



State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Southwest Region 5 • 5525 South 11th St Ridgefield, WA 98642
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October 6, 2023

City of Stevenson - Planning Department
City Hall
PO Box 371
Stevenson, WA 98648

Re: City of Stevenson – Notice of Public Hearing – Shorelines Substantial Development Permit

To whom it may concern,

Thank you for the opportunity to comment on the Shoreline Substantial Development Permit for 968 Rock Creek Drive (parcels 02070100130200, 02070100130300). Stevenson's Shoreline Master Program (SMP) was drafted in 2018, had public comment in 2019, and was approved in 2022. After the public comment period, the Washington Department of Fish and Wildlife (WDFW) published new riparian management recommendations entitled, *Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications* (Quinn et al. 2020) and *Riparian Ecosystems, Volume 2: Management Recommendations* (Rentz et al. 2020). This is considered the Best Available Science (BAS) for managing riparian areas, so we would like to take this as an opportunity to offer direction for future projects. Additionally, we would like to acknowledge some concerns regarding riparian impacts, stormwater runoff, and shoreline armoring/bank protection. Below, we elaborate on these concerns and provide technical guidance for your consideration.

Riparian habitat provides valuable ecological functions including, but are not limited to: stream morphology, erosion and sedimentation process, fish and wildlife habitat availability, wood recruitment, stream temperature, shading, pollutant removal, and nutrient cycling (Quinn et al. 2020). WDFW's new riparian guidance recommends using Site Potential Tree Height at 200 years (SPTH200) to identify the riparian ecosystem that has the greatest functionality. Additionally, science supports a riparian width of 100ft as the distance that helps minimize pollutant runoff into streams (Rentz et al. 2020). SPTH200 utilizes the Natural Resource Conservation Service (NRCS) forest productivity site index values and is measured from the edge of the active floodplain/channel. Where NRCS data is missing, the riparian setback should encompass the width of the existing riparian vegetation community or the pollutant removal function of 100ft, whichever is greater. Since NRCS data is not available at this location, further evaluation is needed to determine the proper riparian setback to protect ecosystem functions. At a minimum, **we do not recommend developing within 100ft of the ordinary high-water line to protect the pollutant removal function.**

Additionally, this proposal will lead to an increase in shoreline use, allowing more opportunities for recreation and the chance for visitors to develop a greater appreciation for this scenic area. To minimize impacts to the riparian area with this increased traffic, we encourage constructing permeable trails and consolidating shoreline access. This area can be delineated with signage and educational materials that explain the importance of riparian ecosystems and functions. In addition, having an adequate number of trash receptacles will also be vital to minimizing human impact on the surrounding natural area. **Implementing Best Management Practices (BMPs) will meet shoreline access objectives while protecting riparian ecosystem functions.**

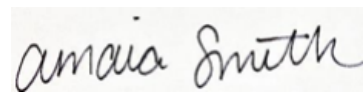
The impact of runoff from roadways on migrating salmon is of particular concern. In a study conducted by Tian et al (2021), they linked a chemical found in tires, commonly known as 6PPD-quinone, with decades of stormwater-linked coho mortality events in urban streams in the Pacific Northwest. Fragments of tire break off and are carried into streams from surface water runoff. While their study was focused on coho, they hypothesized that this compound was likely toxic to other aquatic organisms as well. The introduction of 6PPD-quinone into Rock Cove can be reduced by having effective stormwater management and ensuring riparian buffers are at least 100ft wide. **Given this new research, we discourage any road surfaces within 100ft of the active floodplain/channel.**

The Critical Areas and FWHCA Report (CAR) for the Rock Creek Cove Hospitality proposed development, prepared by Ecological Land Services (ELS) and dated May 3, 2023, describes the critical areas, potential impacts, and compensatory mitigation measures associated with this project. The CAR states approximately 65 percent of the shoreline is armored and satisfies the buffer exemption criteria per SMC 18.13.095(B)(3). **If the existing riprap is being used as justification to lessen riparian protection, WDFW recommends further review to determine if the riprap was legally permitted and installed.** We were unable to locate records that indicate if the riprap was legally permitted. Removing this riprap is a unique shoreline enhancement opportunity to restore shoreline functions. If bank protection is a concern, we encourage that the riprap is removed and replaced with a bioengineered solution to enhance shoreline function. Lastly, we recommend that the applicant evaluates design alternatives that do not impact the existing riparian vegetation. Avoiding impacts is required as outlined in SMC 18.13.055. Given the degraded nature of the riparian area, it is increasingly important to protect the existing vegetation. While enhancing the riparian area is beneficial, it does not mitigate for a reduction of riparian habitat.

Outside of providing technical assistance for land use proposals, WDFW issues Hydraulic Project Approval (HPA) permits for construction activities that impact the bed or bank of state waters. This includes issuing Emergency HPAs for bank stabilization when structures are threatened by erosion or flood events. Given the impacts of climate change, we precaution building close to floodplains. Building near floodplains increases risk to infrastructure so I would encourage being mindful of risks before approving developments. Ultimately, **WDFW wants to avoid a situation where structures are approved for development near waters that will require future emergency protection.** We encourage diligent review of this risk prior to approval.

We hope that these environmental impacts are considered and that the applicant considers alternative designs that further avoid impacts to riparian habitat. We are happy to provide additional technical assistance upon request.

Thank you,

A handwritten signature in cursive script that reads "Amaia Smith". The signature is written in black ink on a light-colored background.

Amaia Smith, Habitat Biologist
Washington Department of Fish and Wildlife
5525 S 11th St, Ridgefield, WA 98642

References

- Quinn, T., G.F. Wilhere, and K.L. Krueger, technical editors. 2020. Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications. Habitat Program, Washington Department of Fish and Wildlife, Olympia
- Rentz, R., A. Windrope, K. Folkerts, and J. Azerrad. 2020. Riparian Ecosystems, Volume 2: Management Recommendations. Habitat Program, Washington Department of Fish and Wildlife, Olympia. <https://wdfw.wa.gov/publications/01988>
- Tian et al. 2021. A ubiquitous tire rubber-derived chemical induces acute mortality in Coho Salmon. *Science*, 371(6525), 185–189. <https://doi.org/10.1126/science.abd6951>