Illahee Creek Watershed Surface Water Management Plan

Executive Summary (abbreviated)

Introduction

An aerial view of the Illahee Watershed shows a substantial forested area surrounding the mainstem of Illahee creek and its tributaries. To view it from this perspective, one might conclude that the creek is sufficiently protected from urban growth or stormwater impacts. This is not the case. Despite the excellent riparian conditions afforded by the Illahee Preserve, Illahee Creek and its tributaries are being impacted by stormwater runoff, and reduced aquifer recharge from development outside the forested area. Without implementation of stormwater controls on existing development and greater regulatory or institutional controls on future development, including insurance of adequate aquifer protection, the aquatic habitat conditions in Illahee Creek will continue to degrade. We do believe recovery is possible, however, it will take a combination of strategies and partnerships between public and private stakeholders for funding and implementation.

Illahee Creek Issues

The primary issues impacting the Illahee Creek watershed are:

∞ ***Surface Water Runoff***

Surface water runoff from impervious surfaces and conversion of watershed forested properties has altered the natural hydrology of Illahee Creek resulting in channel erosion and sedimentation that has degraded aquatic habitat conditions in the creek.

∞ ***Landslides***

Inappropriate stormwater discharge locations on steep erosive slopes have caused landslides that deliver high volumes of sediment to the creek and subsequently the Illahee Creek delta.

∞ ***Reduced Aquifer Recharge***

Groundwater seeps are the primary source of water to Illahee Creek . With groundwater resources in the Illahee Creek watershed being over-allocated, the withdrawal of groundwater for domestic purposes and the conversion of more land to impervious surfaces will reduce the baseflows available to Illahee Creek, impacting salmonids that need fresh, cold water for survival.

∞ ***Water Quality***

Illahee Creek is on Ecology's 303(d) Category 5 list for impairment due to elevated fecal coliform bacteria and low dissolved oxygen.

∞ ***Functionality of Illahee Creek Culvert***

The Illahee Creek culvert is being impacted by high sediment loads originating higher up in the watershed. The culvert could be jeopardized by continued sediment deposition and high peak flows, as well as an ongoing maintenance problem for Kitsap County staff.

∞ ***Degraded Salmonid Habitat***

All of the above issues result in degraded habitat for aquatic species, including salmonids that have historically used Illahee Creek for spawning and rearing.

Recommended Strategies

The Illahee Community in partnership with Kitsap County and others have largely accomplished one of the most important aspects of surface water management: protection of high quality resources and land in the watershed. Acquisition of the 460-acres that is now the Illahee Preserve make it possible to address other issues in the watershed and perhaps, reverse the trend of aquatic habitat degradation in Illahee Creek.

The recommended strategies for addressing the issues affecting Illahee Creek include planning, educational and capital strategies that will involve multiple stakeholders, regulations, and agencies with different interests. The strategies include projects that (1) preserve ecological function, (2) retrofit existing development, and (3) plan for and strive to reduce impacts from future development. Additionally, monitoring programs are recommended to track progress as these strategies are implemented. The lists for the recommended strategies discussed in this plan as well as priority and timeframe for implementation are noted in the report in Table ES-1 of the Executive Summary, in the report body, and in Appendix C.

Funding and Partnerships

Implementation of the strategies identified in this plan will require significant funding and partnerships. Many communities struggle to get basic funding needs met, let alone funding for beneficial projects that are not required for basic health-and-safety needs. This will be the primary challenge for the Port of Illahee and the Illahee Community in implementing this plan. Possible funding sources for projects identified in the plan include (1) Kitsap County for projects directly related to County needs or requirements, (2) granting agencies, (3) taxes or fees collected by a special drainage district or the Port district, (4) individual private donors, and (5) volunteer labor. For many projects, the best approach will be to develop strategic partnerships and cost-sharing arrangements between stakeholders

The total estimated cost to bring existing development into compliance with current stormwater standards that are considered protective of the environment is approximately $20 million. The best strategy to protect Illahee Creek from future degradation is to ensure that development is done in a responsible way that uses the best tools available, including the most current stormwater management strategies, and considers all of the potential future consequences including reduced aquifer recharge.