

Hood

Review Summary

The Hood River Subbasin Plan, which includes the lower Oregon Columbia River Gorge tributaries, is readable, beautifully organized, and of high quality. It reflects the longstanding existence of an active and effective watershed council. The plan lays a good foundation for future management and substantially meets the scientific elements for a subbasin plan called for in the Council's 2000 Fish and Wildlife Program and Subbasin Planning Technical Guide. The Assessment and Inventory and biological objectives are very thorough and useful.

The treatment of the Gorge tributaries is not as comprehensive as for the Hood subbasin. For the Gorge tributaries, the QHA analysis could be further refined and more detail added regarding future research, monitoring, and evaluation (RME) activities.

Assessment

The Assessment is of very high quality, is thoroughly done, and provides a strong basis to develop a management plan and identify and prioritize objectives and strategies. The Assessment's analyses and conclusions are technically based. The Assessment goes beyond description to include evaluation and interpretation and provides an excellent example for other subbasins.

The Assessment provides a good overview that includes an excellent introduction to the planning process and a good look at human uses, disturbances, and hydrology. More attention to population and water use projections would further enrich this plan. The treatment of environment and populations relationships is particularly well done, for aquatic and terrestrial species as well as for current and future conditions. The QHA analysis for the Gorge tributaries ranks stream reaches for steelhead and rainbow trout but does not identify the habitat attributes that were most important in determining these rankings. Adding these important habitat attributes would improve the Gorge tributaries' QHA analysis.

The Assessment describes both historic and current conditions well for aquatic and terrestrial species. EDT was used to identify five limiting factors for focal aquatic anadromous species (steelhead and Chinook salmon): channel stability, flow, habitat diversity, sediment load, and key habitat quantity. The effects of these are summarized for each focal species by life stage. This effort is very well done. There is also a good discussion of limiting factors that can and cannot be corrected through human intervention.

This is one of the few subbasin plans the reviewers have seen where EDT was used as envisioned, and all of the steps were followed. The appropriateness of EDT for a system such as the Hood that has frequent catastrophic events such as glacial landslides on Mt. Hood is worth exploring further. This plan demonstrates that the EDT model can be useful, but the results (overestimates, albeit relative) suggest to reviewers, as well as Hood River planners, that there is something missing from the understanding of the Hood system.

In addition, smolt yield is highly variable in systems such as the Hood. Estimating capacity is a key decision in such systems as the estimate is central to selecting strategies in the basin. Specifically, decisions on whether to proceed with supplementation or harvest augmentation strategies hinge on the estimates. For example, is the winter steelhead hatchery program a harvest augmentation strategy and the summer steelhead program a supplementation (restoration) strategy? This characterization will affect hatchery practices, especially with winter steelhead.

Inventory

The Inventory is well done, goes beyond just a simple listing of projects, and meets the intent of the inventory section by producing an effort that is a valuable component of the Management Plan. This subbasin's Inventory is testament to the usefulness of active watershed councils. In other small subbasins, with less active watershed councils, the subbasin planners often did not know of existing projects. The number of projects in the Hood and the tributary streams is small enough that a more thorough linkage of inventory and assessment could be completed, and would strengthen the overall presentation. The Inventory could also be improved by linking its gap analysis to the finer points made in the Assessment.

This plan concisely summarizes accomplishments and failures in tables that describe ongoing projects. Most other subbasin plans do not do this, so the Hood subbasin planning team deserves credit for taking this step. The gap analysis provides a good detailed discussion on gaps between ongoing projects and what is needed to address the limiting factors. The gap analysis does not, however, link the Inventory to the Assessment. The analysis is a narrative, but it seems to only cover the major issues identified in the Assessment. The result is an inability to associate projects and project types to the Assessment results and priorities identified by their analyses in the assessments. The thoroughness of the plan to this point provides some confidence that the gap analysis results are adequate, but this relationship cannot really be assessed or reviewed without a more technical linkage between projects and the subbasin assessment. To augment the gap analysis the planners could make a summary table that cross-references the major findings of the assessment with projects by reach and topic. Although the Hood's Inventory could be improved, its approach is a good example for other subbasins.

Management Plan

The plan's treatment of biological objectives benefits from the previous development of the Hood River Watershed Action Plan. The plan's internal consistency is very well presented. The discussion sections given with each objective provide detail on the environmental conditions needed to achieve each objective. Strategies are prioritized and related to the Assessment and described for protection and restoration objectives.

In general, the RME plan is very well integrated. In the Hood subbasin, the RME strategy will provide the data needed to evaluate the subbasin plan over time, and the objectives do state interim targets that the results can be assessed against. The issue of adaptive change is not discussed but would be inferred from the logic path. The RME plan does not address or define the "healthy economy" to be compatible with the biological objectives. The planners also need to more fully describe how the likely removal of the Powerdale dam will affect monitoring of wild and hatchery fish in the subbasin.

The RME discussion for the Gorge tributaries is incomplete and will need substantial expansion and revision. The Gorge RME plan generally needs more of an emphasis on future monitoring plans and indicators and more detail on data collection.

The plan presentation to the ISRP/AB emphasized the potential impacts on fish and wildlife of human population projections and recreational use including second home development, illegal trails, and interference with game corridors. However, the plan itself doesn't cover these issues to the extent that the presentation indicated is necessary. The presenters of the Hood team stated that one of their goals is to "balance a natural jewel with human recreation use." This will be a growing challenge and is a worthy goal for the entire Columbia River Basin and for the subbasin planning process.

Review Checklist

<p>I. The Subbasin Assessment (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>I. A. Subbasin Overview <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>I. A.1. General Description</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 orientation is adequate. It includes a brief but good description of the major land uses and owners. It divides the subbasin into two planning areas.</p>		<p>Yes</p>	<p>0</p>
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 section on water resources is particularly good. It discusses water quality issues in detail, and includes a map of streams that are temperature limited. Climate trends and their implication for water supply in the subbasin are discussed.</p>		<p>Yes</p>	<p>0</p>
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>		

Reviewers: The Assessment offers a good picture of the impact of water diversions, the changes in forestland cover to other uses, wetland conversion, road construction, and timber harvest on water supply and quality.		Yes	0
I.A.1.4	Does the assessment provide a list of native and non-native fish and wildlife species present in this subbasin including those species that: a. have been designated as threatened or endangered under the Federal Endangered Species Act or state equivalents, 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, c. have special ecological importance within the subbasin, d. are recognized by Native American tribes as having special cultural or spiritual significance, or e. are not native to this subbasin?		
Reviewers: The lists were found in the focal species section and in Appendix C.		Yes	0
I.A.1.5	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?		
Reviewers: The Assessment notes that no plants are listed under the ESA. Providing more details on noxious weeds would improve the plan. The focal species section asserted that there are several plant species that are important to American Indian Tribes, but it does not list them. These plants should be listed in a manner that is culturally appropriate to the Tribes; i.e., if the plants are widely known to be culturally important, they should still be listed, perhaps without the cultural importance designation if that is problematic.		Partial	2
I.A.2. Subbasin in the Regional Context		<i>(Y)es, (P)artial, (N)o</i>	<i>Need for additional treatment (0-4)</i>
I.A.2.1	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)?		
Reviewers: The Assessment adequately describes how the subbasin fits into its regional context.		Yes	0
I.A.2.2	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 . ¹) where this information was available during the planning process?		

¹ 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.)

Reviewers: The Assessment adequately describes the subbasin's relationship to the ESA for salmonids and bull trout. A useful map of the bull trout planning area was included.		Yes	0
I.A.2.3	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)?		
Reviewers: The Assessment identifies the critical issues but offers limited discussion. It is brief but comprehensive.		Yes	0
I.A.2.4	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)?		
Reviewers: The presentation of the plan included a lot of discussion about human population projections and recreational use including second home development, illegal trails, and interference with game corridors. However, the plan itself doesn't cover these issues to the extent that the presentation indicated is necessary. For example, the plan includes a limited consideration of human use projections, which may be a significant oversight. The plan is one of the few that discusses projected climate changes. This discussion covers the implications of receding glaciers for the Hood River, which is dependent on glacial melt.		Partial	2
Summary comments and evaluation on the Subbasin Overview: Does the assessment provide the geographical, demographical, and environmental context for fish and wildlife resources in this subbasin?			
Reviewers: Overall, this a good overview that includes an excellent introduction to the process established to undertake the plan and a good look at human uses, disturbances, and hydrology. More attention to population and water use projections would further enrich this plan.		Yes	0

I.B. Species Characterization and Status			
<i>General question: Does the assessment adequately describe the current status of fish and wildlife focal species?</i>			
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.		(Y)es, (P)artial, (N)o	<i>Need for additional treatment (0-4)</i>
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, ² and c) cultural significance.		
Reviewers: The Assessment lists species that have ecological and cultural significance to the tribes. The Assessment includes five fish species: bull trout, steelhead (summer and winter run), Chinook salmon (fall and spring run), coastal cutthroat trout, Pacific lamprey. Five terrestrial species: western gray squirrel, northern spotted owl, lark sparrow, Clark's nutcracker, black tailed deer, and elk. A useful table shows each species and the extent to which they address several selection criteria. Terrestrial focal species were selected according to the core set of criteria and also according to whether they represent a major type of vegetation cover in the subbasin. These are also summarized in a table.	Yes	0
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?		
Reviewers: The plan characterizes each focal species to the extent that literature exists to do so. The wildlife literature is less extensive than that on fish species.	Yes	0
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)?		
Reviewers: The Assessment's sections on current and historic distribution and the differences between the two for each focal species are very useful. Doing an equally detailed examination for wildlife species would strengthen the plan. Adding survival and recruits per spawner trends from 1993, and historical abundance before 1993, would also aid the plan.	Yes	1
I.B.4. Does the assessment describe the population's life history, including identifying distinct life stages?		
Reviewers: The Assessment describes the life history of each focal species to the extent that literature exists.	Yes	0
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: The Assessment presents a section on genetic diversity for each focal fish species. Sections on current and historic artificial production also discuss genetics in detail. Other sections examine the ecological consequences of artificial production and the interactions between hatchery and wild populations.	Yes	0
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?		

² 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 offers an unusually detailed description of harvest over time for aquatic species that utilizes graphs. A description of the harvest of game species is also provided, although it is not graphed. The term “indirect harvest” should be defined to mean incidental catch.	Yes	1
Summary comments and evaluation on the Species Characterization and Status Subsection: Does the assessment adequately describe the current status of fish and wildlife focal species?		
Reviewers: This section of the assessment adequately meets all requirements and is clearly presented. There are more details for fish than for wildlife, but this probably reflects the availability of information. If more information is available for wildlife, its addition would enhance the plan.	Yes	0

I.C. Environmental Conditions <i>General question to be addressed: Does the assessment adequately describe the effect of the environment on fish and wildlife populations?</i>		
I.C.1. Environmental Conditions within the Subbasin		(Y)es, (P)artial, (N)o Need for additional treatment (0-4)
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, ³ b) potential, ⁴ c) future/no new action, ⁵ 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 Assessment describes current and historical environmental conditions and their effect on focal fish species well. Forward-looking conditions are projected for glacial recession, dam removal, changes in forest practices, and changes in large woody debris. Another section provides a good discussion of likely future conditions under no new actions. This is done for terrestrial as well as aquatic species. For steelhead and chinook, the planners conducted EDT analyses for current, historic, and six future scenarios. Wildlife and bull trout are treated more qualitatively. If QHA analyses were conducted in the Hood basin for bull and cutthroat trout, the results are not presented even though there is a reference to these analyses in the Management Plan. QHA assessments were conducted for Gorge tributary streams.	Yes 0
I.C.1.2	Does the assessment classify 6 th 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?	

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

⁴ 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.

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

Reviewers: The HUC units are explicitly used. The plan notes the use of 147 reaches in Hood, and 29 with obstructions, but it is not clear whether these 29 are in addition to the 147?		Yes	1
I.C.2. Out-of-Subbasin Effects and Assumptions			
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 thoroughly addresses both effects and assumptions for aquatic species, including ocean harvest, hydrosystem operation, and climate patterns. These are more briefly described for terrestrial species.		Yes	1
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 assessment established assumptions for aquatic species to the extent that the EDT analysis provides. Terrestrial species are analyzed adequately, if briefly.		Yes	1
I.C.3. Environment / Population Relationships			
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 environments and populations relationships in this plan are particularly well done, for both aquatic and terrestrial species, and for both current and future conditions. The QHA analysis for the Gorge tributaries ranked stream reaches for steelhead and rainbow trout but did not identify the habitat attributes that were most important in determining these rankings. Adding these important habitat attributes to Gorge tributary analysis will augment the QHA result. It is unclear in the tributary analysis (Table 37) where this QHA rule set came from. Providing a source reference would clarify this.		Yes	1
Summary comments and evaluation on the Environmental Conditions Section: Does the assessment describe the effect of the environment on fish and wildlife populations?			
Reviewers: The environmental conditions section was presented very well. There are some editorial changes that need to be made in finalization. The planners also need to make alterations to their use of EDT. Currently, they take the EDT values and compare them literally to other models. This discussion does not affect the outcome of the plan.		Yes	1

<p>I.D. Ecological Relationships</p> <p><i>Question to be addressed: Does the assessment describe the key inter-species relationships and the key functional relationships?</i></p>	<p>(Y)es, (P)artial, (N)o</p>	<p><i>Need for additional treatment (0-4)</i></p>
<p>I.D.1. Inter-species Relationships</p> <p>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?</p>		
<p>Reviewers: The plan acknowledges inter-species relationships, but the discussion is brief. A lengthier and more detailed discussion would enhance the plan.</p> <p>It appears that the planners may have missed the mark on some of the potential interactions of hatchery releases and acclimated fish with wild fish. They do cite a paper (<i>Underwood et al.</i>) that shows minimal interaction. Reference to more of the available literature on this subject would improve this portion of the assessment.</p>	<p>Partial</p>	<p>2</p>
<p>I.D.2. Processes and Functions</p> <p>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?</p>		
<p>Reviewers: This plan does a good job of acknowledging the key ecological functions for species with the subbasin. This information, however, is provided indirectly in several different sections of the subbasin plan. Organizing this information into one section (or sub-section) will increase the plan's readability and efficacy.</p>	<p>Partial</p>	<p>1</p>
<p>I.E. Interpretation and Synthesis / Limiting Factors and Conditions</p>		
<p>I.E.1. Limiting Factors and Conditions</p> <p>Does the assessment describe:</p> <p>1) Historic factors or conditions that led to the decline of each focal species and of ecological functions and processes?</p> <p>2) Current key factors or conditions within and without the subbasin that inhibit populations and ecological processes and functions relative to their potential.</p>		

<p>Reviewers: This section described both historic and current conditions well for aquatic and terrestrial species. EDT was used to identify five limiting factors for focal aquatic anadromous species: channel stability, flow, habitat diversity, sediment load, and key habitat quantity. The effects of these are summarized for each focal species by life stage. This effort was very well done. There is also a good discussion of limiting factors that can and cannot be corrected through human intervention.</p> <p>This is one of the few subbasin plans the reviewers have seen where EDT was used as envisioned and all of the steps were followed. The appropriateness of EDT for a system such as the Hood that has frequent catastrophic events such as occurs from glacial landslide events on Mt. Hood is worth exploring further. This plan demonstrates that the EDT model can be useful, but the results (overestimates, albeit relative) may indicate that there is something missing from the understanding of the Hood system. It would be interesting to see how EDT works on short high-gradient streams. It would also be beneficial for the subbasin to monitor whether or not the cold water leads to slow growth for juvenile steelhead, as was found in the Wenatchee.</p> <p>In addition, smolt yield is highly variable in systems such as the Hood. Estimating capacity is a key decision in such system as the estimate is central to selecting strategies in the basin. Specifically, decisions on whether to proceed with supplementation or harvest augmentation strategies hinge on the estimates. For example, is the winter steelhead hatchery program a harvest augmentation strategy and the summer steelhead program a supplementation (restoration) strategy? This characterization will affect hatchery practices, especially with winter steelhead.</p> <p>The QHA on bull trout gets lost in the assessment and could be better emphasized.</p>	Yes	0
<p>I.E.2. Key Findings</p> <p>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?</p>		
<p>Reviewers: The plan directly considers human recreational use and its effect on habitat. The desired current and future conditions are summarized. Discussions on the key limiting factors’ potential to reach optimal conditions are particularly well done.</p>	Yes	0
<p>I.E.3. Subbasin-wide Key Assumptions/Uncertainties (“Working Hypothesis”)</p> <p>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?</p>		

<p>Reviewers: In both the Hood and the tributary analyses, the authors identify working hypotheses for fish and wildlife focal species, including some identified opportunities. A good discussion of working hypotheses with supporting evidence is provided for both aquatic and terrestrial species. Of all the subbasins this one's "working hypothesis" section is amongst the best.</p>	<p>Yes</p>	<p>0</p>
<p>Overall impression and evaluation of the Assessment: 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>		
<p>Reviewers: The Assessment is of very high quality, is thoroughly done, and provides a strong basis to develop a management plan and identify and prioritize objectives and strategies. The summaries are especially useful; the analyses and conclusions are technically based. The assessment goes beyond description to include evaluation and interpretation and provides an excellent example for other subbasins.</p>	<p>Yes</p>	<p>0</p>

<p>II. The Inventory <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>		
<p>II.A. Existing Protection</p>		<p>(Y)es, (P)artial, (N)o</p> <p><i>Need for additional treatment (0-4)</i></p>
<p>II.A.1</p>	<p>Does the inventory identify areas with protections through stream buffers, municipal or county ordinances, conservation designations, or water resources protection?</p>	
<p>Reviewers: The Inventory provides a very thorough look at protections including lists of protective ordinances, a table of in-stream water rights, angling restrictions, various management plans, and TMDL measures. This was well written and summarized concisely.</p>		<p>Yes</p> <p>0</p>
<p>II.A.2</p>	<p>Does the inventory assess the adequacy of protections for fish, wildlife, and ecosystem resources?</p>	
<p>Reviewers: The plan makes an effort to assess the adequacy of protections in a table and in maps, but only limited text directly addressed adequacy. A brief but comprehensive summary of the adequacy of existing plans would enrich the plan.</p>		<p>Partial</p> <p>1</p>

II.B. Existing Plans			
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 programs, plans, and projects are presented and described in detail.		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: A table of projects includes an assessment of performance, but there is no direct comparison with the subbasin assessment. Adding a direct comparison with the subbasin assessment will augment the plan.		No	2
II.C. Management Programs / Restoration and Coordination Projects			
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? ⁶		
Reviewers: The plan adequately lists and describes significant ongoing management programs.		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: The plan's description of management programs is well done and included good summary tables that provided an evaluation of each plan's effectiveness/outcome.		Yes	0
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: The plan provides tables that arrange projects by limiting factors, with the exception of the tributary table that is brief and just lists the projects. Including limiting factors in the tributary table would further enhance the plan.		Yes	0
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: This plan concisely summarizes accomplishments/failures in tables that describe ongoing projects. Most other subbasin plans did not do this, so the Hood subbasin planning team deserves credit for taking this step.		Yes	0

⁶ 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?

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?		
<p>Reviewers: The gap assessment provides a good detailed discussion on gaps between ongoing projects and what is needed to address the limiting factors. The gap analysis does not, however, link the inventory to the assessment. The analysis is a narrative, but it seems to only cover the major issues identified in the assessment. The result is an inability to associate projects and project types to the assessment results and priorities identified by their analyses in the assessments. For example, do the projects relate well to the reach assessment and the habitat factors important to the focal species? The thoroughness of the plan to this point provides some confidence that the gap analysis outcome is adequate, but this relationship cannot really be assessed or reviewed without a more technical linkage between projects conducted and the subbasin assessment. To augment the gap analysis the planners could make a summary table that cross-references the major findings of the assessment with projects by reach and topic.</p>		Yes	2
<p>Overall impression and evaluation of the Inventory: 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: This was a very high quality inventory section that went beyond just a simple listing of projects and met the intent of the inventory section by producing a result that is a valuable component of the management plan. The number of projects in the Hood and the tributary streams is small enough that a more thorough linkage of inventory and assessment could be completed, and would strengthen the overall presentation.</p> <p>This subbasin's inventory is testament to the usefulness of active watershed councils. In other small subbasins, with less active watershed councils, the subbasin planners often did not know of existing projects.</p>		Yes	1

III. The Management Plan

(Derived from pages 12-16 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 management plan.

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>III.A. The Vision for the Subbasin</p> <p>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>(Y)es, (P)artial, (N)o</p>	<p><i>Need for additional treatment (0-4)</i></p>
<p>Reviewers: The vision statement is general, as it has been for other subbasins, but it has explicit reference to the vision of the Council’s Fish and Wildlife Plan that are discussed in more detail. This provides more specific content.</p>	<p>Yes</p>	<p>0</p>
<p>III.B. Biological Objectives</p> <p>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: The biological objectives benefit from the previous development of the Hood River Watershed Action Plan. The discussion sections with each objective provide detail on the environmental conditions needed to achieve each objective. In general, more detail is provided for the Hood subbasin, and the Gorge tributary discussion implies a more immediate concern for the economic impact of actions to achieve these objectives. More clearly stating the hatchery objectives to produce fish for harvest purposes would further enrich the plan.</p>	<p>Yes</p>	<p>1</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 11-14.⁷</p>		
<p>Reviewers: Explicit reference to the Council’s Fish and Wildlife Plan objective are made in the Hood plan, but are not specifically laid out in the Gorge tributaries plan.</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>		
<p>Reviewers: In both subbasins the objectives are closely tied to the focal species and limiting factors identified in the Assessment.</p>	<p>Yes</p>	<p>0</p>
<p>III.B.3. Where possible, are the biological objectives empirically measurable and based on an explicit scientific rationale; i.e., quantitative with measurable outcomes?</p>		
<p>Reviewers: The scientific rationales for the biological objectives are more clearly stated in the Hood subbasin, but for the level of information available, it is also present in the tributaries. Many of the objectives have specific numerical targets. In general, this section is very well done.</p>	<p>Yes</p>	<p>0</p>
<p>III.B.4. Are biological objectives identified for both the short and long-term?</p>		
<p>Reviewers: The plan identifies timeframes more explicitly in the Hood subbasin. In general, for both subbasins, this is done through the assignment of various target dates to objectives.</p>	<p>Yes</p>	<p>0</p>

⁷ 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.

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: The plan's biological objectives make explicit reference to existing plans and programs.	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? ⁸		
Reviewers: The plan's integrations with the Total Maximum Daily Load schedule is well described in the priority strategies discussion. In addition, there is a separate section on ESA and CWA consistency.	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? ⁹		
Reviewers: The plan provides a separate section on ESA and CWA consistency.	Yes	0
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: No disagreements noted, but concern for economic impacts are more evident in the tributary plan.	na	na

III. C. Strategies¹⁰

III.C.1. **Internal Consistency of the Plan.** 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)¹¹

⁸ *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).

⁹ 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.

¹⁰ *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.

¹¹ 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

Reviewers: The plan's internal consistency is very well presented. The strategies are related to the assessment and described for protection and restoration objectives.	Yes	0
III.C.2. Consistency with the Fish and Wildlife Program. Are the Strategies proposed in the subbasin management plan consistent with those adopted in the program? (Council Question 4)		
Reviewers: The plan's consistency with the Council's Fish and Wildlife Program is explicitly addressed. The strategies in the Gorge tributaries are intended to achieve an "ecosystem with productive and sustainable..." resources, this is consistent with the Fish and Wildlife program. The Hood subbasin is more a restoration and supplementation based plan, at least as far as spring chinook and steelhead are concerned. Their environmental strategies are intended to provide more natural ecological processes. There is a need to clarify what is meant by supplementation. Is it restoration or harvest augmentation?	Yes	1
III.C.3. Consideration of Alternative Management Responses. 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) ¹²		
Reviewers: The plan provides a good rationale for the strategies, but alternatives are not explicitly addressed or directly compared. On issues such as Powerdale Dam removal, however, there is a discussion of alternatives relative to doing nothing.	No	1
III.C.4. Prioritization. Does the Strategies Section describe a proposed sequence and prioritization of strategies?		
Reviewers: The plan discusses priorities in good detail. The strategies are prioritized to the extent that they are grouped into first and second priority classes, but no finer prioritization or sequence is discussed. Editorial: Ranking scale should be consistent between aquatics (priority 1) and terrestrials (A/B/C).	Yes	0
III.C.5. Additional Assessment Needs. Does the Strategies Section describe, if necessary, additional steps required to compile more complete or detailed assessment?		
Reviewers: The plan identifies a process to identify additional assessment needs. There will also be a continuous effort to involve various interest groups throughout the subbasin and to identify data gaps.	Partial	1

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.

¹² 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.

III.C.6. Clean Water Act: 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 description of how the strategies are integrated with the Total Maximum Daily Load schedule is well done in the ESA/CWA consistency section.	Yes	0
III.C.7. Endangered Species Act: 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 plan’s integration of ESA-based goals is well done in the ESA/CWA consistency section.	Yes	0

III.D. Research, Monitoring, and Evaluation			
<p>This RME Checklist Section provides the review elements necessary for the ISRP/ISAB to answer <i>Council Question 6. Plan for Assessing Progress toward Subbasin Goals</i>. 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). <i>NOTE: The focus of the RME component should be on the strategy level rather than individual project level.</i></p> <p>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.</p>			
III.D.1	<p>Research: 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?</p>	<p>(Yes, (P)artial, (N)o</p>	<p><i>Need for additional treatment (0-4)</i></p>
Reviewers: This plan provides excellent context, description, and rationale for expanding the existing RM&E for several strategies. For future monitoring, a list is provided without detail. Adding detail to this list would augment the plan.	Partial	2	
<p>Research in the Hood subbasin is focused around assessing the success of the Hood River Production Program (a BPA supported supplementation and reintroduction program). Nine additional RM&E topics are listed after the HRPP discussion. No priorities are assigned, and essential infrastructure for data collection is not described. Providing these priorities and describing the data collection infrastructure will increase the utility of the plan. The planners also need</p>			

<p>to more fully describe how the likely removal of the Powerdale dam will affect monitoring of wild and hatchery fish in the subbasin.</p> <p>The plan describes limited RM&E in the Gorge tributaries. It appears that baseline program for information collection and monitoring will have to be developed to begin the RM&E.</p>			
III.D.2	<p>Monitoring Objectives: 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?</p>	Partial	2
<p>Reviewers: The plan’s identification of monitoring objectives is well done for ongoing monitoring and for expansions of existing monitoring, but not for additional future monitoring. The RM&E issues for the Hood are all combined, but the variables to be monitored could be extracted from this description to strengthen the plan. The RM&E regime for the Gorge tributaries must be developed; it is not adequate as presented.</p>			
III.D.3	<p>Monitoring Indicators: 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)?</p>	Partial	2
<p>Reviewers: The plan’s identification of monitoring indicators is well done for ongoing monitoring and for expansions of existing monitoring, but not for additional future monitoring. The RM&E issues for the Hood are all combined, but the variables to be monitored could be extracted from this description to strengthen the plan. Prioritizing monitoring indicators would also augment the plan. The RM&E regime for the Gorge tributaries must be developed; it is not adequate as presented.</p>			
III.D.4	<p>Data and Information Archive: 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?</p>	No	3
<p>Reviewers: This plan does not offer any indication of a data and information archive. This must be provided to maximize the efficacy and utility of this plan.</p>			
III.D.5	<p>Coordination and Implementation: 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.</p>	No	3
<p>Reviewers: This plan does not offer any indication of how data collection will be coordinated and implemented. This must be provided to maximize the efficacy and utility of this plan.</p>			

III.D.6	<p>Summary Question. RME Logic Path (Evaluation and Adaptive Management): 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?</p>
<p>Review: In general, the plan is very well integrated. In the Hood subbasin, overall the RM&E strategy will provide the data needed to evaluate the subbasin plan over time, and the objectives do state interim targets that the results can be assessed against. The issue of adaptive change is not discussed but would be inferred from the logic path. The RM&E plan does not address or define the "healthy economy" to be compatible with the biological objectives. The RM&E discussion for the Gorge tributaries is incomplete and will need substantial expansion and revision.</p>	<p>Partial 2</p>
	<p>Overall impression and evaluation of the Management Plan: 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: Overall, this is a strong, readable, beautifully organized, high quality plan that reflects the longstanding existence of a watershed council that is absolutely on top of this process.</p> <p>In the Hood subbasin, the components of a workable and useful plan are presented, but the associated RM&E plan will be very costly despite the very modest expectations for the resulting increases in species' population size. The Gorge tributary Management Plan is not as thorough as the Hood but has the components necessary with the exception of the inadequate RM&E plan. The tributary plan expressed a more explicit concern for the economic impacts of these plans on the local communities.</p> <p>All told, this plan lays a good foundation for future management. The Assessment and Inventory and biological objectives are very thorough and useful. More detail needs to be added to future RM&E activity to further maximize the efficacy and utility of this plan.</p>	<p>Yes 1</p>

General Council Question. Consistency with the Fish and Wildlife Program and its Scientific Foundation

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:

1. The abundance, productivity, and diversity of organisms are integrally linked to the characteristics of their ecosystem.
2. Ecosystems are dynamic, resilient and develop over time.
3. Biological systems operate on various spatial and time scales that can be organized hierarchically.
4. Habitats develop, and are maintained, by physical and biological processes.
5. Species play key roles in developing and maintaining ecological conditions.
6. Biological diversity allows ecosystems to persist in the face of environmental variation.
7. Ecological management is adaptive and experimental.
8. Ecosystem function, habitat structure and biological performance are affected by human actions.

See 2000 Fish and Wildlife Program, pages 14-15 for full detail.

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.

Summary comments and evaluation of the subbasin plan’s consistency with the eight principles of the Fish and Wildlife Program’s Scientific Foundation:

<p>Reviewers: This plan offers a high level of consistency with the Council’s eight principles. The apparently dynamic nature of the Hood River watershed exemplifies these principles and the planners were indirectly accounting for them. There is a sense that this was not as much the case in the Gorge tributaries. The Gorge tributaries, however, seem to be rather unique small environments that merit more attention.</p>	<p>Yes</p>	<p>0</p>
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