

# PSST External Review Comment Response Matrix

## August 31, 2009

Comment Color Code
Local Government
State Agency
Tribe
Non-governmental
Federal Agency

Comment	Response
<b>GENERAL</b>	
Several places in the document I found excellent, succinct policy recommendations and summaries of programs/regulations. Thank you. I will likely excerpt many of these in recommended language for our upcoming SMP Update. <b>(7)</b>	<i>Comment noted.</i>
I hope the extra comments are worth the extra wait. It'll be easier for us to lean on this document when it sheds the "draft" label. I hope it doesn't take too long to become final. Thanks for this work. <b>(7)</b>	<i>Comment noted.</i>
Draft will be very useful to our overall understanding of the interaction of regulations and fish habitat protection. <b>(9)</b>	<i>Comment noted.</i>
The document is very informative and easy to read. <b>(23)</b>	<i>Comment noted.</i>
This draft document provides very useful information and good resource contacts. It pulls many regulations and recommendations together into comprehensive document, it's easily read and should be a benefit to jurisdictions updating their land use regulations. <b>(34)</b>	<i>Comment noted.</i>
Very pleased to see WDFW taking such an active role in land use planning issues. <b>(26)</b>	<i>Comment noted.</i>
Good document. It does a dandy job of summarizing the various salmonid habitat protection-related issues. It is a fairly detailed reference source for those that haven't been dealing with the issues very much and is a worthwhile "refresher" for those of us that have. It is worth having on ones desk simply for the wealth of references it provides on a variety of topics. <b>(14)</b>	<i>Comment noted.</i>
Thanks for thinking of Trout Unlimited! <b>(13)</b>	<i>Comment noted.</i>
The paper provides valuable insight on how local jurisdictions can better comply with ESA/GMA/SMA requirements. <b>(27)</b>	<i>Comment noted.</i>
I am excited to receive a final draft. Please pass along a "good job" to the multiple authors. <b>(11)</b>	<i>Comment noted.</i>
I must say that the document is very well done and informative. I especially like the example language excerpted from	<i>Comment noted.</i>

	Comment	Response
	existing land use plans. <b>(17)</b>	
	Congratulations on your guidance document--it's a great addition to the cause--very thorough, readable, usable, smart. Of course you may cite LLTK, and thanks for the way you did so. <b>(16)</b>	<i>Comment noted.</i>
	<p>This draft guidance looks really great – nice work! Serves as a great overview and quick reference for salmon facts that are sometimes just outside the grasp of my memory. OK, it's a fun 'who's who' of regional science folks too – Simenstead, Cedarholm, Brennan, Culverwell, Johannessen, Fresh, Thom, Pentilla, etc. We really are blessed with so much talent 'round these parts!</p> <p>Thanks for recognition of our Comp Plan policies for riparian buffers and flood hazard protections, and our UDC regulations for wetland classification and designation, stream crossings, and landslide hazard areas as good examples. By the way, WWGM Hearings Board recently issued a decision of 'full compliance' on our recent CAO - CMZ provisions. <b>(31)</b></p>	<i>Comment noted.</i>
	WDFW's <i>Land Use Planning For Salmon, Steelhead And Trout</i> is a good document – educational, instructive and helpful. It's generally organized and written well. I expect that it will be helpful for land use planners. Although this document focuses on planning for salmonid protection, its policy and regulatory considerations are applicable towards the overall “no net loss” requirement of the SMP Guidelines. <b>(35)</b>	<i>Comment noted.</i>
	Thank you for putting this together and giving jurisdictions an opportunity to review it to provide comments. Your work is appreciate, especially among us planners that are not scientists. I hope my comments are taken simply as constructive, as this will be a valuable resource that a lot of work has obviously been put into it. <b>(32)</b>	<i>Comment noted.</i>
	This is an excellent document. It is clearly written, addresses the key questions, and provides concrete examples and references at a good level of detail. We are very glad WDFW developed a document for local governments that takes this integrated approach. Thanks for considering our comments. <b>(36)</b>	<i>Comment noted.</i>
	<p>Your Salmon planning document needs to acknowledge constitutionally protected property rights. I see little new content constructively addressing this in your document. Most is the same oppressive, hard-line regulation with excessive critical areas, excessive buffers, excessive studies and permitting, with little regard to the effects on property owners. After reading the document, one gets the impression that the lands of the state exist for the benefit of Salmon and little else. I would call that tyranny in the name of Salmon.</p> <p>The document makes the case that virtually all land use associated with the built environment; i.e. construction, forest practices, farming, mining, and transportation have effects on Salmon habitat and therefore need this extreme level of regulation. I conclude that an incentive based approach has therefore been dismissed. This is unfortunate.</p> <p>Many of us have been making polite, informed and well intentioned arguments for years that the government should work with landowners to achieve 'on the ground' results favoring fish and wildlife while respecting those that own and live on the</p>	<i>WDFW recognizes that effective land use planning and salmon conservation must balance protection of private property rights with safeguards for public resources like clean water, healthy fish and wildlife habitat, and open space. In this document we seek to outline regulatory, voluntary, and incentive-based systems for protecting and restoring salmon habitat for the benefit of all Washingtonians, whether they are property owners or members of the general public. Washington salmon and</i>

Comment	Response
<p>land. These arguments have mostly fallen on deaf ears. With this approach, you seem to prefer to go to war with the people for whom you serve.</p> <p>Many agency people, planners and other officials are out of touch with the general citizenry. You leave the impression that you think you can issue edicts from on high, and everyone will comply. That is not the case. Many of these unilateral actions enrage people, especially when it concerns family or property. You are CAPR's best recruiters when you are out of control like this. CAPR now has 9 county chapters and affiliates in Washington and California, as well as associations with many like-minded organizations. We have concluded that you only really respect political power. Landowners are the largest demographic in the state. We are well on our way to organizing them in sufficient numbers to make a difference. When can we take our rightful place in helping create any such plan? <b>(28)</b></p>	<p><i>steelhead, the habitat they depend on, and the multitude of other wildlife that subsist on the salmon food web belong to the people of Washington. The State legislature acknowledges this need to balance private property rights with protection of public resources in their legislative findings supporting the State Growth Management Act. RCW 36.70A.010 states:</i></p> <p><i>The legislature finds that uncoordinated and unplanned growth, together with a lack of common goals expressing the public's interest in the conservation and the wise use of our lands, pose a threat to the environment, sustainable economic development, and the health, safety, and high quality of life enjoyed by residents of this state. It is in the public interest that citizens, communities, local governments, and the private sector cooperate and coordinate with one another in comprehensive land use planning.</i></p> <p><i>WDFW expects that implementation of the recommendations in this document would occur through such a coordinated process.</i></p>
<p>The Northwest Indian Fisheries Commission appreciates this opportunity to provide comments on the Washington Department of Fish and Wildlife's draft document entitled "Land Use Planning for Salmon, Steelhead, and Trout." We believe that there is value in providing guidance to local governments regarding what their roles, responsibilities, and necessary contributions are to the protection and recovery of salmon, steelhead, trout, and shellfish. While the draft document is a good initial draft, some additional work will be needed to achieve the goals sought. <b>(38)</b></p>	<p><i>See response to comments ( #38) throughout.</i></p>

	Comment	Response
	<p>Futurewise thanks the Department of Fish and Wildlife for the opportunity to comment on the proposed <i>Land Use Planners Guide to Salmonid Protection and Recovery</i> -- DRAFT. Overall we strongly support the guide. We believe it is well researched and well written and will aid local government planners in protecting salmon and steelhead habitat under the Growth Management Act and Shoreline Management Act. This is exactly the type of technical assistance work that RCW 36.70A.190(4)(a) calls on state agencies to provide to cities and counties. We appreciate that Department of Fish and Wildlife has undertaken this import work and provided the opportunity for peer and public review. We support to the guide and urge you to issue the final version soon. <b>(39)</b></p>	<p><i>Comment noted.</i></p>
	<p>This document is the opportunity for WDFW to provide the information that land use planners need to integrate their efforts with the overall salmonid recovery efforts of the state. In its current draft state, the planner’s guide is a marginally useful document that provides no constructive insight.</p> <p>For a good, detailed critique of the draft land use planner’s guide, we refer you to the comments prepared by Jim Weber for the Northwest Indian Fisheries Commission. <b>(44)</b></p>	<p><i>See response to comments (#44) throughout.</i></p>
	<p>I am pleased to see this compilation of science sources and management recommendations being produced by the Dept. of Fish and Wildlife. Overall, I think there is a lot of good, useful information, but I am concerned that the document is not focused as well as it might be on the primary audience of local planners. <b>(45)</b></p>	<p><i>Comment noted.</i></p>
	<p>I think a good strategy would have been to encourage joint review at the county level by city and County Planners, local Salmon Recovery Staff, WIRA officials, conservation Districts, Extension Office staff and others involved in water and habitat issues within the county geographic area. This would be especially valuable for agencies with limited staffing resources which in many cases are the same agencies in which the best remaining habitat is found. <b>(22)</b></p>	<p><i>Comment noted.</i></p>
<p><b>GENERAL MINOR AMENDMENTS</b></p>		
	<p>Add “Recovery” to title: Land Use Planning for Salmon, Steelhead and Trout <u>Recovery</u>. <b>(1)</b></p>	<p><i>The term “recovery” is used in the subtitle.</i></p>
	<p>Great work with this thank you! We are just wrapping up a 2 plus year assessment of the nearshore central Strait. We've made a number of significant recommendations for nearshore-including the linkages between watershed water quality and nearshore function, and the management of feeder bluffs for 1. RATE of feeding (not considered now) and as actual spawning habitat. . I've attached the executive summary. The link to the full report is <a href="http://hws.ekosystem.us/SiteView.aspx?sid=180">http://hws.ekosystem.us/SiteView.aspx?sid=180</a>. Maybe relevant for your report? Thanks again for this substantive contribution to nearshore management. <b>(3)</b></p>	<p><i>This study is a good resource for WRIA 17, 18 and 19. The link to the recovery plans and WSTs is the best way to link local planners with WRIA specific resources throughout the state.</i></p>
	<p>Puget Sound Partnership has been leading a very public and science-based effort to restore Puget Sound. Local planners have been stretched thin trying to keep up with their requests for information and participation. PSP is barely mentioned in this document (granted, their focus is narrower than statewide). Several of their proposed indicators deal with salmon— could this document provide an overview of their work? <b>(7)</b></p>	<p><i>Draft will be amended to incorporate greater emphasis on the Partnership.</i></p>
	<p>Consider adding a phonetic guide for pronouncing ‘salmonid’. I hear lots of non-‘science geeks’ getting it wrong... <b>(31)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>

	<b>Comment</b>	<b>Response</b>
	There are some long sentences that should be broken into two or more sentences. Some have parenthetical clauses that could easily be broken into separate sentences. <b>(35)</b>	<i>Comment noted.</i>
	Language such as “give special protection to...” could be more specific. <b>(35)</b>	<i>Comment noted.</i>
	<p>I want to recommend the planning guidance suggested in Randal Arendt’s <u>Growing Greener</u>. The book contains a detailed step by step program for local jurisdictions to follow, and incentives for the development industry. Even a way that government and builders can work together for mutual benefit!</p> <p>I think it would be great if the state could implement a statewide program to help local planners collect the baseline information and infrastructure necessary to carry out Arendt’s suggestions, and a program to educate the realty and building industry in the advantages for them in the scenario outlined by Arendt.</p> <p>I see Arendt’s suggestions as a practical way to conserve farm and forest lands and eventually eliminating the backlash that has always hijacked conservation efforts. But it would take a serious, concerted effort to get there. <b>(19)</b></p>	<i>Arendt’s “Growing Greener” is a good resource for conservation subdivision design and planning at the landscape scale. WDFW is currently working on a landscape planning guidance document that explores this concept in more detail.</i>
	A lot of great information - well done-- could be better with more specific management/policy recommendations in the form of references to existing codes/ordinances on the county or city level that they consider worth emulating or as potential models. <b>(43)</b>	<i>This is the format of Chapter Three.</i>
	Earth Economics Ecosystem Valuation program: <a href="http://www.eartheconomics.org/">http://www.eartheconomics.org/</a> . Earth Economics’ David Batker is conducting ecosystem valuation in the Nisqually drainage and has a draft out. He has also begun the process for the Chehalis drainage, and has published ecosystem valuations for Puget Sound in general, less detailed but certainly informing. The salient points made are that natural systems and the services they provide have dollar values, and most of the times these dollar values for things like drinking water supply and treatment are huge, considering the costs of constructing facilities to produce drinking water. Planners need this information, as the inadvertent loss of natural functions through careless planning and granting of variances could cost society big time. <b>(8)</b>	<i>There is a publication from this group titled, “Ecosystem Services Enhanced by Salmon Habitat Conservation in the Green/Duwamish and Central Puget Sound Watershed” that provides a socio-economic analysis on the economic impacts of salmon habitat restoration. The study concludes that implementation of the habitat plan will enhance the economy and quality of life for citizens within WRIA 9 by enhancing natural capital. Reference to this study will be included.</i>
	<p>Agree with Mark Johnson’s comments.</p> <p>Clearly explain what healthy functioning habitat is.</p> <p>Clearly connect what Land Use activities degrade the habitat.</p> <p>Clearly describe appropriate mitigation that replaces the functions of the habitat degraded by the LU activity. <b>(42)</b></p>	<i>Draft will be amended to tighten up the writing, link Table 2.2 to recommendations in Chapter 3 and provide mitigation examples.</i>
<b>GENERAL MAJOR AMENDMENTS</b>		

Comment	Response
<p><b>Mitigation.</b> I was wondering how this Draft will integrate with WDF&amp;W's eventual release of the landscape planning document. This Salmon, Trout, Steelhead paper discusses a lot of valuable options for avoidance of impacts, but provides little guidance on how to effectively mitigate and offset unavoidable impacts. Here in Clark County, we are undertaking a comprehensive mitigation and species monitoring project to evaluate the effectiveness of mitigation for unavoidable impacts. It may help some jurisdictions to understand the effectiveness of habitat mitigation projects. Any research or case studies on mitigation effectiveness would be valuable. However, I'm uncertain if WDF&amp;W is planning to include finer details like this in their landscape planning document as opposed to this one. If these details are to be published in a later document, then go ahead and disregard my last comment. <b>(27)</b></p>	<p><i>More on mitigation has been added and the Clark County comprehensive mitigation and species monitoring project has been added as a regional example.</i></p> <p><i>Although there are several sections within the document where limiting impervious surfaces within a watershed is discussed and watershed planning is referenced, we agree more information is needed. Therefore, the zoning section has been amended to include comprehensive and watershed planning, with reference to guidance from Ecology and others on this topic, and reference to new science about watershed processes, Watershed Processes and Aquatic Resources: A Literature Review (May 2009) addressing aquatic ecosystem processes that has been published since the issuance of the public review draft (available at: <a href="http://wdfw.wa.gov/hab/phsrecs.htm">http://wdfw.wa.gov/hab/phsrecs.htm</a>).</i></p> <p><i>Future guidance from WDFW will address prioritizing terrestrial habitat at the watershed scale.</i></p>
<p><b>AG and Forestry.</b> We are pleased to see WDFW producing this guide for local jurisdictions' planning staff. However, while there is much that is good in the guide, in certain critical areas (pun intended) WDFW fails to be a strong advocate for environmental protection and conservation of salmonids. While the legislature established some bottom line standards with GMA and SMA, there is a great deal of discretion left to local jurisdictions. It is in these areas that WDFW needs to advocate vigorously for conservation and protection. The draft <i>Guide</i> fails to do so in several key areas, particularly regarding agriculture and forestry. It actually countenances allowing new conversion of "important habitat areas for salmonids" to new agricultural use, a position inconsistent with the statutory duty to protect critical areas using the best available science and GMA's goal to give special attention to anadromous fisheries, and completely at odds with WDFW's mission. After all, if WDFW is not a strong advocate for wildlife, who will be? Similarly, WDFW should be urging counties</p>	<p><i>Conservation of important habitat areas for salmonids is a management recommendation in section 3.3.6 Agricultural Activities.</i></p> <p><i>Limiting impervious surface by retaining naturally vegetated (forested) riparian buffers is encouraged several times in the document. The management</i></p>

	<b>Comment</b>	<b>Response</b>
	and cities not to reward the subterfuge of “nonconversion” logging that is in reality nothing more than exploitation of a huge loophole in existing environmental laws. As long as this destruction is rewarded, it will continue. WDFW should not be telling jurisdictions to rely on so-called mitigation to replace existing forests, but instead be urging local governments not to reward these scofflaws. Because DNR refuses to enforce laws regarding conversion, replanting, etc, that task has fallen to local governments. WDFW needs to encourage them to do this, and the first step is to make it clear that if forest is logged under non-conversion permits it will not be converted, period. <b>(30)</b>	<i>recommendations included in section 3.3.7 address forest practices. This is a land use, similar to urbanization, that is permitted and encouraged under existing state law. The purpose of our recommendations is not to comment on the adequacy of these laws, but to recommend approaches that may better balance habitat protection with permitted uses, including forest practices.</i>
	<b>Urban v. Rural Recommendations.</b> The document deals only superficially with the challenges posed by the interface of urban and suburban shoreline land uses and critical salmon habitat. If the focus of this document is protection of relatively intact habitat, it might help to clarify this. Perhaps linkages could be provided to information on the urban/suburban habitat challenges. <b>(35)</b>	<i>The policy and regulatory considerations in this document can be applied to the interface between urban and suburban settings. We acknowledge that planners and decision-makers have to consider whether these strategies are achievable in a particular planning area.</i>
	<b>Organization.</b> If we are ever going to rebuild listed salmon, steelhead, and trout (salmonid) populations, land use planning by local governments must be both compatible with and supportive of salmonid recovery plans. This concept needs to provide the over-arching framework for the paper. It needs to be set forth at the beginning of the paper; not buried more than 2/3 of the way through it (page 68). Similarly, zoning decisions, because they so heavily influence whether a given piece of land will be either developed, protected, or restored, should also be addressed early in the paper, not near the end (p.73). Finally, proper management of floodplains will be essential to protecting and restoring salmon habitat. This issue isn’t really discussed until page 54. These broad land use decisions set the parameters for what should happen on a site-specific basis. Accordingly, these should be discussed first. Currently, the paper discusses the individual components of fish habitat before it gets to the broad land use determinations. This order is confusing and unnecessarily obscures the salmonid (and shellfish) friendly mind-set that we all want land use planners to adopt. <b>(38)</b>	<i>One purpose of this document is to encourage local planning programs to be consistent with salmon recovery plans. This is described in both the preface and Chapter One. A section on salmonid recovery coordination contains policy and regulatory consideration for integrating these two worlds.</i>  <i>The publication is organized in such a way that the reader can follow cover to cover or jump to sections relevant to their work.</i>
	<b>NMFS’ RPA on FEMA National Flood Insurance Program.</b> It is not until page 55 that the guidance paper makes its first (and only) reference to NMFS’ biological opinion and reasonable and prudent alternative (RPA) for implementation of FEMA’s National Flood Insurance Program. The over-arching message of the biological opinion and RPA is that	<i>More emphasis on PSP and the NMFS BiOp will be added.</i>

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	<p>continuation of current land use management of floodplains jeopardizes the continued existence of listed salmonids and Southern Resident Killer Whales.<sup>1</sup> As with the salmon recovery plans, NMFS' RPA sets forth a framework for how floodplains in Puget Sound must be managed to avoid causing jeopardy to listed species.<sup>2</sup> Like the biological opinion, the Department's guidance paper must send the clear message that land use management cannot continue to go down the road it has been going.</p> <p>Comparison of the suggestions in the Department's guidance paper and the conditions/requirements of the RPA indicates a number of similarities.<sup>3</sup> This is good. The Department should build upon this foundation. NMFS' RPA calls only for those measures it has determined to be necessary to avoid jeopardy to listed species. This sets the floor. It does not address the need to manage salmon in a manner that is consistent with the treaties concluded between the federal government and the Commission's member tribes. Without question, those treaties secured fisheries at levels that far exceed those currently feasible today under the significant restrictions of the Endangered Species Act. Nor does NMFS' RPA address the Puget Sound Partnership's goal of achieving a healthy Puget Sound by the year 2020. It is properly the role of WDFW to champion treaty rights compliance (as a co-manager of the salmon resource) and the Puget Sound Partnership's goal. Land use planners working for local governments cannot contribute to those goals if they do not get clear guidance on what they need to do. <b>(38)</b></p>	
	<p><b>Information That Land Use Planners Need.</b> The Department needs to carefully consider what information land use planners really need. For example, land use planners are generally able to draft broad, non-specific policy and rule language that preserves significant flexibility on the ground. They don't need the Department's assistance on that. Instead, where they do need good advice is in identifying what papers/literature reviews provide the best current information on salmonid (and shellfish) habitat requirements. They also need advice in interpreting what these papers say in a manner that both simplifies this complex information and is transparent. <b>(38)</b></p>	<p><i>Document provides several scientific resources specific to salmonid habitat protection (literature cited and general references). The policy and regulatory considerations are meant to apply these resources and also include additional management recommendations (see planning resources).</i></p>
	<p><b>Mitigation.</b> In many cases, the guidance paper calls for mitigation where impacts are "unavoidable" or where avoidance would result in undue hardship on a landowner. No guidance or limitations are provided on how to determine when impacts are "unavoidable" in the context of currently depleted salmonid populations. Nor is there any guidance or limitations on how these "unavoidable" impacts will be mitigated. Mitigation, as currently practiced, is notorious for its failure to deliver on its promise of "no net impacts." See e.g., 73 Fed. Reg. 19594, 19605 (April 10, 2008) (Corps' final rule</p>	<p><i>Some mitigation information will be added.</i></p>

<sup>1</sup> See NMFS, Endangered Species Act – Section 7 Consultation, Final Biological Opinion, Implementation of the National Flood Insurance Program in the State of Washington, Phase One Document (Puget Sound region) (NMFS Tracking No. 2006-00472) (September 22, 2008).

<sup>2</sup> *Id.* at 150-168. See also *id.* at Appendix 4 (Minimum Criteria).

<sup>3</sup> Both documents call for no development within 50 feet of a channel migration zone. Compare guidance paper at 58 and RPA at Appendix 4, page 222. Wetlands requirements may also be similar. Compare guidance paper at 44-46 and RPA at Appendix 4, page 224.



	Comment	Response
	on compensatory mitigation); see also WDOE, Making Mitigation Work: The Report of the Mitigation That Works Forum (December 2008) at 1. The Department's guidance paper is destined to perpetuate this failure unless it provides specific guidance on avoidance and mitigation. Such guidance should be consistent with salmon restoration goals. <b>(38)</b>	
	<b>Buffer Recommendations.</b> I think that it is very well written. Overall the document would be more helpful if more specificity is provided regarding appropriate buffer widths and other recommendations. <b>(42)</b>	<i>Buffer recommendations are provided in the referenced guidance documents. The intent of this section is to point readers to these existing resources on buffers, not repeat the contents those documents.</i>
	<b>Mitigation.</b> I think it would be very useful if have separate sections that explicitly deal with mitigation issues from a technical standpoint if not also regulatory. For instance, what is appropriate mitigation for various impacts and what are some recommended methods for establishing appropriate mitigation? To be really useful, I think this should go beyond just a list of mitigation actions (e.g., removal of impervious, shoreline revegetation, etc.) but address specific models for dealing with that grey area of ratios, out-of-kind vs. in-kind, etc. == essentially a lot of the type of issues SAMP tries to deal with. <b>(43)</b>	<i>Some mitigation information has been added.</i>
	<b>Organization.</b> When reading the document it seemed as if information was missing from Chapter 2 but then when I got to Chapter 3 the information was there. It also seemed that some information in Chapter 2 is repeated in Chapter 3. Therefore, one suggestion on how to make the document easier to read is combine Chapters 2 and 3 and include the recommendations from Chapter 3 in the appropriate sections in Chapter 2. <b>(42)</b>	<i>The publication is organized in such a way that the reader can follow cover to cover or jump to sections relevant to their work.</i>
	<b>Organization.</b> The first part of this document, up to Section 3.2, is really just a summary of salmonid biology and a review of several planning regulations. These sections could be combined and placed in an appendix as a biological primer. The document would then begin with the "Special Considerations for Anadromous Fish Resources," and of the eleven special emphasis management issues identified, "Salmonid Recovery Planning", should actually be the starting point and foundation for this discussion. <b>(44)</b>	<i>The publication is organized in such a way that the reader can follow cover to cover or jump to sections relevant to their work.</i>
	<b>Climate Change.</b> Is sea level rise/climate change adequately addressed with two references (p. 40 and 54)? Could you briefly explain what WDFW's doing to address the issue and how that might impact local communities (if at all)? <b>(7)</b>	<i>Some climate change information has been added.</i>
	<b>Climate Change.</b> I would expand the document a little on added effects of resource reduction from growth and from added effects of Climate Change because we will have to start dealing with that and planning accordingly to better coordinate efforts and planning from planned development to planned growth and planned protection so mitigation includes avoidance/restoration and produces results sustainable over the long term. You have a good discussion in 3.27 on Climate Change Floodplains but I would also include comment in 2.41 Flow Regimes and 2.42 Water Quality. UW published a paper on climate change in February 2009 (summary attached) <a href="http://www.ecy.wa.gov/climatechange/scientific_forecast2009.htm">http://www.ecy.wa.gov/climatechange/scientific_forecast2009.htm</a> and listed expected impacts to salmon on altered flow regimes, increased water temperatures and sea level rise.  With sea level rise the intertidal nearshore will be reduced as water raises to the hardened developed shorelines removing	<i>Some climate change information has been added including the white paper: "Preparing for the Impacts of Climate Change in Washington: Draft Recommendations of the Preparation and Adaptation Working Groups."</i>

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<p>critical salmonid habitat. Retrofitting urban and agricultural lands will be needed with landowner incentives where landowners are paid or at least taxes reduced to restore riparian vegetation on streams now without riparian cover as well as directed growth and restoration. <b>(6)</b></p>	
<p><b>Stronger Recommendations.</b> Page 4 -- The guidance paper notes that both the Growth Management Act (GMA) and the Shoreline Management Act (SMA) require special consideration of the needs of anadromous fish (p.4). The paper needs to keep in mind that these laws are part of the array of inadequate state laws that got us to where we are now and that we will have to do better than the minimum requirements of these laws in order to rebuild salmon and restore the health of Puget Sound. The Washington Supreme Court has declared that the GMA mandate to “protect” critical areas is met by simply preserving the existing conditions of critical areas, regardless of how degraded those conditions might be or how harmful the impacts may be to quality of the critical area.<sup>4</sup> The Court specifically noted that the GMA gives local governments the discretion to choose either to preserve salmon habitat as it currently exists or to enhance it.<sup>5</sup> The clear consequence of this decision is that compliance with the minimum requirements of the GMA will not restore salmon. Maintenance of the status quo is not an acceptable outcome. As noted in NMFS’ RPA on FEMA’s flood insurance program, land use regulations that apparently meet the requirements of the GMA and SMA also jeopardize the continued existence of listed salmonids and Southern Resident Killer Whales. <b>(38)</b></p>	<p><i>This document provides science-based management recommendations intended to support land use planning for salmonids, as well as to assist planners with meeting planning and salmon recovery laws. These recommendations are not, themselves, minimum or maximum legal requirements. Efforts are made throughout the document to provide local examples of where these recommendations have been implemented within the context of current laws.</i></p> <p><i>This document is not intended to evaluate the adequacy of the existing legal framework for protection and recovery of salmonids; it provides science and tools for practitioners working within that existing legal framework.</i></p>
<p><b>Watershed Planning.</b> Overall, while the document contains many aspects that should be included in local governments’ Critical Areas Ordinances, there is little or no evidence that continued implementation of the current system (e.g, reliance on local jurisdictions’ implementation of the SMA and theGMA, plus reliance on the current Ecology Stormwater Manuals) will actually result in sufficient protection for existing salmonid habitat to allow recovery to be achieved. We note that NOAA Fisheries, in its “Supplement” to the Shared Strategy pointed out something similar in regard to the recovery of Puget Sound chinook salmon (p. 8):</p> <p>One of the important opportunities to protect existing habitat and habitat-forming processes discussed in the Shared Strategy Plan is through updating and adopting Federal, state, and local land use protection programs, as well as more</p>	<p><i>Cross-jurisdiction coordination: The section on Salmonid Recovery Coordination includes recommendations for local, state, federal and tribal agencies to jointly develop and implement comprehensive integrated watershed and salmon recovery plans. In addition, there are recommendations in the shoreline management section to link SMP</i></p>

<sup>4</sup> See *Swinomish Indian Tribal Community v. Western Washington Growth Management Hearings Board*, 161 Wash. 2d 415, 429-30, 166 P.3d 1198 (2007), reconsid. denied and order amending opinion, Wash. 2d \_\_\_\_ (2008).

<sup>5</sup> *Id.* at 429.

Comment	Response
<p>effectively combining regulatory, voluntary, and incentive-based protection programs. <i>NMFS believes that there is significant uncertainty regarding the ability of current programs to address the Factor A threats (“The present or threatened destruction, modification, or curtailment of a species’ habitat or range”) identified in Section 2.3.1.2 of this Supplement and to produce the results necessary to achieve recovery of the ESU (emphasis added) (<a href="http://www.nwr.noaa.gov/Salmon-Recovery-Planning/Recovery-Domains/Puget-Sound/upload/PS-Supplement.pdf">http://www.nwr.noaa.gov/Salmon-Recovery-Planning/Recovery-Domains/Puget-Sound/upload/PS-Supplement.pdf</a>).</i></p> <p>One problem with the current system is that impacts are examined by local governments only at the site-scale, generally missing how a project’s effects at the watershed-scale or landscape-scale, and also does not take into account cumulative effects of many small projects. WDFW may consider that these broader views are beyond the scope of the document, but it appears to us that WDFW should at least preface the document by pointing out some of the existing structural shortcomings with the current system.</p> <p>For example, the current system allows individual counties and cities planning under the Growth Management Act to develop and implement protective measures for fish and wildlife habitat. What that means is that there are hundreds of jurisdictions making decisions at the site-scale without any consideration to ecosystem-level or watershedlevel effects.</p> <p>It is not as if WDFW would have to investigate and present its own findings, as that has already been done by other agencies. The Puget Sound Partnership points out many of the weaknesses in the current system in the discussion paper on Habitat and Land Use (an attachment to the Action Agenda; see pp. 36-44 <a href="http://www.psp.wa.gov/downloads/ACTION_AGENDA_2008/TopicPapers/07-11_08HLUPaper.pdf">http://www.psp.wa.gov/downloads/ACTION_AGENDA_2008/TopicPapers/07-11_08HLUPaper.pdf</a>). For example,</p> <p>While protecting critical areas and shorelines is included among the regulatory mandates of the GMA, planning was not usually accomplished with ecosystem constraints taken into account before uses and zones were adopted. In addition, land use planning occurs on a jurisdiction-by-jurisdiction basis, with <i>some</i> coordination across cities and counties through countywide planning policies and occasionally on a multi-county scale. <i>The number of jurisdictions involved in making land use decisions that affect a single ecosystem remains a significant issue which must be addressed in Puget Sound, if we are to move away from fragmentation and toward ecosystem protection and restoration...</i></p> <p><i>Many of the environmental protection tools that are available in Washington have an effect at the site scale, rather than at an ecosystem scale, often missing the need to protect key ecosystem-forming processes.</i> All regulatory and voluntary, incentive-based tools contain exceptions and limits that reduce the certainty of results needed to ensure the sustainability of ecosystem processes, structures and function for a healthy Puget Sound. Net improvement of the ecosystem has not been the case, which strongly suggests that it may be unachievable under the present</p>	<p><i>restoration plans to watershed management plans (which are discussed in a footnote here and again in the Appendix).</i></p> <p><i>Watershed Planning: Although there are several sections within the document where limiting impervious surfaces within a watershed is discussed and watershed planning is referenced, we agree more information is needed. Therefore, the zoning section has been amended to include comprehensive and watershed planning, with reference to guidance from Ecology and others on this topic, and reference to new science about watershed processes, Watershed Processes and Aquatic Resources: A Literature Review (May 2009) addressing aquatic ecosystem processes that has been published since the issuance of the public review draft (available at: <a href="http://wdfw.wa.gov/hab/phsrecs.htm">http://wdfw.wa.gov/hab/phsrecs.htm</a>).</i></p> <p><i>This document is not intended to evaluate the adequacy of the existing legal framework for protection and recovery of salmonids; it provides science and tools for practitioners working within that existing legal framework.</i></p>

Comment	Response
<p>political/regulatory framework...(p. 40) (emphasis added).</p> <p>Another example of an agency's attempt to take larger scale effects into account is found in a draft Ecology document, "Protecting Aquatic Resources Using Landscape Characterization: A Guide for Puget Sound Planners" (<a href="http://www.ecy.wa.gov/pubs/0506013.pdf">http://www.ecy.wa.gov/pubs/0506013.pdf</a>). While this document is a draft, it appears to have higher ambitions than the subject document:</p> <p>In particular, it can be helpful for local governments planning under the Growth Management Act and the Shoreline Management Act. It is intended to assist in identifying patterns for future development that will sustain, rather than degrade, aquatic resources. The information generated by this guidance should allow local governments to:</p> <ul style="list-style-type: none"> <li>• Identify and avoid development patterns that are difficult and expensive to correct;</li> <li>• Reduce cost of infrastructure for future development by identifying key areas for: controlling stormwater, improving water quality, and protecting and restoring habitat;</li> <li>• Streamline local permitting</li> </ul> <p>That document goes on to discuss landscape-scale effects and how to integrate that into land use planning.</p> <p>-----</p> <p>Wild Fish Conservancy staff has recently completed an analysis of various watershed initiatives and laws in Washington and that is attached for your consideration as it proposes one possibility for watershed-based planning.</p> <p>Certainly land use planners in local government must work within the system. But a WDFW document that simply says "consider salmonid needs at the site-scale and all will be well" disregards some serious shortcomings with the current way land use is regulated in Washington. The agency in charge of salmonid recovery needs to be at the forefront describing what changes need to be made. At the very least, it should be echoing the comments of other agencies. <b>(33)</b></p>	
<p><b>Agriculture:</b> We are concerned that the document makes recommendations to local planners with regard to the regulation of agricultural activities.</p> <p>There are two important RCWs that the department should be mindful of with regard to recommending such actions to local planners.</p> <p>First, the Shoreline Management Act, RCW 90.58, says in part:</p> <p>(1) The guidelines adopted by the department and master programs developed or amended by local governments</p>	<p><i>The Draft will be amended to clarify that agriculture is not the focus, and that critical areas ordinances may not currently regulate agriculture. Also will provide clarifying language regarding SMA and agriculture.</i></p> <p><i>This document provides science-based management recommendations intended</i></p>

Comment	Response
<p>according to RCW 90.58.080 shall not require modification of or limit agricultural activities occurring on agricultural lands. (RCW 90.58.065)</p> <p>Second, the Growth Management Act, RCW 36.70A, says in part:</p> <p>1) For the period beginning May 1, 2007, and concluding July 1, 2010, counties and cities may not amend or adopt critical area ordinances under RCW 36.70A.060 (2) as they specifically apply to agricultural activities. (RCW 36.70A.560)</p> <p>At this time, whether the land in question is subject to the jurisdiction of the SMA or the GMA, there is no role for local government to regulate agricultural activities.</p> <p>The language of this draft guidance manual would cause confusion and create legal challenges if it was followed by local planners and elected officials.</p> <p>We do appreciate the inclusion of recommendations to adopt voluntary programs to achieve many of the environmental benefits that are possible through cooperative programs. Such voluntary programs are encouraged by the GMA.</p> <p>RCW 36.70A.560 (2) Counties and cities subject to deferral requirements under subsection (1) of this section:</p> <p>(a) Should implement voluntary programs to enhance public resources and the viability of agriculture. Voluntary programs implemented under this subsection (2)(a) must include measures to evaluate the successes of these programs;</p> <p>Many of these issues are under discussion at a facilitated process at the Ruckelshaus Center, as directed by SSB 5248 (2007 legislative session).</p> <p>It has been a surprise and disappointment to learn that, while stakeholders are at the table discussing voluntary programs, the WDFW is creating guidance to local planners that goes well beyond legal authority that those planners and local governments now possess. <b>(46)</b></p>	<p><i>to support voluntary and incentive-based approaches to land use planning for salmonids, as well as to assist planners with meeting planning and salmon recovery laws. These recommendations are not, themselves, minimum or maximum legal requirements. Efforts are made throughout the document to provide local examples of where these recommendations have been implemented within the context of current laws.</i></p> <p><i>Text has been added to reflect Senate Bill 5248. WDFW briefed staff from the Ruckelshaus Center working on the 5248 process about this draft document. WDFW staff also met with staff of the Farm Bureau to discuss concerns with 5248. As stated above, an explainer about how 5248 limits the applicability of CAO regulations to agriculture will be added.</i></p>
<p><b>No outreach/limited review:</b> From a procedural point of view, we note that this draft was reviewed by a dozen staff at Washington Department of Fish &amp; Wildlife and one person from Evergreen State College.</p> <p>Nobody is listed from Washington State Department of Agriculture, Washington State Conservation Commission, Washington State Department of Commerce, or the Office of Farmland Preservation.</p>	<p><i>Broad review and outreach has been done on this document. With the release of the draft, outreach to many groups was done, including staff from the Dept of Ag, Conservation Commission, OFP and Farm Bureau. Technical reviewers listed on the</i></p>

Comment	Response
<p>Any of these four omitted agencies could have advised WDFW of the requirements of the GMA (RCW 36.70A) or SMA (RCW 90.58) with regard to agricultural activities.</p> <p>We are also concerned that there has been no previous public announcement of the process of creating this draft or any outreach to stakeholder groups like Washington Farm Bureau or dozens of other agricultural organizations in our state. <b>(46)</b></p>	<p><i>draft itself were the science experts involved in drafting the document, and do not constitute final reviewers.</i></p>
<p><b>PREFACE</b></p>	
<p>It would be beneficial to include an executive summary explaining the scope of the manual, how it is laid out, and how it should be used. The summary should explain how you expect the document to integrate with both long range and short range planning processes. May be useful to planners to cross reference issues with the type and timing of planning procedures. <b>(36)</b></p>	<p><i>Draft will be amended to include a “How to Use this Guidance” section.</i></p>
<p>Reference to IAC 2001 document is slightly misleading (p 3). The reference states that “Approximately fifty-four percent (23.4 million acres), of land in Washington State is privately owned (IAC 2001) and much of this land is in low-lying areas, such as floodplains and river deltas, where salmonid habitat is prevalent.” It appears that this information came from Figure 2 on page 12 of the IAC document. Please refer also to Figure 1 on page 10. The figures reported by IAC are that 43.3 million acres of land statewide (94%) are uplands and 2.6 million acres (6%) are aquatic lands. <u>Of the upland acres</u>, 23.4 million acres (54%) are privately owned. This figure refers to upland acres only, so a simple fix might be to state, “Approximately fifty-four percent (23.4 million acres of upland in Washington state....” Then you might include how IAC defines uplands. <b>(37)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p>Page vi – Although it was mentioned in a few places within the main body of this guidance document, it’s best to highlight the fact that local land use planners are in a unique, perhaps pivotal, position to protect and restore salmon and their habitat primarily through their important work on growth management and shoreline planning. <b>(40)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p><b>CHAPTER ONE - INTRODUCTION</b></p>	
<p><b>1.1 Salmonid Populations in Washington State</b></p>	
<p>In the 3<sup>rd</sup> paragraph on p. 1. To restore salmon, steelhead and trout populations to healthy harvestable levels, WDFW issues fewer commercial fishing licenses, marks hatchery fish, and has reduced fishing seasons and catch. <b>Comment:</b> We suggest that clarification as to what is meant by “fewer” or “reduced” would be helpful. <b>(37)</b></p>	<p><i>Comment noted.</i></p>
<p><b>1.2 Salmonid Recovery in Washington State</b></p>	
<p>Third paragraph under Hood Canal: Steelhead are also listed as threatened in Hood Canal. Summer Chum are also ESA listed in Chimicum, Discovery Bay, and Sequim Bay drainages. Perhaps for simplicity sake it would be better to lump Puget Sound and Hood Canal in this document, as they are all in the same ESU. <b>(8)</b></p>	<p><i>Draft will be amended to incorporate comment. Steelhead were inadvertently omitted from Hood Canal. Chum are listed in the drainages mentioned. The ESUs for</i></p>

	Comment	Response
		<i>Chinook salmon, chum salmon, steelhead, and bull trout, are not the same. For example, the Hood Canal summer chum ESU is a subset of the Chinook and steelhead ESUs in Puget Sound.</i>
	<p><b>Hood Canal.</b> The Hood Canal region is located within the Puget Sound Salmon Recovery Region, and is a separate salmon recovery region for Hood Canal summer chum. It includes portions of Jefferson, Mason, Clallam, and Kitsap Counties. Puget Sound Chinook, steelhead and Hood Canal summer chum are listed as threatened as well as bull trout (p 3).</p> <p><b>Comment:</b> proposed language to clarify Hood Canal is indeed a separate region for summer chum and to add Puget Sound steelhead to the list of ESA listed fish in the region. <b>(37)</b></p>	<i>Draft will be amended to incorporate comment.</i>
	<p>Page 3, Puget Sound - The size of the Puget Sound Salmon Recovery Region is not solely dictated by the Chinook ESU because the Chinook ESU does not currently cover WRIA 19 (west of the Elwha River). It would be best to add mention that the Elwha-Dungeness chapter of the Puget Sound Chinook Recovery Plan does include reference to WRIA 19 and that a recovery plan is now drafted to cover the WRIA 19 portion of the basin. Also, the Puget Sound Partnership, as the regional recovery entity for Puget Sound Chinook, includes WRIA 19 within the Action Agenda for recovering the Puget Sound ecosystem as a whole. <b>(40)</b></p>	<i>Draft will be amended to incorporate comment. The Puget Sound Salmon Recovery Region includes the Lyre/Hoko drainages (WRIA 19), whereas the ESU for Chinook and steelhead does not extend westward of the Elwah watershed.</i>
	<p>Page 3, Hood Canal - What determines an area to be classified as a "region"? The Hood Canal Coordinating Council, is currently the regional recovery entity for Eastern Strait of Juan de Fuca / Hood Canal summer chum as the Puget Sound Partnership is the regional recovery entity for Chinook. <b>(40)</b></p>	<i>Draft will be amended to incorporate comment. See previous response.</i>
	<p>The individual descriptions vary a bit, and the NE WA one states "There is no official recovery board in this region;" but what that means relative to the other sections is unclear. <b>(45)</b></p>	<i>Draft will be amended to incorporate comment.</i>
<p><b>1.3 Salmonid Recovery and Land Use Planning</b></p>		
	<p>I don't have a specific suggestion, but I think the guide should expound on the statement that it is "less costly to protect sensitive areas than it is to repair them once damaged" (May et al. 1996) by providing a few examples if appropriate. It might also mention that it is much more expensive to protect sensitive areas with financial incentive (fee simple acquisition or conservation easement) than it is to protect them with regulations but I respect the balance between property rights and salmon recovery. <b>(17)</b></p>	<i>Draft will be amended to include examples.</i>
	<p>From page 5: The paragraph discussing protection and restoration does not seem to hold together logically. In particular, the third sentence and first sentence seem contradictory. This paragraph could be clarified.</p> <p>Restoration and acquisition projects demand extensive funding and coordination to purchase land and/or implement habitat improvements and thus it is less costly to protect sensitive areas than it is to repair them once damaged (May et al. 1996). Therefore, there is a key role for local land use planners to play through permitting programs such as the</p>	<i>Draft will be amended to incorporate comment.</i>

	Comment	Response
	critical areas ordinance and Shoreline Master Program as well as incentive programs such as transfer of development rights. Protecting existing priority habitat areas and restoring lost habitat as guided by regional recovery plans is a proactive approach land use planners can take to protect at-risk salmonid populations. <b>(35)</b>	
	Page 5 , 2 <sup>nd</sup> paragraph – could add a reference to stormwater management as another permitting element that can help limit the harm from development in urban areas. <b>(36)</b>	<i>Information on stormwater management is provided in a section that allows more detail.</i>
	Forest practices can also impact salmonid habitat in the higher elevations where freshwater tributaries can become clogged with sediment or fish are unable to access natal streams or important spawning areas due to poorly installed culverts at forest road crossings (p 4). <b>Comment:</b> It is not clear why you refer to forest practices in higher elevations. <b>(37)</b>	<i>Draft will be amended to incorporate comment. Although forest practices are often generalized as occurring in higher elevations than other land uses, it is not universal.</i>
	Pages 5-6 -- The WDFW Document guidance paper declares that a handful of local jurisdictions have “begun to integrate the goals of regional salmon recovery plans in their land use planning projects” and recognize “the clear nexus between local land use decision-making and salmonid recovery efforts.” (p. 5). As the example of this, the guidance paper cites to Skagit County as being “engaged in a proactive program to restore salmon habitat and encourage recovery throughout the Skagit River watershed.” Accordingly, the County requires that all departments “consider the Puget Sound Salmon Recovery Plan in all their actions. (p. 5-6). This is an unfortunate example that is not borne out by Skagit County’s actions. One need go no further than Skagit County’s decision to bar use of any agricultural natural resource lands for wetland mitigation banking. <sup>6</sup>  Another example of Skagit County’s refusal to adopt ordinances that are consistent with salmon recovery plans is the ordinance governing protection of critical areas located on agricultural lands that was at issue in the aforementioned Washington Supreme Court case. There Skagit County successfully argued that under the GMA it is only obligated to adopt an ordinance that maintains existing habitat conditions, regardless of how harmful or degraded they are. <sup>7</sup> And while the Court endorsed Skagit County’s maintenance of degraded habitat, it specifically rejected Skagit County’s monitoring program <sup>8</sup> and, consequently, the County’s adaptive management program for salmon which hinges on proper monitoring. <sup>9</sup> Both the Western Washington Growth Management Board and The Washington Supreme Court found that Skagit	<i>Draft will be amended to incorporate comment.</i>

<sup>6</sup> See Skagit County Board of County Commissioners Meeting Minutes for June 2, 2009 (page 3, part C.) and June 8, 2009 (page 4, part IV(c)) (adoption of Ordinance 20090009 prohibiting wetland mitigation banks on lands zoned Ag-NRL).

<sup>7</sup> *Swinomish*, 161 Wash. 2d at 429-30, 166 P.3d at 1205-06.

<sup>8</sup> See *Swinomish*, 161 Wash. 2d at 434-35, 166 P.3d at 1208-09 (failure to establish benchmarks). For example, without a benchmark for large woody debris, it is impossible to determine whether the County’s management practices provide for adequate levels of large woody debris. This problem is further confounded by the fact that monitoring is limited to what can be viewed from the road right of way and those farms where landowners have given permission.

<sup>9</sup> *Swinomish*, 161 Wash. 2d at 436-37, 166 P.3d at 1209.



	Comment	Response
	County's monitoring and adaptive management system...still does not establish an overall protection strategy for fish and wildlife habitat in ongoing agricultural lands...." <sup>10</sup> Based on the above, we believe it is inappropriate to present Skagit County as an example of good land use planning that benefits salmon. <b>(38)</b>	
	Page 4, 4 <sup>th</sup> paragraph - Should this paragraph include at least a mention of the urbanization of marine shorelines where the terrain may or may not be considered low gradient? Urban densities of developable lots along marine shorelines in Puget Sound are quite common and can significantly damage habitat resources important to salmonids. <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page 4, 5 <sup>th</sup> paragraph - It may be worth mentioning the risk associated with inappropriate agricultural and forest conversions to other uses, such as traditional residential housing densities, as a potential threat to salmonid habitat. When land is converted and traditional land-use zoning and development practices are used, rather than Low Impact Development practices such as cluster housing, damage to salmonid habitat is often exacerbated. <b>(40)</b>	<i>Draft will be amended to discuss the role of comprehensive planning and zoning in designating land uses that are compatible with salmon habitat protection.</i>
	Page 5, 2 <sup>nd</sup> paragraph - Delete the phrase "and restoring lost habitat" within this sentence as it doesn't seem to fit with the "protection" theme of this paragraph. Also, restoring lost habitat is not a "proactive" approach, rather it's reactive to the damage that's already occurred. <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page 5, paragraph 4 - When you mention that other regional planners have recognized the <i>clear nexus</i> it seems to tell the reader that they have not themselves been able to recognize this obvious connection. It may be insulting to some readers – perhaps the text should instead continue to focus on how important the local planner's role is, and more gently tell them that there are examples out there to help them with this important task. <b>(40)</b>	<i>Draft will be amended to modify tone.</i>
	1.3 top of page 5. At a minimum, I suggest adding a qualifying phrase to the first sentence, after 'impacts' such as "alone, without regulations as a backstop". <b>(45)</b>	<i>Draft will be amended to incorporate comment.</i>
	The second paragraph on page five mentions 'regional recovery plans' without explaining who does these, and who is responsible for initiating dialog between the salmon planners and land use planners. It implies that the land use planners need to initiate this dialog, but some would argue the opposite. This issue is raised again on page 68, with a recommendation for coordination. Maybe some of that language can be used here too. <b>(45)</b>	<i>Recovery plans are discussed in section 1.2. There is mutual benefit for land use planners and recovery plan administrators to engage in dialog to protect salmon and steelhead habitat, as recommended in the Salmon Recovery Coordination section.</i>
<b>1.4 Relationship to Other Guidance</b>		
	WDFW has published numerous sources of scientific guidance to protect and recover salmonid habitat. These include... (p 6) <b>Comment:</b> It may be helpful to the reader if formal references were given following each guidance document named so that the reader can more easily find them in the Literature Cited section. <b>(37)</b>	<i>Draft will be amended to incorporate comment. Reference to the Appendix listing the other guidance documents.</i>
	Could use specific citations to the BAS Citations document and other documents (or state that they are listed in the Appendix if they are there.) I did not see mention of the Aquatic Habitat Guidelines or the Streambank Protection	<i>See previous comment.</i>

<sup>10</sup> Swinomish, 161 Wash. 2d at 437 n.9, 166 P.3d at 1209 n.9.

Comment	Response
Guidelines. (45)	
<b>CHAPTER TWO – PACIFIC SALMONIDS AND LAND USE</b>	
<b>2.1 Salmon, Steelhead and Trout</b>	
p.7, paragraph 1, add char (and whitefish?) (33)	<i>Added char to discussion. While whitefish are salmonids, they are beyond the scope of this document.</i>
<b>Table 2.1: Federally Listed Pacific Salmonids in Washington State (p 8)</b> <b>Comment:</b> Upper Columbia steelhead are listed as threatened, not endangered as your table says. (37)	<i>Draft will be amended to incorporate comment. U.S. District Court decision resulted in the listing status of Upper Columbia River steelhead being changed from Endangered to Threatened in June 2009, during the preparation of this publication. Also need to correct the text on pg 7, pp 2.</i>
Page 7 - In this first section, the paper discusses NOAA and the ESA. Would it be easier to follow if this big picture is first outlined in the introduction? Then mention the regional plans as directed by NOAA. This second chapter then could only focus on “life cycle and habitat function [i.e.] the components necessary to retain and recover viable salmonid populations.” (40)	<i>Draft will be amended to move the NOAA/ESA discussion to the start of section 1.2.</i>
<b>2.3 Anadromous Fish Life Stages and Habitat</b>	
Fig 2.2: Consider adding labels to show top circle is freshwater habitat, and bottom is saltwater. The words are there, but it may not be apparent to non-science folks (31)	<i>Draft will be amended to incorporate comment.</i>
The implications of the first paragraph on page 11 might mean to some people that the adaptability of salmonids allows for increasing human impacts on their habitat. Obviously not what the cited researcher claims. (45)	<i>An example sentence will be added to clarify.</i>
<b>2.3.1 Freshwater Spawning</b>	
Pages 11-12. The first and second paragraphs seem duplicative. Is there some way to combine? (35), (37)	<i>Draft will be amended to incorporate comment.</i>
Page 11 and 12 - The last paragraph on page 11 discusses “female salmonids use their tail to clean away sand and silt before <i>depositing fertilized eggs</i> into excavated pits...” and the first paragraph on page 12 says “once the female deposits the eggs, <i>they are immediately fertilized...</i> ” – These statements are inconsistent. (40)	<i>Comment addressed in the rewrite of the previous comment.</i>
<b>2.3.2 Freshwater Rearing</b>	
<b>Page 13</b> – The last paragraph of section 2.3.2 discussing freshwater rearing habitat would benefit by inclusion of a diagram that depicts a functional riparian zone and the benefits it provides. Also, there should be some reference to the need for naturally stable banks and a discussion of the problems stemming from bank armoring/hardening. (38)	<i>Draft will be amended to incorporate comment.</i>

Comment	Response
<b>2.3.3 Nearshore Habitat</b>	
p. 14, first paragraph: I read once that the decline of Chinook and summer chum—which rely most heavily on the nearshore—is correlated with degraded estuaries/nearshore areas. If so, a comment along these lines may be appropriate in this paragraph. (7)	<i>Draft will be amended to include an example.</i>
<b>Page 14</b> – The discussion of nearshore habitat (and the habitat discussion in general) would benefit from a discussion of context. For example, to what extent is any further incremental loss of nearshore (and rearing and spawning) habitat consistent with salmon restoration? Are current exemptions for some overwater and bank armoring structures consistent with salmon restoration? The tribes would say that these exemptions are not consistent with salmon restoration and so should the Department. <sup>11</sup> (38)	<i>Text addressing this comment can be found in the nearshore areas section. The draft will be amended to add some additional management recommendations.</i>
Page 13, 2 <sup>nd</sup> paragraph – The description of the “nearshore” may need to be clarified. Perhaps start with changing the title of section 2.3.3 to “Estuarine and Nearshore Habitat” and then describe separately, estuaries, and then nearshore. (40)	<i>Draft will be amended to incorporate comment.</i>
<b>2.3.4 Ocean Residence</b>	
Page 15: Sockeye juveniles, unlike other salmonids, rear almost exclusively in large deep lakes cold enough to support them, and are limited to just a few river/lake systems in Washington, including Lake Washington and Baker Lake in Puget Sound, Lake Quinault, Lake Ozette, and a few in Pleasant Lake on the Coast, and Lakes Wenatchee and Osoyoos (actually in Canada but a tributary to the Okanagan) in the Columbia system. Redfish Lake in Idaho also supports the most endangered race of Sockeye that also migrate up the Columbia and Snake Rivers in Washington. (8)	<i>Draft will be amended to incorporate comment.</i>
Page 15 & 16 - The first reference to ocean residence says 6 months to 5 years, but under return migration the length is “after one to seven years.” Is this from birth? Is that why the length is different? This should be clarified to avoid confusion. (40)	<i>Draft will be amended to incorporate comment. Salmonids may spend one or up to five years and travel great distances in the Pacific Ocean before returning to their natal streams to spawn as adults.</i>
<b>2.4 Habitat Functions</b>	
paragraph 3: Include example of increased impervious area affecting not just stormflows but summer low flow as well. (33)	<i>Draft will be amended to incorporate comment.</i>
<b>2.4.2 Water Quality</b>	
<b>Page 18</b> – Temperature discussion could be much more thorough. Discussion should be augmented by citation to WDOE’s water quality standards for temperature and to more recent technical literature. <sup>12</sup> (38)	<i>Draft will be amended to include a reference to Ecology’s H2O standards.</i>
<b>2.4.3 Habitat Structure</b>	
<b>Comment:</b> More citations supporting the value of large wood in streams may be helpful. (37)	<i>Draft will be amended to emphasize the</i>

<sup>11</sup> We suggest that these issues need to be addressed somewhere in the draft guidance paper, not necessarily here.

<sup>12</sup> See e.g., D. McCullough, S. Spalding, D. Sturdevant, and M. Hicks, Summary of Technical Literature Examining the Physiological Effects of Temperature (May 2001) Report No. EPA-910-D-01-0005.

Comment	Response
<p>Page 19 – A diagram showing the role of large woody debris in stabilizing stream banks, forming pools, storing sediment, providing food, etc. would likely help planners better understand the importance of having trees in buffers as opposed to merely shrubs or grass filter strips.</p> <p>The statement (also on page 19) that 50% of food resources for salmon are derived from terrestrial insects falling into the stream or nearshore environment likely has ramifications for the management of riparian habitat. The draft guidance paper should discuss those. <b>(38)</b></p>	<p><i>value of LWD in riverine systems.</i></p> <p><i>Comment noted. Researching a good diagram.</i></p> <p><i>A discussion on insects falling into streams providing a food resource applying to management recommendations is addressed later in the document (riparian areas section).</i></p>
<p><b>2.4.4 Food (Energy) Source</b></p>	
<p>In freshwater and marine systems, as much as 50% of the food resources for salmonids are derived from terrestrial insects falling into the stream or nearshore environment (p 19).</p> <p><b>Comment:</b> A citation to back up this sentence would be helpful. The last sentence in the draft on salmonid eggs may not be helpful and could be deleted. <b>(37)</b></p>	<p><i>Draft will be amended to incorporate comment. Brennan, J.S., K.F. Higgins, J.R. Cordell, and V.A. Stamatiou. 2004. Juvenile Salmon Composition, Timing, Distribution, and Diet in Marine Nearshore Waters of Central Puget Sound in 2001-2002. King County Department of Natural Resources and Parks, Seattle, Wa. 164 pp.</i></p>
<p><b>2.5.1 Urban and Rural Growth</b></p>	
<p>Page 20 – The discussion of “urbanization” should define the term. The draft guidance paper mentions that impervious surface area is strongly correlated with adverse impacts on stream conditions. How much impervious surface is a problem? What level of impervious surface is associated with “urbanization?” What level of impervious surface, in WDFW’s opinion, is consistent with good land use planning?</p> <p>Along with urbanization and impervious surface, there should be a discussion and guidance on addressing the impacts of roads and road networks, including minimizing/avoiding future road development. A recent review (Carnefix and Frissell 2009) of research on the subject suggests that even relatively “minimal” road densities (one mile per square mile) can have negative impacts on aquatic systems with consequences for salmonid habitat and populations. Road densities are a good indicator of land use impacts on aquatic systems. <b>(38)</b></p>	<p><i>Draft will be amended to incorporate comment. Percent of impervious surface in a watershed is discussed in section on stormwater management.</i></p>
<p>Page 20, 3<sup>rd</sup> paragraph - Check the Booth 2000 reference as, it may also stress reduction in forest cover as a factor that’s strongly correlated with adverse impacts on stream conditions, not just impervious surface. Also, see and cite the following more recent Booth et al. reference as it states that loss of forest cover plays a significant role in the degradation of lowland freshwater streams in Puget Sound: “<i>Forest Cover, Impervious-Surface Area, and the Mitigation of Stormwater</i></p>	<p><i>Draft will be amended to provide additional citations.</i></p>

Comment	Response
<p><i>Impacts,</i>” Derek Booth, David Hartley, and Rhett Jackson, Journal of the American Water Resources Association, Vol. 38, No. 3, June 2002. <b>(40)</b></p>	
<p><b>2.5.2 Agricultural Production</b></p>	
<p><b>Page 21</b> – The discussion of agriculture is incomplete. There is no mention of the impacts associated with cattle grazing, such as riparian soil compaction and loss of streambank stability. In addition, the discussion of aquaculture (as a form of agriculture) is incomplete and raises more questions than it answers. If aquaculture is going to be included in the draft guidance paper, then it should be covered thoroughly. <b>(38)</b></p>	<p><i>Comment noted. While impacts from all major land uses, including agriculture, aquaculture, and forestry are briefly mentioned in this document, the intent is not to provide a detailed assessment of these impacts. Further there are existing limitations on the regulation of agriculture through local critical areas ordinances (see response to comment #46 under General Major Amendments). Incentive programs are mentioned in section 3.3.1. Other resources exist to describe impacts from agriculture and best management practices. The draft will be amended to include some of these resources in the section on agricultural activities.</i></p>
<p>paragraph 1: Add streambank trampling / erosion, manure, ditch cleaning/maintenance <b>(33)</b></p>	<p><i>Comment noted. See previous response.</i></p>
<p>paragraph 3: For example, <u>requiring livestock exclusion and retaining vegetated buffers along waterways</u> improves water quality by increasing shade, filtering solutes and suspended particles and decreasing bank erosion <u>and manure impacts</u>. <b>(33)</b></p>	<p><i>Comment noted. See previous response.</i></p>
<p>Page 21, 1<sup>st</sup> paragraph – could mention “stormwater management and low impact development (LID)” as another way to avoid impacts. <b>(36)</b></p>	<p><i>Comment noted. See previous response.</i></p>
<p>Some of the potential impacts of agricultural production on salmonid habitat functions include the removal of streamside vegetation resulting in elevated water temperatures (first paragraph p 21).  <b>Comment:</b> it’s not clear that removal of streamside vegetation adjacent to larger streams and rivers results in elevated water temperatures. It may be helpful to be more clear when and where (e.g., smaller, tributary streams) removal of streamside vegetation may result in elevated water temperatures. If you don’t clarify it, you may have other attempting to clarify it for you. <b>(37)</b></p>	<p><i>Comment noted. See previous response.</i></p>
<p><b>Comment:</b> this might be a great spot to highlight the value of agriculture as a preferred land use and to acknowledge the efforts of the Ruckelshaus Center to work with willing stakeholders to develop solutions that will result in effective policies and practices that ensure protection of environmentally sensitive areas and support preservation of farm lands and a</p>	<p><i>Draft will be amended to incorporate comment.</i></p>

	Comment	Response
	strong farm economy. More information available at <a href="http://ruckelshauscenter.wsu.edu/projects/caop.html">http://ruckelshauscenter.wsu.edu/projects/caop.html</a> (37)	
	Page 21, last par.: Consider adding additional benefits of hedgerow type vegetation on crop pest management, through attracting beneficial pest predators. Information sources are available on this horticultural practice through Washington Tilth. (45)	<i>Draft will be amended to reference additional resources for best management practices.</i>
<b>2.5.3 Forest Practices</b>		
	Upland development, such as Forest practices, may also impact salmonid habitat functions (first paragraph p 22). <b>Comment:</b> Proposed clarifying language. Upland development is not the same thing as Forest practices. (37)	<i>Draft will be amended to incorporate comment.</i>
<b>2.5.4 Habitat Impacts Associated with Land Use</b>		
	I'd try to link the table 2.2 with the "Recommendations" section of the document. There is almost an explicit link between the Potential Planning Tool column in table 2.2 and the recommendations section already but not quite, and I think if there were more connection is would help the uninitiated user.	<i>Draft will be amended to incorporate comment.</i>
	It may require a little tweaking and aligning of the language but I think all you need are the table name, page numbers and maybe also a hyper link from Table 2.2...something like this:	
	LWD Recruitment (Page 48 Table 3.2.5) (29), (38), (42)	
	Table 2.2: "Fish Passage Barriers": add habitat structure and flow regime to Access. (33)	<i>Draft will be amended to incorporate comment.</i>
	Table 2.2: Should add "zoning" to the list of tools for managing impacts. (35)	<i>Draft will be amended to incorporate comment.</i>
	Table 2.2, pages 23-24 – suggest adding stormwater management and LID to the tools for loss of riparian vegetation, and upland clearing and grading. (36)	<i>Draft will be amended to incorporate comment.</i>
	<b>Table 2.2 : Planning tools to manage development impacts on salmonid habitat.</b> Fish Passage Barriers, Access (p 24). <b>Comment:</b> not clear what you mean by non-commercial forest practices? Also, are there other types of fish passage barriers that should be included here? (37)	<i>Local governments have non-commercial forest practices regulatory authority.</i>
	Table 2.2 refers to having shoreline development standards this is way to vague to provide any guidance. Need to be explicit about what the standards should be. Separate Bulkheads from overwater structures. (42)	<i>Standards are described in the section on nearshore areas.</i>
	Page 23, 1 <sup>st</sup> row - Consider adding to the phrase: "riparian buffers and building setbacks" (40)	<i>Draft will be amended to incorporate comment.</i>

	<b>Comment</b>	<b>Response</b>
	Page 23, 3 <sup>rd</sup> row - It's important to somehow work in a reference to the loss of farmland to conversion that is already being managed to be consistent with ecosystem protection within this planning tool. (For the Puget Sound, this issue is addressed within the actions listed under A.4.2 within the Puget Sound Partnership's Action Agenda.) Perhaps this could be done as an additional footnote at the bottom of this table. <b>(40)</b>	<i>Will amend the table with reference to farmland loss, consistent with the Partnership's Action Agenda focus on incentive programs for supporting working agricultural land.</i>
	Page 23, 5 <sup>th</sup> row - Consider adding to the phrase: "Stormwater Management <i>and Low Impact Development Practices</i> " <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page 24, 1 <sup>st</sup> row - Consider also adding to the phrase: "riparian buffers <i>and building setbacks</i> " for marine and freshwater shorelines <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page 24, 6 <sup>th</sup> row - It appears that the reference to stormwater as a development action here has to do with the physical damage to habitat from high stormwater flows. If so, it may be best to change the wording from " <i>water allocations/urban stormwater outfall</i> " to simply " <i>water allocations/stormwater runoff</i> " to include stormwater impacts from development in both urban and suburban areas. Also, many may regard the word " <i>outfall</i> " as discharge from a pipe. Stormwater also is discharged via ditches of various kinds that can also damage salmonid habitat. Again, under the planning tool column, consider adding to the phrase: "Stormwater Management <i>and Low Impact Development Practices</i> ". Also consider adding " <i>water reuse standards</i> " to the planning tools column, though this may be more of a local health code issue than a land use planning issue per se. <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
<b>CHAPTER THREE – PLANNING FOR SALMON, STEELHEAD AND TROUT</b>		
<b>3.1 GMA/SMA and Salmonid Recovery</b>		
	<p>p. 25, SMA: Does WDFW have any recommendations related to whether or not local governments should include critical area buffers in their SMA-regulated areas? If so, which critical areas—Geohazards? Frequently flooded areas? Does WDFW have a recommendation about where the SMP jurisdiction should end? (Top of slope + x', x' beyond 100-year floodplain?)</p> <p>RCW 90.58.030 (f)(ii) in part, "Any city or county may also include in its master program land necessary for buffers for critical areas, as defined in chapter 36.70A RCW, that occur within shorelines of the state." <b>(7)</b></p>	<i>Ecology provides guidance on determining shoreline jurisdiction and integration with critical areas designated under GMA (<a href="http://www.ecy.wa.gov/programs/sea/sma/st_guide/SMP/index.html">http://www.ecy.wa.gov/programs/sea/sma/st_guide/SMP/index.html</a>). WDFW encourages cities and counties to consider RCW 90.58.030, which allows land necessary for buffers for critical areas that occur within shorelines of the state to be included in the SMP. Including these buffers will help to ensure consistent regulation of activities across the critical area.</i>
	With approximately fifty-four percent of the uplands in Washington State in private ownership (IAC 2001)...(first paragraph	<i>Draft will be amended to incorporate</i>

Comment	Response
<p>p 25)  <b>Comment:</b> Again, same comment as from the Preface. The figures quoted from IAC 2001 are for uplands only- and don't include the aquatic lands. For ALL lands in Washington State, 2.6 million acres, or 6% of all land in Washington State are aquatic lands and 43.3 million acres (or 94%) are uplands. Of the upland acres, 23.4 or 54% are in private ownership. The text should state "uplands" not just "lands". <b>(37)</b></p>	<p><i>comment.</i></p>
<p>To further protect salmonids, the environment designation informs policies and provisions for regulating development, the inventory and characterization can be referenced to assess cumulative impacts to ecological functions, and the restoration plan can be referenced to determine consistency with recovery priorities and inform habitat mitigation (last paragraph in this section p 27).</p> <p><b>Comment:</b> It may be very helpful for local government jurisdictions if you can provide an example of how the restoration plan portion of a proposed SMP can be referenced to determine consistency with recovery priorities and inform habitat mitigation. <b>(37)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p><b>3.1.1 Shoreline Management Act</b></p>	
<p>The text states on page 26: "Areas containing anadromous fish habitat are consistent with the most protective designation which is "Natural." I think this is too simplistic of a recommendation. In many jurisdictions including Seattle, I would estimate that over 90% of the shoreline provides some habitat functions for anadromous fish, including some of the most degraded habitat and heavily used shorelines in the state. It would be difficult to accomplish the purposes of the Shoreline Management Act if all such shorelines were subject to regulation as prescribed in the WAC guidelines for Natural designations.</p> <p>My suggestion would be to add that the natural designation is appropriate for the most critical, sensitive, and intact habitat areas. Conservancy designations are appropriate where habitat is not intact but restoration is feasible and is a priority. In some areas, existing development has sufficiently impaired habitat conditions that full restoration is unlikely and other designations may be appropriate. In all shoreline designations, it is important that the development standards recognize the ecological functions present and how the habitat could be adversely affected. As you have noted, the SMA guidelines now state that a principle of "no net loss of ecological functions" must be enforceable in all local SMPs. Development standards should provide guidance on how that can be achieved, either through prescriptive regulations or performance standards.</p> <p>I know that you do not have room to re-articulate all of the guidelines for how this is to be accomplished in local SMPs, but I think the addition of these few concepts would provide a better perspective on how SMPs are being and should be developed under the WAC guidelines. <b>(9)</b></p>	<p><i>Draft will be amended to specify highest priority natural environment designations may include spawning beds (e.g., forage fish spawning beaches, intact kelp and eelgrass beds) and areas of high quality, intact native vegetation identified in a habitat assessment or recovery plan as key to supporting listed populations.</i></p>



Comment	Response
<p>You do a good job of pointing out the different elements of the Local Shoreline Master Programs. The Inventory and Characterization helps to create the baseline to achieve “No Net Loss” in shoreline functions. I would make sure to identify sources for salmonid baseline populations in different watersheds. This should be accompanied by the underlying causes for impairment.</p> <p>I would state that there are different levels of environmental designations and the Natural Environment is the most protective. The Natural environment should be used for areas in which critical and irreplaceable habitat exists. I wouldn’t make a wholesale statement that anadromous fish use = natural environment. If we used the natural environment for every anadromous fish bearing stream, we might preclude other beneficial uses. Also there are other mechanisms in a shoreline master program that can protect this resource such as policies on armoring, dredging, fill, piers and many other actions. <b>(10)</b></p>	<p><i>Comment noted. See previous response.</i></p>
<p>Section 3.1.1 states: “Areas containing anadromous fish habitat are consistent with the most protective designation, which is Natural.” Did you intend for this to mean that the in-water areas would be designated Natural or are you recommending that the uplands (or shorelands) be designated Natural? I can envision potential problems in either case:</p> <p>As you know, the SMA jurisdiction includes both the in-water areas of shorelines of the state and the adjacent shorelands. For in-water areas, Ecology generally recommends areas below OHWM be designated Aquatic. Are you recommending something different?</p> <p>If shorelands adjacent to anadromous habitats are to be designated Natural, that would include a substantial amount of the region’s shorelines (e.g., Duwamish River, Lake Washington, the Puyallup River, and all of the Puget Sound shoreline for example). According to the WAC, most uses (Commercial, Industrial, Forestry...) are prohibited or require a conditional use permit in the Natural environment. The stated purpose of the Natural environment is to protect areas that are “relatively free of human influence or that include intact or minimally degraded shoreline functions intolerant of human use.” Many salmonid habitats would not meet this definition and would likely not qualify for a Natural designation. In my experience, the Natural environment has been principally applied to publically owned forest or park land or very high quality rural lands, where development is prohibited or severely limited.</p> <p>I think it’s important to give local governments sound guidance on how/when to apply the Natural designation to protect salmonid habitats, but am concerned that the draft document provides a recommendation that is too general and may not be workable for many jurisdictions. A more nuanced discussion, with some examples and an expanded description of ‘anadromous fish habitat’, would be more helpful, in my view. <b>(26)</b></p>	<p><i>Comment noted. See previous response.</i></p>
<p>Mention the WAC 173-26-201(2a) science requirement language to show how it’s similar to, but not exactly, GMA’s ‘BAS’ terminology (“...the most current, accurate and complete scientific or technical information available.”) <b>(31)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>

Comment	Response
<p>– shorelines include (lakes + connected wetlands)&gt;= 20 acres. Many of these lakes are as yet unidentified as shorelines – WFC prepared a report on this issue which can be included in the bibliography. This issue relates back to water typing, or more generally the role of an accurate inventory and mapping of critical areas / shorelines as the foundation for the effective implementation of SMPs / CAOs. <b>(33)</b></p>	<p><i>Draft will be amended to incorporate Wild Fish Conservancy report.</i></p>
<p>Section 3.1.1 on the SMA needs some revision. See comments and edits. The following suggestion is offered to ensure accuracy regarding the following:</p> <ul style="list-style-type: none"> <li>• Clarity on policy and planning requirements contained in statute vs. our rule. For example, the SMA does not address “protection and restoration of ecological functions” or “no net loss.” These terms and policy objectives are in the SMP Guidelines rule. The objectives of the SMA are stated in 90.58.020: Excerpts relating to habitat protection are provided below.</li> <li>• Inventory and characterization and the restoration plan are technically not elements of the SMP, but are <i>supporting</i> documents. A few words to clarify this are suggested.</li> <li>• The draft specifically recommends applying the Natural Environment designation to all salmon habitat. This does not seem practical or appropriate. Salmon habitat is virtually ubiquitous on marine shorelines and many freshwater bodies. Some of our most urbanized shorelines lie along waters with a critical function of smolt and adult salmon passage. The extensive suburban and rural residential shorelines across the state are not “natural” but often contain very important habitat for salmon, various prey species, etc.</li> <li>• There is also a recommended “Aquatic” designation in the SMP Guidelines which would apply to aquatic habitat critical for salmon.</li> <li>• Perhaps recommendations for local governments should be addressed later, with the SMA section providing an overview of Environment Designations and other features of the SMP process that are most relevant to the salmon habitat topic.</li> <li>• The habitat provisions of the SMA are very broad. There is no specific emphasis on salmon habitat (unlike GMA.) The document should identify the policy linkages between SMA objectives and salmon habitat protection without leaving a misimpression about the holistic emphasis of the SMA. We suggest wording changes to accomplish this.</li> </ul> <p>Proposed revisions to clarify the above points:</p> <p><b>3.1.1 Shoreline Management Act.</b> The Shoreline Management Act (RCW 90.58), or SMA, requires all local governments in Washington State to adopt Shoreline Master Programs (SMPs) that contain policies and regulations that will ensure no net loss of shoreline ecological functions. Generally, shoreline areas affected include <del>those extending 200 feet landward of the Ordinary High Water Mark adjacent to</del> marine waters, streams with a mean annual flow greater than 20 cubic feet per second, water areas of the state greater than 20 acres, <u>land extending 200 feet landward of the Ordinary High Water Mark</u> and associated wetlands, river deltas and some or all of the 100-year floodplain.</p> <p><del>“Protection and restoration of the ecological functions of shoreline natural resources”</del> Protecting “the land and its</p>	<p><i>Draft will be amended to incorporate comment.</i></p>

Comment	Response
<p><u>vegetation and wildlife, and the waters of the state and their aquatic life is a fundamental policy goal of the SMA. As stated in the Legislative findings of the Act:</u></p> <p><u>RCW 90.58.020 (Excerpts) ...It is the policy of the state to provide for the management of the shorelines of the state by planning for and fostering all reasonable and appropriate uses. .... This policy contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto....</u></p> <p><u>In the implementation of this policy the public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the state shall be preserved to the greatest extent feasible consistent with the overall best interest of the state and the people generally. To this end uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment, or are unique to or dependent upon use of the state's shoreline. ...</u></p> <p><u>Permitted uses in the shorelines of the state shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's use of the water.</u></p> <p>SMPs are, at a minimum, to achieve no net loss of ecological functions necessary to sustain shoreline natural resources and to plan for restoration of ecological functions where they have been impaired (WAC 173-26-201(2)(c)). The SMP guidelines (WAC 173-26) point to ecosystem connections among freshwater, marine and terrestrial shoreline environments that support anadromous fish life cycles.</p> <p>The SMA establishes a balance of authority between local and state government. Cities and counties are the primary regulators, but the state (through the Department of Ecology) has approval authority of local <u>master</u> programs and <u>some</u> permit decisions. Every SMP is <del>somewhat unique</del> <u>based on local conditions shown in an inventory and characterization, but typically and includes the following elements (per SMP Guidelines):</u> an inventory and characterization of shoreline areas, environment designations, a shoreline restoration plan, and shoreline <u>goals</u>, policies and regulations.</p> <p>When preparing and amending an SMP, <del>special</del> consideration should be given to protect salmonid habitat functions. In the <i>Inventory and Characterization of Shoreline Areas</i>, each jurisdiction is required to prepare an analysis of <u>relevant</u> shoreline issues of concern including <u>"fish and wildlife conservation areas"</u>, which includes anadromous fish habitat. <i>Environment Designations</i> <del>are</del> <u>should be</u> based on the existing pattern of use, the biological and physical character of the shoreline, and the goals and aspirations of the community as expressed through comprehensive plans as well as SMP criteria. <del>There are several designations highlighted in</del> <u>The SMP Guidelines recommend six basic environment designations. Areas containing anadromous fish habitat are consistent with the most protective designation which is "Natural."</u> As expressed in</p>	

Comment	Response
<p>the SMP Guidelines [WAC173-26-211(5)(a)(iii)]: A “Natural” environment designation should be assigned to shoreline areas if any of the following characteristics apply:</p> <ul style="list-style-type: none"> <li>(A) <i>The shoreline is ecologically intact and therefore currently performing an important, irreplaceable function or ecosystem-wide process that would be damaged by human activity;</i></li> <li>(B) <i>The shoreline is considered to represent ecosystems and geologic types that are of particular scientific and educational interest; or</i></li> <li>(C) <i>The shoreline is unable to support new development or uses without significant adverse impacts to ecological functions or risk to human safety.</i></li> </ul> <p>Because environment designations inform development regulations, assigning a “Natural” environment designation to anadromous fish habitat <u>that also meets the criteria for this designation</u> is an important step in protection and restoration of salmonids.</p> <p>SMP <u>documents</u> also include a <i>Restoration Plan</i> to achieve overall improvements in shoreline ecological functions over time. Restoration plans influence salmonid recovery because each considers and addresses existing restoration projects, identifies degraded areas, prioritizes future restoration projects and provides monitoring strategies to ensure restoration projects and programs will be implemented consistent with the plan. SMP Restoration Plans should be closely linked with existing salmonid recovery efforts, including habitat limiting factors analysis, salmon recovery plans and watershed management plans. More information on coordination with salmonid recovery programs is provided in Appendix A.</p> <p>Finally, SMPs are to establish <i>Shoreline Policies and Regulations</i> that apply to shoreline modifications and uses. Shoreline rules are to be at least as protective as the jurisdictions critical areas ordinance (discussed further in the GMA section) and assure that development does not result in a net loss of ecological functions. Because shoreline regulations are to be based on scientific and technical information <del>and a comprehensive analysis of drift cells for marine waters or reach conditions for river and stream systems (WAC 173-26-201)</del>, permitted development can be assessed at an ecosystem scale rather than site-specific scale. If implemented, this will result in better protection of salmonid habitat by considering ecosystem-wide processes in land use decisions.</p> <p>The SMP establishes a framework for protecting critical shoreline areas in the State of Washington. To further protect salmonids, the environment designation informs policies and provisions for regulating development, the inventory and characterization can be referenced to assess cumulative impacts to ecological functions, and the restoration plan can be referenced to determine consistency with recovery priorities and inform habitat mitigation. <b>(35)</b></p>	
<p>Page 27, top partial paragraph - If appropriate for this statewide document, please add the following to the phrase: "salmon recovery plans <i>and associated multi-year work plans</i>". Three-year work plans developed for recovering Puget Sound Chinook are specific plans that include the upcoming salmon recovery restoration work for each watershed. It</p>	<p><i>Draft will be amended to incorporate comment.</i></p>

Comment	Response
<p>would be helpful to make brief reference to it here. Other salmon recovery regions in the state may also be using this "work plan" approach. <b>(40)</b></p>	
<p>“The SMA establishes a balance of authority between local and state government. Cities and counties are the primary regulators, but the state (through the Department of Ecology) has approval authority of local programs and permit decisions.”</p> <p>The above statement is not accurate. Ecology does not have approval authority over shoreline substantial development permits only variances and conditional use permits. <b>(42)</b></p>	<p><i>Draft will be amended to clarify permit authority.</i></p>
<p><b>3.1.2 Growth Management Act</b></p>	
<p>While you mention some specific Goals of GMA related to environmental protection, other goals, such as the protection of landowner property rights (RCW 36.70A.020 (6)), are not included. It has been my experience that GMA requires a balance of these competing and sometimes conflicting goals. When special interest groups fail to understand and acknowledge the need to balance these competing goals, a polarized and distorted view of GMA results. It would be beneficial for your readers to be aware of these conflicts and of this local government balancing act. <b>(18)</b></p>	<p><i>Draft will be amended to incorporate comment. This document focuses on opportunities to implement GMA goals and requirements related to salmonid protection and recovery. However, recommendations are provided with understanding about the sometimes competing priorities local governments face when implementing GMA requirements.</i></p>
<p>Special consideration means that measures supported by current science relating to protection or enhancement for anadromous fish resources should be given more weight (p 29).</p> <p><b>Comment:</b> It may be helpful if you can provide a citation here for the definition of special consideration. If there is case law, it may be helpful to clarify that as well. <b>(37)</b></p>	<p><i>Draft will be amended to incorporate comment. The description of “special consideration” is consistent with how this term is defined in WAC 365-195-925. Growth Management Hearings Board findings support that “special consideration” requires science to be more heavily weighted than might otherwise be required by BAS provisions. See Diehl v. Mason County 95-2-0073 (Compliance Order, 3-22-00) ; FOSC v. Skagit County 96-2-0025c (Compliance Order, 8-9-00) &amp; FOSC v. Skagit County 00-2-0033c (Final Decision and Order, 8-9-00).</i></p>

	Comment	Response
	<p>Special consideration of anadromous salmonid habitat includes protecting the aquatic and terrestrial environments that influence salmonid habitat functions, including water quality, flow regime, food source, access, and habitat structure (second paragraph p 29).</p> <p><b>Comment:</b> Here again, you're providing at least a partial definition of what "special consideration" is or includes. It may be helpful if you can provide a citation to support your language. <b>(37)</b></p>	<p><i>Comment noted. See previous response.</i></p>
	<p>Page 29, 1<sup>st</sup> full paragraph - Suggest adding to this phrase: "...Special consideration of anadromous salmonid habitat includes <i>designating</i> and protecting the aquatic and terrestrial environments...". Designating fish and wildlife habitat conservation areas is an important part of protection within the GMA context. Specific reference to "designation", possibly with a footnote reference to WAC 365-190-080(5), would likely be very a useful to local planners and important to point out here. See also page 26 and 27 of the WA Department of Commerce Critical Areas Handbook for more information; download from this webpage: <a href="http://www.commerce.wa.gov/site/745/default.aspx">http://www.commerce.wa.gov/site/745/default.aspx</a> <b>(40)</b></p>	<p><i>The WAC was noted in the text. Draft will be amended to include "designating."</i></p>
<p><b>3.2 Special Consideration for Anadromous Fish Resources</b></p>		
	<p>I didn't see any help on how a small jurisdiction can go about analyzing where streams or wetlands need to be restored? I have done that, but most small jurisdictions don't have the expertise. For instance wetland are generally 80% gone around Puget Sound, yet the guidance is just for protecting the existing. For salmon recovery we need to restore back to at least 80% to have a chance for sustainability. Same with streams and the need to for planners to identify what needs restoration so when development occurs it is protected or can do restoration with fee in lieu of money. I suggest they get involved in their local watershed group to get free advice from the local experts. <b>(5)</b></p>	<p><i>This document provides numerous resources and contacts for small jurisdictions to use to help determine where restoration priorities should be.</i></p>
	<p>p. 29, Section 3.2, first paragraph. After "(RCW 77.55)" add "administered by WDFW". Instead of simply stating that a description of the Hydraulics Code is beyond the scope of local planning programs, it would be more helpful if you gave a paragraph (or two) overview of how the Hydraulics Code impacts (and is impacted by) local permitting efforts (e.g., you wait for our SEPA determination, we ensure people have HPA before getting other land use permits). Provide us the "take home message" about HPAs. <b>(7)</b></p>	<p><i>This document is focused on laws, regulations, and programs over which planners have direct responsibility.</i></p>
	<p>I think the Guide should recommend that land use plans include up-to-date floodplain/channel migration/frequently flooded areas and wetlands maps. It (GMA) requires designation of natural resource lands and critical areas but most often these areas are described in text which is often times interpreted differently by two different people. A topographic LiDAR map overlaid with tax parcel boundaries as a GIS layer with boundaries of the floodplain/channel migration zone would really define to a potential "developer" where they will not be allowed to build a structure or modify vegetation etc. <b>(17)</b></p>	<p><i>Draft will be amended to include bullet to Floodplains table calling for accurate floodplain mapping. The Channel Migration Zones table includes a recommendation to delineate channel migration zones, and references the Ecology guidance.</i></p>
	<p>Like many jurisdictions, our City has found that best available science information and policy guidance is generally lacking for lakes, and more specifically lacking for urban lakes. I notice that this document also includes very little scientific and policy guidance related to regulatory protections for lakes. Yet, lakes are such an important link in the efforts for salmonid protection and recovery and so I suggest that future efforts be made to provide more guidance and scientific support on</p>	<p><i>Draft will be amended to incorporate guidance on regulatory protection for lakes.</i></p>

Comment	Response
this topic. <b>(23)</b>	
The way you've presented the policy & regulatory considerations, examples and resources is very clear and useful. I also appreciate the 3.3 Additional Recommendations section. Even in draft form, this will be helpful to us during our current phase of the SMP update. <b>(31)</b>	<i>Comment noted.</i>
<p>Broader issues that should be added or expanded upon:</p> <ul style="list-style-type: none"> <li>• <b>water typing (identify the need for accurate maps to enable effective implementation of regulations);</b></li> <li>• enforcement;</li> <li>• coordination with WDFW on HPA;</li> <li>• mitigation – effectiveness, monitoring;</li> <li>• conflicts of interest, qualification + accountability of local gov't staff / consultants;</li> <li>• variances and exceptions (reasonable-use, hazard tree, etc.);</li> <li>• non-native fishes;</li> <li>• ditch maintenance (local gov't); <b>(33)</b></li> </ul>	<p><i>Draft will be amended to incorporate information on water typing. In depth discussions of each issue would not be possible in a synthesis document. Therefore, some issues such as variances, RUEs and hazard tree removal will not be expanded. Other issues apply to all critical areas, and are better addressed by the SMP guidelines and Commerce guidance referenced in the document.</i></p>
Pg 29 section 3.2 - not clear what "laws beyond scope" means – consider replacing scope with jurisdiction instead. Also include CWA and WA state water pollution control act as examples of other laws that would affect habitat but are not in the jurisdiction of local government. However, in some cases the jurisdiction is shared. <b>(36)</b>	<i>This document is focused on laws, regulations, and programs over which planners have direct responsibility.</i>
<p>Regulations are included because rules, along with volunteer efforts and education/outreach, are necessary to implement the vision (bottom p 29).</p> <p><b>Comment:</b> This proposed alternative language is intended to recognize the value of volunteer and education/outreach efforts – along with regulatory approaches. The intent is not to make light of the need for regulations, but to acknowledge the value of other approaches in conjunction with regulations. <b>(37)</b></p>	<i>Draft will be amended to incorporate comment as an introduction to the section on additional regulatory and programmatic considerations.</i>
<p><b>Best Available Science (p 29)</b></p> <p><b>Comment:</b> On page 29, the best available science and the special consideration requirements(RCW 36.70A.172(1) are referenced. You provide some more detail about special consideration, but don't provide any more detail on the best available science requirement. I wonder if it would help local government or reinforce the best available science requirement if you spent some time explaining what it means before you provide the examples that follow? <b>(37)</b></p>	<i>Draft will be amended to include a citation of the BAS criteria. BAS applies broadly to critical areas ordinances beyond salmonid protection, and is not the focus of this section.</i>

Comment	Response
<p>The problems of vagueness and failure to provide clear recommendations described in detail above also apply to the guidance paper's discussion of Nearshore Areas, Large Woody Debris Recruitment, In-stream Habitat,<sup>13</sup> Water Quality, Clearing and Grading Ordinances, Agricultural Activities, Forest Practices, Exemptions, and Implementation and Monitoring. The discussions of Channel Migration Zones, Wetlands, Stormwater and Landslide Hazardous Areas suffer from these flaws to a lesser extent. In the case of Wetlands and Stormwater, the guidance paper references WDOE manuals. <b>(38)</b></p>	<p><i>In depth discussions of each issue would not be possible in a synthesis document. Instead, references to other existing manuals are provided for those seeking more information. This guidance is intended to recommend and highlight areas of focus for planners tasked with implementing these regulations.</i></p>
<p>Page 29, all subsections – A helpful addition to this section would be an additional category for each subsection that is designed to help planners address conflicting views on issues. For example, in section 3.2.5 you discuss large woody debris and how signage can help address safety concerns. Each subsection might benefit from this kind of solution suggestion. Everyone knows there are views just as compelling to fill in wetlands and build on them to increase taxes, etc. If you can suggest solutions to this problem, then it may help planners adopt more salmonid friendly policies. Another important benefit to this approach would be to show local planners that the WDFW understands and appreciates the difficult choices they face and that the WDFW was willing to work together to come up with solutions that were acceptable to most parties. <b>(40)</b></p>	<p><i>Addressing conflicting views and balancing local priorities are the skills of professional planners. WDFW also regularly works with parties to seek creative solutions to these issues. Where clear examples could be readily found to help solve such conflicts, they have been included in this document.</i></p>
<p>Page 29, 1<sup>st</sup> paragraph - This first paragraph under section 3.2 seems out of place. It refers to other laws that land planners must consider. Should this be in the same section as the GMA and SMA (somewhere in section 3.1) – a larger section that describes what laws govern actions that may affect salmonids? If that is the case, is this list all-inclusive? For example, the Washington Coastal Zone Management Act is now based off of six laws, which together meet the criteria set forth in the Coastal Zone Management act. Those laws are: Shoreline Management Act, State Environmental Protection Act, State versions of the Clean Water Act and the Clean Air Act, the Energy Facility Site Evaluation Council Law, and the Ocean Resource Management Act. Stating those relationships more clearly may be helpful (not necessarily all six laws, but the fact that the SMA is part of the WCZMA). Also, within section 3.1 on GMA and SMA, local planners will likely want to know, specifically, what other laws or rulings would they be responsible for under ESA if they have a federally listed species or population within their jurisdiction. Here's an example. The National Flood Insurance Program's (NFIP) local floodplain management criteria are now influenced by the recent NMFS Biological Opinion that concluded the NFIP jeopardizes a number of salmon and steelhead populations. As a result of this opinion, local planners may need to ask themselves "how must I comply with this as a land use planner"? More importantly, however, they will want to know "how will these WDFW recommendations help me comply"? Including an explanation of how these WDFW recommendations will do this for them might be helpful. <b>(40)</b></p>	<p><i>Draft will be amended to delete this paragraph to keep focus on plans, regulations, and programs local planners are primarily responsible for implementing. WDFW has suggested that its riparian management recommendations, which are also cited in this guidance, be considered by FEMA when responding to the NMFS Biological Opinion.</i></p>

<sup>13</sup> This section at least references a WDFW Design Manual for Culverts, and is thus an improvement over several of the other sections. Still, the Design Manual for Culverts lacks sufficient specificity to provide the protection needed by fish. Among other problems, it fails to provide adequate guidance for selection of models, wood and sediment transport, and fish passage guidance information for juvenile salmon.



	Comment	Response
	Page 29 - This section may need a more descriptive title. It does not tell me what information you are about to present. “Policy and Regulatory Recommendations and Examples that Consider Salmonid Protection and Recovery” or something similar may be more effective. <b>(40)</b>	<i>Draft will be amended to incorporate title change.</i>
	Page 30, first sentence - It appears that the recommendations aren’t necessarily “organized by common land use planning tools” as stated. Rather, it seems that this section is organized by categories of “special management concerns” or “habitat elements affected by land-use decisions.” <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page 30, second paragraph - This paragraph seems out of place here. Perhaps a separate section needs to be created to address various enforcement issues. <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page 30, third paragraph – This list could use a better introduction to explain why these categories chosen. In addition, it might be helpful to the reader to reorganize the categories to keep somewhat related habitat issues together. For example, keep floodplain areas together with riparian, wetlands, and channel migration zones. Other habitat elements could be kept together – such as in-stream habitat, large woody debris, and water quality. <b>(40)</b>	<i>Draft will be amended to add explainer language about the categories. Reorganization did not seem to add substantive value to the information presented.</i>
	<b>Statutory responsibility to determine water availability:</b> Although a county has responsibility for making determinations of water availability at two stages of development, there is no acknowledgment of this in the document. The counties need to assure there is water availability at subdivision and then again at the building permit stage, under the state Platting and Subdivision Act and Growth Management Act. <b>(41)</b>	<i>Draft will be amended to incorporate comment.</i>
	Should separate guidance for highly developed areas from rural areas. Cities are very different than the rural areas and we have learned a lot about what not to do by the way our cities have degraded habitat. We will be hard pressed to get functioning riparian areas around our water bodies in the cities due to development however in rural areas we know what is needed to protect the water bodies and via best available science we can point to what the riparian width needs to be to protect the habitat functions for salmonids so these widths should be clearly stated in the document. <b>(42)</b>	<i>The policy and regulatory considerations in this document can be applied in both urban and rural settings, although some strategies may be easier to apply in less developed areas. They are called “considerations” because we acknowledge that planners and decision-makers have to consider whether these strategies are achievable in a particular planning area. WDFW provides recommendations on riparian buffers and these are referenced in the document.</i>
	<b>Page 31 – 71.</b> Reiterate comments from above for Table 2.2, include specific guidance, how wide should the buffer be, etc. Vague statements such as “protect” or “maintain” need to be backed up with specific actions on how the specific environment is protected or maintained will be more helpful to the planner as well as in achieving the goals of this document. <b>(42)</b>	<i>The intent of this and similar sections is to summarize primary considerations for riparian protection, etc. Detailed recommendations on buffer widths and related specific recommendations are available in the resource documents</i>

	Comment	Response
		<i>referenced in this and other tables.</i>
	The special emphasis management issues are laid out with a short background description of the issue, followed by a table of recommendations for Policy Considerations, Policy Example, Regulatory Consideration, Regulatory Example, and Planning Resources. This type of layout makes sense and this is where the promise of the guidance document could be realized but instead falls short of the mark. Within these sections, WDFW should be providing examples of policy and regulatory language that incorporate the “Best Available Science,” and provides advice to the planners on where to find the current best available science and how it can be interpreted. Instead, these tables provide guidance that “Best Available Science” should be used to formulate the policies and regulations, but doesn’t provide the information to make that call. <b>(44)</b>	<i>Policy and regulatory language examples are provided throughout this section. Summaries of science and science-based resources are provided throughout the guidance and in multiple reference documents. Resource documents which are considered best available science are provided at the end of each table.</i>
	The alternating portrait and landscape layouts are hard to read in Chapter 3. <b>(45)</b>	<i>We tried several formats and found this format is the best way to view the tables.</i>
<b>3.2.1 Stormwater Runoff</b>		
	Page 31: The second paragraph under 3.2.1. Stormwater Runoff is repetitive and not particularly informing, maybe elements of this could be inserted into the previous paragraph. <b>(8)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page 32: In table 3.2.1, the second bullet under Policy Considerations, add “limit land clearing and leave native vegetation and soil in place” to the recommendations. The problem with most “LID” is that the site is completely denuded and a few rain gardens, some amended soil, and native plants are added after all the damage is done. Leaving the land undisturbed is the only true way to preserve the natural porosity of the soil/vegetation matrix. The King County example on this page actually has it right. <b>(8)</b>	<i>Draft will be amended to incorporate comment. It is important to note that Low Impact Development (LID) includes practices like limiting land clearing, retaining native vegetation, and minimizing site disturbance and development footprint.</i>
	Nowhere in any discussion or recommendation regarding stormwater is there recognition of degradation resulting from various proportions of impervious surface. No riparian buffer in the world will maintain watershed hydrological function in good condition if the watershed is covered by, e.g., 25% impervious surface. There are widely recognized thresholds of imperviousness (e.g. serious degradation at 10%, destabilization at 15%) and these need to be disclosed for the intended audience (planners) to act effectively. Otherwise, watershed degradation from the cumulative effect of impervious areas created by individual projects is predictable. Please add this substantive information. Section 3.3 (p. 73) might be good location. <b>(30)</b>	<i>Table on Stormwater Runoff Management Recommendations includes a recommendation to limit impervious surface to no more than 10% of an urban watershed.</i>
	Specific recommendations may not reflect the best available science. For example, the table on page 33 states Stormwater regulations incorporate adaptive management provisions to address cumulative increases to total impervious area and forest cover thresholds at the sub-basin scale. Thresholds are based on best available science. To protect aquatic resources, <i>WDFW recommends limiting impervious surfaces to no more than 10% of an urban watershed.</i> More than 10% impervious surfaces will have corresponding effects on channel morphology, water quality, and fish and wildlife habitat functions regardless of the width of the riparian area (Knutson and Naef 1997) (emphasis	<i>WDFW believes that the Ecology Stormwater Manual provides critical guidance for site-level best management development practices. In addition, many local governments are implementing regional stormwater management</i>

	<b>Comment</b>	<b>Response</b>
	<p>added).</p> <p>The table previously referenced the Department of Ecology Stormwater Manuals and the Western Washington Manual actually gives a 5% impervious surface threshold for adverse effects (see page I-24). More importantly, Ecology's Manuals do not actually regulate impervious surface growth in a <i>watershed</i>, and instead simply prescribe BMPs at the site-scale (see, for example, page I-25 of the Western Washington Manual). The WDFW recommendation of "limiting impervious surfaces to no more than 10% of an urban watershed" could only be implemented if the entire watershed is within one jurisdiction, which can happen, but there will be many watersheds straddling political borders. How does WDFW believe that such a recommendation can be implemented in such watershed? <b>(33)</b></p>	<p><i>solutions to address needed drainage improvements in watersheds that were developed before the advent of stormwater regulations. The new Ecology guidance encourages and enables local governments to develop "basin plans" or site-specific stormwater regulations that are to be applied on a watershed basis. WDFW agrees that there is a demonstrated need for more thorough watershed-level planning and regulation of native vegetation and impervious cover to address runoff impacts to downstream public resources, and is committed to work proactively with local governments, Ecology, and others to address this need.</i></p>
	<p>The land use and stormwater recommendations in the document primarily address new development and re-development by using land use plans and ordinances to set policies and establish regulations. However, since the recommendations also include management recommendations, I hope you'll consider suggestions to include elements of a comprehensive stormwater management program. Such programs include the runoff controls for construction and development and LID, but also activities to address areas of existing development through programs to prohibit, find and fix polluting discharges, properly maintain the municipal system, provide stormwater public education, source control programs for existing development, and planning to retrofit stormwater facilities. <b>(36)</b></p>	<p><i>In this document, WDFW does not have space to detail all of the practices recommended in the Ecology Stormwater Management Manuals for Washington State. However, we do acknowledge the need for comprehensive stormwater management programs in all urban and urbanizing watersheds of the State. Such programs need to consider elements like runoff controls for new construction, LID, stormwater retrofits, illicit discharge identification and correction, and public education.</i></p>
	<p>In addition to the GMA and SMP, which are the primary land use tools, you could mention the Phase I and Phase II NPDES program for municipal stormwater permits. In many urban areas (and rural areas of King, Pierce, Snohomish, and Clark counties as Phase I counties) the permits require adoption of the Ecology stormwater manuals for new and redevelopment (or an equivalent manual). In addition, Ecology is under a PCHB order to modify the Phase I permit (and eventually the Phase II permit in WWA) to require cities and counties to require LID where feasible. Ecology reissued the Phase I permit and issued the Phase II permits in January 2007 with timelines to implement the comprehensive program</p>	<p><i>Comment noted. See previous response.</i></p>

Comment	Response
<p>requirements by 2012, when we reissue the permits. I'm glad to provide more info on this, if needed. Here's a link to our webpages <a href="http://www.ecy.wa.gov/programs/wq/stormwater/municipal/index.html">http://www.ecy.wa.gov/programs/wq/stormwater/municipal/index.html</a> (36)</p>	
<p>Stormwater Runoff, page 31 – This section does a good job to address some of the impacts of new development, but it would be good to mention the importance of long-term comprehensive stormwater management as well. One way is to add to the last paragraph language to encourage local government to “adopt policies, regulations, <u>and stormwater management programs to reduce, treat, and manage the impacts of stormwater runoff.</u>” (36)</p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p>Page 31 – Elaborate on stormwater runoff affects on streams, and remove statement that runoff erodes stream and makes channel “larger.” More accurately in changes the shape of the channel in several ways, not just make it larger. Consider using bullets. For instance changing peak flow patterns can increase widening and shallowing, and therefore make the system more susceptible to solar influence (warming the stream.) Runoff and erosion can lead to channel incision, increasing stream velocity , and cause scouring. Increase runoff can decrease infiltration and therefore decrease ground water influence on the stream, (and thus cause an increase in temperature). In short, stormwater runoff impacts channel shape, velocity, surface and groundwater hydrology. (36)</p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p>Page 33 - Setting recommended thresholds of impervious surface at 10%, while a safe recommendation for water quality protection, may require substantiation. Considering the following: 1.) referencing more studies,, or 2.) encouraging local jurisdictions to develop a basin or sub-basin study and plan that evaluates total impervious surface thresholds and the most appropriate locations for impervious development practices based on hydrology, and site potential to mitigate runoff. (36)</p>	<p><i>Several studies have documented detrimental aquatic habitat changes at impervious cover rates of 10% or greater. In some streams habitat changes have also been observed at rates as low as 5% impervious cover. Most studies have focused on western Washington, where there is the greatest need for management-relevant guidance. WDFW acknowledges that there is a need for additional research on the thresholds and effects of impervious cover on downstream aquatic resources. The agency also actively supports basin planning by local jurisdictions to develop better, watershed-specific guidance for stormwater management, as prescribed under the Ecology Stormwater Management Manual.</i></p>
<p>Table 3.2.1 Stormwater Runoff Management Recommendations – suggest adding a bullet under policy considerations similar to:  a. Implement a comprehensive stormwater management program to manage the impacts of stormwater from existing</p>	<p><i>Draft will be amended to incorporate comment.</i></p>

	Comment	Response
	<p>development, <u>including prohibiting, finding and fixing polluting discharges, properly maintaining stormwater systems, public education, source controls, and setting priorities for retrofitting existing facilities and/or stormwater basin planning.</u></p> <p>b. References – <b>NPDES Phase I and Phase II Municipal Stormwater Permit Program</b> – Washington State Department of Ecology <a href="http://www.ecy.wa.gov/programs/wq/stormwater/municipal/index.html">http://www.ecy.wa.gov/programs/wq/stormwater/municipal/index.html</a> <b>(36), (18)</b></p>	
	<p><b>Comment:</b> One of the bullets under regulatory considerations (p 33) is “New discharge facilities are prohibited from contributing pollutants and excessive artificial nutrients to riparian areas.” If asked by local governments, is WDFW prepared to answer questions about the model language included in the guidance? For example, how are “excessive artificial nutrients” defined? Or, will WDFW simply refer the question to the jurisdictions who adopted the model language being presented? <b>(37)</b></p>	<p><i>We have provided real-world regulatory examples from jurisdictions to demonstrate model language a local government could emulate, and we encourage planners from different jurisdictions to contact one another for details about implementation. In addition, the planning resources located at the end of the table are the appropriate resource tools for finding definitions. WDFW staff are also available to consult with local governments as they craft appropriate regulatory language.</i></p>
	<p><b>Impervious Surface Cover and Forest Cover on page 33</b></p> <p>We support the suggested limits on impervious surfaces and forest cover on page 33 and elsewhere. We agree this advice is well ground in science. We appreciate that the report suggests a ten percent limit on impervious surfaces. We also recommend an explicit recommendation that forest cover reductions be limited to no more than 65 percent of a basin. Research by the University of Washington in the Puget Sound lowlands has shown that when total impervious surfaces exceed five to 10 percent and forest cover declines below 65 percent of the basin, then salmon habitat in streams and rivers is adversely affected.<sup>14</sup> <b>(39)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
	<p>Page 31, 1<sup>st</sup> paragraph - To better follow convention on how the Clean Water Act specifically defines terms, it's best to change "<i>pollution</i>" to "<i>pollutants</i>" here (and other appropriate places within this document) to read "...and carries sediment <i>and other pollutants</i> to aquatic resources". "Pollution" is defined by the CWA as "human-induced" alteration of waters caused by pollutants as well as non-pollutant agents, such as flow alteration, loss of riparian zone, physical habitat alteration, and introduction of alien taxa (CWA section 502(19)). "Pollutants" are defined as substances added to waters by human activity (CWA 502(6)). <b>(40)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>

<sup>14</sup> Christopher W. May, Richard R. Horner, James R. Karr, Brian W. Mar, Eugene B. Welch, *The Cumulative Effects of Urbanization on Small Streams in the Puget Sound Lowland Ecoregion* p. 17 (University of Washington, Seattle Washington); Derek B. Booth, Ph.D., P.E. *Forest Cover, Impervious-surface Area, and the Mitigation of Urbanization Impacts in King County, Washington* p. 13 (University of Washington, Seattle Washington: September 2000).

	Comment	Response
	<p>Page 31, 1<sup>st</sup> paragraph – Consider revising this paragraph to read the following: “<i>Urban and rural development practices have traditionally removed forest (and other vegetative cover) and topsoil, compacted soils, and increased impervious surface area resulting in reduced infiltration of rainwater into the soil and increased stormwater runoff (Booth 2000, Booth et al. 2002). Reduced infiltration of rainwater diminishes groundwater recharge supplies lowering stream flows for salmonids during the dry months of the year. Increases in stormwater runoff produce larger peak flows and longer flow durations during rain events causing scouring of salmonid stream habitat, destabilization and deepening and/or widening of stream channels, and reductions in channel complexity. Stormwater runoff from impervious surfaces can also effectively transport contaminants, especially metals, petroleum hydrocarbons, pesticides, and herbicides, to surface waters where suspected synergistic effects may be detrimental to salmonids (See NOAA research for more info: <a href="http://www.nwfsc.noaa.gov/research/divisions/ec/ecotox/fishneurobiology/index.cfm">http://www.nwfsc.noaa.gov/research/divisions/ec/ecotox/fishneurobiology/index.cfm</a>.)</i>” Here think of pre-spawn mortality rates of 85% plus in urban streams vs. rural counterparts at very low levels. You might want to cite several papers noted at this website in this regard. <b>(40)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
	<p>Page 31, 2<sup>nd</sup> paragraph – Consider revising this paragraph to read the following: “<i>Stormwater runoff can also cause increased water temperature, reduced dissolved oxygen levels, and altered substrate conditions within salmonid habitat. Fine sediments, carried by stormwater runoff that subsequently enter streams, may reduce spawning gravel quality for salmonids and harm their food sources such as aquatic invertebrates.</i>” It’s important to seek out appropriate references here and cite them to support this paragraph. <b>(40)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
	<p>Page 31, 4<sup>th</sup> paragraph - Please change the following text to: “<i>The Puget Sound Partnership, as well as the Department of Ecology and the Environmental Protection Agency, have determined that...</i>”. Also change the text within these sentences to read: “...the State of Washington... to “<i>in the Puget Sound basin</i>” within this sentence. The Partnership only operates within the Puget Sound basin. <b>(40)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
	<p>Page 32 - <u>First bullet</u>: Simply adopting and using the Ecology manual, for western and eastern Washington is good <u>first</u> step. Consider, however, adding the following within this bullet: “<i>The minimum requirements of these Ecology manuals for new and redevelopment should be used, including the flow control and treatment standards.</i>” Also consider adding the following to this bullet: “<i>All soils disturbed during the construction process, unless later covered by an impervious surface, shall conform to BMP T5.13 of the Stormwater Management Manual for Western Washington and guidelines specified in: Guidelines and Resources for Implementing Soil Quality and Depth BMP T5.13 in WDOE Stormwater Management Manual for Western Washington, 2009 Edition.</i>” See: <a href="http://www.buildingsoil.org/">http://www.buildingsoil.org/</a> for more information. <u>Second bullet</u>: Consider revising this bullet to read the following: “<i>Use the Low Impact Development (LID) approach and techniques to better manage stormwater for new development, redevelopment and retrofit projects as outlined in the LID Technical Guidance Manual for Puget Sound, current edition. This includes: retention or replanting of native vegetation; limiting impervious surfaces (particularly effective impervious surface area); and use of bioretention, compost amended soils, dispersion, permeable pavement, rooftop rainwater harvest, vegetation roofs, and minimal excavation foundations.</i>” <b>(40)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
	<p><b>Table 3.2.1 Policy Example (Management Methods)</b> Page 32 - While the goals for stormwater management spelled out within the old Puget Sound Water Quality Management</p>	<p><i>Comment noted and example amended. The purpose of including real policy</i></p>

	Comment	Response
	Plan for this example are still valid, the document itself is no longer used in Puget Sound. A footnote here seeking advice from the Puget Sound Partnership on how to reference these useful goals would be appropriate to include here. Also, referencing the Action Agenda here might be appropriate, particularly section C.2. (40)	<i>examples, such as the San Juan County Comprehensive Plan example, is to demonstrate the type of language to include. The planning resources located at the end of the table are the appropriate resource tools.</i>
	<b>Table 3.2.1 Regulatory Considerations</b> Page 33, 1 <sup>st</sup> bullet - Consider adding the words to this phrase: "...cumulative increases to total impervious area and reductions in forest cover to thresholds at the sub-basin scale." It may be important to mention the % forest cover thresholds, if available, here as well, not just impervious surface thresholds. (40)	<i>Draft will be amended to incorporate comment.</i>
	Page 31, third paragraph: Define "sheetflow". (40)	<i>Draft will be amended to incorporate comment.</i>
<b>3.2.2 Riparian Areas</b>		
	Page 36: In table 3.2.2, third bullet, add "To mitigate the loss of large woody debris (LWD) from mature trees, install engineered LWD jams in-water to provide substitute habitat in the interim between planting and natural recruitment into the system of LWD from mature trees." (8)	<i>Draft will be amended to incorporate comment.</i>
	Page 37: There are some problems with the first two bullets. Buffers should be measured from the OHWM or the CMZ, whichever is closest to the development. And the buffer should not "...include adjacent critical areas (such as wetlands, floodplains, and channel migration zones).", these should be included in the stream corridor and buffers should be measured from the edges of these features. For example, a wetland associated with a stream is automatically below the OHWM of that stream, as it is connected to it hydraulically and provides habitat for fish in that stream, so the buffer should be measured from there. Buffering from the edge of the CMZ is also necessary, as if it is not then likely within the lifetime of the development both the buffer and development may disappear if the channel migrates that way. And the floodplain is essentially the OHWM – look how "ordinarily" our floodplains are filled with water. Fish use this water, and developments smack up against this water are bad for fish. (8)	<i>Draft will be amended to incorporate comment: "Buffers are extended to include adjacent critical areas <u>buffers</u> (such as <u>those associated with wetlands, floodplains, and channel migration zones</u>)." </i>
	Change the last bullet in this table to: "Bank protection, if necessary, shall be conducted as recommended in <b>Integrated Streambank Protection Guidelines</b> : Washington Department of Fish and Wildlife Aquatic Habitat Guidelines (April 2003)." (8)	<i>Draft will be amended to incorporate comment.</i>
	<i>Designate riparian buffers that maintain native riparian vegetation and encourage the restoration of riparian vegetation. When removal cannot be avoided, require mitigation that addresses cumulative impacts and requires replanting.</i> <b>Comment*:</b> We are going 'round and 'round about cumulative impacts through the course of our shoreline regulation updates and no one really seems to be able to define exactly "how" one addresses cumulative impacts – other than through a long-term wish list of projects to be tackled by government as moneys become available. If there is some way to get private landowners to provide mitigation for impacts caused at some other time by some other landowner, let us	<i>Ecology is working on cumulative impacts/no net loss guidance for SMP updates. Although, this resource will not be available in time for this publication, this resource will be the best guidance to address cumulative impacts in shoreline</i>

	Comment	Response
	<p>know. *comments also apply to Table 3.2.3 Nearshore Areas Management Recommendations (14)</p>	<p>jurisdictions.</p>
	<p><i>Clearing of native vegetation is only permitted if no net loss to fish and wildlife habitat conservation areas can be shown or clearing of native vegetation is necessary to mitigate hazardous trees. A qualified professional must prepare the report (i.e. arborist).</i> <b>Comment:</b> I think it would be helpful to provide a discussion that differentiates between temporal loss and “net loss”. I find that people assume that “no net loss” is an absolute term. If you clear trees, that’s a net loss and, therefore, it’s not allowed. They get a bit confused that one can clear or fill (causing some loss) but, then mitigate over the course of some years and somehow be consistent with “no net loss”. (14)</p>	<p><i>Draft will be amended to distinguish “net loss” and “temporal loss.”</i></p>
	<p><i>Designate natural buffers of a width based on best available science around all riparian systems that support anadromous fish resources. This includes fish-bearing as well as feeder tributaries.</i> <b>Comment:</b> Referral to BAS is a standard in these sorts of documents but, BAS allows one to argue for a 25 foot buffer or one potential tree height buffer. What I would like is for WDFW to come out with a declarative statement like: “A buffer less than ___ feet wide doesn’t serve any purpose. Unless you can provide at least ___ of buffer, don’t even bother”. (14)</p>	<p><i>In the studies we have reviewed, a riparian buffer of 25-feet would provide some habitat function (such as nutrient reduction), but would not be a sufficient width for protecting salmonid habitat functions. For example, in <b>Stream-Riparian Ecosystems in the Puget Sound Lowland Ecoregion: A Review of Best Available Science (May 2003)</b>, minimum buffer widths for habitat functions such as pollutant removal and water temperature are 100 feet and 165 feet for large woody debris recruitment.</i></p>
	<p>In the riparian vegetation section, page 35 last sentence it should be noted that the recommendation, i.e., “provisions for retaining native vegetation can be stated and enforced” may be in conflict with federal levee vegetation management policies. (17)</p>	<p><i>Comment noted. Researching any possible conflict.</i></p>
	<p>Page 36 – Table 3.2.2 Riparian Areas Management Recommendations – Protect and restore natural streambank <u>and nearshore</u> conditions and functions...  Page 36 – Table 3.2.2 Riparian Areas Management Recommendations – Designate natural buffers of a width..... This includes fish-bearing as well as feeder tributaries <u>and along nearshore</u>. (24)</p>	<p><i>Draft will be amended to incorporate comment.</i></p>
	<p>On page 35, second paragraph discussing the impacts of shoreline armoring, I would also add that armoring eliminates a potential source of sediment/spawning gravel inputs associated with natural channel migration and erosional processes. This could reduce future spawning gravel recruitment in downstream reaches. (27)</p>	<p><i>Draft will be amended to incorporate comment.</i></p>



Comment	Response
<p>We suggest that a primary objective of the guidance paper should be to provide key scientific information that is clearly presented and precisely sourced. While the draft guidance paper is a good start, it has an unfortunate tendency towards vagueness that may not be helpful to your target audience. A good example of this problem is found in the discussion of riparian areas beginning at page 34. The paper discusses the broad range of necessary functions that riparian areas provide for fish, but fails to disclose how a land use planner can assure those functions are protected and preserved. The next page (p.35) declares, among other things, that “Riparian buffers should be established based on best available science for the resource, the quality of existing riparian vegetation and the ability of the site to grow mature native trees.” The next page is little better. As a “regulatory consideration” (whatever that is – the paper doesn’t define it), the paper states that “Natural vegetation buffers are based on best available science and therefore are sufficient to maintain functions and processes necessary for salmonids.” (p.36). Land use planners know they are supposed to give “special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries.” See RCW 36.70A.172(1). What the planners don’t know, and what the paper fails to tell them, is what vegetation buffers are sufficient to maintain the functions and processes necessary for salmonids. In contrast, NMFS’ RPA setting forth minimum protection criteria provides relatively clear guidance.<sup>15</sup> <b>(38)</b></p>	<p><i>This document provides science-based management recommendations intended to support land use planning for salmonids. See next response regarding reference to current buffer science. Draft will be amended to include additional reference to the NMFS Biological Opinion.</i></p>
<p>As an example of a local planning regulatory requirement favored by the Department, the guidance paper cites to the Walla Walla County Critical Areas Ordinance. The quoted provision of the ordinance is vague, but concludes by declaring that “Riparian buffer widths...shall be consistent with the management recommendations issued by the Washington Department of Fish and Wildlife.” (p.37). What are these recommendations? Two pages later, the guidance paper provides a list of “Planning Resources” (are these merely interesting documents or are they “management recommendations)? The first “planning resource” listed is: “Riparian Management Recommendations: Washington Department of Fish and Wildlife Priority Habitats and Species Management Recommendations (December 1997).” Are these the “management recommendations” intended by the Department? It would be helpful to planners if the Department were to include relevant portions of this document (or at least specific references) in the guidance paper to provide clear direction?</p> <p>A number of tribes have urged local governments to use the Department’s Priority Habitats and Species (PHS) publication in specifying riparian buffer widths. Many local governments have declined this advice.<sup>16</sup> A number of industry and pro-development groups have criticized the PHS paper. In the 12 years since PHS was published, a number of additional riparian buffer analyses and literature reviews have emerged. How does the Department respond to the criticism leveled at the PHS paper? To what extent have the recommendations of the PHS paper been vindicated by subsequent analyses? It may be useful to compare the buffer recommendations, by function, in the PHS paper and other papers so that planners have information about the range of recommendations that is supported by the relevant literature.</p>	<p><i>The Washington Department of Fish and Wildlife Riparian Management Recommendations (Knutson and Naef 1997) includes a synthesis of over 200 scientific studies on riparian habitat functions. This document includes appendices where buffer widths are summarized relative to riparian habitat function. Because there is no consensus in the literature recommending a single vegetated buffer width to protect a particular function or to protect all functions, we recommend local governments consult these summary tables and management recommendations to derive buffer widths appropriate for existing conditions, adjacent uses, soils, and functions to be preserved.</i></p>

<sup>15</sup> See NMFS RPA at Appendix 4, page 222-23.

<sup>16</sup> For example, Skagit County, which the guidance paper extols for its alleged commitment to salmon recovery, was critical of WDFW’s PHS paper and declined to follow its recommendations.

Comment	Response
From there, the Department could provide its informed opinion as to what buffer sizes are necessary to protect the functions and values of fish habitat. <b>(38)</b>	
Need to define how wide the riparian vegetated buffer needs to be, not just refer to having one. What is enough? It is imperative that you include this information. <b>(42)</b>	<i>Comment noted. See response to #38 above.</i>
Page 34, 2 <sup>nd</sup> paragraph - It's important to work in to the text more information on the importance of marine riparian areas to salmonids along the nearshore within this paragraph, something that seems to be lacking. An important and often cited reference is Brennen and Culverwell, 2004, Marine Riparian: An assessment of Riparian Functions in Marine Ecosystems available at this website: <a href="http://www.wsg.washington.edu/research/pdfs/brennan.pdf">http://www.wsg.washington.edu/research/pdfs/brennan.pdf</a> <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
Page 35, 3 <sup>rd</sup> paragraph - Add to this phrase "...explicit provisions for retaining <i>and/or replanting (and maintaining, particularly during plant establishment)</i> native vegetation... Replanting denuded areas is an important regulatory tool. <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
Page 35, new paragraph – Include an explanation of how the National Marine Fisheries Service 2008 Biological Opinion on the Federal Emergency Management Agency’s National Flood Insurance Program might influence how riparian buffers are established, maintained, and enforced within floodplains and along levees. Including an explanation of how the development restrictions within the Biological Opinion might influence riparian buffers would also be helpful. Regarding levees, land use planners would benefit from suggestions on how they might be able to balance best available science for riparian buffers with the Corps of Engineers levee vegetation and maintenance requirements, particularly in regard to the first three Policy Considerations in Table 3.2.2 ( <i>i.e.</i> , protecting and restoring natural stream bank conditions, designating natural buffer widths, and mitigation). <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
<p><b>Table 3.2.2 Policy Considerations</b></p> <ol style="list-style-type: none"> <li>1. Page 36, 1st Bullet - Add to the following phrase: "...by adopting riparian buffers (<i>and associated building setbacks</i>) and avoiding bank hardening."</li> <li>2. Page 36, 2nd Bullet - Add to this phrase: "...that support anadromous fish resources <i>and the food sources important to salmonids</i>". Add to this sentence: "This includes fish-bearing as well as feeder tributaries <i>and along marine shorelines</i>". <b>(40)</b></li> </ol>	<i>Draft will be amended to incorporate comment.</i>
Page 36, Regulatory Considerations - Should “habitat buffers” be “riparian buffers”? <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
<b>3.2.3 Nearshore Areas</b>	
Page 40, first sentence - change “have” to “regulate” – “...local governments regulate both freshwater and ....” <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
Page 41: Second bullet in Table 3.2.3, again add “To mitigate the loss of large woody debris (LWD) from mature trees, install suitably-sized LWD along the upper intertidal area of the beach to provide substitute habitat in the interim between planting and natural recruitment into the system of LWD from mature trees.” <b>(8)</b>	<i>Comment noted and considered as restoration examples.</i>
Also consider adding a recommendation like this “Where bulkheads already exist, form a shoreline protection district within each drift cell and develop a program for artificial delivery of appropriately sized beach grade material in appropriate	<i>Comment noted and considered as restoration examples.</i>

	Comment	Response
	<p>periodic amounts and locations based upon geotechnical analysis of natural beach building and littoral drift processes, to preserve the beach waterward of the bulkheads and prevent eventual undermining and loss of both beach and bulkheads.” (8)</p>	
	<p><b>Table 3.2.3 Policy Considerations</b></p> <ol style="list-style-type: none"> <li>1. Page 41, 5th Bullet - Add the following text to the beginning of this sentence within the 5th bullet: "<i>structure relocations and innovative bioengineering alternatives...</i> Also consider adding a sentence to this bullet that encourages the reduction in lot-line easements through a variance to allow the setback of structures where there is sufficient land to do so.</li> <li>2. Page 41, 7th Bullet - Don't forget the importance of transfer reaches and deposition areas within a drift cell here. Consider adding language that also encourages the identification (and protection) of these important features here as well. (40)</li> </ol>	<p><i>Draft will be amended to incorporate comment.</i></p>
	<p><b>Marine Riparian Buffers page 41</b> We agree that marine riparian buffers should be provided on marine waters. We recommend that the department include specific recommendations on the buffer widths. (39)</p>	<p><i>Comment noted. See regulatory considerations under Nearshore Areas Management Recommendations table.</i></p>
	<p><i>An established marine riparian habitat area and management zone extending 200 feet on a horizontal plane, landward from the ordinary high water mark. The marine riparian habitat area retains existing conditions, including native vegetation at least 100 feet landward from the OHWM.</i></p> <p><b>Comment:</b> Is the “management zone” meant to mirror the 200 foot shoreline jurisdiction? If so, should it also include “associated wetlands, floodplains..” as the shoreline jurisdiction does? Also, from where does the “..at least 100 feet” of native vegetation come from? With the recent King County lawsuit fresh in local jurisdictional minds, everyone is wary of blanket buffer/vegetation retention requirements that are not “proportional” to the specific impacts of a development proposal. (14)</p>	<p><i>Draft will be amended to incorporate comment. The management zone is not meant to mirror the 200 feet shoreline jurisdiction.</i></p> <p><i>“At least 100 feet” is derived from <b>Stream-Riparian Ecosystems In the Puget Sound Lowland Eco-Region (May 2003)</b>. Further guidance on marine riparian buffers is under development, but James S. Brennan’s publication <b>Marine Riparian Vegetation Communities (2007)</b> supports the need for adequate vegetation and a 200 foot management zone was recommended in the Tri-County BAS study for King County.</i></p>
	<p><b>Table 3.3.3 Regulatory Considerations</b></p> <ol style="list-style-type: none"> <li>1. Page 42, 1st Bullet - It's a bit unclear as to what's being recommended here for a regulation. Is it a 200-foot management zone that contains a no-touch marine riparian habitat area within the first 100 feet? If so, this needs to be more clearly stated. Is development allowed through an approved variance, provided the proponent</li> </ol>	<p><i>Draft will be amended to clarify this recommendation. See response to #14 above.</i></p>

	Comment	Response
	develops an acceptable vegetation conservation plan or habitat management plan? If so, this also needs to be more clearly stated. Most importantly, why 100' for a marine riparian zone when some jurisdictions have implemented (or tried to implement) 150'? Also, as was done above in the Regulatory section for Riparian Areas, include mention of the need for a sufficient building setback (e.g., 15') to protect riparian habitat from the impacts of these structures. <b>(40)</b>	
	Page 42, 4th Bullet - Consider adding the following text to this bullet: "Prohibit bulkheads <i>and piping systems</i> that result in water falling rather than flowing <i>and dispersing</i> onto the shore." <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page 42, New Bullet - Consider adding a bullet that recommends the regulation and/or prohibition of shoreline structures (e.g., boat ramps, groins) that disrupt drift cell function (like sediment and gravel transport). <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
	<b>Comment:</b> At the bottom of page 42, under regulatory example, ...unless no alternative location is feasible,... is used. Does Whatcom County define feasible for this model language? If not, will WDFW? Or, is it up the jurisdiction to figure it out? <b>(37)</b>	<i>We have provided real-world regulatory examples from jurisdictions to demonstrate model language a local government could emulate, and we encourage planners from different jurisdictions to contact one another for details about implementation.</i>
<b>3.2.4 Wetlands</b>		
	I would recommend adding the following Ecology documents to the Planning Resources section of Table 3.2.4: <b>Wetlands in Washington - Volume 1: A Synthesis of the Science (March 2005, Publication #05-06-006)</b> , <i>Wetlands in Washington - Volume 2: Guidance for Protecting and Managing Wetlands</i> (April 2005, Publication #05-06-008), <i>Wetland Mitigation in Washington State: Part 1 - Agency Policies and Guidance</i> (Version 1, March 2006, Publication #06-06-011a) and <a href="#">Wetland Mitigation in Washington State: Part 2 - Developing Mitigation Plans</a> (Version 1, March 2006, Publication #06-06-011b).  These docs represent Ecology's current BAS and technical assistance to local governments for protecting and managing wetlands. <b>(4)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page 45: Last bullet in table 3.2.4 says "...see below for habitat management plan recommendations..." but I see no recommendations, just a couple of not very good "regulatory examples". Here is where a section should go on mitigation sequencing of wetland replacement, following Ecology, EFSEC, FERC, USFWS, or similar established guidelines and replacement tables, and even expanding upon them to include monitoring and maintenance. This should also include a recommendation for the use of wetland mitigation banks for mitigating wetlands that are too small or otherwise impossible to replace, don't automatically default to the 0.1 acre "death by a thousand cuts" approach of giving small wetlands away for free. <b>(8)</b>	<i>Draft will be amended to include additional mitigation information.</i>

	<b>Comment</b>	<b>Response</b>
	<p><b>3.2.4 Wetlands.</b> Wetlands are low areas in the landscape that are inundated or saturated by surface or ground water, hydrologically connected to riparian areas and support a prevalence of native vegetation (Kauffman et al. 2001).</p>	<p><i>Draft will be amended to clarify wetland definition and qualify management recommendations for wetlands that support salmonid habitat (i.e. are hydrologically connected to streams).</i></p>
	<p><b>Comment:</b> This definition is erroneous and inconsistent with both standard ecological and regulatory definitions (<i>Washington State Wetlands Identification and Delineation Manual</i>). It omits, e.g., slope wetlands (common in coastal areas). The word “low” should be omitted. Whether an area is dominated by native or non-native species is not definitional for purposes of determining if it is a wetland. Neither is hydrological connectivity to riparian areas. This will be extremely confusing to jurisdictions that lack staff with wetland expertise. Please correct this. <b>(30); (35); (39)</b></p>	
	<p>Page 46. We strongly urge that examples using size thresholds be dropped. If the size threshold is to be used then all the criteria listed in the ordinance also need to be listed. This example as use is too vague, and may result in the wrong interpretation. <b>(35)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p><b>3.2.5 Large Woody Debris Recruitment</b></p>		
	<p>Page 48 – Table 3.2.5 Large Woody Debris Recruitment and Management Recommendations – (Note: This 3.2.5 section and table should also reflect the need for wood in the nearshore. Note: Daniel Tonnes (NOAA) did a presentation at the PS/GB conference this spring highlighting the benefits and impacts of woody debris in the nearshore so there is science now to say something about this in nearshore environments.)</p> <ul style="list-style-type: none"> <li>○ Retain large woody debris in streams <u>and along nearshore</u> and maintain long-term....</li> <li>○ Planning for new or reconstructed infrastructure should consider the inherent nature of wood to accumulate and move in streams <u>and along nearshore.</u></li> <li>○ Prohibit salvage logging (including firewood cutting) from aquatic areas, <u>including driftwood removal along shorelines.</u> <b>(24)</b></li> </ul>	<p><i>Draft will be amended to incorporate comment.</i></p>
	<p>The discussion of large woody debris (i.e. p. 47) fails to recognize the need for riparian buffers large enough to provide for longterm recruitment. There needs to be more discussion of the relation between buffer size and longterm resilience and durability. <b>(30)</b></p>	<p><i>Draft will be amended to emphasize the value of LWD in riverine systems.</i></p>
	<p>Page 47, 1<sup>st</sup> paragraph – Provide appropriate citations can be found and referenced, the possible importance of LWD along marine shorelines (including in estuaries) may need to be added here. If specific citations can be referenced in this regard, then recommendations for policy and regulatory considerations should be added within this section. Inquiring with NOAAs Regional Implementation Technical Team (RITT) for Puget Sound Chinook may be a good source of information in this regard, among others. Staff from the Puget Sound Partnership can work with the RITT to provide this information. <b>(40)</b></p>	<p><i>Draft will be amended to include additional citations.</i></p>
	<p>Page 47, new paragraph – In light of the National Marine Fisheries Service 2008 Biological Opinion on the Federal Emergency Management Agency’s National Flood Insurance Program, it’s unclear if the Army Corp of Engineers levee maintenance requirements have influence over the removal, relocation, or modification of large woody debris within these areas discussed within Table 3.2.5, Policy Consideration, 2<sup>nd</sup> bullet. Consider investigating this issue and including an explanation within this section. <b>(40)</b></p>	<p><i>Comment noted. Researching this issue.</i></p>

	<b>Comment</b>	<b>Response</b>
	Table 3.2.5 Regulatory Considerations Page 49, 4th Bullet - It seems more appropriate that a habitat biologist and an arborist be involved in this assessment as one or the other may not have the knowledge or skills to make this determination. A qualified engineer may also need to be involved in this assessment. <b>(40)</b>	<i>Text will be amended to “qualified professional(s).”</i>
	Page 48, 5 <sup>th</sup> policy consideration: Would it be helpful to define “aquatic areas”? Should some boundary or buffer be defined, or should it reference some other place in the document? <b>(40)</b>	<i>Text will be amended to “riparian areas.”</i>
<b>3.2.6 In-stream Habitat</b>		
	p. 52, Table 3.2.6: Don't the 3rd and 5th bullets contradict each other? 3rd says pass (just) fish (not debris), 5th says pass 100-yr flood <i>and</i> debris. <b>(7)</b>	<i>Draft will be amended to clarify that bullet #3 is meant to encourage avoidance, but if avoidance is not an option, then #5, culvert design is appropriate. Similar to the concept of mitigation sequencing.</i>
	<i>Require that any existing crossings which impede fish passage be repaired or replaced during road upgrade or improvement projects, subdivision approvals, building, or site development permit approvals.</i> <b>Comment:</b> Might not be possible to make this requirement stick unless the road upgrade or improvement triggers a project-related impact for which repair or replacement of a stream crossing would be warranted and “proportional”. <b>(14)</b>	<i>Draft will be amended to clarify that this is a mitigation tool.</i>
	Page 50. Define ‘waters of the state.’ Include County / City roadside drainage ditches, ditched streams, ag ditches? What’s not included? <b>(33), (40)</b>	<i>The document states “Waters of the state include all marine waters and freshwaters of the state.” RCW 77.55 defines waters of the state for HPA purposes. Jurisdiction for HPA is not only defined by waters of the state, but must impact fish life and therefore, takes into consideration watercourses altered by man, etc. The purpose of mentioning HPA rules in this document is to encourage local governments to adopt complimentary in-stream protection standards. Determining which waters require an HPA permit requires consultation with a WDFW area habitat biologist.</i>
	Page 50 - include USACE 404 permits and NPDES permits for non local permitting to round out suggestions of what else might be in play. <b>(36)</b>	<i>Comment noted. Consideration a footnote describing other permits needed for in-stream projects.</i>

	Comment	Response
	Page 51, Flood Control Policy Examples 1 & 2 - Would it be helpful to the reader to repeat these in the floodplain section? A planner may not read the document front to back and cross-references may ensure they examine all necessary recommendations and examples. <b>(40)</b>	<i>Draft will be amended to include a note to refer reader to examples in floodplain section.</i>
	<b>Instream Flow rule implementation by local government:</b> In many areas where Ecology is adopting instream flow and water management rules based on approved watershed plans, the counties are involved in water management with us. <b>(41)</b>	<i>Comment noted.</i>
	<b>Mitigation:</b> One of the policy recommendations could be to maintain stream flows and limit effects on aquifers or streams by requiring mitigation, another could be to require limited outdoor irrigation or xeri-scaping. This has become a very big issue on the Olympic Peninsula, probably will also be in other areas, especially where summer and fall low flows conflict with salmon spawning. <b>(40)</b>	<i>Comment noted and will be considered for a mitigation example.</i>
	High flows: And, another link with water quantity is management of high flows to maintain the natural hydrograph as much as possible, to minimize storm flow flashiness. <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
<b>3.2.7 Floodplain Areas</b>		
	<b>Climate Change:</b> Page 55: Table 3.2.7, add to the first bullet "..., not only the present FEMA designated 100 year floodplain (which is based upon measured flood elevations made generally from 10 to 40 years ago), but the location of the floodplain as it is projected over the life of the development, as modeled by the University of Washington Climate Change Impacts Group." Also, reference the Climate Change Impacts Group as a resource on the bottom of Page 56. <b>(8)</b>	<i>Draft will be amended to incorporate comment.</i>
	You may want to discuss bridges, levees and flood plain development that require frequent maintenance clearly indicate significant impacts to natural processes and are ultimately unsustainable. Removal or set back is the only alternative.  Bridges are long term structures and decisions made in their design has a lasting effect. Flood plain management influences bridge design, especially in developed areas. Similarly, bridges influence flood plain management, perpetuating uses and structures that rely on a specific bridge span, approach fill or training dikes. <b>(12)</b>	<i>Draft will be amended to incorporate comment.</i>
	<b>Mitigation:</b> The discussion on flood plains (p. 54) omits coastal areas adjacent to marine waters behind dikes. Flooding in these areas is going to become much more severe due to rising sea levels. <b>(30)</b>	<i>Document will be amended to acknowledge planning for coastal retreat.</i>
	<b>Climate change:</b> In the 2 <sup>nd</sup> paragraph on pp 54 the 2 <sup>nd</sup> sentence says: "Protecting floodplain areas is becoming more important than ever as natural flooding events are increasing due to climate change." This is a rather blanket statement that is <u>not true</u> for all watersheds. There are watersheds that appear to have an increasing trend in peak flow volumes but those increases [as determined through evaluation of USGS maximum annual peak flow data] may be in part due to land management in the watershed. So far we haven't found any scientific literature that looks at that question and evaluates what causes the increase in larger magnitude floods in terms of climate change and land management. <b>(35)</b>	<i>Draft will be amended to encourage local governments to investigate potential local effects of climate change and consider potential for increased floods.</i>
	Page 55: The National Marine Fisheries Service Biological Opinion (September 22, 2008) cited here is a very important document. Keep in mind that flood zones are designated around all the marine waters and lakes, as well as rivers. Thus the BiOp has truly far-reaching implications. It might be more useful to frame this up thusly for local governments:	<i>Draft will be amended to incorporate comment.</i>

	Comment	Response
	<ul style="list-style-type: none"> <li>NMFS intends that improved land use controls in flood zones to protect salmon will be a prerequisite for remaining eligible for FEMA flood insurance;</li> <li>CAO or SMP updates may provide local governments with an opportunity to implement the improved land use standards within FEMA flood zones that are intended under the BiOp, and thus ensure that their property owners can obtain FEMA flood insurance. <b>(35)</b></li> </ul>	
	<p>Page 56 - Table 3.2.7 – Floodplain Areas Management Recommendations, Regulatory considerations, 3<sup>rd</sup> bullet: Infiltration as a LID method for floodplain development has questionable hydrologic benefits since the water table in many areas is high and infiltration facilities are not likely to function well in pre-flood and flood conditions. Suggest that recommendations should instead include more appropriate LID methods such as those to reduce and disconnect impervious surfaces and retain (or restore) native vegetation. <b>(36)</b></p>	<p><i>Draft will be amended to include native vegetation and minimize impervious surface.</i></p>
	<p>Page 54, 1<sup>st</sup> paragraph - This section seems to be generally lacking reference to estuarine floodplain information. Consider adding mention of both the progradation of river mouths and the isolation of distributaries in estuaries as another important impact from man-made flood control structures (e.g., dikes, levees, and other hard armoring impacts), particularly those located along the lower reaches of river systems. Both of these situations are common problems in Puget Sound river mouth estuaries. These two, often related, issues do not seem to be covered within the nearshore section above. The latter problem involving distributaries is not covered in the channel migration zone section either. Consider adding appropriate policy and regulatory recommendations below to compliment this descriptive information. <b>(40)</b></p>	<p><i>Document will be amended to incorporate comment.</i></p>
<p><b>3.2.8 Channel Migration Zone</b></p>		
	<p>Page 58: A bullet should be added in Table 3.2.8 stating that CMZs should be buffered to the same requirements as from the OHWM. Why settle for 50 feet? When the river moves over there that is all the buffer you will get, and 50 feet is scientifically insufficient. <b>(8)</b></p>	<p><i>50 feet for CMZ is a recommendation from the NMFS Biological Opinion. Citation will be added.</i></p>
	<p>Channel Migration Zone — The Flood Hazard section of the SMP Guidelines contains significant information on the nature and importance of CMZs, along with planning and policy guidance. See pages 61-65 (Guidelines are available at: <a href="http://www.ecy.wa.gov/programs/sea/sma/laws_rules/173-26/SMP_Guidelines_Final.pdf">http://www.ecy.wa.gov/programs/sea/sma/laws_rules/173-26/SMP_Guidelines_Final.pdf</a>) It would be helpful if the WDFW document addressed CMZ items in the Guidelines that are particularly important for protecting salmon habitat. <b>(35)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
	<p>The CMZ framework cited on page 59 is outdated. Please link instead to the current web site on this important topic: <a href="http://www.ecy.wa.gov/programs/sea/sma/cma/index.html">[http://www.ecy.wa.gov/programs/sea/sma/cma/index.html]</a>:</p> <p>The first paragraph needs to be rewritten. Channel migration doesn't support natural flooding conditions per se. Channel migration is not just lateral migration but also includes down valley migration, vertical change (aggradation and incision), and avulsions or bend cutoffs. All these processes can create salmon as well as other wildlife habitat. From the CMZ web technical guidance, channel migration is defined :</p>	<p><i>Draft will be amended to incorporate comment.</i></p>



Comment	Response
<p><u>Channel migration</u> is the process by which a stream moves over time. This important ecosystem process supports a number of ecological functions, including wildlife habitat. Streams migrate across valleys due to a variety of reasons including channel erosion, avulsion, and aggradation.</p> <p>The SMA guidelines, Chapter 173-26 WAC define <u>channel migration zones</u> as including areas within which a river channel can be expected to migrate over time due to hydrologically and geomorphologically related processes.</p> <p>The 3<sup>rd</sup> sentence states: “This area, where a stream or river is susceptible to channel erosion and therefore reforming is termed a channel migration zone (CMZ) and extends beyond floodways and floodplains as mapped on Flood Insurance Rate Maps.” This statement is not really correct. There are numerous examples where the CMZ is within the FEMA floodplains, as well as numerous examples of CMZ extending beyond the FEMA floodplain. There is no correlation between the CMZ and the 1% probability floodplain (FEMA 100-year floodplain). So the CMZ should be mapped separately from separate from the mapped floodplain and incorporate separate regulations.</p> <p>The 3<sup>rd</sup> paragraph talks about dynamic equilibrium but it doesn’t really tie in with the channel migration discussion. The point appears to be that a migrating channel is not necessarily an unstable channel. In place of the first sentence statement that “stream channels are believed to be in dynamic equilibrium” we suggest the following:</p> <p><i>Most migrating streams move through their alluvial deposits. The term dynamic equilibrium is used to describe an alluvial stream condition where a balance between incoming and outgoing sediment exists. The stream location and channel shape or geometry may change locally but overall deposition and erosion rates are balanced. For example, a stream bend maybe in dynamic equilibrium between the erosion rate on the outer bend and the deposition rate on the inner bend or point bar.</i> Then continue on with discussion on how native fish have adapted to this condition etc. and how migration creates the habitats essential for salmon recovery success.</p> <p>Overall the section lacks scientific literature references to support statements. Scientific literature has been produced since Rappe and Abbe (2003) as well as literature during the same time period (e.g, David R. Montgomery<sup>1</sup> and Ellen E. Wohl, 2003, Rivers and riverine landscapes, Development In Quaternary Science Volume 1 Issn 1571-0866 Doi:10.1016/S1571-0866(03)01011-X, provides discussion &amp; literature review on many fluvial processes in PNW including migration; Chris J. Brummer et al 2006, Influence of vertical channel change associated with wood accumulations on delineating channel migration zones, Washington, USA), Geomorphology 80 (2006) 295–309; Smith, D. G. (1976), Effect of vegetation on lateral migration of anastomosed channels of a glacier meltwater river, Geol. Soc. Am. Bull., 87, 857– 860, doi:10.1130/0016-7606(1976)87&lt;857:EOVOLM&gt;2.0.CO; Huang, H. Q., and G. C. Nanson (2007), Why some alluvial rivers develop an anabranching pattern, Water Resource. Res., 43, W07441, doi:10.1029/2006WR005223; Perucca, E., C. Camporeale, and L. Ridolfi (2006), Influence of river meandering dynamics on riparian vegetation pattern formation, J.</p>	

Comment	Response
<p>Geophys. Res., 111, G01001, doi:10.1029/2005JG000073; Joan L. Florsheim, Jeffrey F. Mount, And Anne Chin June 2008 Bank Erosion as a Desirable Attribute of Rivers Vol. 58 No. 6 • BioScience; Beechie, T.J., M. Liermann, M.M. Pollock, S. Baker, and J. Davies. 2006. Channel pattern and river-floodplain dynamics in forested mountain river systems. Geomorphology, 78(1-2):124-141) to name a few. However, if articles on channel migration are to be incorporated into available science documents the reviewers need to be knowledgeable in fluvial geomorphology in order to critically review them. Also there have been many detailed channel migration analyses conducted since 2003.</p> <p>Policy and regulatory examples: Since the SMA guidelines specifically address channel migration, some of those policies and regulatory language should be included. While discouraging new dwelling units or expansion of existing structures within the CMZ and having a 50 ft setback from the CMZ is an ideal, the reality is that many of the alluvial streams in western Washington have the potential to migrate. For example, in Clallam County there are approximately 200+ miles that could potentially migrate. Saying no development along so much shoreline will not fly. The SMP allows single family residences (not subdivisions) as long as there is no net loss in ecosystem function, the structures will not interfere with the natural geomorphic and hydrologic channel processes, does not fill side channels or other floodplain channel features and (not or) the structures will not require future stabilization. <b>(35)</b></p>	
<p><b>Comment:</b> Do the state agencies (Ecy, WDFW, DNR, CTED) have a common position on CMZs? <b>(37)</b></p>	<p><i>A Framework for Delineating Channel Migration Zones (November 2003) is a Washington Department of Ecology and Washington State Department of Transportation joint publication. This resource is referenced in this document. We are not aware of the position of other state agencies.</i></p>
<p>Page 57, 1<sup>st</sup> paragraph – The same comment above within the Floodplain section applies here, namely involving man-made structures and impacts to distributaries within estuaries at the mouths of river systems. <b>(40)</b></p>	<p><i>Comment noted in floodplains section.</i></p>
<p><b>3.2.9 Landslide Hazardous Areas</b></p>	
<p>Pages 60 and 61: Here again is the place for a beach nourishment LID to be formed, even if it is going to only be a one-bulkhead-owner LID, if it is deemed necessary to armor a feeder bluff. That material absolutely needs to be replaced to a level sufficient to ensure beach retention down-drift or we lose the habitat, period. A recommendation that the local jurisdiction attach a covenant to the property deed that requires regular placement of the prescribed amount of material in perpetuity will be necessary to ensure that this happens. <b>(8)</b></p>	<p><i>Comment noted. Recommendations are not intended to go into this level of mitigation specificity.</i></p>
<p>The regulatory example from Jefferson County is not recommended– episodic sliding of feeder bluff typically occurs every 20-50 years in response to unusual rainfall events combined with freeze-thaw conditions and can consume 30 feet or more in one event. A house 5 feet away is in pieces on the beach. I believe that Hugh Shipman of Ecology has produced</p>	<p><i>Comment noted. Researching a different example.</i></p>

	Comment	Response
	guidance on shoreline landslide hazard areas and should be consulted for recommendations on what is a safe setback, for both people and fish. <b>(8)</b>	
	Please add a link to the extensive information on landslide hazards on Puget Sound at the Ecology website: <a href="http://www.ecy.wa.gov/programs/sea/landslides/index.html">http://www.ecy.wa.gov/programs/sea/landslides/index.html</a> <b>(35)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page 60 – 3.2.9 Landslide Hazardous Areas – Paragraph 2 – suggest adding the importance of changes in hydrology from development such as impervious surfaces, irrigating lawns and landscaping, septic system discharges, and disrupted drainage. These can also accelerate erosion and bluff instability on marine bluffs. <b>(36)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page 62 – Regulatory Considerations – last bullet – Suggest noting the importance of careful assessment and site planning to avoid increasing infiltration on unstable or potentially unstable bluffs. Also consider site planning to avoid expectation of infiltration capabilities were soil type and ground water make such practices difficult. <b>(36)</b>	<i>Draft will be amended to incorporate comment.</i>
	Table 3.2.9 Policy Considerations Page 61, New Bullet - Consider adding a new policy (and perhaps regulations) that encourages the moving of structures further back from marine feeder bluffs during redevelopment, provided sufficient land is available. Consider the movement of structures as the primary alternative to hard armoring and even soft-shore armoring marine shorelines. Adding policies and regulations that allow for smaller lot-line setbacks to accommodate structure relocation may be helpful here as well. <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
	Table 3.2.9 Regulatory Considerations 1. Page 62, 8th Bullet - Consider adding the following text to this bullet: "Stormwater runoff, <i>both in fresh and marine systems</i> , shall not contribute to the erosion of the shoreline <i>or the premature failure of a feeder bluff.</i> " Check with WDOE on this recommendation. <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
<b>3.2.10 Water Quality</b>		
	p.65: Table 3.2.10: 3 <sup>rd</sup> bullet: Reclaimed water is NOT “effluent.” Instead of “clean effluent” I recommend “purified water.” <b>(7)</b>	<i>Draft will be amended to incorporate comment.</i>
	<i>Water quality monitoring is required when development projects unavoidably occur in wetland or riparian vegetation.</i> <b>Comment:</b> I can see where monitoring <i>may</i> be required but, in my experience, there doesn't need to be an absolute requirement for such monitoring. <b>(14)</b>	<i>Monitoring is one element of mitigation sequencing and often required when and where unavoidable impacts to streams and wetlands potentially jeopardize ecosystem functions and processes.</i>
	<i>Adequate provisions are in place to protect the hyporheic zone that contains some portion of surface waters, serves as a filter for nutrients, and maintains water quality (see riparian zone recommendations above).</i> <b>Comment:</b> Does “see riparian zone recommendations above” mean that the riparian recommendations provided in the document also serve for hyporheic zone recommendations? If not, what sort of provisions would one use? Also, as written it is seems to say that the <u>provisions</u> should contain “some portion of surface water, serves as a filter,.....” when, instead, it is referring to the hyporheic zone. Could it be revised to say something like: “Adequate provisions are in place	<i>Draft will be amended to incorporate comment.</i>

	Comment	Response
	to protect the hyporheic zone, which is that portion of the streambed that contains a combination of groundwater and some portion of surface waters, serves as a filter for nutrients, and maintains water quality”? (14)	
	<p><i>Riparian and wetland buffer widths are determined by water quality functions as indicated by the Best Available Science, including WDFW riparian management recommendations and Department of Ecology Watershed Management Plans.</i></p> <p><b>Comment.</b> I’m not sure what this sentence means “..buffer widths are determined by water quality functions..” (14)</p>	<p><i>Draft will be amended to clarify. Both the nearshore guidance and WDFW riparian management recommendations include tables of buffer widths organized by riparian function such as pollutant removal, sediment removal and water temperature.</i></p>
	Page 65, last bullet: This should be rewritten to make better sense. (35)	<p><i>Draft will be amended to incorporate comment.</i></p>
	Page 66: last bullet: If BAS documents are to be quoted the guidance should include Ecology wetland guidance as well as watershed guidance. It is listed in their list of references. (35)	<p><i>Draft will be amended to incorporate comment.</i></p>
	Pg 63 – remove or modify last sentence, first paragraph. Stormwater runoff from impervious surfaces in a non-highly urbanized watershed may still be very influential and therefore it is better not to imply otherwise. Significant to the protection of stream health is the type of development pattern, and the potential to concentrate discharges and modify the hydrograph for small systems. While more highly urbanized areas will obviously have greater net runoff, development patterns for less urbanized systems are still a significant issue for water quality and subsequent salmon habitat. (36)	<p><i>Draft will be amended to incorporate comment.</i></p>
	<b>Agriculture:</b> Pg 63 - include agricultural runoff and contribution of excess nutrients as a water quality impact on dissolved oxygen. Also agricultural manipulation (physical alteration) of the riparian area can widen and shallow streams , and therefore impact temperature and DO. (36)	<p><i>Agricultural impacts are briefly discussed in section 2.5.2. WDFW is focusing the water quality discussion in this section on urban impacts in deference to the SB 5248 process underway (see response to comment #46 under General Major Amendments).</i></p>
	Page 64 – Table 3.2.10 – Water Quality Management Recommendation – 8 <sup>th</sup> bullet that mentions stormwater treatment. Suggest adding the need for municipal stormwater management programs to maintain systems, find and fix polluting discharges, and provide public stormwater education. (36)	<p><i>Draft amended to incorporate comment in the stormwater runoff management section.</i></p>
	<p>Page 65 – change “adopt land use standards in watershed management plans” to:</p> <p>review limiting factors to development in TMDL implementation plans, and watershed management plans. Also review and consider planning suggestions in water cleanup plans (TMDLs) and watershed plans.</p> <p>Note: there are many plans out there, it is best for local jurisdictions to not blindly adopt plans when competing or contradictory information may exist in plans. (36)</p>	<p><i>Draft will be amended to incorporate comment.</i></p>
	Page 66 – Water Quality Regulatory Considerations – Adopt ordinances to prohibit polluting discharges into stormwater systems, and ordinances to control stormwater runoff from new development, redevelopment and construction sites. (36)	<p><i>Draft will be amended to incorporate comment.</i></p>

	<b>Comment</b>	<b>Response</b>
	Page 66 – Best Management Practices – change minimize to “prevent” adverse impacts to ... Also change “control soil and water quality degradation” to something that suggest preferred method of treatment is to provide source control to prevent polluting activities, including nonpoint sources of pollution. Were source control cannot be maintain, then adequate filtration should be used to prevent nonpoint source contributions. <b>(36)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page - 67 add link to water quality assessment (303d list) for more information about local water quality concerns. Broaden water quality information beyond Temperature to include dissolved oxygen, turbidity, etc. also include link to water cleanup plans (TMDLs and their implementation plans.  Assessment - <a href="http://www.ecy.wa.gov/programs/wq/303d/2008/index.html">http://www.ecy.wa.gov/programs/wq/303d/2008/index.html</a> Water clean up plans <a href="http://www.ecy.wa.gov/programs/wq/tmdl/TMDLsbyWria/TMDLbyWria.html">http://www.ecy.wa.gov/programs/wq/tmdl/TMDLsbyWria/TMDLbyWria.html</a>  Water quality standards <a href="http://www.ecy.wa.gov/programs/wq/swqs/index.html">http://www.ecy.wa.gov/programs/wq/swqs/index.html</a> <b>(36)</b>	<i>Draft will be amended to incorporate comment.</i>
	<b>Policy Example (Stream Flow Assessment) (p 66)</b> <b>Comment:</b> The last sentence at the end of the second bullet under regulatory considerations reads “Unavoidable impacts are mitigated to achieve not net loss to habitat function and processes.” Here is another example of where it’s not clear how WDFW will respond to questions. What are unavoidable impacts? What level of certainty is needed to achieve a not net loss of habitat function? I understand that with GMA’s presumption of validity, that unless they are overturned in challenge, the local governments adopted language stands. However, I’m not clear that will provide clear guidance for other jurisdictions. The third bullet language refers to Best Management Practices. Is there a set of agreed upon best management practices? <b>(37)</b>	<i>Draft will be amended to incorporate comment.</i>
	The Water Quality section of the paper suffers from “scope-creep.” it “dips its toe” into a discussion of water quantity, (pages 64-65) but without doing the topic justice. For example, the problem of issuing building permits without a sufficient demonstration of water availability is not mentioned. This issue alone deserves its own separate and thorough discussion. <b>(38)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page 63, 2 <sup>nd</sup> paragraph - Consider adding the following source of water quality degradation to this sentence: "...poor forest and agricultural practices,..." <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page 63, 3 <sup>rd</sup> paragraph - Consider reiterating the impact of stormwater runoff on the elevation of water temperature within this paragraph. <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
	<b>Table 3.2.10</b> Page 66, entire table - Consider, at a minimum, cross-referencing within this Water Quality section, the Policy and Regulatory Considerations within the Stormwater Management section above. Stormwater Management and Low Impact Development principles and practices need more emphasis within this Water Quality section. <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
	<b>Table 3.2.10 Policy Considerations</b> Page 64, New Bullet - Consider adding the following new Policy Consideration "Develop educational programs that promote the use of Low Impact Development principles and practices among developers, builders, and homeowners to	<i>Draft will be amended to incorporate comment.</i>

	<b>Comment</b>	<b>Response</b>
	<i>better manage stormwater and maintain and improve water quality of surface and groundwaters." (40)</i>	
	<p><b>Table 3.2.10</b> Provide additional information regarding what is the needed buffer or distance from the water for use of pesticides, herbicides and fertilizers. Table refers to prohibit use in buffer area, however, each jurisdiction may have differ buffer widths; therefore, a specific distance should be included.</p> <p>Regarding the Pollution Prevention (pg 65) of directing shoreline development to minimize the need for the use of pesticides, herbicides and chemical fertilizers, provide examples of how to achieve this. (42)</p>	<p><i>Comment noted. In this document, WDFW does not have space to detail all of the practices recommended in the Department of Ecology Water Quality standards or specific low impact development techniques. However, we have included planning resources that include management recommendations for pollution prevention.</i></p>
<b>3.2.11 Salmonid Recovery Planning</b>		
	I didn't see a tie to requiring that Salmon recovery plans being added to GMA comprehensive plan updates. That would be an easy path to integrate salmon recovery overlays on existing plan updates. (5)	<p><i>Comment noted. Policy considerations listed in the Salmonid Recovery Coordination Table address this comment.</i></p>
	The last line in that table on page 69, after a. says "Focus on early federally listed salmonid species first,... Can you clarify what that means? (37)	<p><i>This King County example reflects a local approach to prioritize salmonid recovery planning, which WDFW offers as an example for other local governments to consider. WDFW staff and local salmon recovery groups are resources for local governments as they craft regulatory language appropriate for their jurisdiction.</i></p>
	Page 69 – 3.2.11 Salmonid Recovery Planning – in addition to coordinating with watershed planning processes, the policy considerations could mention coordination with water cleanup plans for TMDLs, stormwater management programs, and with stormwater basin plans where they have been developed. (36)	<p><i>Draft will be amended to incorporate comment.</i></p>
	Page 68, 2 <sup>nd</sup> paragraph - Consider adding the following text to this phrase: "...may not be the same staff as those developing and implementing land use policies and regulations." (40)	<p><i>Draft will be amended to incorporate comment.</i></p>
	<p>Table 3.2.11 Policy Considerations</p> <p>Page 69, 1<sup>st</sup> Bullet – Again, similar to the comment for Section 3.2.1 above, if it's appropriate for this state-wide document, please try to add the following to the phrase to at least the 1st bullet "... and salmon recovery plans (including associated multi-year work plans)". Three-year work plans developed for recovering Puget Sound Chinook are specific plans that include the upcoming salmon recovery restoration work for each watershed. It would be helpful to make brief reference to it here. Other salmon recovery regions in the state may also be using this "work plan" approach. (40)</p>	<p><i>Draft will be amended to incorporate comment.</i></p>

	Comment	Response
	Page 68 - Would the title be more helpful if it was something like “Coordinating Salmon Recovery Planning”? (40)	<i>Comment Noted. “Salmonid Recovery Planning” is more descriptive of what we recommend.</i>
<b>3.3.1 Incentive Programs</b>		
	We will have to coordinate with landowner incentive programs (local, state and federal) including Farm Bill and Lead Entity identified restoration sites and other Watershed mitigation and restoration efforts such as developed by Ecology ( <a href="http://www.ecy.wa.gov/biblio/0506027.html">http://www.ecy.wa.gov/biblio/0506027.html</a> ) and watershed characterization <a href="http://www.ecy.wa.gov/biblio/0906003.html">http://www.ecy.wa.gov/biblio/0906003.html</a> , WSDOT and WDFW(Local Habitat Assessments <a href="http://wdfw.wa.gov/habitat/lha/index.html">http://wdfw.wa.gov/habitat/lha/index.html</a> ) These are tools for local planners to maximize planning benefits. (6)	<i>Draft will be amended to incorporate comment.</i>
	<p>“Where shorelines have been modified, provide incentives to encourage redevelopment activities to include salmonid habitat restoration. “</p> <p><b>Comment:</b> Can a list of incentives be provided here? Does DFW support incentives such as reduced setbacks, increased density, additional Gross Floor Area, and/or impervious surfaces? Which ones are not recommended incentives? The obvious trade off is that the more market incentives there are to encourage redevelopment, the more salmonid habitat restoration projects we'll receive. (32)</p>	<i>Draft will be amended to provide some mitigation examples.</i>
	"Support removal and control of noxious weeds in shoreline areas"...and replanted with [specific ground cover recommendation or a list that is available.] It's very helpful to have a specific list of approved species for replacement ground cover when the noxious weeds are removed. Planners, such as myself, do not always know where exactly to look for approved plants. Also, the list of recommended plants changes occasionally as more scientific knowledge becomes available. (32)	<i>The landscapes around our state are too varied to include an exhaustive list. Draft will be amended to include resources for local plants such as Conservation Districts.</i>
	<p><b>Mitigation:</b> “Where available and appropriate, participate in in-lieu fee mitigation programs for unavoidable development activities.”</p> <p><b>Comment:</b> Is there a good example that is available? The City of Mercer Island has been considering the possibility, but are looking for a good successful program. (32)</p>	<i>Draft will be amended to include an example.</i>
	<p>“Adopt incentives (such as lower or no impact fees, fast track permitting) for green building, redevelopment, brownfields development and infill.”</p> <p><b>Comment 1:</b> Will adding triple pane windows and extra insulation, for example, an allowable offset for reduced impact fees for parks/fire/police?</p> <p><b>Comment 2:</b> Most shoreline properties are currently in use, and there is already much market incentive to redevelop to highest/maximum use. Is there a reason that WDF is recommended reduced impact fees and fast tracking permits to</p>	<p><i>Comment 1: This is beyond the scope of recommendations for salmonid habitat.</i></p> <p><i>Comment 2: As stated, redevelopment would be part of our recommendation. Fee reduction/fast-tracking would be most appropriate in areas where redevelopment is not yet common.</i></p>

	Comment	Response
	"redevelop" existing parcels. If fore xample there is a single family house, and a tri-plex or subdivision is proposed, this would recommend jurisdictions reduce fees and fast track it. (32)	
	<b>Comment:</b> you reference the "proper use of buffer averaging,..." Do you define what proper is? (37)	<i>Draft will be amended to incorporate comment.</i>
	<b>Comment:</b> in the first bullet at the top of page 73, your mention fast track permitting. Do you have examples of what that means? (37)	<i>Draft will be amended to incorporate comment.</i>
	Page 73, 7th Bullet - Consider including specific mention of incentives for cluster housing options (40)	<i>General examples, such as fast-track permitting have been mentioned elsewhere in this section.</i>
	Page 72, first sentence – Delete "direct county department to" as this section is targeted toward citizens outside of local government. (40)	<i>Sentence as written is correct. Policies are adopted by county elected and direct implementation by county departments.</i>
	3.3 Title does not appear to match the first section on Incentive Programs. I think of incentives as <u>non-regulatory</u> primarily. (45)	<i>Section includes both regulatory and programmatic recommendations. (i.e. zoning is regulatory, whereas incentives could be considered programmatic).</i>
<b>3.3.2 Outreach Programs</b>		
	target realtors w/ outreach information (33)	<i>Draft will be amended to incorporate comment.</i>
	Thank you for the good list of examples. Very helpful. (32)	<i>Comment noted.</i>
	When you have gathered example policies, like outreach, have you learned out these jurisdictions are paying for these efforts? That information might be valuable for other jurisdictions looking at them for consideration. (37)	<i>Valuable information, but beyond the scope of this guidance.</i>
	Page 73, 1 <sup>st</sup> Bullet - Consider including specific mention within the following text: "...provide technical assistance and encourage stewardship involving <i>builder and developer organizations</i> , landowners,..." (40)	<i>Draft will be amended to incorporate comment.</i>
<b>3.3.3 Zoning</b>		
	Consider replacing "clearing and grading" on P. 73 with "maximum allowable impervious surfaces". Most zoning codes don't regulate clearing and grading (which is typically in the construction code under Best Management Practices). (32)	<i>Draft will be amended to incorporate comment.</i>
	"Limit conditional and special uses in salmonid habitat conservation areas."  <b>Comment:</b> Certain conditional and special uses may be more beneficial to habitat than the alternatives. Is this trying to say only for those conditional or special uses that would have an impact on salmonid habitat? (32)	<i>If special uses are beneficial both to the proponent and habitat, we assume they would be used.</i>
	"Allow flexible density and lot configuration to protect habitat areas."  <b>Comment:</b> "flexible density" usually implies greater densities. Should this just recommend lot configurations and public	<i>Public access tracts are not necessarily considered protective of habitat. Flexible means more or less dense.</i>



Comment	Response
access tracts. (32)	
<p><b>3.3.3 Zoning Density page 73</b>  The guide recommends that counties and cities “[s]et densities that are appropriate to salmonid habitat needs within the district.” We strongly agree with this recommendation. We also believe that the report should either recommend specific densities for urban, rural, and natural resource lands or a methodology for determining the appropriate densities. Many local governments lack the ability to determine densities that would provide protection to salmon resources. The department’s science based recommendations would be very helpful. (39), (14), (32)</p>	<p><i>We don’t have specific zoning density recommendations available in this document, but recommend that, at the very least, areas with salmonid bearing streams and associated off-channel habitat (wetlands, vegetated buffers) had low enough densities that building sites and roads would not impact aquatic areas or exceed the impervious surface thresholds discussed in the recommendations.</i></p> <p><i>Draft will also be amended to further describe comprehensive planning and zoning approaches and tools. WDFW is currently developing a guidance document more focused on zoning densities appropriate for wildlife, which is anticipated for public review in Fall 2009.</i></p>
<p>“Set densities that are appropriate to salmonid habitat needs within the district.</p> <ul style="list-style-type: none"> <li>• Allow flexible density and lot configuration to protect habitat areas.</li> <li>• Rezones give proper consideration to the capacity of the land to support human densities and public infrastructure, while maintaining the productive capacity of salmonid as well as other fish and wildlife habitat. Rezones in priority salmonid recovery watersheds receive greater scrutiny.”</li> </ul> <p>The above section is too vague. What are the appropriate densities to provide for/protect salmonid needs. (42)</p>	<p><i>See previous response.</i></p>
<p>“Rezones in priority salmonid recovery watersheds receive greater scrutiny.”</p> <p><b>Comment:</b> Can you please add what is the criteria for determining "priority" watersheds or the list planners should reference when considering a rezone? (32)</p>	<p><i>Priority watersheds are those that have importance to specific species recovery. These can be found in any of the recovery plans or by contacting WDFW.</i></p>

Comment	Response
<p>Page 73, 1<sup>st</sup> Bullet - Ideally, it would be best if individual drainages could be managed as a whole rather than by jurisdictional boundaries. Consider adding the following text to this bullet in an attempt to move local jurisdictions in this direction: "Set densities that are appropriate to salmonid habitat needs within the district <i>and the watershed as a whole. In areas where adjoining local jurisdictions share responsibility to protect the health of a particular watershed, work together to assure that densities are set that reflects the needs of the entire watershed.</i>" (40)</p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p><b>3.3.4 Subdivision Code</b></p>	
<p>The reference to rural clusters is on the principle of the idea, but are they working? In Snohomish county the proposed protected areas are many times whittled away as homeowners associations fall apart, and only if there is a citizen complaint does the county even consider enforcing the original plat protected areas. Also, does the usual increased density bonuses above existing zoning really work for salmon in regards to water use and increased rural road use lacking treatment as it may impact small coho streams. Is there technical documentation that show they are protecting salmon habitat and function? If so then ok to include. (5)</p>	<p><i>We agree that there are many examples of cluster housing in rural areas that may not achieve resource protection. Thurston County has a good example of a cluster subdivision in the Gree Cove basin where a significant riparian vegetated buffer was retained as well as significant vegetation retention throughout the subdivision design. This model is consistent with Randall Arend's conservation subdivision design principles. We also note that clustering does not have to equal density bonus. Other incentives may include fast-track permitting or transfer of development rights.</i></p>
<p>"For example, adjacent landowners may share the same wetland. One landowner may have retained the natural vegetative buffer and has avoided using any pollutants such as lawn fertilizers."</p> <p><b>Comment:</b> Is another example that more lots equals more docks? Even though the SMP puts regulations on joint use piers for new subdivisions, not all jurisdictions have adopted the standards. (32)</p>	<p><i>Comment noted.</i></p>
<p>Page 74, full paragraph - Breaking land up also inherently increases density and multiplies the impact on salmonid habitat. Consider pointing this out here or refer back to the Zoning section. (40)</p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p>Page 74, 2<sup>nd</sup> Bullet – Simply excellent! (40)</p>	<p><i>Comment noted.</i></p>
<p>"3.3.4 Subdivision Code</p> <ul style="list-style-type: none"> <li>• Prohibit subdivision of land that is wholly located within a salmonid habitat area (e.g. riparian or wetland buffers).</li> <li>• Allow for flexible subdivision design, such as cluster development, planned unit development, or conservation</li> </ul>	<p><i>As the document is directed in general towards salmon and steelhead the second bullet refers to salmonid habitat, but also can pertain to other habitat protection. How bullet two applies will be dependent</i></p>

	<b>Comment</b>	<b>Response</b>
	<p>subdivisions that set-aside habitat conservation areas into reserve tracts with one set of management recommendations. Require management plans for open space tracts to provide for long term stewardship.”</p> <p><b>Comment:</b> How do the two bullet points above work? What does the second bullet pertain to. Areas that aren't in a salmonid habitat area? How much? I suggest that you provide additional clarification on when bullet two applies. I also suggest that salmonid habitat is explicitly defined. <b>(42)</b></p>	<p><i>of the local jurisdiction, but like all of the recommendations we would like it to be an option whenever salmonid habitat is impacted. Salmonid habitat is described in other places in the document and is available for most specific watersheds in reference material such as Recovery Plans or from WDFW.</i></p>
<b>3.3.5 Clearing and Grading Ordinance</b>		
	<p>p. 75, last bullet: Recommend replacing “(as opposed to isolated actions)” with “(to reduce speculative clearing)” <b>(7)</b></p>	<p><i>Comment noted.</i></p>
	<p><b>Clearing and grading:</b> Many of the regulation guidelines as written in your document sound very good, but the implementation through codes and enforcement often have poor, unintended results. For example, I have an advocate case in the City of Sammamish (CAPR has an advocate program to assist landowners in conflict with local government). The owner purchased a lot adjacent to a Category 1 wetland. He had a solid case for legal non-conforming use of part of the 215 foot buffer, but was nonetheless denied. The city has denied his use of this property and required him to establish a non-maintainable vegetated buffer up the foundation of his house, thus destroying most of the value of his lot. We presented a credible compromise through a biologist whose plan maintained the functions and values of the buffer while allowing passive use of the property for a yard. As of this writing, they have not accepted the compromise. <b>(28)</b></p>	<p><i>Implementation and enforcement of land use regulations is the responsibility of local government, working with their citizens.</i></p>
	<p><b>Comment:</b> The last sentence at the end of the second bullet (p 75) says “When clearing is essential, encourage the practice of uprooting and retaining non-merchantable whole trees for later use as large woody debris in habitat projects. I would suggest you drop the non-merchantable language and explore the possibility of how a cooperative developer might get qualify for mitigation credit or fast track permitting for following your guidance here for using on site large wood for habitat projects. I think WDFW does some of this now under your HPAs. <b>(37)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<b>3.3.6 Agricultural Activities</b>		
	<p>Add “work with the NRCS, FSA and Conservation Districts to discuss Farm Bill...” since all of the programs under the Farm Bill fall under the jurisdiction of NRCS or FSA; not the Conservation Districts. NRCS works with private landowners developing conservation plans and can fund some of the conservation through our Farm Bill programs. Our field staff are conservation planners. Conservation District personnel also develop conservation plans for private landowners – and figure out how to fund the conservation through either Farm Bill funding or grant funding. Conservation District personnel help NRCS write conservation plans and send the landowners over to NRCS to receive Farm Bill funds. <b>(25)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
	<p>Encourage new agricultural activities follow Best Management Practices to conserve important habitat areas for salmonids while maintaining working lands. [sic]</p> <p><b>Comment:</b> New agricultural activities should simply not be allowed in “important habitat areas” and there is no reason to</p>	<p><i>WDFW recognizes that new agriculture is a commonly allowed use in most county zoning districts. The use of BMP's as discussed in this section would help</i></p>

Comment	Response
<p>allow them. This is a totally different situation than areas where the habitat is already degraded. While the Washington Supreme Court has ruled that restoration cannot be required of habitat that has already been degraded or converted by agriculture, this in no way affects a jurisdiction's statutory responsibility under GMA to protect existing habitat. The statement as written is internally contradictory: if the agricultural activity is new, the lands are not "working." Please correct this and include a proposed policy prohibiting any development in "important habitat areas" that would result in functional degradation. <b>(30)</b></p>	<p><i>protect important salmon habitat in these areas.</i></p>
<p>Page 76 – encourage the use of suites or groups of BMPs that when used collectively provide riparian protection, source control and filtration to prevent contributing pollutants to surface and ground waters. <b>(36)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p><b>3.3.7 Forest Practices</b></p>	
<p><b>Commercial forest practices:</b> Your document repeatedly expresses the value of forested lands for their ecosystem services, but then you constantly deride forest practices and associated road building as harmful. You make the mistake that many do, that we can have forests and also have a diminished or no forest industry. You refer to the fish and forest law.</p> <p>I have been in the forest industry for over three decades. I currently have contracts with private non-industrial landowners in two different counties and DNR regions. I recently completed a complex permit on a 250 acre parcel in low elevation Snohomish County. The landowner has been growing trees there for 50 years and is now losing about 200 thousand dollars worth of timber through the excessive stream buffers required by the fish and forest law. AS OF THIS WRITING THERE IS NOT A DROP OF WATER IN ANY OF THESE STREAMS! This is the third timber crop that has been harvested off of this property. I doubt there will be a fourth. Are fish better off swimming through housing developments, or forests?</p> <p><b>Non-commercial forest practices:</b> I have a job in east King County that is a class IV permit. The land has already been subdivided. The landowner wants to log it and replant, then place it in the PBRs system. The idea is to preserve forestry on portions of the property. We have now jumped through hoops for 18 months and still have no permit. Is this an acceptable situation? It would take far too long to describe the jogs and turns in trying to permit this piece. <b>(28)</b></p>	<p><i>Comment noted. Recommendations in this document are provided within the context of the forest and fish law and forest practices regulations.</i></p>
<p>Encourage salmonid habitat protection when forest land is converted to non-forestry use. A county, city, town, or regional government must place a six-year development moratorium on lands converted to non-forestry use. This moratorium may be lifted if mitigation measures, approved by the jurisdiction, are followed. These mitigation measures could include riparian restoration on potential or known salmonid bearing streams as identified in salmon recovery plans.</p> <p><b>Comment:</b> This completely ignores local government's statutory duty under both GMA and SMA to protect critical areas. First, the 6-year moratorium must be imposed for logging that fails to disclose an intent to convert. If logging is conducted under a conversion permit, the jurisdiction must protect critical areas, not merely "encourage" protection. Secondly, while a jurisdiction must impose a 6-year moratorium for logging conducted under color of nonconversion permit, there is no</p>	<p><i>Comment noted. Language will be clarified to acknowledge that local forest land conversion rules must be consistent with critical areas rules. The purpose of this statement is to suggest that lifting of a moratorium, which is a discretionary action by the local government, could be linked with conditions to improve salmon habitat.</i></p>

Comment	Response
<p>reason that a local jurisdiction cannot impose a longer moratorium per its duly adopted policies and codes. WDFW here seems to be encouraging these “log it and develop it” evasions, rather than discouraging them through its recommendations to planners. As WDFW well knows, mitigation generally has an abysmal failure rate. And replanting seedling trees does not and cannot replace the ecological functions lost by removal of older trees. Rather than recommend continued evasion of GMA’s requirements for protection of critical areas as WDFW does here, it should be encouraging local jurisdictions to take action to discourage and plug this regulatory loophole. <b>(30)</b></p>	
<p><b>3.3.7 Forest Practices on page 77</b>  The guide calls for counties and cities to “encourage salmonid habitat protection when forest land is converted to non-forestry use.” Both the Growth Management Act and Shoreline Management Act mandates counties and cities are required to protect salmonid habitat. We recommend the sentence be recast as “require” salmonid habitat protection. <b>(39)</b></p>	<p><i>Comment noted. Recommendation to encourage protection above that which is required. Converted lands are still subject to local critical areas regulations.</i></p>
<p>Page 77, last bullet point under 3.3.7 – Provide the regulatory citation that requires a 6-year development moratorium on lands converted to non-forestry use. <b>(40)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p><b>3.3.8 Exemptions</b></p>	
<p><i>In situations where a reasonable use or variance cannot be avoided, cumulative impacts are determined and mitigated using a habitat management plan prepared by a qualified professional. Variances are not allowed in high priority restoration or protection areas identified in salmonid recovery or watershed management plans. Mitigation is used to further restoration and protection objectives.</i>  <b>Comment:</b> Any particular reason why variances would be prohibited instead of RUEs? <b>(14)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p>I think the Guide should recommend independent review of land use/development applications whenever possible. The Guide does say that planners will ensure that exemption, reasonable use exception and variance language is implemented consistently and tied to mitigation to ensure no net loss to salmon habitat functions. However, I think there needs to be independent review of development applications based on the State’s goal to “restore salmon, steelhead and trout populations to healthy and harvestable levels and improve those habitats on which fish rely”. In my opinion there needs to be separation of the legislative and judicial authorities. We all know examples of good policies that did not protect against a bad activity. In some areas, Planning Units and Recovery Boards are well positioned to provide the independent “review” for local government planners in conjunction with natural resources agencies authorized to provide such review. <b>(17)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p>Page 85: Section 3.3.8 on exemptions and variances: Need to add bullet clarifying that variances from Shoreline Master Program standards require a Shoreline Variance, following the process laid out in RCW 90.58 and the local SMP. <b>(35)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p>Page 78, first bullet point under Exemptions – Here (and really throughout the document) it may be easier for your reader to understand recommendations if they are in the future tense: for example say “exemptions <i>should</i> require a public hearing.” Or “exemptions ...<i>should be</i> limited in accordance with Washington...” Otherwise if you are reading quickly it seems like what you are recommending is actually currently the law on the books. <b>(40)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>

Comment	Response
<p>“3.3.8 Exemptions (including variances and reasonable use exceptions)</p> <ul style="list-style-type: none"> <li>Exemptions (variances, reasonable use exceptions, etc.) require a public hearing and public review process.</li> <li>Exemptions to salmonid habitat protection rules are limited in accordance with Washington State Department of Community, Trade, and Economic Development Critical Areas Handbook recommendations (WDCTED 2003).</li> <li>All exempted activities use reasonable methods to avoid potential impacts to salmonid habitat conservation areas.</li> <li>In situations where a reasonable use or variance cannot be avoided, cumulative impacts are determined and mitigated using a habitat management plan prepared by a qualified professional. Variances are not allowed in high priority restoration or protection areas identified in salmonid recovery or watershed management plans. Mitigation is used to further restoration and protection objectives.”</li> </ul> <p><b>Comment:</b> Terminology is confusing and I suggest that guidance for exemptions is separate from guidance on variances and reasonable use. Exemptions are very different from exceptions. <b>(42)</b></p>	<p><i>Draft will be amended to clarify terminology.</i></p>
<p><b>3.3.9 Road Standards</b></p>	
<p><i>Encourage use of pervious paving materials in basins with porous soils and high aquatic species diversity or salmon-bearing streams.</i></p> <p><b>Comment:</b> Isn't stormwater treatment (in combination with a detention facility) proven to be more effective in the long run for water quality than pervious paving that requires high maintenance due to oil and dirt? <b>(32)</b></p>	<p><i>Recommendation does not replace stormwater runoff management recommendations listed earlier in draft.</i></p>
<p><i>Control drainage by directing road runoff onto forest floor before reaching a stream.</i></p> <p><b>Comment:</b> Can you add a recommendation for urban areas after this sentence? <b>(32)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p><i>Allow flexible road design in rural areas.</i></p> <p><b>Comment:</b> Has DFW looked at the possibility of recommended the minimum road width necessary in urban areas? Frequently road widths are huge due to other competing interests, such as fire access (which may not necessarily need a standard 60' wide road). That's a wide road! <b>(32)</b></p>	<p><i>Draft will be amended to recommend using the most minimum road width necessary. Local needs for road width vary depending on fire access, etc.</i></p>
<p>Page 79 – road standards – add avoid using petroleum based substances to reduce dust on rural un-paved roads. Also, want to discourage unpaved road design that may cause erosion and sediment delivery to streams, without mitigating BMPs. <b>(36)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p>Comment: NMFS has approved a 4(d) limit for road maintenance that is carried out in accordance with the program</p>	<p><i>Draft will be amended to incorporate comment.</i></p>

	Comment	Response
	guidelines. This might be a great opportunity to pitch it to local governments not currently using it. For more information see <a href="http://www.kingcounty.gov/transportation/kcdot/Roads/Environment/RegionalRoadMaintenanceESAGuidelines.aspx">http://www.kingcounty.gov/transportation/kcdot/Roads/Environment/RegionalRoadMaintenanceESAGuidelines.aspx</a> for more information. (37)	
	Page 78, 1st Bullet - Expand this bullet to include the full range of options for roads. Consider changing the text for this bullet to read the following: "Encourage the use of Low Impact Development Techniques during the site planning and layout phase of a project, particularly in areas of high aquatic species diversity or salmon-bearing streams. Examples of these techniques include narrower road widths and the use of pervious paving materials." (40)	<i>Draft will be amended to incorporate comment. The full range of options for roads is beyond the scope of this document.</i>
	Page 78, Road Standards: Change first sentence - "Capital projects such as road building and maintenance are often managed by departments separate from departments that plan critical area..." (40)	<i>Draft will be amended to incorporate comment.</i>
<b>3.3.10 Building Code</b>		
	<p>Include "green building" requirements for areas of high fish and wildlife diversity (can reduce water use and release of toxins from building materials).</p> <p><b>Comment:</b> Please consider replacing the word "can" with "which". Green building includes items not directly related to fish habitat, such as insulation. (32)</p>	<i>Draft will be amended to incorporate comment.</i>
	Page 79 – building codes – encourage building code reviews that will ensure LID compatibility with code. (36)	<i>Draft will be amended to incorporate comment.</i>
<b>3.4 Implementation and Monitoring</b>		
	Specific to the monitoring section I suggest that the document include a statement like "millions of public and private dollars to restore salmon habitat has occurred in Washington state. The effectiveness of these investments is being evaluated in nine Intensively Monitored Watersheds including one in the Asotin watershed. These intensively monitored watershed projects are designed to tie cumulative restoration actions within a basin or watershed to the actual improvement in fish production and carrying capacity. The effectiveness of specific habitat restoration actions should be used to assist land use plans identify the habitat most critical for salmon recovery and develop policies specific to the protection of said habitat type. (17)	<i>Draft will be amended to incorporate comment.</i>
	Page 80, Example Training Programs - Add a reference to the courses offered by the Coastal Training Center at the Padilla Bay Reserve. Here's a link: <a href="http://www.coastaltraining-wa.org/">http://www.coastaltraining-wa.org/</a> (40)	<i>Draft will be amended to incorporate comment.</i>
	Page 80, full paragraph - To more fully determine effectiveness of land use policies and regulations, audits of development permits need to include a ground-truth component. One example of this approach is the San Juan Initiative (see <a href="http://www.sanjuaninitiative.org/">http://www.sanjuaninitiative.org/</a> ). The Hood Canal Coordinating Council has also conducted similar work in Hood Canal. (40)	<i>Draft will be amended to incorporate comment.</i>

	<b>Comment</b>	<b>Response</b>
	Page 80, Monitoring Programs to Consider - Local jurisdictions are in need of clear, concise guidance and templates for consistently monitoring no net loss of ecological function, as required by the Shoreline Management Guidelines. This need was identified during development of the Puget Sound Partnership's Action Agenda (See Near Term Action A.2 #6; a brief description of this action is also available from the Partnership on request). Perhaps such guidance and templates could be developed jointly through a multi-agency effort. <b>(40)</b>	<i>Comment noted. Ecology is coordinating cross-agency review of no-net-loss guidance.</i>
	As the regional salmon recovery entity for Puget Sound chinook, the Puget Sound Partnership is also working to implement a monitoring and adaptive management strategy within each watershed in Puget Sound. Consider adding reference to this effort within this section. <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
<b>3.5 Protecting a Northwest Icon</b>		
	Page 81, 2nd paragraph – Add the following text: “Local governments, <i>particularly local planners</i> , are in a unique position...”. This addition circles back to the recommendation within the Preface section above. <b>(40)</b>	<i>Draft will be amended to incorporate comment.</i>
	Page 81, last sentence: replace the word ‘modeled’ with “provided”. <b>(45)</b>	<i>Comment noted. We have chosen to model how regulations can benefit salmon and steelhead recovery rather than provide a list of specific regulations.</i>
<b>APPENDIX A Salmonid Recovery in Washington State</b>		
	Although you name a number of restoration groups in the Appendix A, it might help to direct planners to a list of common restoration activities. <b>(10)</b>	<i>The list of common restoration activities can be long and complex. For example, activities may include: culvert replacement, LWD enhancement, levee setback, irrigation efficiency, riparian and floodplain restoration activities. For specific regional recovery activities check the either the HWS web site or the specific regional recovery area webpage.</i>
<b>A.1 Salmon Recovery Programs</b>		
	Page 89, Salmon Recovery Lead Entities – Highlight the fact that lead entity Salmon Recovery Coordinators are, perhaps, the primary contact for local governments on salmon recovery activities at the local level. <b>(40)</b>	<i>Lead Entities were intended to be the primary point of contact for salmon recovery activities in their respective watersheds.</i>
<b>A.3 Salmonid Protection and Restoration Resources</b>		
	I believe this information would fit:	<i>Draft will be amended to incorporate a few specific examples.</i>



Comment	Response
<p><b><u>Bonneville Model Watershed Plans: Asotin, Pataha and Tucannon</u></b></p> <p>In 1991 the local conservation districts in Asotin, Garfield and Columbia Counties worked with the Natural Resource Conservation Service, WDFW, WDOE, Nez Perce Tribe, WCC and most importantly local landowners to develop Model Watershed Plans for Asotin and Pataha Creeks and the Tucannon River. The <i>Asotin Creek Model Watershed Plan</i> was completed in 1995 and it was the first salmonid restoration plan completed in the state with emphasis on habitat protection and restoration. It was a comprehensive Ridge-top-to-Ridge-top approach to salmonid restoration. The three watersheds listed above have completed upland BMP's to reduce sedimentation, riparian planting and fencing to help protect stream temperatures and reduce streambank sedimentation, instream habitat projects for resting and rearing salmonids, irrigation efficiency projects that have provided increased flows in some instances and screening of irrigation intakes. The <i>Asotin Creek Model Watershed Plan</i> can be found at the following site;</p> <p><a href="http://pisces.bpa.gov/release/documents/documentviewer.aspx?doc=2586">http://pisces.bpa.gov/release/documents/documentviewer.aspx?doc=2586</a></p> <p><b><u>Asotin Creek Intensively Monitored Watershed</u></b></p> <p>Millions of public and private dollars to restore salmon habitat has occurred in Washington state. The effectiveness of these investments is being evaluated in nine Intensively Monitored Watersheds including one in the Asotin watershed. These intensively monitored watershed projects are designed to tie cumulative restoration actions within a basin or watershed to the actual improvement in fish production and carrying capacity. The effectiveness of specific habitat restoration actions should be used to assist land use plans identify the habitat most critical for salmon recovery and develop policies specific to the protection of said habitat type. <b>(20)</b></p>	
<p>Appendix page 92: Item on Watershed Planning. Please link readers to our Watershed home page, as it has relevant information beyond the document linked in the draft. Please link to <a href="http://www.ecy.wa.gov/watershed/index.html">http://www.ecy.wa.gov/watershed/index.html</a> <b>(35)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p><b>A.5 Additional Resources</b></p>	
<p>The description of Puget Sound Partnership seems a little off as they are now a branch of state government, not really a community effort. They have a formal structure with the Leadership council, Ecosystems board and science panel. They involve a large community at meetings, but they are government employees working at the PSP. <b>(5), (40), (45)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p>Page 97, Additional Resources – Include a link to the WDOE Shoreline Management website for a list of local jurisdictions who have updated their respective Shoreline Master Plans. <b>(40)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p><b>APPENDIX B Definitions</b></p>	
<p>Appendix B: Definitions: The citations in the CTED 2003 document on BAS are very limited. Should be expanded to include the National Academy of Science report and Ecology's BAS on wetlands. <b>(35)</b></p>	<p><i>Draft will be amended to incorporate comment.</i></p>
<p>Page 105, Habitat Management Plan - Would it be helpful to define what statutory authority requires a HMP? <b>(40)</b></p>	<p><i>This is referring to an HMP required by local rules, not state law.</i></p>

**Comment Source**

<b>NUMBER</b>	<b>NAME</b>	<b>ORGANIZATION</b>	<b>RECEIVED</b>
(1)	Mike Knight	Citizen, Kitsap County	6/15/2009
(2)	Kit Rawson	Tulalip Tribes	6/16/2009
(3)	Anne Shafer	WDFW	6/16/2009
(4)	Rick Mraz	Ecology	6/16/2009
(5)	Bill Blake	City of Arlington	6/17/2009
(6)	Bob Zeigler	WDFW	6/17/2009
(7)	Keith Folkerts	Kitsap County	6/19/2009
(8)	Bob Burkle	WDFW	6/24/2009
(9)	Mark Johnson	ESA Adolfson	6/28/2009
(10)	Alex Callendar	Ecology	6/29/2009
(11)	Lisa Lewis	Kitsap County	7/2/2009
(12)	Bob Barnard	WDFW	7/2/2009
(13)	Alan Moore	Trout Unlimited	7/3/2009
(14)	Dave Risvold	Pierce County	7/8/2009
(15)	Miles Batchelder	Washington Coast Sustainable Salmon Partnership	7/9/2009
(16)	Barbara Cairns	LLTK	7/9/2009
(17)	Steve Martin	Snake River Recovery Board	7/13/2009
(18)	Tim Stewart	City of Bellingham	7/13/2009
(19)	Susan Chadd	Citizen, Clallam County	7/13/2009
(20)	Brad Johnson	WRIA 35 (Asotin PUD)	7/13/2009
(21)	Gary Dougherty	Clallam Conservation District	7/13/2009
(22)	Richard Hendricksen	Columbia County	7/13/2009
(23)	Kathy Curry	City of Sammamish	7/17/2009
(24)	Barbara Rosenkotter	WRIA 2 (San Juan) Lead Entity Coordinator	7/20/2009
(25)	Deborah Virgovic	NRCS	7/21/2009
(26)	Margaret Clancy	ESA Adolfson	7/24/2009
(27)	Dave Howe	Clark County	7/24/2009
(28)	Preston Drew	Citizens Alliance for Property Rights	7/26/2009
(29)	Erik Neatherlin	WDFW	7/27/2009
(30)	Steve Erickson	Whidbey Environmental Action Network	7/29/2009
(31)	Michelle McConnell	Jefferson County	7/30/2009
(32)	George Steirer	Mercer Island	7/30/2009
(33)	Jamie Glasgow	Wild Fish Conservancy	7/31/2009
(34)	Lisa Hendriksen	Cowlitz County	7/31/2009

(35)	Tom Clingman	Department of Ecology, SEA Program	7/31/2009
(36)	Todd Bolster	Department of Ecology, WQ Program	7/31/2009
(37)	Lloyd Moody	RCO-GSRO	7/31/2009
(38)	Mike Grayum	NWIFC	8/1/2009
(39)	Tim Trohimovich	Futurewise	8/1/2009
(40)	John Cambalik	Puget Sound Partnership	8/3/2009
(41)	Cynthia Nelson	Department of Ecology, WQ Program	8/3/2009
(42)	Margaret Glowacki	City of Seattle	8/3/2009
(43)	Ben Perkowski	City of Seattle	8/3/2009
(44)	Lee Carlson	Yakama Nation	8/3/2009
(45)	Doug Peters	Dept. of Commerce, GMS Services	8/4/2009
(46)	Dan Wood	Washington Farm Bureau	8/11/2009