

Whatcom County Product Review and Comment Form

Product Name: Draft Birch Bay Watershed Characterization and Watershed Planning Pilot Study

Date Product Distributed for Review: October, 2007

Other Information: Public Comments



Line	Page	Section	Comment/Concern	Recommended Change	Source of Comment (e.g., Tech Team, Caucus, person)	Resolution
	14	1.4 "How does this study relate to other planning efforts in Birch Bay?"	"First, the Birch Bay Design Guidelines plan was not included and probably should be. This plan notes zoning changes that could be incorporated to affect the flavor of the community and retain the treasured environmental features.	Add Design Guidelines study	Kelvin Barton	Comment noted, the Design Guidelines project has been added to report.
37	19	2.2 "Environmental Concerns"	"Second, as a cause of pollution, waste from on board tanks of pleasure boats, while it may be a problem in some areas, does not seem to be supported by any studies for Birch Bay. With the exception of the private marina at Birch Bay Village, the bay for the most part is too shallow to support boats large enough to have holding tanks. Typically, this verbiage is frequently used by other polluters to point the finger at someone other than themselves as the cause of pollution problems. This most likely got into the study through boilerplate language. Without empirical supporting data, think this one should be removed."	Remove boats as a source of pollution in Birch Bay.	Kelvin Barton	"High coliform counts have been detected at the mouth of the marina." (Birch Bay Stormwater Plan, CH2M Hill, 2006) We have conditioned the statement by saying it is one of many "potential" sources.
		General Comment	Both long-term and short-term Planning & appropriate Public Works (including the Traffic Engineer & staff?) people need to be educated about this new way of thinking about land use and then brought into the tool-making process. The resulting tools must be appropriate and user friendly for staff and the public where the rubber meets the road, with the <u>permitting</u> staff at both, Planning AND Public Works	Coordinate efforts within the agency	Kathy Berg	Long Rang Staff have been reorganized with permit staff to better facilitate coordination. Further, Planning staff are now colocated with Public Works for integration on these types of projects. We agree that tools used for implementation will have to be useable and understood. This will be worked out in the

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	Section 7	For the Birch Bay Urban Growth Area as defined in the Birch Bay Community Plan (the Whatcom County Subarea Plan adopted 9-28-04), the pilot study implementation must lead to appropriate updates of Chapter 7 - Critical Areas, Chapter 8 - Land Use and Chapter 10 - Utilities. HTTP://www.co.whatcom.wa.us/pds/planning/birchbay_subarea.jsp	Update Chapter 7 - Critical Areas, Chapter 8 - Land Use and Chapter 10 - Utilities of the Birch Bay Community Plan.	Kathy Berg	This will be addressed through the Action Plan associated with the EPA grant.
	General Comment	The Northwest Parks and Recreation District covers the area of the Blaine School District and is the Parks, Recreation, Trails and Open Space Implementation Subcommittee for the Birch Bay Community Plan. They passed a levy in Nov. '07 and will soon be embarking on a master plan. How does/should this district fit into the land use picture? Should Whatcom County	Involve all stakeholders in implementation	Kathy Berg	This will be addressed through the Action Plan associated with the EPA grant. We will seek involvement from the Parks department with the Action Plan development.
	General Comment	DNR's Cherry Point Aquatic Reserve is partly located in Birch Bay/Terrell Creek watershed. The Reserve runs from the Birch Bay State Park south around Point Whitehorn. DNR is working now on a management plan for the area that will effect folks all the way down to Sandy Point. How does/should this reserve fit into the land use picture?	Involve all stakeholders in implementation	Kathy Berg	The group set up to implement the Cherry Point Management Plan should be part of the advisory committee to be formed to work on the Action Plan.

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		Watershed Map	Based on the information provided in the report, it appears that the overall objective of the pilot study is to identify key ecological processes that are essential to maintaining the long-term health of the watershed. Since the vast majority of the watershed processes that are being considered in the pilot study are linked to the flow of water across the landscape it is important to ensure that the boundaries accurately reflect the water flow pathways. Upon review of the watershed map it is apparent that the present flow of surface water is not accurately reflected with respect to a large portion of the lands owned by BP. In accordance with the approved NPDES permit issued to the Refinery by the Washington State Department of Ecology, the surface water from approximately 340-acres of land associated with the Refinery's process units is routed to the refinery's main stormwater treatment facility and then discharged to the Straight of Geogria via an approved NPDES outfall located below the pier	Amend the watershed map and analysis to accurately reflect the flow of controlled surface waters	Jeff Chalfant (BP Cherry Point Refinery)	Revised watershed boundaries will be considered as we move toward an Action Plan. One option is to align our analysis extent with that of the adopted Stormwater Sub Area Boundary.
	2	Executive Summary - Recommendations Summary - Terrell Creek WAA	In the recommendations summary for the Terrell Creek WAA, the Industrial Tributaries sub-basin is identified as one of the areas with the highest vulnerability. While described in more detail in later sections of the report it is not clear in this section what is meant by "highest vulnerability".	Revise the Executive Summary to include a definition of vulnerability to provide context.	Jeff Chalfant (BP Cherry Point Refinery)	Comment noted, vulnerability has been better defined in the executive summary.

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column 5, rows 6 & 9	5	Executive Summary - Recommendations Summary - Table Ex-1	Some of the recommendations associated with these sections are made with specific reference to the BP properties within the watershed. These are the only references to specific properties and land owners in the document and seem inappropriate given that the recommendations appear to have a broader application that would extend to other properties and land owners within the watershed. Given that the characterization is still at a fairly coarse scale these site specific recommendations seem out of place. It should also be noted that property ownership within the basin may change in the future which could cause unnecessary confusion with respect to the future application of the document. Additionally, it is unclear what the various management categories (column 3) mean.	Remove all references and recommendation to specific property owners. A description of the various management categories referenced in column 3 should be provided	Jeff Chalfant (BP Cherry Point Refinery)	References to specific property owners were removed and text was added to let readers know where to find information on management categories (Column 3).
columns 2 & 3, row 10	5	Executive Summary - Recommendations Summary - Table Ex-1	The issue summary in column 4 indicates that there are no streams and few wetlands in the Point Whitehorn Uplands sub-basin and recognizes that it is located entirely within an UGA; however, the management recommendations outlined in column 3 only identify a recommendation for protection (Protection 2) and do not appear to recognize the development potential of the area given the lack of key watershed processes. This appears to be inconsistent with Chapter 7.	Revise the management recommendations to include future development	Jeff Chalfant (BP Cherry Point Refinery)	Management categories for each subwatershed will be reviewed during the visioning process in preparation of the Birch Bay Action Plan.

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column 6, row 2	17	2.1 - General Characteristics	The characterization of groundwater flow indicates that the USGS has not developed a complete groundwater flow map for the WMU. Assumptions have been made regarding the general flow of groundwater; however, the basis for the assumptions is not identified.	Provide the basis for the stated assumption	Jeff Chalfant (BP Cherry Point Refinery)	From Page 10 of Appendix D: "Figures are based on well water level data collected by the USGS (Vacarro et al. 1998) and show that groundwater moves to the north, south, east and west from a large central area in the mid to upper watershed of Terrell Creek..... Where the land surface intersects the groundwater elevation, discharge of groundwater to the surface (typically streams and wetlands) can occur. In the Birch Bay watershed, this could be in areas that approach sea level and have surficial deposits with higher permeability such as outwash or alluvium."
Paragraph 3	24	2.3 - Zoning - Table 2-2	The report indicates that the Birch Bay watershed also has a water resource special district designation (WCC 20.80.735) that restricts the amount and phasing of clearing activities as well as provisions for tree retention; however, these provisions only apply to the Lake Whatcom and Lake Samish watersheds.	Remove references to clearing limitations and tree retention provisions.	Jeff Chalfant (BP Cherry Point Refinery)	Comment noted, the text has been revised to be consistent with chapter 20.80.735.
	27	2.0 - What Does This Pilot Study Entail? - Figure 7	Figure 7 (Wetland and Stream Resources) appears to identify wetlands south of Grandview Road that are in the vicinity of developed areas. Based on conversations with Whatcom County PDS staff it is our understanding that the wetlands depicted south of Grandview Road were identified based on an analysis of the 2001 aerial photos. This analysis should be updated based on more recent ortho-rectified aerial photos (2006) that identify lawfully established development areas in the vicinity of the identified wetlands. Additionally, the map identifies the refinery stormwater/wastewater ponds and a number of other pieces of key engineered refinery infrastructure as aquatic resources.	Revise the interpreted wetlands by overlaying the more current 2006 aerial photograph and remove key engineered refinery infrastructure elements from the resources map.	Jeff Chalfant (BP Cherry Point Refinery)	New figures 7 and 27 have been inserted to reflect a change to the stormwater and wastewater pond mapping.

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	33	4.2.1 - Impervious Surfaces	This section of the report indicates that all undeveloped land zoned for industrial uses within the watershed were assumed to have the potential for full build-out with an average impervious surface of 65.6-percent per parcel. This assumption does not appear to take into consideration BP's most recent watershed scale mitigation efforts in the area. Approximately 100-acres of Light Impact Industrial land located north of Grandview has been permanently preserved in an undeveloped state. Additionally there are many other properties that are held in BP's ownership that have voluntarily been permanently secured in an undeveloped state through a variety of cooperative agreements and easements with organizations such as the Whatcom Land Trust and NSEA.	Revise the build-out scenario to reflect the conservation status of undeveloped and underdeveloped parcels in the watershed	Jeff Chalfant (BP Cherry Point Refinery)	Conservation lands will be accounted for in the visioning process to be prepared for the Birch Bay Action Plan.
	33	4.2.2 - Development Intensity	In paragraph one of this section the report indicates that the development intensities will likely increase on the industrial lands owned by BP. As previously stated, BP is the only land owner that is specifically mentioned by name in the report. This section of the report should be restructured to indicate that the stated assumption extends to all industrial lands within the basin, not only the lands owned by BP. Similar to the previous comment on section 4.2.1, Figures 11 and 12 should be revised to identify the conservation status of the various undeveloped and underdeveloped lands within the basin that by easement and/or other binding agreements will not be further developed.	Remove references to specific property owners and amend the findings and figures to reflect the conservation status of various lands throughout the watershed.	Jeff Chalfant (BP Cherry Point Refinery)	This change has been made. "Development intensities will likely increase on the industrial lands within the Cherry Point UGA and within the very upper portion of the Lake Terrell Tributary 1 sub-basin in which includes the City of Ferndale UGA. "

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42	5.1.2 - Nitrogen Processes	Paragraph one indicates that the relative importance of a sub-basin in performing denitrification is based on the total percentage of wetland relative to other sub-basins and the location of wetlands and streams relative to nitrogen producing land uses. As indicated in Table 7-4 there are not streams and few wetlands in the Point Whitehorn Uplands WAA; however, the area has been identified as being of medium importance for denitirification (Figure 16). Based on this underlying premise the relative importance of the Point Whitehorn Uplands WAA appears to have been overstated.	Revise Figure 16 to indictate that the Point Whitehorn Upland WAA is of low importance for denitrification.	Jeff Chalfant (BP Cherry Point Refinery)	Forested wetlands and streams are significant in the lower sections of the subwatershed. Management categories for each subwatershed will be reviewed during the visioning process in preparation of the Birch Bay Action Plan.
46	5.1.3 - Pathogen Processes	Paragraph one indicates that the relative importance of a sub-basin in removing pathogens such as fecal coliform is based on the total density of low-gradient streams and the percentage of wetland relative to other sub-basins and the location of wetlands and streams relative to nitrogen producing land uses. As indicated in Table 7-4 there are no streams and few wetlands in the Point Whitehorn Uplands WAA; however, the area has been identified as being of medium importance for the removal of pathogens (Figure 16). Based on this underlying permise the relative importance of the Point Whitehorn Uplands WAA appears to have been overstated.	Revise Figure 16 to indictate that the Point Whitehorn Upland WAA is of low importance for removal of pathogens.	Jeff Chalfant (BP Cherry Point Refinery)	Forested wetlands and streams are significant in the lower sections of the subwatershed. Management categories for each subwatershed will be reviewed during the visioning process in preparation of the Birch Bay Action Plan.
51	6.0 Habitat Conditions	Figure 20 appears to identify a large developed area in the middle of the BP Cherry Point refinery as having a moderate value for wildlife and the area near the wastewater treatment facility as having a moderate to high value for wildlife. It appears as though these areas may be artifically ranked higher due to a potential misinterpretation of some of the on-site treatment ponds as being accessible to and suitable for wildlife. Similarly, Figure 22 seems to inappropriately indicate that the entire developed portion of the refinery has a moderate-high value for wildlife	Adjust the modeling to address potential false positives associated with refinery utilities.	Jeff Chalfant (BP Cherry Point Refinery)	Thanks, there was an error in the interpretation of the data. Maps and analysis have been changed to reflect the low wildlife value of the refinery.

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	56	7.0 What Management Actions Does This Study Recommend?	This section of the report describes the process by which the management recommendations have been developed. Some of the prior stated concerns listed above impact the factual basis for the development of the management recommendations. As a result, vulnerability analysis and management recommendations should be revisited.	Revise the various management recommendations in light of the above stated concerns and suggested revisions.	Jeff Chalfant (BP Cherry Point Refinery)	Management categories for each subwatershed will be reviewed during the visioning process in preparation of the Birch Bay Action Plan.
column 5, row 10	68	7.2 - Actions for achieving general management goals - Table 7-4	Some of the recommendations associated with these sections are made with specific reference to the BP properties within the watershed. These are the only references to specific properties and land owners in the document and seem inappropriate given that the recommendations appear to have a broader application that would extend to other properties and land owners within the watershed. Given that the characterization is still fairly course scale these site specific recommendations seem out of place. It should also be noted that property ownership within the basin may change in the future which could cause unnecessary confusion with respect to the future application of the document.	Remove all references and recommendations to specific property owners.	Jeff Chalfant (BP Cherry Point Refinery)	Comment noted, references to specific property owners were removed.
columns 3 and 4, row 11	68	7.2 Actions for achieving general management goals - Table 7.4 same as comment in section 5.1.3	Paragraph one indicates that the relative importance of a sub-basin in removing pathogens such as fecal coliform is based on the total density of low-gradient streams and the percentage of wetland relative to other sub-basins and the location of wetlands and streams relative to nitrogen producing land uses. As indicated in Table 7-4 there are no streams and few wetlands in the Point Whitehorn Uplands WAA; however, the area has been identified as being of medium importance for the removal of pathogens (Figure 16). Based on this underlying premise the relative importance of the Point Whitehorn Uplands WAA appears to have been overstated.	Revise the recommended management category identified for the Point Whitehorn WAA to include future development	Jeff Chalfant (BP Cherry Point Refinery)	Forested wetlands and streams are significant in the lower sections of the subwatershed. Management categories for each subwatershed will be reviewed during the visioning process in preparation of the Birch Bay Action Plan.

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	75	7.3 - Management goals based on sub-basin vulnerability	This section indicates that the Point Whitehorn Uplands area is a high priority for protection; however, this statement seems somewhat inconsistent with Table 7-4 which indicates that the designated management category is Protection 2. Additionally, based on the characterization of the area there are no streams and few wetland resources to manage and the area is designated as a UGA.	Revise this section to indicate that it is a moderate priority for protection and amend the management recommendations to include future development.	Jeff Chalfant (BP Cherry Point Refinery)	Comment noted, changed the language to reflect the Protection 2 management category for the subwatershed. "The Point Whitehorn Uplands has <u>an overall management recommendation of Protection 2</u> , but development intensity is expected to increase, suggesting that special care may be needed to ensure that resources and processes are maintained.
	79-80	7.4.4.1 - Comprehensive Plan Urban Growth Area Boundary Revisions	This section of the report indicates that revisions to the designated UGA may be considered for areas that have moderate to high quality watershed process and habitat values. Included in the list of areas for consideration is the Point Whitehorn Uplands WAA. Based on the previous comments this recommendation does not appear to be consistent with the characterization of the area. It should also be noted that, while important, natural resource considerations are only one of a variety of factors that need to be considered in the development and refinement of a long-term land use planning strategy for the area. Studies such as the Birch Bay Watershed Characterization and Watershed Planning Pilot Study should be utilized in a manner that informs, but does not supplant the	Revise the recommendation to exclude the Point Whitehorn Uplands WAA from this recommendation and clarify that natural resource management is one of a variety of other factors that need to be considered as UGAs are re-evaluated in future planning processes, as required by GMA	Jeff Chalfant (BP Cherry Point Refinery)	Comment noted. This sentence was added to the last paragraph in 7.4.4.1, ". UGA boundaries were created to fulfill a variety of community needs, natural resource issues should be considered together with infrastructure needs, future population growth, and land ownership patterns." Regulatory changes to achieve subwatershed management priorities, such as changing the UGA boundaries, will be evaluated during the Birch Bay Action Planning process in 2008 - 2009.
	85	7.4.4.4 - Revisions to Critical Areas Codes- Wetlands	This section indicates that the current Critical Areas Ordinance (CAO) could be revised to provide increased protection to wetlands commensurate with their restoration potential. It is unclear how such a regulation would be developed and applied in an equitable and consistent manner on a site specific basis given the more coarse scale of the characterization. An alternative approach would be to offer incentives to property owners such as reduced mitigation ratios and/or tax incentives which could increase opportunities for land owners while encouraging restoration activities.	Recommend CAO amendments to offer incentives for restoration and/or mitigation occurring in priority areas.	Jeff Chalfant (BP Cherry Point Refinery)	Comment noted. More work would need to be done on a site scale to determine the wetland rating of a restored wetland if regulations to this effect were ever considered. Regulatory changes to achieve subwatershed management priorities will be evaluated during the Birch Bay Action Planning process in 2008 - 2009.

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		General Comment	Add executive summary that cuts through the methodology and presents results in very lay terms.	Describe the 7 subbasins listed in section seven that have development scenarios that are incompatible with eco processes and wildlife recommendations as a focus for alternative management options. Briefly describe management options.	Joshua Fleischmann, Whatcom County PDS	Change has been made
	10	Last Paragraph	"The Puget Sound Partnership and EPA (two of the agencies that providing e funding for this study) are specifically..."	"The Puget Sound Partnership and EPA (two of the agencies that are providing e funding for this study) are specifically..."		Change has been made
	33	4.2.2 Para. 1	"This is primarily due to the relatively rural zoning district, R5A that dominates much of the upper watershed around the lake."	"This is primarily due to the relatively rural zoning district, R5A, that dominates much of the upper watershed around the lake."		Change has been made
	Appen dix A		There are two Page 1's	Correct page numeration for entire Appendix A		
	Appen dix A Page 2	#2	"Develop and / orrefine existing watershed..."	"Develop and/ or refine existing watershed..."		Change has been made