes	1
II.C.4	For each management program (or project where not clearly part of an overarching management program), does the inventory summarize accomplishments/failures of activity		
Reviewers: Appendix L lists some project outputs but not an evaluation of project outcomes. No specific assessments of failures or successes are given. Some past projects are associated with current biological strategies, which is a bit confusing. As is the case in most subbasin plans, failures are not listed.		Partial	3
II.C.5	Does the inventory relate the assessment to the existing activities and identify the gaps between actions that have already been taken or are underway and additional actions that are needed to address the limiting factors and meet recovery and other goals, and identify inadequacies in both design and implementation?		
Reviewers: Gaps are pretty well described for each of the program categories. Some data, assessment, and effectiveness evaluation needs are identified, but gaps need to be tied to limiting factors.		Partial	1

<sup>6</sup> Among other programs, the Technical Guide requested for artificial production programs that the inventory include and summarize relevant HGMPs (both BPA-funded and non-BPA funded programs) and Council APRE evaluations?

<p><b>Overall impression and evaluation of the Inventory:</b> As needed elaborate on your evaluation of the various Sections enumerated above. If the plan provides additional information or analysis beyond what is laid out above in the checklist please comment here (e.g., socio-economic descriptions or analysis).</p>		
<p>Reviewers: Lists of projects in the Inventory are thorough, but the effectiveness of projects and the remaining gaps need to be better assessed and summarized. Some information on socio-economic issues is given in the Management Plan.</p>	<p>Yes</p>	<p>1</p>

<p><b>III. The Management Plan</b> <i>(Derived from pages 12-16 of the Technical Guide.)</i> Reviewers should consider the soundness, completeness, analytical approach, and transparency (documentation of methods and decision-making process) of the following components of a subbasin management plan.</p> <p>These checklist tables incorporate Council Question 4, Consistency with the Provincial- and Basin-level Program: Are the vision, objectives, and strategies proposed in the subbasin management plan consistent with those adopted in the program for the province and/or basin levels? This is a three-part question and reviewers must be familiar with the vision, objectives, and strategies described in the 2000 Fish and Wildlife Program (pp. 13-33) and, for mainstem subbasin plans, the Mainstem Amendments (pp.11-28).</p>		
<p><b>III.A. The Vision for the Subbasin</b> Does the Vision Section of the Management Plan 1) describe the desired future condition for the subbasin; 2) describe a vision that will drive development of the biological objectives and thereby the strategies that are incorporated to change conditions within the subbasin; and 3) incorporate the conditions, values and priorities of the subbasin in a manner that is consistent with the Vision described in the Council’s 2000 Fish and Wildlife Program? (Council Question 4 to the ISRP):</p>	<p>(Yes, (P)artial, (N)o</p>	<p>Need for additional treatment (0-4)</p>
<p>Reviewers: A vision for the John Day subbasin is provided. Some of the information in the section on human use that immediately follows the vision should be in the overview.</p>	<p>Yes</p>	<p>1</p>
<p><b>III.B. Biological Objectives</b> Does the Biological Objectives Section of the Management Plan describe physical and biological changes within the subbasin needed to achieve the vision?</p>		
<p>Reviewers: Objectives are given, but they are vague and not as useful as they could be. Many of the objectives really describe tasks to be accomplished; they do not describe what those tasks will achieve. The terrestrial objectives are better developed than the aquatic objectives.</p>	<p>Yes</p>	<p>?</p>
<p>III.B.1. Are the biological objectives consistent with basin-level visions, objectives, and strategies adopted in the program? (Council Question 4) The 2000 Fish and Wildlife Program, pages 16-18, provides general descriptions for basin-level goals, objectives, and strategies. The Mainstem Amendments provide additional biological objectives as well on pages 11-14.<sup>7</sup></p>		
<p>Reviewers: Some of the objectives are vague, but in general, the plan is evaluating the subbasin from an ecosystem point of view.</p>	<p>Yes</p>	<p>0</p>
<p>III.B.2. Are the biological objectives based on the subbasin assessment? (This question relates to the Logic Path in the subbasin plan. Question III.C.1 is a similar question for the Strategies Section.)</p>		

<sup>7</sup> Given the Fish and Wildlife Program’s emphasis on building from subbasin level management plans upward into provincial and basin level objectives, reviewers should evaluate whether the plans have a framework that will facilitate the development and linkage of objectives from the subbasin to the province to the basin.

Reviewers: The objectives are directly related to the limiting factors identified in the assessment. Some of the information presented in this section should be in the Assessment sections. This section should present more synthesis of the Assessment information.	Yes	2
III.B.3. Where possible, are the biological objectives empirically measurable and based on an explicit scientific rationale; i.e., quantitative with measurable outcomes?		
Reviewers: Some anadromous fish escapement objectives have quantitative targets, as do some habitat objectives. There are no quantitative targets in the objectives for other species.	Partial	2
III.B.4. Are biological objectives identified for both the short and long-term?		
Reviewers: The plan indicates that site potential is to be achieved within 50 years and measurable objectives achieved at decadal intervals. Some specific objectives are described for 2010, but not for the 50-year horizon. Few subbasin plans have done this effectively.	Yes	2
III.B.5. Are the biological objectives complementary to programs of tribal, state and federal land or water quality management agencies in the subbasin?		
Reviewers: On-going programs are described in general and generally appear to be consistent.	Yes	0
III.B.6. <i>Clean Water Act</i> : Does the management plan describe how the objectives and strategies are reflective of and integrated with the water quality management plan and Total Maximum Daily Load schedule within that particular state? I.e., does this subsection of the management plan assess and describe the consistency-coordination-findings of the Water Quality Plan with the subbasin plan? <sup>8</sup>		
Reviewers: The Management Plan discusses links to the TMDL process in several sections of the plan and the TMDL staff is involved in preparing the plan.	Yes	0
III.B.7. <i>Endangered Species Act</i> : The USFWS and NOAA Fisheries are developing recovery plans for listed species (bull trout, white sturgeon, salmon). Recognizing that those ESA-based efforts are in various states of completion across the Columbia basin (some efforts are well underway, others just beginning), does the management plan describe how the objectives of the subbasin management plan are reflective of and integrated with the ESA-based goals for listed species within the subbasin? <sup>9</sup>		
Reviewers: Aquatic focal species are oriented toward ESA recovery actions. The Management Plan does not adequately describe links between objectives for aquatic species and ESA-based goals, though the objectives are roughly similar.	Yes	1

<sup>8</sup> *Clean Water Act*: The Water Quality Management Plans developed for watersheds within each state includes the following information: 1) Management measures tied to attainment of TMDL; 2) Timeline for implementation; 3) Timeline for attainment of Water Quality Standards; 4) Identification of responsible parties; 5) Reasonable assurance of implementation; and 6) Monitoring and evaluation. The status of Total Maximum Daily Loads (TMDLs) is generally the responsibility of the state, which is delegated the responsibility for implementing the CWA. Each state has a schedule for completing TMDLs, which include a Water Quality Management Plan that describes how the allocations in the TMDL will be met. Basic information on TMDL's can generally be found on the web (see Resources).

<sup>9</sup> E.g. NOAA Fisheries has provided interim targets in a letter from NOAA Fisheries to the Council, Bob Lohn to Larry Cassidy: [http://www.nwcouncil.org/library/2002/nmfstargets2002\\_0404.pdf](http://www.nwcouncil.org/library/2002/nmfstargets2002_0404.pdf).

III.B.8. If there are disagreements among co-managers that translate into differing biological objectives, are the differences and the alternative biological objectives fully presented? (The Council’s review will examine whether the plan is consistent with legal rights and obligations of fish and wildlife agencies and tribes with jurisdiction over fish and wildlife in the subbasin, and agreed upon by co-managers in the subbasin.)		
Reviewers: There is no specific mention of disagreements among co-managers. The involvement of tribal representatives and others is acknowledged in the subbasin plan development process.	No	3

<b>III. C. Strategies<sup>10</sup></b>		
III.C.1. <b>Internal Consistency of the Plan.</b> Does the Strategies Section of the Management Plan explain the linkage of the strategies to the subbasin biological objectives, vision and the subbasin assessment? (Council Questions 2 and 3) <sup>11</sup>		
Reviewers: Strategies are general and are linked to the limiting factors identified. This is done both in the Management Plan and in Appendices G-K. Explicit linkage of strategies, objectives, and visions is not included in the plan.	Partial	3
III.C.2. <b>Consistency with the Fish and Wildlife Program.</b> Are the Strategies proposed in the subbasin management plan consistent with those adopted in the program? (Council Question 4)		
Reviewers: In general, the strategies are consistent with the program.	Yes	1
III.C.3. <b>Consideration of Alternative Management Responses.</b> Does the Strategies Section explain how and why the strategies presented were selected over other alternative strategies (e.g. passive restoration strategies v. intervention strategies)? (Council Question 5) <sup>12</sup>		
Reviewers: Brief justification of strategies is presented in the Management Plan, but alternative responses are not discussed.	No	3
III.C.4. <b>Prioritization.</b> Does the Strategies Section describe a proposed sequence and prioritization of strategies?		

<sup>10</sup> *Definition:* Strategies are sets of actions to accomplish the biological objectives. Strategies are not projects but instead are the guidance for development of projects as part of the implementation plan. Strategies identified within the subbasin plans will be used as a basis for Council recommendations to the Bonneville Power Administration regarding project funding. Proposed measures will be evaluated for consistency with biological objectives and strategies. The strategies may be organized by categories of habitat, artificial production, harvest, hydrosystem passage and operations, and wildlife.

<sup>11</sup> This is one of the most important review questions. The set of seven questions from Council asks the ISRP to evaluate the internal consistency, scientific soundness, and thoroughness of subbasin plans. Internal consistency means there is scientific support for the conclusion that the strategies proposed in a subbasin plan will in fact address the problems identified by the subbasin assessment; i.e., does the Strategies Section take into account not only the desired outcomes, but also the physical and biological realities of the subbasin environment. The ISRP’s Subbasin Plan Logic Path flow chart, attached below, provides a straightforward illustration of the logic path reviewers should look for in subbasin plans. Rick Williams, ISRP chair, developed and has presented this flow chart to subbasin planners around the basin, emphasizing the importance that subbasin plans demonstrate a clear logic path.

<sup>12</sup> The 2000 Fish and Wildlife Program directs that the subbasin management plan’s strategy section must include an explanation of how and why the strategies presented were selected over other alternative strategies (e.g. passive restoration strategies v. intervention strategies). The Council does not expect subbasin plans to be structured like an Environmental Impact Statement with a list of alternative actions and descriptions of why each were not recommended. The Council’s primary interest is on why and how a strategy was selected -- the rationale for the selected strategy -- which necessary includes some discussion of alternatives.

Reviewers: Strategies to address various objectives by watershed area are prioritized in Appendices G-K. No prioritization is given between species or populations.	Partial	2
III.C.5. <b>Additional Assessment Needs.</b> Does the Strategies Section describe, if necessary, additional steps required to compile more complete or detailed assessment?		
Reviewers: Data gaps are identified. There is a general assessment of future needs. The plan states the need for more analysis by EDT, but more discussion is needed given the incomplete nature of the analysis.	Yes	1
III.C.6. <b>Clean Water Act:</b> Does the management plan describe how the strategies are reflective of and integrated with the water quality management plan and Total Maximum Daily Load schedule within that particular state?		
Reviewers: The plan appears to be consistent with the TMDL process. The TMDL analysis will be complete in 2006. Refinement of this plan should try to integrate with the TMDL allocations for the John Day subbasin.	Yes	0
III.C.7. <b>Endangered Species Act:</b> Recognizing that ESA-based efforts are in various states of completion across the Columbia basin, does the management plan describe how the strategies of the subbasin management plan are reflective of and integrated with the ESA-based goals for listed species within the subbasin?		
Reviewers: The management plan describes the ESA goals for species and how they are related to objectives and strategies, but could have gone into more detail.	Yes	1

### III.D. Research, Monitoring, and Evaluation

This RME Checklist Section provides the review elements necessary for the ISRP/ISAB to answer *Council Question 6. Plan for Assessing Progress toward Subbasin Goals*. The ISRP/ISAB is asked to determine whether a subbasin plan includes a procedure for assessing how well subbasin objectives are being met over time. This question focuses on accountability and self-assessment, and reflects on the adequacy of the Management Plan's research, monitoring and evaluation component. This RME component needs to be closely connected to a limiting factors analysis and the biological and environmental objectives. A prioritized RME agenda reflecting the critical uncertainties and limiting factors should be developed and presented with the detail requested below (Technical Guide pp. 14-16). *NOTE: The focus of the RME component should be on the strategy level rather than individual project level.*

Subbasin planners were encouraged to incorporate, or link their RME framework and strategies with the "regional" RM&E strategies being developed by the Pacific Northwest Aquatic Monitoring Partnership and the Columbia Basin-Wide Research, Monitoring and Evaluation (RM&E) Program, a coordinated effort developed by State, Federal, and Tribal entities in response to the Basin-wide Salmon Recovery Strategy 2000 and the FCRPS 2000 Biological Opinion. Products from these regional RME efforts could be used to meet elements of a subbasin plan's RME section (Technical Guide pp. 14-16), particularly in the areas of monitoring protocols and methodologies. The subbasin plan should also explain how they incorporated existing monitoring guidance from state programs.

III.D.1	<b>Research:</b> Does the RME section of the plan describe a research agenda with specific conditions and situations identified in the subbasin that will require specific research studies to help resolve management uncertainties? Is the research agenda framed around the relationships between the assessment data and the stated vision, biological objectives, and strategies in describing uncertainties? Does the RME section prioritize research topics that are of critical importance to the subbasin?	(Y)es, (P)artial, (N)o	<i>Need for additional treatment (0-4)</i>
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Reviewers: The research portion of the RME section is incomplete with only general statements about needs. They state that time was inadequate to complete the RME section of the plan.	No	3
III.D.2	<b>Monitoring Objectives:</b> Does the RME subsection identify what kind of information needs to be collected in order to determine if the plan's vision and objectives are being met? I.e., what indicator variables will be monitored?	
Reviewers: The RME identifies information needs and areas of insufficient information in very general terms. The section is incomplete.	Partial	3
III.D.3	<b>Monitoring Indicators:</b> Does the RME subsection identify measurable indicators of physical, chemical, biological, or socioeconomic conditions that may act as environmental signposts by which progress towards achieving the stated vision can be evaluated? E.g., does the RME subsection describe performance standards or quantitative benchmarks for reference conditions against which observations can be compared? Does the plan prioritize which indicators are most needed to answer management questions (include a short list)?	
Reviewers: Measurable indicators are not given, but there seems to be a strategy to complete the section. The Pacific Coastal Salmon Recovery Data Dictionary project is referenced, but no details are given. The data dictionary project has worked extensively to define and articulate protocols for data collection and formatting.	Partial	3
III.D.4	<b>Data and Information Archive:</b> Does the RME subsection describe an infrastructure to archive relevant data and meta data generated through monitoring efforts in existence for the subbasin (e.g., locally or at a regional Fish and Wildlife Program funded database such as StreamNet, the Fish Passage Center, or DART)? Specifically, does the RME subsection include discussion of quality assurance/quality control (QA/QC), data management and analysis, and data reporting?	
Reviewers: Data management is not discussed.	No	3
III.D.5	<b>Coordination and Implementation:</b> Does the RME subsection describe who will collect the information and data collection methods whether collection is done by a subbasin, provincial, state, or a regional entity, or a combination of entities? This should include a description of coordination with regional RME efforts in the basin (Regional Partnership, Action Agencies Research, Monitoring, and Evaluation Plan, etc) with standardization of data methods. It should also include estimates of how much the proposed M and E will cost.	
Reviewers: The plan does not provide an explicit process for the coordination of data collection and management.	No	4
III.D.6	<b>Summary Question. RME Logic Path (Evaluation and Adaptive Management):</b> Does the subbasin plan provide a scientifically supportable procedure for refining the biological objectives as new information becomes available about how fish, wildlife, and the environment interact, and in relationship to how the plans are implemented over time? (Council Question 7) Specifically, does the RME subsection describe a scientifically sound logic path for how to test if the subbasin plan's strategies are helping to reach the stated vision and objectives? I.e., Is the RME agenda adequately framed around the relationships between the assessment data and the stated vision, biological objectives, and strategies in describing uncertainties?	
Reviewers: The RME logic path is seriously deficient in terms of coordinated monitoring and data management. The logic behind linkages between strategies and objectives is not described. The section is largely incomplete.	No	3

	<p><b>Overall impression and evaluation of the Management Plan:</b> As needed elaborate on your evaluation of the various Sections enumerated above. If the plan provides additional analysis beyond what is laid out above in the checklist please comment here (e.g., socio-economic descriptions or analysis).</p>
<p>Reviewers: The management plan is a good start and is responsive, in general, to the Council guidelines, but it is not complete. The weakest section of the management plan is monitoring and evaluation.</p>	<p>No 3</p>

<p><b>General Council Question. Consistency with the Fish and Wildlife Program and its Scientific Foundation</b></p> <p>The Council asks the ISRP to evaluate a subbasin plan for its consistency with the Scientific Foundation adopted as part of the Program and with the requirements for “biological objectives” as described in the program. The core of the Council’s Scientific Foundation is a set of eight Scientific Principles:</p> <ol style="list-style-type: none"> <li>1. The abundance, productivity, and diversity of organisms are integrally linked to the characteristics of their ecosystem.</li> <li>2. Ecosystems are dynamic, resilient and develop over time.</li> <li>3. Biological systems operate on various spatial and time scales that can be organized hierarchically.</li> <li>4. Habitats develop, and are maintained, by physical and biological processes.</li> <li>5. Species play key roles in developing and maintaining ecological conditions.</li> <li>6. Biological diversity allows ecosystems to persist in the face of environmental variation.</li> <li>7. Ecological management is adaptive and experimental.</li> <li>8. Ecosystem function, habitat structure and biological performance are affected by human actions.</li> </ol> <p><i>See 2000 Fish and Wildlife Program, pages 14-15 for full detail.</i></p> <p>Questions on consistency with the objectives and strategies section of the Fish and Wildlife Program are incorporated in the table above. Consistency with the Program’s scientific foundation is interwoven throughout the checklist, and this comment table provides reviewers a place to specifically summarize and identify how well the eight principles were addressed.</p> <p><b>Summary comments and evaluation of the subbasin plan’s consistency with the eight principles of the Fish and Wildlife Program’s Scientific Foundation:</b></p>		
<p>Reviewers: The plan is consistent with the Council’s eight principles but its lack of analysis of trajectories of ecosystem change, incomplete synthesis of existing information from the basin, and weak coordinated monitoring and data management program make it unlikely that it would implement the conservation and restoration efforts as effectively as possible.</p> <p>The late start in the preparation of the plan was a major hindrance in a subbasin where there needs to be a lot of face-to-face time with stakeholders to work through differences and reach consensus on a plan for management of aquatic and terrestrial resources.</p>	<p>Yes</p>	<p>3</p>