

Vegetation Management Guidelines Comments

Revised: April 15, 2016

OVERVIEW

The following table compiles comments provided by CTG members on the Proposed Levee Vegetation Maintenance Guidelines. Comments were provided via email and at CTG meetings.

Note: Our response to the CTG comments will be included as an appendix to the SWIF. Action Plan items indicated in response to comments will be noted in Vegetation Strategy, and Action Plan Chapter.

COMMENTS

The Response column includes suggestions from the CTG as well as comments and questions to consider.

Guidelines Section	Comment	Response (Staff)
Proposed Strategy Deliverables	Habitat should be considered equally as part of flood risk reduction and a risk analysis to habitat needs to be conducted.	The Vegetation Strategy lists two main Objectives in regards to habitat: 1.) performing the work to minimize the risk to habitat, 2. Perform veg. management in a manner that avoids or minimizes impacts upon fish. Short term impacts from this work are offset by the replanting of vegetation, incorporating LWD back into the system, and following appropriate BMPs to reduce impacts from this work activity such as erosion control, turbidity control, and minimizing the amount of clearing to the minimum necessary. Action: Include a number of "Action Items" to be included with the SWIF Plan and Vegetation Management Strategy for implementation. Develop Vegetation Strategy SOP to standardize the practice as an Action Plan item.
Proposed General Guidelines	Multi-use of levees, such as trails, should not negatively affect the priority of maintaining habitat for species protection.	SWM works closely with our County and City's Parks Department to coordinate the use of our levees for public recreation where appropriate. Removal of vegetation will be coordinated with a MOU reflecting the vegetation strategy. Action: Add language: "When there is mutual use on the levees, trails must fit into agreed upon levee maintenance guidelines, rather than pose additional guidelines on levee and vegetation maintenance." Develop MOU for trail use/vegetation removal as an Action Plan item.
Proposed General Vegetation Management Strategies - <u>Vegetation Management Zones</u>	Trees on the backside of the levee provide valuable shade for temperature moderation. King County included a 150 foot buffer zone in their "Vegetation Management Zone."	Evaluation of the 200 ft riparian corridor along the levees illustrates that there is approximately 1,140 acres of land associated with the PL84-99 levee. 20% of this is owned by Pierce County, totaling 234 acres. The 80% remaining upland property is privately held and ability to limit removal of this vegetation will be subject to agreement with these upland property owners. Action: The Vegetation Management Plan Strategy will provide for plantings on the upland side of the levee to offset the removal of hazard trees and trees lost to levee repair work.
Proposed General Vegetation Management Strategies - <u>Vegetation Removal</u>	It is not clear how many trees will need to be removed as part of the USACE requirements for levee inspections and access. Until we have an assessment of the impacts to aquatic habitats, there cannot be agreement upon the application of this vegetation management strategy.	The vegetation strategy calls for retaining trees > 6 inches in diameter as feasible, while also providing for inspection windows with emphasis on not reducing effective shading while providing for accommodating a multi-layer canopy (shrubs, limbs, and upper canopy). All overhanging vegetation will be retained, and all mature trees that do not interfere with levee access and levee integrity (hazard trees) will be retained. Levee repair work will look for opportunities to retain trees as feasible. Action: Add language, "The retention of shade tolerant trees is a priority and will not be removed unless the tree presents an unacceptable hazard to the levee structural integrity, public infrastructure or adjacent private property."
Proposed General Vegetation Management Strategies - <u>Vegetation Removal</u>	The SWIF Plan should include short-term mitigation for shade from vegetation removal.	Short term impacts from this work are offset by the replanting of vegetation, incorporating LWD back into the system, and following appropriate BMPs. Tall growing, shade trees will be replanted on upper 1/3 of levee. Action: Develop SOP to standardize the practice as Action Plan item.
Proposed General Vegetation Management Strategies - <u>Vegetation Removal</u>	A mapping exercise is needed to look at areas that are most critical for solar radiation shading.	The strategy will retain large trees that currently provide opportunity for shading of the river. Action: No- Action... Already addressed in strategy.
Proposed General Vegetation Management Strategies - <u>Targeted Invasive Species Removal</u>	The planting plan does not address invasive plant removal and we have not seen an invasive species management plan. Invasive plant removal is probably one of best opportunities to enhance riparian baseline conditions, by actively cutting and removal of invasive vegetation and planting trees in their stead. Our meeting discussions mentioned there would be opportunities for this, but have not seen any protocol that outlines this process.	The vegetation strategy states that a plan will be developed for managing specified invasive species, through a programmatic approach of working with resource agencies, tribal biologists, and private property owners. An assessment of invasive plant species (knotweed, tansy, and scots broom) was mapped in 2012. Action: Develop Invasive Species Control Program/SOP in conjunction with Conservation District as an Action Plan item.

Guidelines Section	Comment	Response (Staff)
Proposed General Vegetation Management Strategies - <u>Mature Tree Preservation</u>	Saplings in between clusters, especially conifers, should be encouraged for recruitment to later become mature trees.	The strategy encourages the retention of saplings to provide for successional growth over time. Action: Add statement: "Shade tolerant conifer saplings could be flagged along with noxious weeds prior to mowing." Develop Vegetation Strategy SOP to standardize the practice as Action Plan item.
Proposed General Vegetation Management Strategies - <u>Hazardous Trees</u>	Hazard trees would benefit from a uniform method of identification. Whether this is flagging color, paint color, and/or a unique number so that everyone knows what trees are being identified and make field identification easier for everyone. This might also help in tracking these trees in some spreadsheet or database.	Standardized methods for identifying and marking hazard trees is an important component of the Vegetation Strategy. Action: Develop Hazard Tree SOP, following the Hazard Tree Matrix guidance to standardize the identification of Hazard Trees as an Action Plan item. Add statement in SOP: "Those trees that are identified for monitoring will be marked "orange", those trees marked for removal will be marked "red". Notification will be provided to Tribal Interests.
Proposed General Vegetation Management Strategies - <u>Hazardous Trees</u>	The hazard to habitat if these trees are removed should be considered equally in this evaluation. Riparian plantings will not provide an offset to the removal of trees that provide shade and other riparian functions. Adequate mitigation should be proposed as an addition to plantings.	Mitigation for the loss of the shade tree will include: <ul style="list-style-type: none"> • replanting of understory vegetation; • placement of removed tree into river channel for immediate benefit and to naturalize overtime; • Long term: replant with similar tree species 6:1 ratio. Plant on upper 1/3 of levee prism and/or on back side of levee where appropriate. Action: Fold into Hazard Tree SOP
Proposed General Vegetation Management Strategies - <u>Hazardous Trees</u>	Hazard trees should be mapped in order to provide a better understanding of where those trees are and the risks associated with them.	Crews will perform annual inspection to identify where there is a hazard tree. The trees of concern will be further evaluated following the tree hazard matrix. Those trees that are deemed to be a hazard tree will be marked and removed. Only moderate hazard trees on the river side will be monitored. Action: Fold into SOP as Action Plan item.
Proposed General Vegetation Management Strategies - <u>Habitat Protection/ Enhancement</u>	Restoring habitat needs to be a consideration so that habitat does not continue to diminish and endanger salmon species.	Although the SWIF Vegetation Strategy puts heavy emphasis on minimizing impact to habitat, the SWIF is not a habitat restoration plan. Action: Add statement: "The HCP will look at means to offset long term impacts from levee maintenance work with appropriate level mitigation that will include expanded habitat."
Proposed General Vegetation Management Strategy - <u>Habitat Protection/Enhancement</u>	The SWIF Plan should incorporate language about what combination of tree height and density provides the best thermal buffer for fish species, especially in the southern and western exposures.	The vegetation strategy proposes to retain all trees > 6 inches in diameter, and will provide enhancement with plantings following levee vegetation repairs and removal of extensive invasive vegetation. A study to confirm optimum tree density and tree height for thermal cooling is not part of the SWIF. Action: Add statement: "HCP should consider strategies to maximize thermal buffers. "
Levee Planting Program Recommendations	We have informally discussed retaining trees on the levee but that is not included in this document. The document discusses natural colonization/recruitment of trees, but does not discuss planting the same and also how volunteer trees are identified and maintained. It also does not identify planting of trees, other than smaller, bushy trees such as willows.	The vegetation strategy has included language about retaining trees over the course of the strategy document. Action: Include language on retaining trees over 6 inches in diameter. Saplings will be retained in clusters for successional growth. Mature trees will be retained as feasible, unless they conflict with accessibility, or pose a hazard.