Aven, Heather M.

From: noreply@cob.org on behalf of City of Bellingham <noreply@cob.org>
Sent: Tuesday, April 23, 2024 10:33 PM
To: G.Proj.Wood at Viewcrest
Subject: Public Comment -Alex Brede
Attachments: Public Comment - 668.pdf

City of Bellingham

Public Comment

Entry Details

NAME	Alex Brede
CHOOSE TOPIC	The Woods at Viewcrest
COMMENT OR TESTIMONY	Please note that I am yet another Bellingham resident expressing deep concerns about this development. I ask you to prevent harms to Bellingham's publicly-owned spaces connected to Mud Bay Cliffs, and to safeguard our community against known and severe subdivision development risks, by requiring an Environmental Impact Statement (EIS) be prepared for The Woods at Viewcrest, a proposed subdivision on the mature woodlands and wetlands of Mud Bay Cliffs. The proposed subdivision (of 4 current lots into 38 proposed lots, with up to 152 housing units) would likely impose significant adverse impacts to the environment. In addition to

	these adverse impacts, the developer's application materials are flawed in substantive ways, which further exposes the public's interests, including public investments in neighboring fish and wildlife habitats, to considerable risk. The likely significant adverse impacts, coupled with the substantive application flaws, compel the city to issue a State Environmental Protection Act (SEPA) Determination of Significance and require an EIS.
EMAIL	bredefamilia@gmail.com
DATE	4/23/2024

Aven, Heather M.

From: Colleen curtis <colleenhcurtis@hotmail.com>
Sent: Tuesday, April 23, 2024 9:59 PM
To: Bell, Kathy M.; Lyon, Blake G.; Sundin, Steven C.
Subject: Concern about development of Mud Bay Cliffs, EIS should be required!

To: Kathy Bell, Senior Planner, kbell@cob.org
Steve Sundin, Senior Planner, ssundin@cob.org
Blake Lyon, Planning & Community Development Department Director, bglyon@cob.org
Planning & Community Development Department
210 Lottie Street
Bellingham, WA 98225

From: Colleen Curtis, Bellingham, WA

I am very concerned to learn about the proposed development of Mud Bay Cliffs, as it is an area that needs to be protected. It is essential that an EIS be completed.
There are special considerations that add to the reasons this is dangerous. From living on a hillside, I'm aware that erosion is a significant problem, and greatly exacerbated by tree removal.

The subdivision application appears severely flawed, with multiple omissions, including no hydrology assessment.

Because of this site's unique specific characteristics and unique physical setting, and because of the subdivision application's profound flaws, the city does not have the accurate, sufficient, and objective information it needs to identify and assess potential significant adverse impacts.
The application materials themselves indicate that the proposal is likely to have a significant adverse impact on the natural environment, the built environment, and public health and safety.

I ask the city to protect our public interest and prevent harms to the community:
Require an Environmental Impact Statement, so that any permit decisions are based on a full understanding of the risks to the environment, and to public safety.

Sincerely,
Colleen Curtis

Aven, Heather M.

From: Daniel Dalley <daniel7476@msn.com>
Sent: Tuesday, April 23, 2024 10:39 PM
To: Bell, Kathy M.; Lyon, Blake G.; Sundin, Steven C.
Subject: Require an Eviromental Impact Study for the Proposed Subdivision on Mud Bay Cliffs

I writing to ask you to require an Environmental Impact Study for the proposed development in the Mud Bay Cliffs area. This area is environmentally sensitive, and an important key to wildlife survival. Developing the area will destroy habitat, kill trees, increase water pollution, and probably result in mud slides. Any suggestion of allowing moving forward on this project without a thorough investigation of its multiple impacts would be irresponsible.

Sincerely,

Daniel A. Dalley
Bellingham, WA
360-676-4113

Aven, Heather M.

From: noreply@cob.org on behalf of City of Bellingham <noreply@cob.org>
Sent: Tuesday, April 23, 2024 7:58 PM
To: G.Proj.Wood at Viewcrest
Subject: Public Comment -Dean Longwell
Attachments: Public Comment - 666.pdf; Woods at Viewcrest Comments and Suggestions.pdf; Exhibit A Citizen Petition to the EPA.pdf

City of Bellingham

Public Comment

Entry Details

NAME	Dean Longwell
CHOOSE TOPIC	The Woods at Viewcrest
COMMENT OR TESTIMONY	To: Ms. Cathy Bell Senior Planner, cbell@cob.org Mr. Steve Sundin, Senior Planner, ssundin@cob.org Mr. Blake Lyon, Planning & Community Development Director, bglyon@cob.org City of Bellingham, Re: The Woods at Viewcrest Development's non-compliance with the Clean Water Act and the Endangered Species Act at Mud Bay and a possible public safety issue My name is Dean Longwell and I am a retired architect living familiar with the hazards of the

built environment and my professional obligations for the protection of public safety, public health and the environment within the built environment. These obligations have included correcting support staff and consulting engineers, whenever their efforts do not meet their professional requirements for protecting public safety and / or whenever their efforts do not comply with local, state and federal regulations.

Comments Part 1: Possible non-compliance with the Clean Water Act & the Endangered Species Act in Mud Bay:

The attached PDF files address a possible non-compliance with the Clean Water Act and the Endangered Species Act as a result of “the cumulative affects of piped storm-water disposal” into Mud Bay and the Chuckanut Creek Watershed. This disposal in the past has been allowed per standard Stormwater Flow Control Best Management Practices (BMP) which is centered on getting rid of water whenever a city has no capacity to treat the water before disposal. This approach is now at odds with recent EPA litigation which was supported by EPA findings of fact on the placement of the chemical 6PPD-q in water resources. The attached PDF is non-bias because I have also included a copy of a Stormwater Flow Control BMP that voids the need to pipe storm-water into Mud Bay. This alternate approach mimics “natural pre-development” rainfall absorption and dissipation which means off-site storm-water disposal is truly not needed by the developer or required by City storm-water control regulations.

The EPA and the Department of Ecology have stated storm-water from City streets, driveways and parking areas contain the chemical 6PPD which is used in road tires to make them durable. Recent State and EPA research has confirmed 6PPD is converted by ozone into 6PPD-q. 6PPD-q is toxic to salmon, trout and other aquatic species and is known to be lethal to Coho salmon. Chuckanut Creek which flows through

Mud Bay to Puget Sound has documented Chinook salmon, bull trout and steelhead. All of these species are protected by the Endangered Species Act. (See attached Exhibit “A” Earth Justice Citizen’s Petition to the EPA).

The following youtube.com video link is being provided for your convenience. This short King 5 TV video shows the nature of the problem, the science and supports the reasons why Seattle’s Regional Director of the Enforcement and Compliance Assurance Division of EPA Region 10 stated “the EPA will exact significant sanctions, monetary and otherwise, from those that fail to protect water resources.” This video alone merits a decision by the Planning Department to not allow any further storm-water disposal into Mud Bay without an EIS review that states 6PPD-q has no toxic or lethal affects on protected salmon or other aquatic life in Mud Bay. Based on this and the above an EIS request should be considered as a professional due diligence request that protects the Planning Department and the City from unknowingly authorizing a violation of the Clean Water Act and the Endangered Species Act in Mud Bay. (See the attached PDF file for the EPA $1,025,000 fine for the unknowing placement of 6PPD-q in the Puyallup River).

https://www.youtube.com/watch?v=dGI3q4h4hkA

The City owns the tidelands in Mud Bay which are also home to Olympia oysters. This oyster is under threat of extinction in Puget Sound which is why the Marine Resource Center with City approval has reseeded these tidelands with Olympia oysters in an attempt to save these oysters from extinction. At this time there has been no EIS studies which address the potential toxicity and / or the lethally of storm-water containing 6PPD-q on these oysters. This issue alone merits a decision by the Planning Department to not allow any further storm-water disposal in Mud Bay without an EIS review that states 6PPD-q has no toxic or lethal affects on these oysters.

Comments Part 2: Possible landslide hazard due frequent widespread landscape irrigation:

The geotechnical report is inappropriate for use on luxury housing placed on or nearly above steep slopes with shallow bedrock. Luxury homes traditionally have unregulated exterior amenities which include extensive lawns and landscaping that requires frequent irrigation to survive. Frequent irrigation “always” adds ground water. Underlying bedrock “always” allows ground water to travel horizontally at great or small distances depending on the continuity of the bedrock. The possibility of unrestricted irrigation ground water reaching predisposed landslide areas has not been addressed by the geotechnical engineer.

Due to the complexity of the site, the City needs to make a further request for a more detailed geotechnical review which considers the “cumulative affects” of “wide spread” and “frequent landscape irrigation” on the entirety of the site. The geotechnical report notes individual geotechnical reports for each lot is not included in the scope of the engineer’s report. This translates into an error because individual lot analysis by its nature is limited in scope where the cumulative effect of the whole is beyond the scope of an individual lot review. In effect a “full” due diligence review on sections of the site are never done thus a professional safety obligation is never met. This is why a cumulative analysis needs to be done now on the whole that is centered on the impact of “wide spread irrigation enhanced ground water” migrating to neighboring slopes and cliffs where water can cause earth movement and / or a landslide.

Excessive water “always” weakens the bonds of soils and when conditions are right, water “always” causes landslides when the bonds between glacial tills, other soils and bedrock are broken. This lack of irrigation consideration in the geotechnical report puts the Planning Department at risk of unknowingly exposing

	neighboring City owned tidelands to landslides from all areas between the planned construction areas and Mud Bay. These predisposed slide areas are generally steep with poorly rooted vegetation where fractured bedrock is predominately shallow and / or visible with little capacity to absorb and / or dissipate the affects of water from unnatural water resources of unlimited quantity and steady frequency. Yours truly, Dean Longwell (Architect – Retired) 621 Linden Road Bellingham WA 98225
FILES	Woods at Viewcrest Comments and Suggestions.pdf Exhibit A Citizen Petition to the EPA.pdf
EMAIL	DCLongwell@Comcast.net
DATE	4/23/2024

To: Cathy Bell, Senior Planner, kbell@cob.org
Steve Sundin, Senior Planner, ssundin@cob.org
Blake Lyon, Planning & Community Development Director, bglyon@cob.org
Planning & Community Development Department
City of Bellingham

Subject: Woods at Viewcrest Development has a potential for non-compliance with the Clean Water Act and the Endangered Species Act at Mud Bay.

Based on the geotechnical report and the engineering drawings The Woods at Viewcrest Development has proposed dumping storm-water tainted with the chemical 6PPD-q into Mud Bay; for this reason the City should require an EIS review on Mud Bay per current EPA understandings of the lethal effects of 6PDD-q on salmon and other aquatic species located in both Mud Bay and Chuckanut Creek

The attached shows the City has a direct landownership liability to comply with the Clean Water Act and the Endangered Species Act at Mud Bay where an out-of-date Planning Department and Public Works policy may allow the release of storm-water containing the chemical "6PPD-q" into Mud Bay. 6PPD-q is toxic to salmon, trout and other fish and aquatic species and is known to be lethal to Coho salmon. Chuckanut Creek which flows through Mud Bay and into Puget Sound is home to Chinook salmon, bull trout and steelhead trout, all which are protected by the Endangered Species Act.

The attached Parcel Report shows the City owns platted tidelands in Mud Bay with a responsibility to comply with the Clean Water Act. Prior City funded studies of the estuary shows the presents of Chinook salmon, bull trout and steelhead. The attached EPA press releases demonstrate the exposure the City faces if the Planning Department unknowingly allows runoff containing 6PPD-q into the bay from The Woods at Viewcrest Development.

To be clear, when the Regional Director of the EPA states **"the EPA will exact significant sanctions, monetary and otherwise from those that fail to protect water resources",** the City needs to trend lightly when approving surface waste water disposal. The Woods at Viewcrest geotechnical report and engineering drawings are at odds with current EPA storm-water science concerning 6PPD-q by assuming storm-water can be dumped on ecologically sensitive property without consequences. Acceptance of this approach by the Planning Department, Public Works and the Parks Department is ill advised because the City by virtue of owning platted tidelands in Mud Bay is fully liable for the clean-up when the cumulative affects of waste-water dumping violates both the Endangered Species Act and the Clean Water Act. The EPA's guidance for 6PPD-q with respect to compliance with the Clean Water Act is expected to be published at the end of 2024 thus an EIS review may not be possible until 2025.

Possible EPA storm-water BMP solution: (Final EPA guidance on compliance with the Clean Water Act is still pending peer review).

For your convenience I've attached an EPA preliminary method for resolving 6PPD-q in storm-water which could provide an answer for our situation now. The attached City of Seattle method mimics natural wide spread rainwater absorption which allows

development when surface waste water disposal is prohibited by a City and / or when storm-water disposal is not feasible. Seattle's approach is feasible at The Woods at Viewcrest and can be forced to happen if the City's Attorney's Office reviews the attached and agrees that Mud Bay is fully subject to the Clean Water Act, the Endangered Species Act and then effectively informs the developer that the City wants no part in being liable for clean-up if ordered by the courts at the bequest of the leadership of the Lummi Indian Tribe and / or at the demand of the EPA.

Yours truly

Dean Longwell (Architect – Retired)
621 Linden Road
Bellingham, Washington 98225

Attachments pertaining to compliances with the Clean Water Act and the Endangered Species Act

1. EPA Press Release: EPA Grants Tribal Petition to Protect Salmon from Lethal Chemical
2. EPA Press Release: EPA develops 6PPD-q water testing method for widespread use
3. UW News Story: Tire related chemical is largely responsible for adult Coho deaths in urban streams
4. Hydro News Story: Electron Hydro to pay $1 million CWA penalty for 2020 discharge into Puyallup River
5. Excerpt for Chuckanut Creek from City of Bellingham's 2006 Environmental Study of Pocket Estuaries
6. Parcel Report for Mud Bay with orientation notes

7. Separate PDF containing: Earth Justice - Citizen Petition under TSCA Section 21 to Prohibit 6PPD in Tires down loaded from the EPA's website.
    a. This petition explains why the Attorney General's Office in conjunction with the EPA litigated a $1,025,000 settlement paid by Electron Hydro for violating the Clean water Act. Electron Hydro had unknowingly caused Pierce County, the Department of Ecology, the Department of Fish and Wildlife and the Army Corps of Engineers to authorize the placement of field turf containing 6PPD-q in the Puyallup River as a means of erosion control.

Attachments pertaining to remediation of 6PDD-q in storm-water

1. EPA Press Release: Reducing 6PPD-Quinone Concentrations in Puget Sound Urban Streams
2. Street Edge Alternative (SEA) Street Design Brochure

November 2, 2023 EPA Press Release:

EPA Grants Tribal Petition to Protect Salmon from Lethal Chemical

November 2, 2023

Contact Information
EPA Press Office (press@epa.gov)

WASHINGTON – Today, in support of its mission to protect human health and the environment, the U.S. Environmental Protection Agency (EPA) is granting a petition from the Yurok Tribe, the Port Gamble S'Klallam Tribe, and the Puyallup Tribe of Indians to address the use of the chemical N-(1,3-Dimethylbutyl)-N'-phenyl-p-phenylenediamine (6PPD) in tires. The chemical 6PPD has been used in motor vehicle tires for more than six decades to make them more durable. It can also be found in other rubber products such as footwear, synthetic turf infill, and playgrounds.

6PPD reacts with ozone pollution in the air to form a byproduct called 6PPD-quinone, which may be present in stormwater runoff from parking lots and streets due to the presence of tire wear particles. Runoff may be washed into streams and other bodies of water during rain events. As a result, aquatic organisms can be exposed to 6PPD-quinone. Concentrations of 6PPD-quinone in stormwater in the Pacific Northwest were found to be lethal to coho salmon after only a few hours of exposure.

"Today, EPA is responding to our Tribal partners by taking action to protect the coho salmon, which are a key part of the Tribes' cultural identity and economic security," said **Assistant Administrator for the Office of Chemical Safety and Pollution Prevention Michal Freedhoff.** "These salmon and other fish have suffered dramatic decreases in population over the years. Addressing 6PPD-quinone in the environment, and the use of its parent, 6PPD, is one way we can work to reverse this trend."

In August 2023, the Yurok Tribe, the Port Gamble S'Klallam Tribe, and the Puyallup Tribe of Indians submitted a petition under TSCA Section 21 asking EPA to consider establishing regulations prohibiting the manufacturing, processing, use and distribution of 6PPD in tires.

November 2, 2023 EPA Press Release:

Today, EPA is responding by granting this petition. EPA intends to publish an advanced notice of proposed rulemaking under Section 6 of the Toxic Substances Control Act (TSCA) by Fall 2024 in order to gather more information that could be used to inform a subsequent regulatory action.

For example, there are data showing that 6PPD-quinone is toxic to fish, with coho salmon being the most sensitive species studied to date. However, there are still uncertainties about the potential impacts of 6PPD-quinone on human health, as well as the potential for exposure from other sources of 6PPD-quinone.

EPA also plans to finalize a rule under Section 8(d) of TSCA to require manufacturers (including importers) of 6PPD to report lists and copies of unpublished health and safety studies to EPA by the end of 2024.

EPA's Work on 6PPD

It was EPA-funded research that first established the link between 6PPD-quinone and salmon deaths in the Puget Sound region in 2020. Since then, EPA has been engaged in ongoing efforts with other federal agencies, states, Tribes, industry, and other stakeholders to address information gaps and address concerns regarding the use of 6PPD and the risks of 6PPD-quinone.

EPA is continuing to fund research activities to expand its understanding of the impacts of 6PPD-quinone, and to fill data gaps. For example, the Office of Research and Development is continuing further investigation of 6PPD-quinone, including work on fate and transport, ecotoxicity, and green infrastructure solutions for stormwater contamination. The Office of Water is currently developing an analytical method for detection of 6PPD-quinone in surface and stormwater and is developing draft screening values for 6PPD-quinone and 6PPD to protect sensitive salmon and other aquatic life. The Agency is also coordinating with the National Science and Technology Council's Joint Subcommittee on Environment, Innovation and Public Health on potential cross-governmental research on human health effects.

To learn more about this effort, visit EPA's new 6PPD-quinone webpage <https://epa.gov/chemical-research/6ppd-quinone> developed to keep the public and stakeholders updated as research progresses, alternatives to 6PPD are identified, and ways to mitigate the effects of 6PPD-quinone on the environment are implemented.

Read EPA's response to the petition. <https://epa.gov/assessing-and-managing-chemicals-under-tsca/tsca-section-21#6ppd>

Contact Us <https://epa.gov/newsreleases/forms/contact-us> to ask a question, provide feedback, or report a problem.

LAST UPDATED ON NOVEMBER 2, 2023

January 30, 2024 EPA Press Release:

EPA develops 6PPD-q water testing method for widespread use

"Lightspeed" test development highlights significance of finding salmon-killing tire additive

January 30, 2024

Contact Information
Bill Dunbar (Dunbar.bill@epa.gov)

SEATTLE (January 30, 2024) - On the heels of its November 2023 commitment <https://epa.gov/newsreleases/epa-grants-tribal-petition-protect-salmon-lethal-chemical> to gather information on the common tire additive 6PPD -- and its chemical by-product 6PPD-quinone – that could be used to inform a subsequent regulatory action, the U.S. Environmental Protection Agency announced today the publication of a draft testing method (EPA Method 1634) that will enable government agencies, Tribes, and other groups to determine where and when 6PPD-quinone is present in local stormwater and surface waters. The 6PPD-quinone draft method is now available at https://www.epa.gov/cwa-methods <https://epa.gov/cwa-methods>.

"We heard from the Tribes and other governmental agencies that one of the highest priorities for the agency should be the rapid development of a test for 6PPD-quinone," **said Casey Sixkiller, Regional Administrator of the agency's Region 10 office in Seattle.** "In what seems like lightspeed, the agency has delivered. The faster we can identify where problems exist, the faster we can correct them. I'm quite proud of our team."

Used for more than six decades in tires, 6PPD is also found in other rubber products such as footwear, synthetic turf infill, and synthetic playground surfaces. 6PPD reacts with ozone in the air to form 6PPD-quinone, which EPA-funded research in 2020 found to be linked to the deaths of coho salmon in urban Puget Sound streams. Exposures occur when runoff containing the chemical is washed from parking lots and streets into streams and other bodies of water.

December 3, 2020

Tire-related chemical is largely responsible for adult coho salmon deaths in urban streams

Sarah McQuate
UW News

A team led by researchers at the University of Washington Tacoma, UW and Washington State University Puyallup has discovered a chemical that kills coho salmon in urban streams before the fish can spawn. Shown here Zhenyu Tian (left), a research scientist at the Center for Urban Waters at UW Tacoma; Jenifer McIntyre (right), an assistant professor at WSU School of the Environment in Puyallup; and Edward Kolodziej (right, background), an associate professor in both the UW Tacoma Division of Sciences & Mathematics and the UW Department of Civil & Environmental Engineering, are at Longfellow Creek, an urban creek in the Seattle area. *Mark Stone/University of Washington*

Every fall more than half of the coho salmon that return to Puget Sound's urban streams die before they can spawn. In some streams, all of them die. But scientists didn't know why.

Now a team led by researchers at the University of Washington Tacoma, UW and Washington State University Puyallup have discovered the answer. When it rains, stormwater flushes bits of aging vehicle tires on roads into neighboring streams. The killer is in the mix of chemicals that leach from tire wear particles: a molecule related to a preservative that keeps tires from breaking down too quickly.

"Most people think that we know what chemicals are toxic and all we have to do is control the amount of those chemicals to make sure water quality is fine. But, in fact, animals are exposed to this giant chemical soup and we don't know what many of the chemicals in it even are," said co-senior author Edward Kolodziej, an associate professor in both the UW Tacoma Division of Sciences & Mathematics and the UW Department of Civil & Environmental Engineering.

"Here we started with a mix of 2,000 chemicals and were able to get all the way down to this one highly toxic chemical, something that kills large fish quickly and we think is probably found on every single busy road in the world."

Coho salmon are born in freshwater streams. After spending the first year of their lives there, these fish make the epic journey out to sea where they live out most of their adult lives. A few — about 0.1% — return to their original streams to lay their eggs, or spawn, before dying. But researchers started noticing that, especially after a big rain, returning salmon were dying before they could spawn. The search for the coho-killer started with investigating the water quality of the creeks, a multi-agency effort led by NOAA-Fisheries and including the U.S. Fish and Wildlife Services, King County, Seattle Public Utilities and the Wild Fish Conservancy.

"We had determined it couldn't be explained by high temperatures, low dissolved oxygen or any known contaminant, such as high zinc levels," said co-senior author Jenifer McIntyre, an assistant professor at WSU's School of the Environment, based in Puyallup. "Then we found that urban stormwater runoff could recreate the symptoms and the acute mortality. That's when Ed's group reached out to see if they could help us understand what was going on chemically."

First the team narrowed down what in storm-water runoff could be behind the symptoms. The researchers compared water from creeks where salmon were seen dying to look for common trends. All creek samples contained a chemical signature associated with tire wear particles. In addition, a study led by McIntyre found that a solution made from tire wear particles was highly toxic to salmon.

But tire wear particles are a mixture of hundreds of different chemicals, so the team had a challenge ahead: How to find the culprit?

The researchers started by sectioning the tire wear particle solution according to different chemical properties, such as removing all metals from the solution. Then they tested the different solutions to see which ones were still toxic to salmon in the lab. They repeated this process until only a few chemicals remained, including one that appeared to dominate the mixture but didn't match anything known.

"There were periods last year when we thought we might not be able to get this identified. We knew that the chemical that we thought was toxic had 18 carbons, 22 hydrogens, two nitrogens and two oxygens. And we kept trying to figure out what it was," said lead author Zhenyu Tian, a research scientist at the Center for Urban Waters at UW Tacoma. "Then one day in December, it was just like bing! in my mind. The killer chemical might not be a chemical directly added to the tire, but something related."

Tian searched a list of chemicals known to be in tire rubber for anything that might be similar to their unknown — give or take a few hydrogens, oxygens or nitrogens — and found something called 6PPD, which is used to keep tires from breaking down too quickly.

"It's like a preservative for tires," Tian said. "Similar to how food preservatives keep food from spoiling too quickly, 6PPD helps tires last by protecting them from ground-level ozone."

Ozone, a gas created when pollutants emitted by cars and other chemical sources react in the sunlight, breaks the bonds holding the tire together. 6PPD helps by reacting with ozone before it can react with the tire rubber, sparing the tires.

But when 6PPD reacts with ozone, the researchers found that it was transformed into multiple chemicals, including 6PPD-quinone (pronounced "kwih-known"), the toxic chemical that is responsible for killing the salmon.

Zhenyu Tian is holding a sampling pole, which is used to collect creek water for future tests *Mark Stone/University of Washington*

This chemical is not limited to the Puget Sound region. The team also tested roadway runoff from Los Angeles and urban creeks near San Francisco, and 6PPD-quinone was present there as well. This finding is unsurprising, the researchers said, because 6PPD appears to be used in all tires and tire wear particles are likely present in creeks near busy roads across the world.

Now that 6PPD-quinone has been identified as the "smoking gun" behind coho death in freshwater streams, the team can start to understand why this chemical is so toxic.

Hydro Review News Story

Hydro Review Weekly is a leading source of information about hydro and dam-related products and services. Hydro Review focuses on industry trends, equipment, operations and maintenance, rehabilitation, dam safety, environmental effects, regulation, marine (wave and tidal) energy and research,

Electron Hydro to pay $1 million CWA penalty for 2020 discharge into Puyallup River

Elizabeth Ingram *11.27.2023*

The U.S Environmental Protection Agency announced that Electron Hydro, LLC, and its Chief Operating Officer, Thom Fischer, a resident of Bellingham Washington, have agreed to pay a $1,025,000 civil penalty for major violations of the Clean Water Act (CWA).

Electron Hydro operates a hydroelectric facility on the Puyallup River. In late July 2020, Electron Hydro workers placed artificial turf into the river bed which contained crumb rubber with an unknown toxic component at the time of permit application. Electron Hydro received permission to build a diversion channel around a worksite within the Puyallup River from Pierce County, the State of Washington Department of Ecology, the State of Washington Department of Fish and Wildlife and the US Army Corps of Engineers. The permit application clearly noted "intent" to line a diversion channel within the river bed with field turf containing tire crumbs as a means of erosion control.

When the river was diverted into the channel the field turf disintegrated causing an uncontrolled release of turf and crumb rubber into the river. Turf has been found at least 5,000 feet from the site, and crumb rubber has been found at least 19 miles downstream. Recovery of all the discharged material is not possible.

Within 2021 and 2023 litigation, findings of fact of toxic chemicals contained within crumb rubber were revealed and confirmed by the EPA, the University of Washington's Department of Fisheries and the Puyallup Tribe of Indians. Artificial turf contains toxic compounds, including plasticizers, zinc and lead. Crumb rubber is made from waste tires that contain the chemical 6PPD. When 6PPD reacts with ozone, it forms 6PPD-q, which is toxic to salmon, trout and many other fish and aquatic species and is known to be lethal to coho salmon. The Puyallup River, which flows into Puget Sound, is home to Chinook salmon, bull trout and steelhead trout, all of which are protected under the Endangered Species Act. The river is also home to coho, chum and pink salmon, as well as cutthroat trout.

"Electron Hydro's violation will have a lasting environmental impact on the Puyallup River and the fish and wildlife that rely on it," said Ed Kowalski, director of the Enforcement and Compliance Assurance Division in EPA's Region 10 office in Seattle. "Payment of the penalty cannot undo the damage. However, the additional work required by the settlement represents a significant step towards restoration of a water resource and is a strong reminder that the EPA will exact significant sanctions, monetary and otherwise, from those that fail to protect water resources."

Excerpt from City of Bellingham Pocket Estuary Management Recommendations
February 2006 (*Revised September 2006*).

Prepared by Northwest Ecological Services, LLC
1229 Cornwall Avenue, Suite 201
Bellingham Washington 98225
Phone: (360) 734-9484

Table 1. Summary of general level of function for pocket estuaries.

Pocket Estuary	General Level of Function							
	Salmonid	Forage/ground fish Habitat	Shellfish Habitat	Winter Water Fowl	Bald Eagle	Great Blue Heron	Mustilid Use	General Wildlife Use
Chuckanut Creek	H	M	H	H	H	H	H	H
Edgemore South	N/A	N/A	N/A	L	L	L	L	L
Edgemore North	M/H	M/H	M?	M	M	M	M	L/M
Post Point Lagoon	M	M	L	M	L	L	M	L/M
Padden Creek	M	L	L?	M	L	M	M	L/M
Whatcom Creek	M/H	L	L	L/M	L	L/M	M	L/M

H – High (Habitat is currently performing a given function well and appears to be sustainable over time.)
M – Medium (Habitat is currently performing a given function but the function is limited by a natural or human aspect. Sustainability of this function is at risk, but may be corrected through restoration actions.)
L – Low (Habitat is currently not performing a given function or the function is severely impaired. The sustainability of the function is at high risk of permanent failure.)
? – Level of function is difficult to assess. Listed function level is an approximation.
N/A – A given function is currently or historically not applicable to this habitat.

Excerpt from City of Bellingham Pocket Estuary Management Recommendations February 2006 (*Revised September 2006*).

Prepared by Northwest Ecological Services, LLC
1229 Cornwall Avenue, Suite 201
Bellingham Washington 98225
Phone: (360) 734-9484

POCKET ESTUARIES REVIEWED

The following section provides a review of the important features and functions of each of the pocket estuaries identified for this analysis. Tables 1 and 2 also provide a summary of functions and specific habitat features to be found in each of the estuaries.

Chuckanut Creek Pocket Estuary

The Chuckanut Creek estuary provides the highest level of functions of the pocket estuaries reviewed for this report (Table 1). The barrier separating this estuary from the marine nearshore is an artificial railbed berm located at the west end of the estuary. The berm has a restricted opening, but effectively reduces wave energy, separates the bay from longshore currents, and presumably reduces mixing with marine waters resulting in reduced salinity levels during the spring and winter. The primary freshwater source to this system is Chuckanut Creek. Secondary inputs include a small stream flowing through a saltmarsh and runoff from surrounding bluffs.

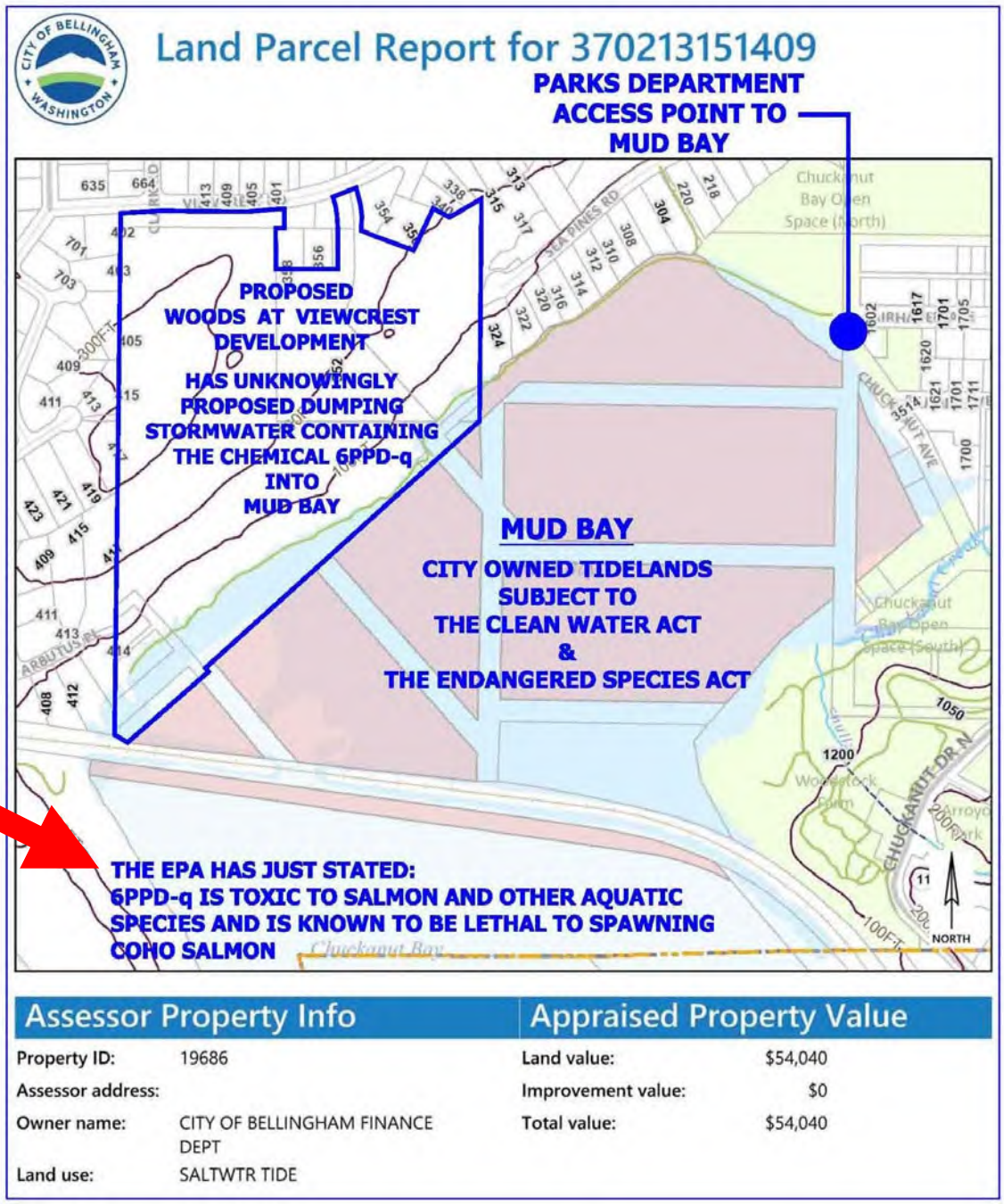
This estuary includes a variety of features that contribute to its high quality. It provides functions at a high level for all functions except forage fish and groundfish spawning, for which there is no data (Tables 1 and 2). Chuckanut Creek estuary includes extensive mudflats that are associated with softshell clam beds and that provide abundant winter waterfowl habitat, particularly for dabbling duck species (Table 2). Chuckanut Creek provides documented spawning habitat for chum, coho, sea-run cutthroat and steelhead. Saltmarsh habitat is present at the mouth of Chuckanut Creek and at the northwest terminus of Fairhaven Avenue, however regular fish access to this saltmarsh is unlikely due to a restricted culvert and reduced access during tidal cycles. The Chuckanut Creek estuary buffer is functioning at high level for all aspects and the buffer is well connected to other significant riparian and terrestrial habitats along Chuckanut Creek and Chuckanut Mountain.

The primary limitations and risks to the Chuckanut Creek estuary is water quality (fecal coliform) from failing septic systems in the Chuckanut Village area and upstream and from potential future development of private land that could reduce the quantity and quality of forested buffer and result in interruptions of wildlife travel corridors.

Edgemore South Pocket Estuary

A small pocket estuary is located immediately north of the railroad tunnel at Clark's Point. This feature may have been artificially formed by the railbed, which now completely encloses it. There is no visible opening to the marine system, but seepage through the berm ballast is likely. Incoming freshwater to this system originates from runoff from the surrounding uplands and possible groundwater inputs. The pocket is surrounded by steep sandstone bluffs, supporting a high quality Douglas fir forest intermixed with Pacific Madrone, which averages100 feet or

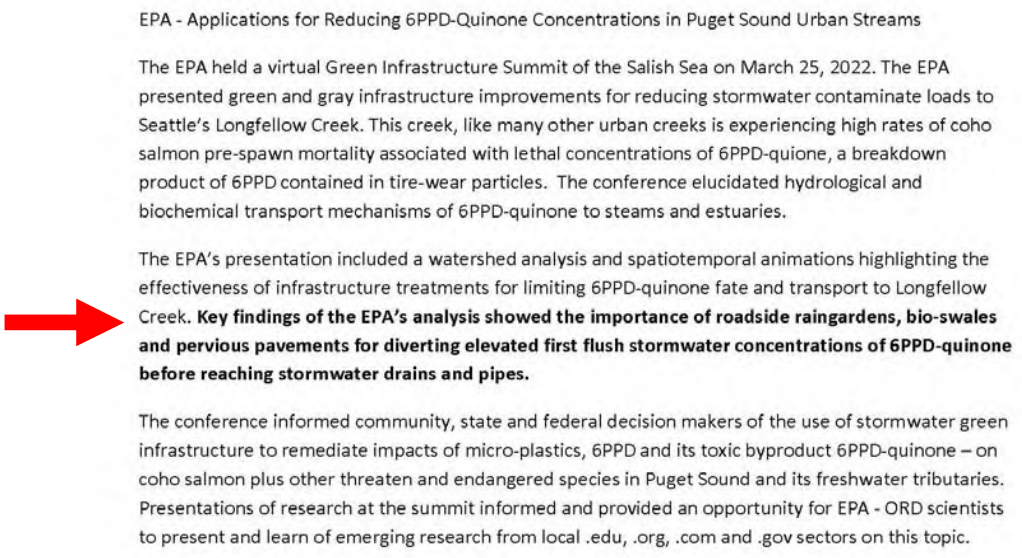
Note: the culvert obstruction against fish passage to spawning grounds noted in this 2006 report has since been removed by the City of Bellingham per the recommendations noted in this Estuary Management Report as result spawning salmon have confirmed in the estuary.



Assessor Property Info		Appraised Property Value	
Property ID:	19686	Land value:	$54,040
Assessor address:		Improvement value:	$0
Owner name:	CITY OF BELLINGHAM FINANCE DEPT	Total value:	$54,040
Land use:	SALTWTR TIDE		

The City of Bellingham has a direct landownership liability to comply with the Clean Water Act and the Endangered Species Act at Mud Bay where an out-of-date Planning Department and Public Works policy may allow the release of storm-water containing the chemical "6PPD-q" into Mud Bay. 6PPD-q is toxic to salmon and other aquatic species and is known to be lethal to Coho salmon. Chuckanut Creek which flows through Mud Bay and into Puget Sound is home to Chinook salmon, bull trout and steelhead trout, all which are protected by the Endangered Species Act.

EPA Press release: Applications for reducing 6PDD-Quinone Concentrations in Puget Sound Streams



EPA - Applications for Reducing 6PPD-Quinone Concentrations in Puget Sound Urban Streams

The EPA held a virtual Green Infrastructure Summit of the Salish Sea on March 25, 2022. The EPA presented green and gray infrastructure improvements for reducing stormwater contaminate loads to Seattle's Longfellow Creek. This creek, like many other urban creeks is experiencing high rates of coho salmon pre-spawn mortality associated with lethal concentrations of 6PPD-quione, a breakdown product of 6PPD contained in tire-wear particles. The conference elucidated hydrological and biochemical transport mechanisms of 6PPD-quinone to steams and estuaries.

The EPA's presentation included a watershed analysis and spatiotemporal animations highlighting the effectiveness of infrastructure treatments for limiting 6PPD-quinone fate and transport to Longfellow Creek. **Key findings of the EPA's analysis showed the importance of roadside raingardens, bio-swales and pervious pavements for diverting elevated first flush stormwater concentrations of 6PPD-quinone before reaching stormwater drains and pipes.**

The conference informed community, state and federal decision makers of the use of stormwater green infrastructure to remediate impacts of micro-plastics, 6PPD and its toxic byproduct 6PPD-quinone – on coho salmon plus other threaten and endangered species in Puget Sound and its freshwater tributaries. Presentations of research at the summit informed and provided an opportunity for EPA - ORD scientists to present and learn of emerging research from local .edu, .org, .com and .gov sectors on this topic.

The EPA's Green Infrastructure Summit of the Salish Sea reviewed and presented findings based on Seattle's pilot Street Edge Alternatives Project (SEA Streets) which was completed in the spring of 2001. It provided drainage that mimics the natural landscape prior to development in lieu of more traditionally piped systems

Seattle Public Works reduced impervious surfaces by 11 percent compared to traditional streets, provided surface water detention in dispersed bio-swales along the path of travel, and added over 100 evergreen trees and 1100 shrubs. Two years of monitoring by Public Works after completion showed the SEA Streets had reduced the total volume of storm-water leaving the street by 99 percent.

The landscape elements served important roles in providing aesthetic benefits as well as contributing to the management of rainfall. Trees helped restore more of the evaporation and transpiration that was present before development

The vegetation in the drainage swales helped filter and slowed the flow of storm-water, micro-plastics and 6PDD-Quinone. Over 100 deciduous and evergreen trees and 1100 shrubs were added as part of the project.

Landscape design was involved more than in a more typical street design project. The most apparent example of this is a sidewalk design that attracted pedestrians.

There also was an emphasis on retaining existing large-scale trees and relocating vegetation to meet homeowner needs and project goals. The bio-swales and surrounding areas were artfully graded and planted with native wetland and upland plant species. Granite boulders and various sizes of washed river rock were provided for both function and beauty.

The landscape design complemented the drainage system and focuses on native and salmon-friendly plantings. The system is unique in its use of grading, soil engineering,

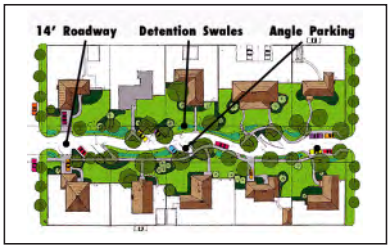
plant selection and layout as components that function together -- much as they do in a natural ecosystem.

Returning drainage and vegetation in the area to a natural systems approach is an important element of the project. For example, native soil from excavations was mixed with organic compost to provide rich topsoil which reduced water and fertilizer needs.

As another example, clay was the preferred liner material for bio-swales. The clay ensured vegetation survived in the summer months by allowing moisture movement up through the soil where a liner fabric would have been less effective in this role.

SEA Street

Seattle Public Utilities
Seattle, U.S.A.
Prepared by Gilbert Wong and Orion Stewart



The unique design of SEA Street naturally manages stormwater while calming traffic and providing a sense of place.

Photo by Gilbert Wong.

Seattle's Street Edge Alternative (SEA) street is a narrow meandering block in northwest Seattle. Its sides are lined with white pavers instead of curbs, it has a narrow pathway on one side rather than traditional sidewalks, and its edges feature lush rolling swales instead of pavement or gravel. It is part of the City of Seattle's Natural Drainage Systems (NDS) -- an alternative to the traditional stormwater systems made up of pipes and ditches. Traditional systems carry runoff with traces of contaminants directly into creeks, lakes, and the Puget Sound and, during heavy rains, the speed and volume of the water can erode stream channels. These designs result in reduced water quality, disrupted marine food chains, and compromised wildlife habitat.

The SEA Street project mitigates these traditional design problems. It uses less paving along with numerous plants, trees, soils, swales, and small wetland ponds to absorb water, slow the flow of water, and filter contaminants. The concept is to mimic the natural drainage system that existed prior to development. "We're trying to make an urbanized environment think like it's still forested," said Bob Spencer, City of Seattle Creek Steward. (Estuary Newsletter 2007)

The SEA street pilot project is located in the Pipers Creek watershed. It covers the 660-foot-long block between 117th and 120th streets on 2nd Ave NW. This precedent study focuses on this pilot block, although the NDS has since been expanded to other areas in North Seattle, as well as the High Point redevelopment project in West Seattle.

SEA Street is located in northwest Seattle on 2nd Ave NW between NW 120th St. and NW 117th St. Runoff collected along the block is part of the Pipers Creek watershed.

Image courtesy of the Seattle P-I.

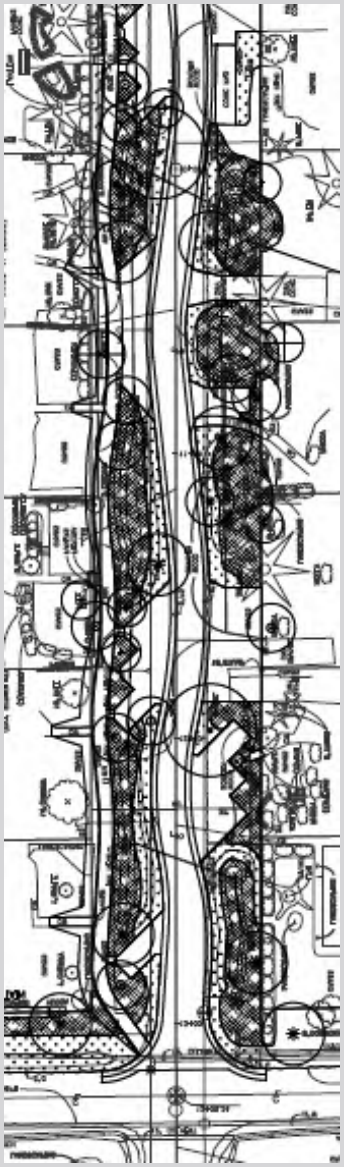
"Our objective is to now engineer our streets in a new way. We are mimicking nature's functions." - Denise Andrews, SPU Strategic Advisor

Right: With its lush vegetation and winding paths, SEA Street feels more like a park than a city street.

Photo by Orion Stewart.

Below: Design of the SEA Street project required collaboration with multiple agencies and residents.

Image courtesy of SPU.



Implementation

In 1998, the city approved funding for the Urban Creeks Legacy program, which restored large areas of the city's creeks and salmon runs. But stormwater planners at Seattle Public Utilities (SPU) realized that creek restoration alone would not protect creeks or salmon. So SPU proposed that certain streets be retrofitted with natural drainage systems instead. The proposal was informed by low-impact development (LID) concepts, which at that time had only been implemented in small areas of new suburban development. Seattle was the first major U.S. city to bring this approach to existing city streets.

In 1999, a team of SPU planners, civil engineers, landscape architects, and fire and police department representatives began work on a low-impact water management project. The city approved initial capital funding to launch the effort and SEA Street was chosen as a NDS pilot project and completed in the spring of 2001.

The cost of the SEA Street project was $850,000, which included an extensive design and communications budget due to the close work that was done with residents to ensure a result that would meet the needs of the community. SPU expected that new NDS projects will cost less than regular street improvements and have found them to generally cost 15 to 25 percent less than traditional street redevelopment. Other NDS projects target parts of the city that drain to creek watersheds but do not currently have formal drainage or street improvements, many of these areas are located in north Seattle. New projects are funded entirely by a drainage fee paid by property owners based on the percentage of impervious surface coverage on their lot.

Design

Water Quality

The bioswales along SEA Street are designed to carry and cleanse runoff naturally. Grasses, sedges and rushes physically filter pollutants out of storm-water. Modified soils that emulate the “duff” of a forest floor speed absorption. Bacteria in the soil helps break down carbon-based pollutants like motor oil. The narrow design of SEA street also uses less paving . The street width was reduced from 25 to 14 feet and a sidewalk was only installed on one side of the street, reducing impervious surfaces by 18 percent. The system is designed to handle a storm of a size expected to happen every two years. Anything bigger will cause water to back up from the last swale on the block and run into the open ditches around the neighborhood.

Vegetation

More than 100 deciduous and evergreen trees and 1,100 shrubs were planted on a 2.3-acre area along SEA Street. Most plants are native Pacific Northwest species that require little maintenance. It was designed using the concept of “right plant, right place.” Trees with smaller root systems are located near the street and plants that thrive in wetlands have been placed in the lower areas of the swales and ponds. Nearly 100% of these plants have survived over the 4 year life of the project.

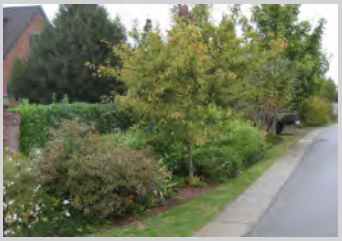
Traffic and Parking

The narrow, curved design of SEA Street helps slow traffic by making the street more difficult to navigate and by adding visual interest. Large trucks and emergency vehicles can still safely access the entire street. White strips on the edge of the street (called “flat curbs”) provide an additional two feet of driving room on either side of the 14 feet roadway. This provides enough room for two fire trucks to pass each other. If further room is necessary, the roadside grass-planted strips are reinforced with a lattice of material that can handle occa-sional traffic. Project planners conducted parking surveys and SEA street was designed meet residents’ parking needs through occasional angled parking clustered along the street.

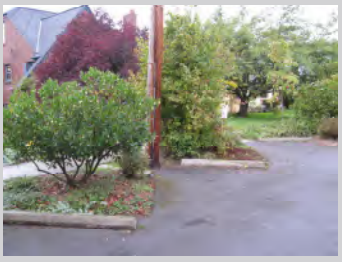
Aesthetics and Livability

SEA Street is designed to be beautiful as well as functional. The separate, nar-row vehicle lane separated from the sidewalk by plantings creates a park-like setting. Seattle Public Utilities has found that if neighbors like the way the street looks, they are more likely to help care for it. Neighbors have agreed to care for the plants within the right-of-way through weeding, mulching and mowing when necessary. This encourages neighbors to get to know each other while they care for the plants. Clusters of mailboxes is designed to create additional neighbor interactions. The “garden-street” appeal and visual continuity of the block is designed to make SEA Street a common destination for nearby resi-dents. It is also designed to educate visitors and residences of their place in the larger Pipers Creek watershed. Many community members have become involved in efforts to improve water quality and stream health in the area.

Water flows above ground and is mostly absorbed on site.



Plants are functional and attractive.



A few angled parking spac-es meet residents’ needs.

SEA Street attracts visitors for its aesthetic and educa-tional qualities.

Photos by Gilbert Wong and Orion Stewart.

"We all stuck together and I made a lot of new friends. All for water quality." - Joe O'Leary, SEA Street resident and civil engineer

The SEA Street project transformed an ordinary street into an example of stormwater management best practices.

Images courtesy of the Seattle P-I.

Successes

The SEA Street project has been successful in terms of stormwater management, finance, and residence satisfaction. A University of Washington Study found that the design prevents the discharge of all dry season water flow and 98 percent of wet season runoff. In wet months, SEA Street reduces runoff by a factor of 4.7 relative to a conventional street. (Horner et al. 2005). Projects like SEA Street can also help cities comply with local, state, and national environmental regulations.

SEA street cost approximately $850,000. This however, is comparable to the costs of a traditional street design (Taus 2002). Savings were realized in stormwater management costs were reduced by 29 percent and paving costs were reduced by 49 percent. Additionally, traditional stormwater management infrastructure requires periodic city maintenance while the landscaping on SEA Street will be managed by neighbors. The bioswales on SEA Street are also expected to naturally improve performance with time, as opposed to traditional systems.

The unique aesthetics and environmental attributes of SEA Street are expected to boost property values in the neighborhood. The project garnered almost unanimous support from residents, some of whom reported previous flooding problems in the basements of their homes. The street is reported to attract walkers and bicyclists from the neighborhood as well as international visitors interested in low-impact development and natural drainage systems. Merely walking down the street is a relaxing and pleasant experience. A great contrast from the surrounding traditional streets.

In 2004, SPU won one of five $100,000 awards from the highly esteemed Innovations in American Government program for its NDS project. (Edwards 2005). The award money is used to help communicate the agencies accomplishment and encourage innovation in government programs elsewhere.

Application to the King Street Station Site

Land use

The SEA Street pilot project is in a quiet part of the residential Broadview neighborhood in northwest Seattle. The scale and traffic environment/volume are much different than the area between King Street Station and the Colman Dock in downtown Seattle. All the north/south streets in the study site: Alaskan Way, Western Ave., 1st Ave... all the way to the study area boundary along 4th Ave., carry tremendous volume of vehicular traffic. It is not pragmatic to narrow roads and create bioswales. However, the east/west streets in the Pioneer Square area to the waterfront could be a good place to implement the bioswales approach along the sidewalks. Another possible area would be along the waterfront, when and if the Alaskan Way Viaduct is demolished and turned into a tunnel system. Other possible areas for SEA Streets may be along Occidental Ave. south near Qwest Field and perhaps along the BNSF train tracks.

Cistern at vine Street designed by Buster Simpson.

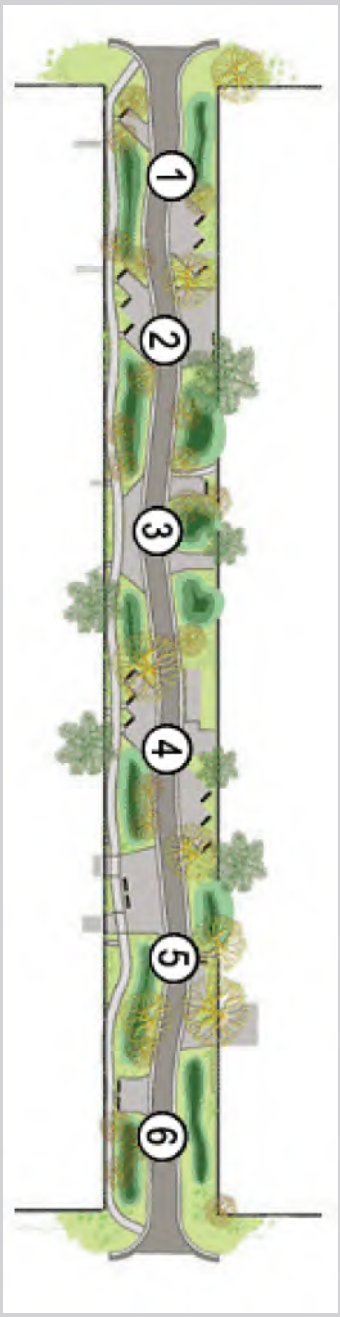
Photo courtesy of Seattle Office of Arts and Cultural Affairs.

Infrastructure
The Sea Street project cost about $850,000 and has been a very successful project for ecological, aesthetic, and financial reasons. However, there were no sidewalks in that neighborhood to begin with. The implementation of upgrading the “open ditch and pipes” to a bioswales system was a lot more manageable and easier to implement when compared to the already completely paved area between King Street Station and Colman Dock. Existing sidewalks in this area accommodate and provide safer pathways for the often heavy pedestrian traffic. Ample Sidewalks are needed for this area.

Downtown stormwater management
Even in downtown Seattle, the city has made an effort to call attention to stormwater -- using art instead of ecological systems. On Vine Street, a giant cistern with a beckoning hand takes water from a downspout and carries it into a series of planters along the sidewalk. On that same street, a series of terraced water gardens step down a steep slope, slowing runoff before it enters a small jade pool and is carried into the existing stormwater system). While the projects obviously can’t mitigate runoff from the entire downtown area, they do have an important public educational effect. Seattle’s one-percent art tax helped fund these projects (Estuary Newsletter 2007).

This kind of public art approach is more appropriate throughout the study site. It could be used to capture some of the runoff from rooftops and also bring awareness to the general public regarding environmental issues.

"Not only is it beautiful, but it works."
- Bruce Wulkan, Puget Sound Water Quality Action Team



Plan view of the SEA Street project. Numbers reference part of SPU's SEA Street tour.

Image courtesy of SPU.

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Exhibit "A"
Attached Earth Justice Citizen's Petition to the EPA was downloaded from the EPA's website.

On November 30th 2023 the EPA stated their acceptance of this petition as a "high priority petition for rule making per the Toxic Substance Control Act".

This petition is also "**the why**" the Regional Director of the EPA has taken litigation steps to enforce the Clean Water Act and has stated **"the EPA will exact significant sanctions, monetary and otherwise from those that fail to protect water resources".** This statement was issued in regards to a $1,025,000 settlement agreement reached in 2021 for the placement of tire crumbs containing the chemical 6PPD-quinone in the Puyallup River.

Storm-water from streets, roads, parking lots and driveways contain tire crumbs and tire dust from the normal wear and tear on road tires. These crumbs and dust contain the chemical 6PPD which makes the tires durable. 6PPD is converted into 6PPD-q by ozone is toxic to salmon, trout and other fish and aquatic species and is known to be lethal to Coho salmon.

The following youtube.com video link to a KING 5 TV video news report is provided for your convenience.

https://www.youtube.com/watch?v=dGl3q4h4hkA

This 2 minute and 14 second video "Chemical contained in tires found to be responsible for salmon deaths" clearly and effectively states "**the why**" the City Council, the Planning Department, the Public Works Department and the Parks Department should "**NO LONGER**" allow the dumping of storm-water from neighboring development onto City owned recreational tidelands which are subject to the Clean Water Act and the Endangered Species Act.

EARTHJUSTICE

August 1, 2023

Michael S. Regan, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460
Regan.Michael@epa.gov

VIA EMAIL AND CERTIFIED U.S. MAIL RETURN RECEIPT REQUESTED

Re: Citizen Petition under TSCA Section 21 to Prohibit 6PPD in Tires

Dear Administrator Regan:

On behalf of the Yurok Tribe, the Port Gamble S'Klallam Tribe, and the Puyallup Tribe of Indians we hereby petition the U.S. Environmental Protection Agency ("EPA") under Section 21 of the Toxic Substances Control Act ("TSCA"), 15 U.S.C. § 2620, to establish regulations prohibiting the manufacturing,[1] processing, use, and distribution of N-(1,3-Dimethylbutyl)-N'-phenyl-p-phenylenediamine ("6PPD"), CASRN 793-24-8, for and in tires under EPA's TSCA Section 6(a) authority, 15 U.S.C. § 2605(a), with such regulation to take effect as soon as practicable, in order to eliminate the unreasonable risk 6PPD in tires presents to the environment.

6PPD is present in most if not all tires, and has been used since approximately the 1950s or 1960s as an antioxidant and antiozonant to prevent tire degradation.[2] It is highly reactive, and by design transforms at the surface of the tire or when released into the environment into transformation products or byproducts, including 6PPD-quinone, or "6PPD-q."[3] The primary if not sole source of 6PPD-q in the environment is 6PPD from tires.[4]

6PPD-q is the second most toxic chemical to aquatic species ever evaluated by EPA.[5] The only chemical more toxic to aquatic species—the chemical war agent parathion—has been

[1] Under TSCA, "manufacture" includes importing. 15 U.S.C. § 2602(9).
[2] Letter from Sarah E. Amick, Vice President EHS&S and Senior Counsel, U.S. Tire Manufacturers Association, to Meredith Williams, Director, California Department of Toxic Substances Control (Sept. 17, 2021); CAL. DEP'T OF TOXIC SUBSTANCES CONTROL, PRODUCT – CHEMICAL PROFILE FOR MOTOR VEHICLE TIRES CONTAINING N-(1,3-DIMETHYLBUTYL)-N'-PHENYL-P-PHENYLENEDIAMINE (6PPD), 27 (2022) ("DTSC Profile").
[3] DTSC Profile at 5; *see* 40 C.F.R. § 710.3(d) (defining "byproduct" as "a chemical substance produced without a separate commercial intent during the manufacture, processing, use, or disposal of another chemical substance(s) or mixture(s).").
[4] DTSC Profile at 45.
[5] Zhenyu Tian et al., *6PPD-Quinone: Revised Toxicity Assessment and Quantification with a Commercial Standard*, 9 ENV'T. SCI. & TECH. LETTERS 140, 144 tbl. 1 (2022).

widely banned due to its toxicity and is no longer on the market in the United States.[6] Exposure to 6PPD-q can kill a coho salmon within hours, and the chemical is responsible for "urban runoff mortality syndrome," which kills up to 100% of coho returning to spawn in urban streams.[7] These mass mortality events undermine, among other restoration efforts, Washington State's billion-dollar effort to recover salmon in Puget Sound.[8] 6PPD-q from tires is also now known to be ubiquitous in our environment. It is present not only in stormwater runoff and urban watersheds at levels that can kill salmon, steelhead trout, and other aquatic organisms, but also in sediments and soils,[9] road and household dust,[10] and the urine of pregnant women,[11] with emerging science pointing to toxicity in mammals and therefore potential risk to human health as well.[12]

Salmon and steelhead populations, central to the ecosystems, Tribal cultures, and economies of the West Coast, have already declined dramatically, due in part to exposure to 6PPD-q, and they cannot recover without its removal from the environment.[13] We therefore call on EPA to exercise its authority under TSCA to protect the environment from the unreasonable risk presented by the use of 6PPD in tires.

I. Interests of Petitioners

A. The Yurok Tribe

Within its constitution the Yurok Tribe is mandated to carry forward the aboriginal and sovereign rights of the Yurok People to continue forever the Tribe's traditions of self-governance; cultural and spiritual preservation; stewardship of Yurok lands, waters, and other natural endowments; balanced social and economic development; peace and reciprocity; and

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[6] U.S. Env't Prot. Agency, *R.E.D. Facts Ethyl Parathion* 4 (Sept. 2000).
[7] Tian et al. 2022 at 140–42.
[8] Lynda V. Mapes, *After 20 years and $1 billion spent on Washington state salmon programs, fish still declining, new report says,* Seattle Times (Jan 17, 2019).
[9] Lixi Zeng et al., *Widespread Occurrence and Transport of p-Phenylenediamines and Their Quinones in Sediments across Urban Rivers, Estuaries, Coasts, and Deep-Sea Regions,* 57 ENV'T. SCI. & TECH. 2393, 2394 (2023); Guodong Cao et al., *New Evidence of Rubber-Derived Quinones in Water, Air, and Soil*, 56 ENV'T. SCI. & TECH. 4142 (2022).
[10] Ruihe Jin et al, *Ubiquity of Amino Accelerators and Antioxidants in Road Dust from Multiple Land Types: Targeted and Nontargeted Analysis*, ENV'T. SCI. & TECH. (forthcoming 2023); Wei Huang et al., *Occurrence of Substituted p-Phenylenediamine Antioxidants in Dusts*, 8 ENV'T. SCI. & TECH. LETTERS 381 (2021).
[11] Bibai Du et al., *First Report on the Occurrence of N-(1, 3-Dimethylbutyl)-N'-phenyl-p-phenylenediamine (6PPD) and 6PPD-Quinone as Pervasive Pollutants in Human Urine from South China*, 9 ENV'T. SCI. & TECH. LETTERS 1056 (2022).
[12] Liya Fang et al, *Oral exposure to tire rubber-derived contaminant 6PPD and 6PPD-quinone induce hepatotoxicity in mice,* 869 SCI. OF THE TOTAL ENV'T. 161836, 161846 (2023).
[13] *See, e.g.,* Julann A Spromberg & Nathaniel Scholz, *Estimating the future decline of wild coho salmon populations resulting from early spawner die-offs in urbanizing watersheds of the Pacific Northwest, USA*, 7 INTEGRATED ENV'T. ASSESSMENT & MGMT. 648, 655 (2011).

respect for the dignity and individual rights of all persons living within the jurisdiction of the Yurok Tribe. As the largest Native nation within California, this includes the health and welfare of more than 6,400 enrolled members and many others living in the numerous communities on the Yurok Reservation and within the Tribe's Ancestral Territory. The Tribe's Ancestral Territory comprises 7.5 percent of the California coastline, spanning from the Little River to the south and Damnation Creek to the north. The traditional eastern boundary is Bluff Creek on the Klamath River and Hoopa Bluffs on the Trinity River.

The health, wellbeing, and culture of the Yurok People are intimately connected to the health of the Klamath Basin ecosystem. Often self-described as salmon, water, forest, and prayer people, the Yurok Tribe values management of, and reliance on, a traditional subsistence diet and practices, which are a vital part of Yurok cultural identity. Abundant and thriving salmonids, other fish populations, and shellfish are essential for the continuation of subsistence, cultural, and economic lifeways of the Yurok people. These important connections to the Klamath River make the River a culturally significant riverscape to the Yurok people which is treated as a cultural resource under federal and state law. The Klamath River is often described as the lifeline of the Yurok Tribe and continues to provide for Yurok People in numerous ways. Accordingly, the Yurok Tribe has significant interests in the water quality and corresponding health of the ecosystem and species that reside within the Tribe's Ancestral Territory and within the Klamath River Basin.

Unfortunately, the Yurok fishery has experienced substantial decline during recent decades, which negatively impacts the Yurok Tribe and its people's capacity to access commercial fishing income; to pass traditional ceremonial and ecological knowledge to future generations; and to ensure Tribal food security, health, and wellbeing. When the health of salmon populations in the Klamath Basin suffers, the health of Yurok people suffers as well. Declining salmon populations lead to loss of Yurok cultural identity and increased reliance on less healthy sources of food available in rural, low-income communities.[14] Contamination of the Klamath Basin watershed with toxic chemicals such as 6PPD-q contributes to declines in populations of salmon and negatively impacts other subsistence species of critical importance to the Tribe.

6PPD, designed to be highly reactive, undergoes various transformations, both identified and unidentified, at the tire surface or upon its release into the surrounding environment. Among the reaction products, particular attention is given to 6PPD-quinone due to its harmful effects on coho salmon (*Oncorhynchus kisutch*). Recent peer-reviewed scientific research and agency assessments have linked 6PPD-q contamination of streams on the West Coast with catastrophic impacts on vulnerable coho salmon populations, as well as serious toxic effects on steelhead trout and other fish species. In the Yurok Reservation in particular, there are several roads and bridges that run parallel to and directly above the Klamath River and its tributaries. These locations serve as points of contamination that would result in harm to coho salmon and other aquatic species living in the Klamath River. Due to the frequency and intensity of contamination

[14] DeAmaral, Ella, *The Klamath River Crisis: Environmental Degradation and Indigenous Food Insecurity*, UNIVERSITY OF CALIFORNIA, SANTA BARBARA UNDERGRADUATE RESEARCH AND CREATIVE ACTIVITIES JOURNAL (2023); DTSC Profile at 57–58.

and the Tribe's connection to the Klamath River, salmon, and other aquatic species, 6PPD-q presents an unreasonable risk to the health and environment for the Yurok Tribe.

6PPD-q may also present risk to the health of Yurok Tribal members due to the presence of 6PPD-q in plants and mushrooms. Yurok Tribal members practice cultural and subsistence terrestrial gathering, which can often occur at the side of roads. 6PPD-q pollution concentrations have been detected in road dust,[15] which poses a risk to humans who ingest plants that grow near dirt roads. Specific examples of species gathered at roadside include various species of ferns, various species of mushrooms, various species of berries, bear grass and other grasses, stinging nettle, swamp tea, Indian tea, hazel sticks, pussy willow, willow root, alder bark, lemon balm, wild potato, wild onion, wild carrot, spruce root, and more.

B. The Port Gamble S'Klallam Tribe

The Port Gamble S'Klallam Tribe is a federally recognized tribe and a signatory to the 1855 Treaty of Point No Point. The Tribe has about 1200 enrolled members and about half reside on its ~1,800-acre reservation, along with other Native Americans and non-Indians. It is located near the tip of the Kitsap Peninsula and currently operates its own hatchery, which produces chum and coho salmon.

Salmon are one of the most important resources to the Tribe. Tribal members rely on salmon for their economic, physical, and spiritual well-being, and have since time immemorial. The Treaty of Point No Point guarantees the Tribe access to salmon, and the Tribe asserts that any action that reduces the number of salmon available for harvest by Tribal members is a violation of its rights under this treaty.

The Tribe construes the use of 6PPD in tires as a violation of the Tribe's treaty rights, as well as EPA and Washington State's failure to adequately deal with stormwater runoff. Port Gamble Bay is fed by multiple stream systems, many of which are outside the Tribe's jurisdiction and do not have adequate buffers to prevent stormwater from entering them. As Kitsap County continues to grow, especially in the vicinity of the Tribe, this problem will only become worse. The Tribe faces threats to salmon from 6PPD both throughout its Usual and Accustomed Area, as well as harm from 6PPD to salmon that are reared in its own streams and from its own hatchery.

C. The Puyallup Tribe of Indians

The Puyallup Tribe of Indians is a federally recognized Indian Tribe with its Reservation located in Tacoma, Washington. In the Tribe's Lushootseed language, they are known as the spuyaləpabš. The literal translation of this word means "people from the bend at the bottom of the river." The Tribe's Reservation includes the Puyallup River, and the Tribe owns the bed and banks of the Puyallup River within its reservation. Salmon was traditionally the main food for

[15] Kyoshiro Hiki and Hiroshi Yamamoto, *Concentration and leachability of N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine (6PPD) and its quinone transformation product (6PPD-Q) in road dust collected in Tokyo, Japan*, 302 ENV'T. POLLUTION 119082 (2022).

the Tribe, and the Tribe and its members have, since time immemorial, fished the waters of the Puyallup River, the Puyallup River Watershed, and Commencement Bay. The Tribe's treaty fishing rights are protected under the Medicine Creek Treaty and confirmed by the Puyallup Tribe of Indians Settlement Act of 1989. These Treaty Fishing rights are essential to the Tribe and its members' existence and culture.

The Puyallup River originates on Mount Rainier in the Cascade Mountains in Washington before flowing approximately 65 miles to Commencement Bay in Puget Sound, and the watershed forms the third largest tributary to Puget Sound. The Puyallup River watershed encompasses approximately 665,000 acres (approximately 1000 square miles) and includes three major tributaries: the Carbon River, Mowich River and South Prairie Creek. Nine native salmonid species inhabit the Puyallup River watershed, including Chinook salmon, coho salmon, and steelhead trout, which are known to be impacted by 6PPD-q.

Today, the once abundant salmon and steelhead stocks in the Puyallup River watershed are a fraction of their historic populations. Historically, the Puyallup River and its tributaries supported approximately 42,000 Chinook salmon; as of 2007, escapement of Chinook in the Puyallup River watershed (including early/spring returns to the White River) was estimated to be only 1,300 fish, and the species is now listed as threatened with extinction under the Endangered Species Act. Similarly, the Puyallup River once supported an estimated 6,000 steelhead trout; the current population is only 1,500 adults and it is similarly listed as threatened with extinction.

To try to rebuild depressed Chinook and steelhead stocks and remove them from the Endangered Species List, the Tribe operates a tribal fisheries program. The goal of the program is to "preserve, protect, and enhance salmon in usual and accustomed areas, and the water resources that determine their viability." To accomplish this mission, the Tribe operates several fish hatcheries, and it leads efforts to preserve and restore salmon and steelhead habitat throughout a watershed that is showing many symptoms associated with logging, urbanization, and a rapidly expanding human population. The fisheries department also closely monitors the status of salmon and steelhead populations both within and outside its jurisdiction and strives to maintain healthy, harvestable populations for the benefit of all.

The Puyallup River watershed is rapidly urbanizing, and water quality in the Puyallup River is already impacted by roads and urban runoff. The continued presence of 6PPD-q in the watershed harms the Puyallup Tribal Fisheries Department's efforts to restore salmon and steelhead populations in the Puyallup River, as well as the cultural and subsistence practices of Puyallup Tribal members who have depended on these species since time immemorial.

II. 6PPD in Tires Presents Unreasonable Risk to the Environment

The extraordinary toxic effects of 6PPD-q generated from the use of 6PPD are precisely what TSCA was designed to address: TSCA requires EPA to "regulate chemical substances and mixtures which present an unreasonable risk of injury to health or the environment, and to take action with respect to chemical substances and mixtures which are imminent hazards." 15 U.S.C. § 2601(b); *see also* 15 U.S.C. § 2605(a) (requiring that upon finding unreasonable risk, the EPA Administrator "shall" apply risk management measures "to the extent necessary so that the chemical substance or mixture no longer presents such risk"). EPA has recognized that this

authority to evaluate and eliminate a chemical's unreasonable risks under section 6 of TSCA includes the risks posed by chemicals which are produced as transformation or byproducts.[16] Under TSCA, for EPA to prohibit the manufacturing, processing, use, or distribution of a chemical, the agency must first find that these activities alone or in combination "present[] an unreasonable risk of injury to health or the environment." 15 U.S.C. § 2605(a). "[O]nce EPA determines that a particular chemical substance is associated with an unreasonable risk, the Agency is *required* to regulate that substance." *Safer Chemicals, Healthy Families v. EPA*, 943 F.3d 397, 406 (9th Cir. 2019) (emphasis added). 6PPD poses such "unreasonable risk" to the environment because of the extreme acute toxicity of its transformation product 6PPD-q to aquatic organisms, and its population-level impacts on fish species, including those protected under the Endangered Species Act and of immense ecological, cultural, and economic value.

The use of 6PPD in tires is the source of 6PPD-q in aquatic habitats.[17] 6PPD is used in most if not all tires, and it is designed to react with ground-level ozone to prevent tire cracking.[18] 6PPD contained in tires migrates over the life of the tire to the tire surface to supply a continual source of 6PPD, with the amount of 6PPD in the tire decreasing over time.[19] When 6PPD reacts with ozone, it creates 6PPD-q.[20] This 6PPD-q then enters the roadway, where it is discharged into aquatic habitats during storm events.[21]

6PPD-q is acutely toxic to coho salmon, rainbow trout, steelhead trout, Chinook salmon, brook trout, white spotted char, and other aquatic organisms, and it is likely toxic to other aquatic species that have not yet been studied. When exposed to 6PPD-q, these fish species demonstrate

[16] *See, e.g.*, EPA, FINAL SCOPE OF THE RISK EVALUATION FOR 1, 2-DICHLOROETHANE, 12 (EPA Doc. No. EPA-740-R-20-005) (2020) (explaining that risks posed by specified chemicals produced as byproducts during the manufacturing of 1,2-dichloroethane "will be assessed during the risk evaluation of 1,2-dichloroethane"); *see also* EPA, DRAFT SUPPLEMENT TO THE RISK EVALUATION FOR 1,4-DIOXANE (EPA Doc. No. EPA-740-D-23-001) (2023) (examining, *inter alia*, risks associated with exposure to 1,4-dioxane produced as a byproduct).
[17] DTSC Profile at 45.
[18] Ximin Hu et al., *Transformation Product Formation upon Heterogeneous Ozonation of the Tire Rubber Antioxidant 6PPD (N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine)*, 9 ENV'T SCI. TECH. LETTERS 413, 417 (2022).
[19] DTSC Profile at 75.
[20] *Id.* at 13.
[21] Zhenyu Tian et al., *A ubiquitous tire rubber-derived chemical induces acute mortality in coho salmon*, 371 SCI. 185, 185 (2021); DTSC Profile at 5.

a characteristic pattern of symptomatic behavior, including "circling, surface gaping, and equilibrium loss," followed by death.[22]

For coho salmon, the concentration of 6PPD-q required to kill 50% of test animals ("LC_{50}") is estimated to be between 41 to 95 nanograms per liter ("ng/L") (or .041–.095 micrograms per liter ("µg/L")).[23] This toxicity level suggests that 6PPD-q "is among the most toxic chemicals known for aquatic organisms, at least to coho salmon."[24] In one experiment where juvenile coho salmon were exposed for 24 hours to untreated urban runoff, the fish "began dying soon during exposure (2–4 [hours]), with near-maximal cumulative mortality within 8 [hours]."[25] Even when this urban runoff was diluted 95% with clean water, exposure to the diluted stormwater was generally lethal to coho.[26] And even when coho were transferred to clean water after exposure to 6PPD-q, they did not recover.[27]

6PPD-q is also acutely toxic to rainbow and steelhead trout. The LC_{50} for rainbow trout (the freshwater resident strain of ocean-going steelhead) exposed to 6PPD-q is estimated to be 1.00 µg/L after 72–96 hours.[28] Scientists believe the life history differences between rainbow trout and steelhead trout "(i.e., freshwater residence vs ocean migration) is not a determinant of susceptibility [to 6PPD-q],"[29] meaning steelhead trout are likely to experience similar levels of mortality. When exposed to untreated stormwater runoff from three different storms, steelhead trout experienced 4%–42% mortality and generally died within 1–2 days of exposure.[30]

Finally, 6PPD-q is also known to be toxic to other aquatic organisms, including brook trout (LC_{50} 590 ng/L),[31] white spotted char (LC_{50} 510 ng/L),[32] Chinook salmon (LC_{25} 43,698.7

[22] Tian et al. 2021 at 185; Markus Brinkmann et al., *Acute Toxicity of the Tire Rubber-Derived Chemical 6PPD-quinone to Four Fishes of Commercial, Cultural, and Ecological Importance*, 9 ENV'T. SCI. & TECH. LETTERS 333, 334 (2022); Bonnie P. Lo et al., *Acute toxicity of 6PPD-quinone to early life stage juvenile Chinook (Oncorhynchus tshawytscha) and coho (Oncorhynchus kisutch) salmon*, 42 ENV'T. TOXICOLOGY & CHEM. 815, 815 (2023); Kyoshiro Hiki and Hiroshi Yamamoto, *The Tire-Derived Chemical 6PPD-quinone Is Lethally Toxic to the White-Spotted Char Salvelinus leucomaenis Pluvius but Not to Two Other Salmonid Species*, ENV'T. SCI. TECH. LETTERS 1050, 1052 (2022).
[23] Lo et al. 2023 at 819; Tian et al. 2022 at 143.
[24] Tian et al. 2022 at 143.
[25] B.F. French, et al., *Urban Roadway Runoff Is Lethal to Juvenile Coho, Steelhead, and Chinook Salmonids, But Not Congeneric Sockeye*, 9 ENV'T. SCI. TECH. LETTERS 733, 735 (2022).
[26] *Id.* at 736.
[27] *Id.* at 735.
[28] Brinkmann et al. 2022 at 336.
[29] French et al. 2022 at 736.
[30] *Id.* at 733.
[31] Brinkmann et al. 2022 at 336.
[32] Hiki and Yamamoto 2022 at 1052.

ng/L), [33] zebrafish embryos/larvae,[34] *Brachionus calyciflorus*,[35] *Caenorhabditis elegans*,[36] and *Parhyale hawaiensis.*[37] Researchers suspect that it may be toxic to other species that have not yet been studied, including "other salmonids,"[38] and that there is "potential for population-relevant sublethal effects" for these and other species.[39]

6PPD-q is currently "ubiquitous" in urban runoff and surface waters,[40] and has been repeatedly found in the environment at concentrations above the recorded LC_{50} values for coho salmon, rainbow trout, brook trout, and white spotted char.[41] For instance, 6PPD-q was detected

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[33] Lo et al. 2023 at 820.

[34] Marina Ricarte et al., *Environmental concentrations of tire rubber-derived 6PPD-quinone alter CNS function in zebrafish larvae*, 896 SCI. OF THE TOTAL ENV'T 165240, 165240 (2023); Weijuan Peng et al., *Exposure to N-(1,3-dimethylbutyl)-N' -phenyl-p-phenylenediamine (6PPD) Affects the Growth and Development of Zebrafish Embryos/Larvae,* 232 ECOTOXICOLOGY & ENV'T SAFETY 113221, 113221 (2022); Shu-Yun Zhang et al., *6PPD and its Metabolite 6PPDQ Induce Different Developmental Toxicities and Phenotypes in Embryonic Zebrafish*, 455 J. OF HAZARDOUS MATERIALS 131601, 131601 (2023).

[35] Toni Klauschies & Jana Isanta-Navarro, *The Joint Effects of Salt and 6PPD Contamination on a Freshwater Herbivore*, 829 SCI. OF THE TOTAL ENV'T 154675, 154675 (2022).

[36] Xin Hua et al., *Long-term Exposure to Tire-Derived 6PPD Quinone Causes Intestinal Toxicity by Affecting Functional State of Intestinal Barrier in Caenorhabditis elegans*, 861 SCI. OF THE TOTAL ENV'T 131495 (2023); Xin Hua et al., *Exposure to 6-PPD Quinone at Environmentally Relevant Concentrations Causes Abnormal Locomotion Behaviors and Neurodegeneration in Caenorhabditis elegans*, 57 ENV'T. SCI. TECH. 4940 (2023).

[37] Marina Tenório Botelho et al, *Toxicity and mutagenicity studies of 6PPD-quinone in a marine invertebrate species and bacteria*, ENVIRON AND MOLECULAR MUTAGENESIS (forthcoming 2023).

[38] Brinkmann et al. 2022 at 337.

[39] Lo et al. 2023 at 815; *see also* Shubham Varshney et al., *Toxicological Effects of 6PPD and 6PPD Quinone in Zebrafish Larvae*, 42 J. OF HAZARDOUS MATERIALS 424 (2022); French et al. 2022 at 733–38; Justin Greer et al., *Tire-Derived Transformation Product 6PPD-Quinone Induces Mortality and Transcriptionally Disrupts Vascular Permeability Pathways in Developing Coho Salmon*, ENV'T. SCI. & TECH. (forthcoming 2023).

[40] Zeng et al. 2023 at 2397; Cassandra Johannessen et al., *Detection of Selected Tire Wear Compounds in Urban Receiving Waters,* 287 ENV'T POLLUTION 117659, 117659 (2021); Jenifer K. McIntyre et al., *Treading Water: Tire Wear Particle Leachate Recreates an Urban Runoff Mortality Syndrome in Coho but Not Chum Salmon*, 55 ENV'T. SCI. & TECH. 11767, 11772 (2021).

[41] Cassandra Johannessen, et al., *The Tire Wear Compounds of 6PPD-Quinone and 1,3-Diphenylguanidine in an Urban Watershed*, 82 ARCHIVES OF ENV'T CONTAMINATION & TOXICOLOGY 171, 172 (2021); J.K. Challis, et al., *Occurrences of Tire Rubber-Derived Contaminants in Cold-Climate Urban Runoff*, 8 ENV'T. SCI. & TECH. LETTERS 961, 961 (2021); Zeng et al. 2023 at 2394; Tian et al. 2021 at 186–88; French et al. 2022 at 736; Tian et al. 2022 at 140.

in Los Angeles region roadway runoff at 4.1 to 6.1 µg/L; in San Francisco region creeks at 1.0 to 3.5 µg/L; and in Seattle-region watersheds from .3 to 3.2 µg/L.[42]

The high toxicity and ubiquity of 6PPD-q released from 6PPD-containing tires presents an "unreasonable risk" to the environment. EPA's evaluation of "unreasonable risk" must be conducted "without consideration of costs or other nonrisk factors." 15 U.S.C. § 2605(a) (requiring EPA to make an unreasonable risk determination "in accordance with" subsection (b)(4)(A)); *id.* § 2605(b)(4)(A) (requiring that EPA "shall conduct risk evaluations pursuant to this paragraph to determine whether a chemical substance presents an unreasonable risk of injury to health or the environment, *without consideration of costs or other nonrisk factors*, including an unreasonable risk to a potentially exposed or susceptible subpopulation identified as relevant to the risk evaluation by the Administrator, under the conditions of use." (emphasis added)); *see also* 40 C.F.R. § 702.43(a) (EPA regulations confirming that when evaluating risk, it will "not consider costs or other nonrisk factors"). EPA explains that when characterizing risk, it will "take into account, where relevant, the likely duration, intensity, frequency, and number of exposures under the condition(s) of use of the chemical substance." 40 C.F.R. § 702.43(a). When assessing unreasonable risk to the environment in particular, EPA explains "it may be necessary to discuss the nature and magnitude of the effects, the spatial and temporal patterns of the effects, implications at the individual, species, population, and community level, and the likelihood of recovery subsequent to exposure to the chemical substance." 40 C.F.R. § 702.43(b).

Under this framework for evaluating risk, 6PPD-q's toxicity and ubiquity present a level of risk that EPA has previously characterized as "unreasonable" to aquatic organisms. When determining whether a risk to aquatic organisms is unreasonable under TSCA, EPA compares the "concentration of concern" to the "predicted environmental concentration."[43] EPA's risk evaluation guidance defines the "concentration of concern" or "COC" for aquatic organisms as "the value (effect level) at which harm to the aquatic environment is likely to occur if that concentration is exceeded."[44] To calculate the COC, EPA selects "the most sensitive species or the species with the lowest toxicity value" and divides that toxicity value by an "assessment factor" to account for "more sensitive species not specifically represented by the available experimental data" and for "differences in inter- and intra-species variability, as well as laboratory-to-field variability."[45] To calculate the acute COC for fish, EPA recommends an assessment factor of 5, such that: acute COC for fish = LC_{50}/(5), rounded up to 1 significant digit.[46] Applying this methodology, the acute COC for fish for 6PPD-q is .041 µg/L (juvenile coho LC_{50}) /(5) = 0.009 µg/L.

EPA then compares this acute COC to the "predicted environmental concentration" or "PEC"—the concentration of the chemical calculated to be in receiving waters. EPA notes that

[42] Tian et al. 2021 at 188.
[43] EPA OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION, SUSTAINABLE FUTURES / P2 FRAMEWORK MANUAL 2012 EPA-748-B12-001, 13-3 (2012) ("P2 Manual").
[44] *Id.* at 13-3; *accord* EPA, RISK EVALUATION FOR PERCHLOROETHYLENE (ETHENE 1,1,2,2-TETRACHLORO-) CASRN: 127-18-4, 281 (2020) ("PCE Risk Evaluation").
[45] PCE Risk Evaluation at 281.
[46] P2 Manual at 13-4.

"[a] potential for risk exists if the PEC is greater than the acute COC,"[47] which is the same thing as a risk quotient or "RQ" above 1.[48] Here, receiving water calculations for 6PPD-q have repeatedly been shown to be orders of magnitude higher than the COC for coho; thus the RQ>1.[49] EPA has generally found "[a]n RQ greater than 1, when the exposure is greater than the effect concentration, supports a determination that there is unreasonable risk of injury to the environment."[50] Thus, the toxicity and ubiquity of 6PPD-q alone supports a determination that 6PPD in tires poses an unreasonable risk to the environment under EPA's established methodology for making such determinations.

Further underscoring that the use of 6PPD in tires creates an unreasonable risk to the environment, 6PPD-q's ubiquity in coho salmon habitat has already led to population-level impacts that jeopardize the species' continued survival in urban watersheds, thus also "implicat[ing] . . . species, population, and community level" effects for this species. 40 C.F.R. § 702.43(b). 6PPD-q has recently been identified as the cause of "urban runoff mortality syndrome" observed for decades in coho salmon in urban waterways.[51] Starting in the 1980s,[52] researchers observed the same abnormal behaviors now known to be characteristic of 6PPD-q exposure in coho salmon returning to spawn in Puget Sound, Washington.[53] Surveys of returning coho salmon also revealed premature spawner mortality rates ranging from 60–100% in urban waterways, whereas the comparable rate in non-urban streams was <1%.[54] Researchers later confirmed that this urban runoff mortality syndrome behavior and mortality was not limited to adult coho salmon, and noted that "lower abundances of juvenile coho have been observed in urban watersheds compared to non-urban ones."[55] Researchers have concluded that "[w]ild coho populations cannot withstand the high rates of mortality that are now regularly occurring in urban spawning habitats,"[56] and that "it will be difficult, if not impossible to reverse historical

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[47] *Id.* at 13-5.
[48] PCE Risk Evaluation at 501.
[49] Tian et al. 2021 at 188.
[50] PCE Risk Evaluation at 501.
[51] Tian et al. 2021 at 185; McIntyre et al. 2021 at 11771.
[52] WILL KENDRA & ROGER WILLMS, RECURRENT COHO SALMON MORTALITY AT MARITIME HERITAGE FISH HATCHERY, BELLINGHAM: A SYNTHESIS OF DATA COLLECTED FROM 1987–1989, Wash. Dep't of Ecology 4 (June 1990).
[53] Nathaniel L. Scholz et al, *Recurrent Die-Offs of Adult Coho Salmon Returning to Spawn in Puget Sound Lowland Urban Streams*, 6 PLOS ONE (2011).
[54] *Id.*; Michelle I. Chow et al., *An Urban Stormwater Runoff Mortality Syndrome in Juvenile Coho Salmon*, 214 AQUATIC TOXICOLOGY 1, 9 (2019); Blake E. Feist et al., *Roads to Ruin: Conservation Threats to a Sentinel Species Across an Urban Gradient* 27 ECOLOGICAL APPLICATIONS 2382, 2393 (2018).
[55] Chow et al. 2019 at 9 (citing J.B. Scott et al., *Effects of Urban Development on Fish Population Dynamics in Kelsey Creek, Washington*, 115 TRANSACTIONS AM. FISHERIES SOC'Y 555 (1986) and C.W. May et al., *Effects of Urbanization on Small Streams in the Puget Sound Ecoregion*, 2 WATERSHED PROT. TECHNIQUES 483 (1997)).
[56] Julann A. Spromberg et al., *Coho Salmon Spawner Mortality in Western U.S. Watersheds: Bioinfiltration Prevents Lethal Storm Impacts*, 53 53 J. APPLIED ECOLOGY 398, 398 (2016).

coho declines without addressing the toxic pollution dimension of freshwater habitats."[57] Indeed, the continued presence of 6PPD-q in the aquatic environment has largely negated the "costly societal investments in physical habitat restoration" conducted to date in the Pacific Northwest.[58]

In addition to population-level harm to coho documented in Washington state, California state officials similarly believe that 6PPD-q generated from 6PPD-containing tires may have been responsible for historic declines of coho salmon in California, and may likewise jeopardize recovery of coho salmon populations in that state.[59] Coho salmon populations in California are estimated to be less than 6% of their levels in the 1940s, with a 70% decline since the 1960s.[60] California's Department of Toxic Substances Control ("CA DTSC") explains that "[t]he 30-year period from the 1960s to the 1990s, during which [there was a documented] 70% decline in coho, corresponds with the use of 6PPD in tires," and finds it "notable that during this period coho were extirpated from the San Francisco Bay Area, which arguably has the highest concentration of vehicle traffic in coho territory within California."[61] CA DTSC concludes that "[t]he presence of 6PPD-quinone in California's waterways continues to threaten the state's remaining coho salmon populations and may jeopardize the recovery of this species."[62]

As the foregoing discussion establishes, the ubiquity and extreme acute toxicity of 6PPD-q to aquatic organisms alone provides ample justification for EPA to determine that the use of 6PPD in tires presents an unreasonable risk to the environment. But many populations of coho salmon, steelhead trout, and Chinook salmon are also protected under the Endangered Species Act ("ESA"), which further underscores the need for prompt EPA action to respond to the unreasonable environmental risk arising from 6PPD use. Congress enacted the ESA in 1973, recognizing that certain wildlife species "ha[d] been so depleted in numbers that they [we]re in danger of or threatened with extinction," and seeking "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species and threatened species." 16 U.S.C. § 1531(a)(2), (b). Considered "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation," the ESA embodies the "plain intent" of Congress to "halt and reverse the trend toward species extinction, whatever the cost." *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 180, 184 (1978). Under the ESA, all federal departments and agencies must "seek to conserve endangered species and threatened species"

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[57] Feist et al. 2018 at 2390; *see also* Spromberg & Scholz 2011 at 655.
[58] Tian et al. 2021 at 185; *see also* DTSC Profile at 62 ("The state of California, as well as California's Native American tribes, have invested millions of dollars to support projects that improve the habitat for salmonids through the Fisheries Restoration Grant Program . . . . Reductions in the release of 6PPD-quinone into streams would help to ensure these resource intensive restoration projects will help the recovery of coho.").
[59] DTSC Profile at 6, 48.
[60] Larry R. Brown et al., *Historical Decline and Current Status of Coho Salmon in California*, 14 N. AM. J. FISHERIES MGMT. 237, 250 (1994); *see also* Carri J. LeRoy et al., *Salmon Carcasses Influence Genetic Linkages Between Forests and Streams* 73 CAN. J. FISHERIES & AQUATIC SCI. 910, 919 (2016).
[61] DTSC Profile at 48 (citing Brown et al. 1994 at 250).
[62] *Id.* at 6.

and, importantly, must "utilize their authorities in furtherance of the purposes [of the ESA]." 16 U.S.C. § 1531(c)(1).

Here, the unreasonable risk that 6PPD presents to the environment harms multiple species protected by the ESA. To afford marine species such as coho salmon, Chinook salmon, and steelhead trout the protections of the ESA, the Secretary of Commerce, acting here through the National Marine Fisheries Service ("NMFS"), must first list the species as either "endangered" or "threatened" pursuant to Section 4 of the ESA, *id*. § 1533. A species is "endangered" when it "is in danger of extinction throughout all or a significant portion of its range," *id*. § 1532(6), while a species is "threatened" when it is "likely to become an endangered species within the foreseeable future," *id*. § 1532(20); *see also id*. § 1533(c). For management and ESA-listing purposes, steelhead and salmon populations are grouped into distinct population segments ("DPSs") (steelhead) or "evolutionary significant units ("ESUs") (coho salmon and Chinook salmon). These DPSs and ESUs are considered a "species" under the ESA. *See* 16 U.S.C. § 1532(16) (defining "species" under the ESA as including "any distinct population segment of any species of vertebrate fish . . . which interbreeds when mature"). Twenty-three DPSs/ESUs of coho, steelhead, and Chinook are listed as either threatened or endangered under the ESA. These threatened and endangered populations include:

- Central California Coast Coho ESU (endangered)
- Lower Columbia River Coho ESU (threatened)
- Oregon Coast Coho ESU (threatened)
- Southern Oregon/Northern California Coho ESU (threatened)
- Southern California Steelhead DPS (endangered)
- South-Central California Coast Steelhead DPS (threatened)
- California Central Valley Steelhead DPS (threatened)
- Central California Coast Steelhead DPS (threatened)
- Northern California Steelhead DPS (threatened)
- Lower Columbia Steelhead DPS (threatened)
- Middle Columbia River Steelhead DPS (threatened)
- Puget Sound Steelhead DPS (threatened)
- Snake River Basin Steelhead DPS (threatened)
- Upper Columbia River Steelhead DPS (threatened)
- Upper Willamette River Steelhead DPS (threatened)
- Central Valley Spring-run Chinook ESU (threatened)
- California Coast Chinook ESU (threatened)
- Lower Columbia River Chinook ESU (threatened)
- Snake River Spring/Summer-run Chinook ESU (threatened)
- Snake River Fall-run Chinook ESU (threatened)
- Sacramento River Winter-run Chinook ESU (endangered)
- Puget Sound Chinook ESU (threatened)
- Upper Willamette River Chinook ESU (threatened)
- Upper Columbia River Spring-run Chinook ESU (endangered)

50 C.F.R. §§ 223.102, 224.101 (2023). All of these populations inhabit areas that are impacted

by stormwater runoff from roads,[63] and all populations are thereby harmed by 6PPD-q in their habitats. EPA must thus utilize its authority under TSCA Section 6 to "further[] … the purposes" of the ESA, 16 U.S.C. § 1531, by ensuring that 6PPD-q does not cause continued harm to these threatened and endangered species.

Further, an unreasonable risk finding is particularly justified here considering salmon and steelhead's role as keystone species supporting entire ecosystems, their importance to Tribal nations, including Petitioners, and their role in the economy. At least 135 other species depend

[63] *See, e.g.,* NMFS, 2016 5-YEAR REVIEW: SUMMARY & EVALUATION OF CENTRAL CALIFORNIA COAST SALMON VOL. I, 18 (2016); NMFS, 2022 5-YEAR REVIEW: SUMMARY & EVALUATION OF LOWER COLUMBIA RIVER CHINOOK SALMON, COLUMBIA RIVER CHUM SALMON, LOWER COLUMBIA RIVER COHO SALMON, LOWER COLUMBIA STEELHEAD, 34 (2022); NMFS, FINAL ESA RECOVERY PLAN FOR OREGON COAST COHO SALMON (ONCORHYNCHUS KISUTCH), 3-3 (2016); NMFS, ESA RECOVERY PLAN FOR LOWER COLUMBIA RIVER COHO SALMON, LOWER COLUMBIA RIVER CHINOOK SALMON, COLUMBIA RIVER CHUM SALMON, AND LOWER COLUMBIA RIVER STEELHEAD, 4-7, 4-10–11 6-14, 5-56 (2013); NMFS, FINAL RECOVERY PLAN FOR THE SOUTHERN OREGON/NORTHERN CALIFORNIA COAST EVOLUTIONARILY SIGNIFICANT UNIT OF COHO SALMON, 3-40 (2014); NMFS SOUTHWEST REGIONAL OFFICE, SOUTHERN CALIFORNIA STEELHEAD RECOVERY PLAN, 4-7 (2012); NMFS WEST COAST REGION, SOUTH-CENTRAL, SOUTHERN CALIFORNIA COAST STEELHEAD RECOVERY PLANNING DOMAIN 5-YEAR REVIEW, 37 (2016); NMFS WEST COAST REGION, SOUTH-CENTRAL/SOUTHERN CALIFORNIA COAST STEELHEAD RECOVERY PLANNING DOMAIN 5-YEAR REVIEW, 33 (2016); NMFS WEST COAST REGION, RECOVERY PLAN FOR THE EVOLUTIONARILY SIGNIFICANT UNITS OF SACRAMENTO RIVER WINTER-RUN CHINOOK SALMON AND CENTRAL VALLEY SPRING-RUN CHINOOK SALMON AND THE DISTINCT POPULATION SEGMENT OF CALIFORNIA CENTRAL VALLEY STEELHEAD, 4-22, Appendix B, 2-25 (2014); NMFS, FINAL COASTAL MULTISPECIES RECOVERY PLAN CALIFORNIA COASTAL CHINOOK SALMON, NORTHERN CALIFORNIA STEELHEAD, CENTRAL CALIFORNIA COAST STEELHEAD, vi (2016); NMFS, MIDDLE COLUMBIA RIVER STEELHEAD DISTINCT POPULATION SEGMENT ESA RECOVERY PLAN, ES-xvii (2009); NMFS, 2022 5-YEAR REVIEW: SUMMARY & EVALUATION OF MIDDLE COLUMBIA RIVER STEELHEAD, 19 (2022); NMFS, ESA RECOVERY PLAN FOR THE PUGET SOUND STEELHEAD DISTINCT POPULATION SEGMENT (ONCORHYNCHUS MYKISS), 35 (2019); NMFS, ESA RECOVERY PLAN FOR SNAKE RIVER SPRING/SUMMER CHINOOK SALMON (ONCORHYNCHUS TSHAWYTSCHA) & SNAKE RIVER BASIN STEELHEAD (ONCORHYNCHUS MYKISS), 126, 161–62 (2017); NMFS, UPPER COLUMBIA SPRING CHINOOK SALMON AND STEELHEAD RECOVERY PLAN, 3-15 (2007); OR DEP'T OF FISH AND WILDLIFE AND NMFS, UPPER WILLAMETTE RIVER CONSERVATION AND RECOVERY PLAN FOR CHINOOK SALMON AND STEELHEAD, 5-11, 5-36 (2011); NMFS, 5-YEAR REVIEW: SUMMARY AND EVALUATION OF CENTRAL VALLEY SPRING-RUN CHINOOK SALMON EVOLUTIONARILY SIGNIFICANT UNIT, 27 (2016); NMFS, *2016 5*-YEAR REVIEW: SUMMARY & EVALUATION OF CALIFORNIA COASTAL CHINOOK SALMON AND NORTHERN CALIFORNIA STEELHEAD, 17-18 (2016); NMFS, ESA RECOVERY PLAN FOR SNAKE RIVER FALL CHINOOK SALMON (ONCORHYNCHUS TSHAWYTSCHA), 231 (2017); NMFS, *2016 5*-YEAR REVIEW: SUMMARY & EVALUATION OF PUGET SOUND CHINOOK SALMON, HOOD CANAL SUMMER-RUN CHUM SALMON, PUGET SOUND STEELHEAD,19 (2016); NMFS, COLUMBIA RIVER ESTUARY ESA RECOVERY PLAN MODULE FOR SALMON AND STEELHEAD, 4-13, 4-15 (2011).

on salmon and steelhead for food, including southern resident orca whales, eagles, bears, wolves, and seals, making these salmon species the linchpin in entire ecosystems.[64] For many Tribal nations in particular, salmon and steelhead have been a foundational part of tribal culture, religion, and subsistence use since time immemorial, and EPA must consider the environmental justice impacts of allowing continued harm to these culturally important species.[65] Robust salmon stocks also are important to the economy, supporting an estimated 16,000 jobs in the commercial and recreational fishing industry.[66] Populations of salmon and steelhead have already markedly declined, however, with an estimated 29% of nearly 1,400 historical populations of Pacific salmon and steelhead trout already lost.[67] The loss of these salmon and steelhead populations has already significantly diminished the ecosystems, cultures, and economies of the West Coast. If the continued toxic assault from 6PPD-q to these highly important and already depleted species does not present "an unreasonable risk of injury to . . . the environment" requiring action under TSCA section 6(a), it is hard to imagine what would.

Finally, while the best available scientific information compels regulation under TSCA to address 6PPD's unreasonable risks to the environment, there is also evidence that 6PPD and 6PPD-q pose risks to human health. Recent peer-reviewed research indicates that both 6PPD and 6PPD-q bioaccumulate in the liver in a dose-dependent manner and induce hepatoxicity and adverse immune effects in mammals.[68] 6PPD is classified as a reproductive toxicant and skin sensitizing agent by the European Chemicals Agency and the California Department of Toxic Substances.[69] Further, 6PPD and 6PPD-q have been detected in "a variety of environmental matrices, including atmospheric particles, indoor dust, road dust, playground dust, roadside soil, runoff water, and surface water," and both compounds have been detected with very high frequency in human urine.[70] While this petition seeks regulation of 6PPD in tires based on the well-established unreasonable risk to aquatic species, we also urge EPA to utilize its information-gathering authorities under TSCA to investigate the risks to human health from exposure to 6PPD and 6PPD-q—though not in a manner that would delay urgently needed regulation of 6PPD to protect against unreasonable environmental risk.

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[64] Mary F. Wilson & Karl C. Halupka, *Anadromous Fish as Keystone Species in Vertebrate Communities*, 9 CONSERVATION BIOLOGY 489 (1995); Marie Fazio, *Northwest's Salmon Population May be Running Out of Time*, New York Times (Jan. 20, 2021); Dukes Seafood and Chowder, *Environmental Impact of Salmon Decline: This Isn't Just About Fish*, Seattle Times (Jan. 26, 2018).

[65] *See, e.g.,* EPA, GUIDANCE ON CONSIDERING ENVIRONMENTAL JUSTICE DURING THE DEVELOPMENT OF REGULATORY ACTIONS (2015).

[66] Marie Fazio, *Northwest's Salmon Population May be Running Out of Time*, New York Times (Jan. 20, 2021); Dukes Seafood and Chowder, *Environmental Impact of Salmon Decline: This Isn't Just About Fish*, Seattle Times (Jan. 26, 2018).

[67] Richard G. Gustafson et al., *Pacific Salmon Extinctions: Quantifying Lost and Remaining Diversity*, 21 CONSERVATION BIOLOGY 1009, (2007).

[68] Fang et al. 2023 at 161836. *see also* DTSC Profile at 24–25 (explaining that California DTSC has classified 6PPD as a hepatotoxicant and hematotoxicant based on animal studies).

[69] DTSC Profile at 24–25.

[70] Du et al. (2022).

III. EPA Rulemaking Under TSCA Section 6(a) Is Necessary to Eliminate Unreasonable Risk to the Environment from 6PPD in Tires.

As explained above, the continued manufacturing, processing, use, and/or distribution of 6PPD in and for tires "presents an unreasonable risk of injury to . . . the environment, without consideration of costs or other nonrisk factors" because that condition of use exposes aquatic organisms to levels of 6PPD-q that cause acute toxicity and mortality with severe population-level effects. 15 U.S.C. §§ 2605(b)(4)(A), 2620(b)(4)(B)(ii). TSCA Section 6(a) therefore *requires* the EPA Administrator to initiate rulemaking under TSCA Section 6(a) and adopt risk management measures "to the extent necessary" to ensure that 6PPD in tires "no longer presents such risk." 15 U.S.C. § 2605(a) (requiring that upon finding unreasonable risk, the Administrator "shall" apply requirements "to the extent necessary so that the chemical substance or mixture no longer presents such risk"); *Alabama v. Bozeman*, 533 U.S. 146, 153 (2001) ("[t]he word 'shall' is ordinarily the 'language of command'") (quoting *Anderson v. Yungkau*, 329 U.S. 482, 485 (1947)); *Gonzalez v. Thaler*, 565 U.S. 134, 146 (2012) (use of the word "shall" is a "mandatory prescription"); *see also* 15 U.S.C. § 2620(b)(4)(B)(ii) (explaining that if the Administrator fails to grant a TSCA Section 21 petition, and petitioners have shown by a preponderance of the evidence that the chemical presents an unreasonable risk of injury to the environment, without consideration of costs or other nonrisk factors, "the court shall order the Administrator to initiate the action requested by the Petitioner").

There is no known safe level of 6PPD in tires, and no warning or label requirements will eliminate the unreasonable risk from the use of tires containing 6PPD because the formation and release of 6PPD-q is an intended, inherent, and foreseeable result of using 6PPD in tires; 6PPD by design breaks down and releases 6PPD-q into the environment through its normal use in tires. Thus, EPA must use its authority under TSCA Section 6(a)(2)(A)(i) and 6(a)(5), 15 U.S.C. § 2605(a)(2)(A)(i), (a)(5), to adopt a rule that prohibits the manufacture, processing, use, and distribution of 6PPD in and for tires. EPA must ensure that such rule takes effect "as soon as practicable" and "not later than 5 years after the date of promulgation of the rule." 15 U.S.C. § 2605(d).

EPA regulation under TSCA Section 6(a) is necessary to prevent unreasonable risk. Under TSCA, EPA bears the primary responsibility of preventing unreasonable risks from chemical substances, which includes regulatory authority over 6PPD in tires. *See* 15 U.S.C. § 2601; *compare* TSCA Section 21 Petition for Rulemaking Under TSCA Section 6; Reasons for Agency Response, 86 Fed. Reg. 64,129 (Nov. 17, 2021) (denying TSCA Section 21 Petition regarding cosmetics on the basis that cosmetics are not chemical substances under TSCA). And, assuming *arguendo* that it was a valid consideration under Section 21 of TSCA, no other state, federal, or local government agency is currently taking action to ban 6PPD in tires. *Compare* Letter from James J. Jones to Adam Keats (Feb. 14, 2012) (denying TSCA Section 21 petition to ban lead in fishing tackle as unnecessary "given the mix of regulatory and education actions state agencies and the Federal Government are already taking"); Toxic Substances Control Act (TSCA) Section 21 Petition for Rulemaking Under TSCA Section 6; Reasons for Agency Response, 87 Fed. Reg. 57,665, 57,570 (Sept. 21, 2022) (denying TSCA Section 21 Petition regarding greenhouse gas ("GHG") emissions on the basis that it was "unnecessary" because "the federal government has numerous programs aimed at reducing GHG emissions, and

President Biden has committed to a whole of government approach to using federal tools to reduce GHG emissions"). While a number of salmonid populations facing unreasonable risk from 6PPD use in tires are protected under the ESA, that statute does not provide federal agency authority to ban the use of 6PPD in tires. And the ESA provides no protection for the many populations of salmonids and other aquatic species that face unreasonable risk from 6PPD in tires but are not listed as threatened or endangered species under that statute.

A ban at the source is also necessary because potential stormwater treatment is not capable of eliminating the risk from 6PPD: neither 6PPD nor 6PPD-q is currently regulated in stormwater, and current stormwater practices are generally insufficient to remove 6PPD-q,[71] with most urban stormwater discharged to aquatic ecosystems without treatment.[72] Further, data collected in the San Francisco Bay area indicate that coho salmon and other aquatic organisms can be exposed "to lethal concentrations of 6PPD-quinone outside dense urban regions . . . if traffic patterns result in release of [tire wear particles] to streams."[73]

Finally, EPA action is needed because the tire industry is unlikely to expediently act on its own to remove 6PPD from tires. Available information demonstrates that representatives of the tire industry have recognized that 6PPD in tires is causing harm to aquatic organisms,[74] and have reportedly acknowledged that "the question [is] not one of whether 6PPD should be replaced but rather how to get there."[75] Nevertheless, the tire industry has not "currently prioritized finding an alternative to 6PPD," and because there are currently no regulatory restrictions, "[t]he tire industry and chemical sector" lack "certainty and confidence in the industry-wide innovation need."[76] It is thus necessary for EPA to act under its TSCA Section 6 authorities to adopt a ban of this harmful chemical, in order to set the regulatory timeline that will spur the technological innovation needed to develop alternatives to 6PPD.

In sum, Petitioners request, pursuant to TSCA Section 21, that EPA utilize its authority under TSCA Section 6(a)(2)(A)(i) and 6(a)(5) to adopt a rule that prohibits the manufacture, processing, use, and distribution of 6PPD in and for tires, to take effect "as soon as practicable." Petitioners look forward to EPA's response to this petition within 90 days. 15 U.S.C. § 2620(b)(3).

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[71] DTSC Profile at 44; Bettina Seiwert et al., *Abiotic Oxidative Transformation of 6-PPD and 6-PPD Quinone From Tires and Occurrence of Their Products in Snow from Urban Roads and in Municipal Wastewater*, 212 WATER RSCH. 118122, 118128 (2022).
[72] DTSC Profile at 63.
[73] *Id.* at 5.
[74] *6PPD and Tire Manufacturing*, U.S. TIRE MFRS. ASS'N., https://www.ustires.org/6ppd-and-tire-manufacturing (acknowledging that "[i]n December 2020, a report published by researchers at the University of Washington and the Washington Stormwater Center (Tian et al.) identified a 6PPD transformation product that they called 6PPD-Quinone and concluded that it is toxic to coho salmon and may be causing urban runoff mortality syndrome in this fish species").
[75] UNIV. OF MASS. LOWELL, COLLABORATIVE INNOVATION FORUM: FUNCTIONAL SUBSTITUTES TO 6PPD IN TIRES: MEETING REPORT v, 21 (2023).
[76] *Id.*

Sincerely,

Elizabeth Forsyth
Earthjustice Biodiversity Defense Program
810 3rd Ave #610
Seattle, WA 98104
Tel: (206) 531-0841
eforsyth@earthjustice.org

Katherine O'Brien
Earthjustice Toxic Exposure & Health Program
P.O. Box 2297
South Portland, ME 04116
Tel: (212) 284-8036
kobrien@earthjustice.org

Counsel for Petitioners the Yurok Tribe, the Port Gamble S'Klallam Tribe, and the Puyallup Tribe of Indians

Aven, Heather M.

From: Donna Merlina <otamerlina@yahoo.com>
Sent: Tuesday, April 23, 2024 3:43 PM
To: Bell, Kathy M.; Sundin, Steven C.; Lyon, Blake G.
Subject: Please Require an EIS for the Proposed Subdivision on Mud Bay Cliffs

Dear Ms. Bell, Mr. Sundin, and Mr. Lyon,

I ask you to prevent harm to Bellingham's publicly-owned spaces connected to Mud Bay Cliffs, and to safeguard our community against known and severe subdivision development risks, by requiring an Environmental Impact Statement (EIS) be prepared for *The Woods at Viewcrest*, a proposed subdivision on the mature woodlands and wetlands of Mud Bay Cliffs.

The proposed subdivision is not infilling but environmental degradation. Rather than providing affordable housing which Bellingham needs, it will undoubtedly create even more homes for the rich that hardly anyone in Bellingham can afford.

In addition, there are no public transit options in this area and public safety issues would be exacerbated by increased traffic from the 152 potential new housing units, since fourplexes would be allowed on all 38 lots under a new statewide law.

I ask the city to protect our public interest and prevent harm to the community:

Require an Environmental Impact Statement, so that any permit decisions are based on a full understanding of the risks to the environment, and to public safety.

Sincerely,

Donna Merlina
42 year resident of Bellingham

Aven, Heather M.

From: noreply@cob.org on behalf of City of Bellingham <noreply@cob.org>
Sent: Tuesday, April 23, 2024 7:31 AM
To: G.Proj.Wood at Viewcrest
Subject: Public Comment -CRAIG K. MOORE,
Attachments: Public Comment - 664.pdf

City of Bellingham

Public Comment

Entry Details

NAME	CRAIG K. MOORE,
CHOOSE TOPIC	The Woods at Viewcrest
COMMENT OR TESTIMONY	I am opposed to this project. It will increase the traffic in already overcrowed streets and bridges. I think there should be an Enviromental Impact Statement required. Thanks for listening to my input.
EMAIL	ckmooremd@hotmail.com
DATE	4/23/2024

Aven, Heather M.

From: noreply@cob.org on behalf of City of Bellingham <noreply@cob.org>
Sent: Tuesday, April 23, 2024 11:18 AM
To: G.Proj.Wood at Viewcrest
Subject: Public Comment -Suzette Moore
Attachments: Public Comment - 665.pdf

City of Bellingham

Public Comment

Entry Details

NAME	Suzette Moore
CHOOSE TOPIC	The Woods at Viewcrest
COMMENT OR TESTIMONY	I am opposed to Woods at Viewcrest project. We must protect what natural open spaces that remain. As the rapid growth of Bellingham continues it should be a concern both for the environment and the quality of life in the future. Increased traffic on Chuckanut drive over Fairhaven bridge and increased traffic through neighborhoods to get to Old Fairhaven Parkway is the only other option. Require Environmental Impact statement as well. Save the shoreline! Thank you for your time
EMAIL	gram.suze@gmail.com

DATE	4/23/2024

Aven, Heather M.

From: Austin Rose <ARose@co.whatcom.wa.us>
Sent: Tuesday, April 23, 2024 12:49 PM
To: Sundin, Steven C.; Bell, Kathy M.
Cc: Council; Dana Flerchinger; Erika Douglas; Gary Stoyka
Subject: Re: Whatcom Marine Resources Committee - Woods at Viewcrest
Attachments: MRC_commentletter_jonessubdivision_development_FINAL.pdf

Importance: High

Good Afternoon Steve and Kathy,

Please find attached a comment letter from the Whatcom Marine Resources Committee (MRC) regarding the proposed residential subdivision along Viewcrest Road in the Edgemoor Neighborhood. Members of the Whatcom MRC are committed to demonstrating the value of marine resources from the point of view of human health and well-being, and have conducted many years of successful work in research, habitat restoration, and community education. As an Advisory Committee to the Whatcom County Council, the MRC brings these marine protection priorities to the attention of policy makers and provides feedback and recommendation on policies and plans that may impact marine resources.

Thank you for your careful consideration of these concerns and comments from the Whatcom MRC.

Austin Rose (*she/her*)
Natural Resources Specialist II | Whatcom MRC Coordinator
Whatcom County Public Works – Natural Resources
322 N. Commercial St. (second floor) | Bellingham, WA 98225-4042
360-778-6286 or cell (360) 319-6719
https://www.whatcomcountymrc.org

Whatcom County Marine Resources Committee
322 N. Commercial St., Ste. 110
Bellingham, WA 98225
Phone: 360-778-6286
https://www.whatcomcountymrc.org/

Steve Sundin
City of Bellingham
Planning and Community Development
210 Lottie Street
Bellingham, WA 98225

RE: New development at the Woods at Viewcrest in Edgemoor Neighborhood

Dear Mr. Sundin,

Thank you for the opportunity to comment on the proposed new development in the Edgemoor Neighborhood of Bellingham. The Whatcom County Marine Resources Committee (MRC) was created by Whatcom County Council Resolution No. 99023 to protect and enhance the local marine environment under the guidance of sound science and consideration for the citizens of Whatcom County. The MRC's mission includes measurable increases in native salmon recovery and protection of the quality and quantity of salmon habitat.

This proposed development was brought to the attention of the MRC by concerned citizens of the Edgemoor neighborhood, specifically concerning the potential for the new development to cause harm to the sensitive marine environment of North Chuckanut Bay. After scientifically reviewing the plans and environmental documents for the proposed development, the MRC shares some of these concerns. The MRC has been involved in many education, outreach, and restoration projects within the Bay and is acutely aware of environmental concerns related to water quality, shellfish, and roadway runoff.

The MRC questions the proposed design of the stormwater system and its ability to prevent any new contamination of this valuable marine pocket estuary. The proposed development must re-design their stormwater system to ensure that toxins do not enter the Bay. The adverse environmental impacts of a single development project, such as The Woods at Viewcrest, should not be evaluated or mitigated in isolation. Direct, indirect, and cumulative impacts of many piecemeal developments along the marine shoreline have significant impacts on marine resources that are frequently overlooked or minimized when each project is addressed individually. Prior to any further review of this proposed development, the MRC recommends that an Environmental Impact Statement be prepared for this project.

Northern Chuckanut Bay, is a small embayment in south Bellingham with a railroad trestle crossing the mouth and restricting tidal circulation. The Bay boasts a recreational shellfish harvesting area that supports many species of clams, including littlenecks, manila, butter, horse, and cockles. The primary freshwater discharge to this bay is Chuckanut Creek with a seven square mile watershed. There are also smaller drainages from the residential area on the northwest side of the bay and a seasonal creek that runs through the City of Bellingham at Woodstock Farm.

The Bay suffers from existing water quality issues, partially as a result of the railroad trestle fill and restricted tidal circulation. There have been concerns about bacteria levels in Northern Chuckanut Bay for over 20 years. Initial water quality samples collected between 1989 and 1991 showed elevated bacteria levels at the sampling station closest to the shellfish harvesting area, just outside the railroad trestle. In 1994, the Washington State Department of Health (DOH) conducted a shoreline survey of Chuckanut Bay Park and recommended that the recreational shellfish harvesting area in the bay be closed due to poor water quality and sewage disposal conditions. However, the area has always been popular for recreational harvest despite the health advisory and shellfish closure.

Chuckanut Bay monitoring, community outreach, and water quality improvement projects are completed through a partnership with the MRC, Whatcom County Public Works and Whatcom County Health. Because of work initiated by the MRC and the local community, improvements have been made to protect water quality, including work on septic systems, installing dog waste stations, and providing outreach on other watershed stewardship activities. To further support clean water and continued ecosystem health, the Whatcom MRC implemented an on-going Olympia oyster pilot restoration project led by citizen scientists in North Chuckanut Bay during 2016. MRC members and Bellingham Technical College (BTC) Fisheries and Aquaculture students conduct population surveys annually, and the MRC has considered expanding the project by establishing more pilot plots to further oyster population growth and reproduction. Additionally, the MRC conducts education and outreach, and has partnered with the Garden of the Salish Sea Curriculum to complete clam surveys with elementary students and provide a unique opportunity to educate students and our community about the value of protecting shellfish, marine resources, and marine water quality.

With regard to the proposed development, the MRC is concerned that the proposed sewage and stormwater treatment plans are not adequately sized or configured to handle large volumes of water that sheetflow off roadways during large rain events. Localized treatment via bioswales and stormwater vaults as proposed may be overwhelmed, whereby the stormwater would be conveyed directly to the Bay. Recent scientific literature has identified numerous toxins in roadway stormwater, one of which (6PPD) has been directly linked to Coho and Chinook salmon pre-spawn mortality, and potentially other salmonids. There is a local run of Chum salmon that spawn in Chuckanut Creek, with spawning from around the end of October through the end of November. This run often is impacted by seasonal heavy rains, which is when runoff is at its peak and has the greatest potential to affect spawning salmon. The stormwater runoff from this proposed development would significantly impact the water quality in North Chuckanut Bay, especially during large rain events, which are becoming more frequent. Though it is unknown whether 6PPD affects shellfish, oysters and mussels are known to accumulate environmental toxins in their tissues; preventing more adverse environmental impacts to the bay is of the utmost concern to the MRC. Increased stormwater will only degrade water quality further lending to additional bacterial contamination of shellfish and increased impacts on eelgrass beds.

Additionally, the MRC is concerned with the proposed siting of the development, the existing deteriorating slope, and the potential for excavation to negatively impact the already degrading slope. Building homes close to the edge of the cliff face could create slope instability, landslides, and increased sedimentation to the Bay, all of which would impair water quality for shellfish, eelgrass beds and other marine life.

In summary, the MRC questions the proposed location of this development and is concerned that the stormwater infrastructure for the proposed development is not sufficiently protective, and must

consider cumulative impacts of this, existing, and future connected area stormwater systems that drain into Mud Bay. The project should not move forward unless the developer provides strong evidence that no increased harmful stormwater effluent is introduced into this valuable pocket estuary. Prior to any development permits being issued, the MRC strongly recommends that an Environmental Impact Statement be prepared for this project and the direct, indirect and cumulative impacts of this proposed project be fully evaluated.

Thank you for the opportunity to comment.

Sincerely,

Heather Spore
Whatcom MRC Chair

Aven, Heather M.

From: Don & Beth Snyder <dbsnyder7@gmail.com>
Sent: Tuesday, April 23, 2024 11:12 AM
To: Bell, Kathy M.
Subject: Fwd: Viewcrest Proposed Development - Input
Attachments: Protect Mud Bay COB Letter.docx

Dear Ms Bell,

Please note that the attachment to our email of April 14, 2024 contains a statement of our personal concerns and is not merely a form letter. I did not make this clear.

Also, in the meantime we received three expert evaluations. We share the concerns raised by these professional consultants and hope that you will consider them carefully. The potential for harm to this wonderful area causes us great concern now that we have received the unbiased opinions of professional consultants.

Warm regards,
Don And Beth Snyder

Begin forwarded message:

From: Don & Beth Snyder <dbsnyder7@gmail.com>
Subject: Viewcrest Proposed Development - Input
Date: April 14, 2024 at 8:08:17 PM PDT
To: KBell@cob.org

Please consider our input. Thank you.
Don and Beth Snyder

To: Kathy Bell, Senior Planner, kbell@cob.org

Steve Sundin, Senior Planner, ssundin@cob.org

Blake Lyon, Planning & Community Development Department Director, bglyon@cob.org

Planning & Community Development Department

210 Lottie Street

Bellingham, WA 98225

From: Don and Beth Snyder, 401 Arbutus Pl., Bellingham, WA 98225

April 14, 2024

Subject: Require an EIS for the Proposed Subdivision on Mud Bay Cliffs

Dear Ms. Bell, Mr. Sundin, and Mr. Lyon,

Even though the following is taken from a "form letter", please do not discount our input because we have taken the time to carefully study the opinions and concerns of the experts who are making valuable input into this important and critical planning effort.

It is important for the property owners to be able to develop their property but it is even more critical for the Bellingham and Whatcom County community to take action to ensure that the wildlife, trees and vegetation

living in this space and adjacent or near this area are not affected by this development. This is an incredibly diverse area that provides a rich habitat to some amazing animals in which the community has easy access to observe and enjoy. We have lived in this area for almost six years and we have been amazed how both locals and visitors respect and carefully preserve this wonderful and unique area.

We request the planning department to apply rational restraint to the maximum number of properties that are developed in this area. The steep slope into Mud Bay should be protected from any type of pollution and impact to any animals, trees and vegetation; especially the tacit permission to remove trees, trim trees, remove vegetation and/or upset the habitat in this critical area after a development is completed. (This action can readily be seen in the Edgemoor neighborhood in recent years.) It seems that a protection line/barrier at the very top of the ridge must be agreed to and implemented. This could be done is such a way to eliminate the need for any type of storm water diversion or handling. However, we don't know what this suggestion entails. For this reason, we believe that the only way to make informed decisions is for the property owners and the planning department obtain an Environmental Impact Statement. The value of this tremendous community natural resource requires this if development is to occur.

Please consider the following input to your planning process. This informational is the result or careful and

expert study and consideration and is supported by many residents concerned about protecting this wonderful natural resource for generations to come.

Expert Recommendation: (we support)

We ask you to prevent harms to Bellingham's publicly-owned spaces connected to Mud Bay Cliffs, and to safeguard our community against known and severe subdivision development risks, by requiring an Environmental Impact Statement (EIS) be prepared for *The Woods at Viewcrest*, a proposed subdivision on the mature woodlands and wetlands of Mud Bay Cliffs.

The proposed subdivision (of 4 current lots into 38 proposed lots, with up to 152 housing units) would likely impose **significant adverse impacts to the environment**. In addition to these adverse impacts, the developer's application materials are flawed in substantive ways, which further exposes the public's interests, including public investments in neighboring fish and wildlife habitats, to considerable risk. The likely significant adverse impacts, coupled with the substantive application flaws, compel the city to issue a State Environmental Protection Act (SEPA) Determination of Significance and require an EIS.

A. Unique and Special Site. The location of the proposed subdivision is unique both in its **specific characteristics** and its **physical setting**. These unique characteristics and physical setting are important factors that influence why

the current subdivision proposal is likely to have significant adverse environmental impacts. The site of this proposed subdivision is currently distinguished by these features:

Specific Characteristics

- **Important Habitat Hub**. The 2021 City of Bellingham *Wildlife Corridor Analysis* designates this property, which consists of rare mature shoreline woodlands and wetlands habitat, as an *Important Habitat Hub* – and one of the only *Important Habitat Hubs* in south Bellingham that remains unprotected.
- **Geohazards**. Significant landslide, erosion and seismic hazards exist throughout the site, and they are sensitive to development disturbances including hydrological changes.
- **Storm Microclimate.** This location is well-known locally for its microclimate of gales during storms – among the strongest gales in Bellingham. Gale intensity has been increasing over the past decade due to climate change. The existing mature woodland acts as a protective buffer for wildlife (both resident and sheltering), and for the community.

Physical Setting

- **Wildlife Network**. This *Important Habitat Hub* is the center part that links two other *Important Habitat Hubs* – Clark's Point and Chuckanut

Village Marsh/ Chuckanut Bay Open Space – all of which are connected to a larger, protected *Wildlife Network*. The public has invested heavily to protect and maintain the Hubs and Corridors of this Wildlife Network.

- **Estuarine Wetlands**. Mud Bay Cliffs is a key watershed adjacent to Mud Bay's Category I Estuarine Wetlands.
- **Stormwater**. Most drainage from this site flows directly into the Mud Bay Estuarine Wetlands. Drainage discharges from existing city stormwater outlets have already begun to impair the health of this wetland habitat.
- **Great Blue Herons**. The Post Point Colony of Great Blue Herons relies on this site for shelter, and on the Mud Bay Estuarine Wetlands to feed their young. This Heron Colony fled its previous home near Chuckanut Bay as a result of subdivision development activity. Significant public investment has been made to provide habitat protection for this Colony at its new Post Point nesting location.
- **Salmon.** Juvenile salmonids rely on clean water and safe passage through the Mud Bay Estuarine Wetlands, Chuckanut Village Marsh, and Chuckanut Creek. Significant public investment has been made to restore these habitats for salmon.
- **Traffic Safety and Level of Service**.

- Traffic safety issues have been well documented on Edgemoor's narrow, hilly roads with limited sightlines, including where Viewcrest Road intersects Chuckanut Drive (State Route 11). The traffic conditions where Fairhaven Middle School meets the 12th Street Bridge are particularly dangerous. These well-documented issues create precarious and unsafe conditions for walkers, runners, cyclists, and motorists. The city has been notified of these hazardous conditions but has yet to take any action to mitigate them.
- Viewcrest Road and the roadways it intersects provide unique access to important public amenities. These amenities tend to have more visitors seasonally and on weekends. Viewcrest's intersection with Chuckanut Drive is significant as an access point to public amenities including Clark's Point, Hundred Acre Woods (trailhead at the intersection), and the Chuckanut Scenic Byway (which itself is the sole access to multiple public parklands, trail systems, and public natural amenities).

B. Severe Application Flaws. The proposed subdivision application is severely flawed. Objective and comprehensive assessments suitable to this unique site

and setting must be completed to address these flaws before an informed consideration of any subdivision proposals can be made. For example:

- The Stormwater Management Plan is incomplete, lacking key required plan elements. As proposed, the subdivision would result in significant increases in runoff volumes, speeds, and sediment/pollution loads. Moreover, by discharging polluted stormwater into the Mud Bay Estuarine Wetlands, significant adverse environmental impacts are probable. The plan fails to address how the ecologically sensitive Mud Bay Estuarine Wetlands, and the Public Shoreline, will be impacted by this development.
- The Wildlife Habitat Assessment fails to: identify this site as an *Important Habitat Hub* connected to other nearby hubs by two *Important Habitat Corridors*; address the harmful wildlife *Habitat Network* fragmentation the proposed development would cause; address impacts to the Mud Bay Estuarine Wetlands and salmon habitat of Chuckanut Village Marsh and Chuckanut Creek; address impacts to the Post Point Heron Colony (feeding and sheltering); provide a sufficient wildlife inventory.
- The Geotechnical Investigation & Geohazard Report fails to assess the impact of development on groundwater flow and the likely increase in probability, frequency and magnitude of flooding, erosion, and landslide activity. It is documented that development activities would likely make the site

hazardous for the subdivision residents, neighbors, and the community at large. These dangers would begin with development disturbances, and would persist for decades to come.

- There is no Hydrology assessment at all, which this unique site's characteristics and setting necessitate. A Hydrology report is essential to evaluate potential environmental impacts, and ensure that any development at this site will not harm local ecosystems and water quality. Clearly, development of infrastructure such as roads, retention walls, driveways, structures and other hardscaping will alter the topography and the flow of water on this geologically complex site. With soils disturbances and proposed infrastructure cutting across the site, it is probable that saturation, drainage, and flooding would be greatly affected. Erosion, rockfall, landslide and flooding to the north would be likely, unless plans are developed using Hydrology information. These likely impacts could severely affect neighboring public and private lands, waters, and wildlife habitat.
- The applicant has failed to show how tree removal during both initial infrastructure development, and then later by lot owners, would impact the **mature woodland**. There is no assessment for how the gales from worsening storms, combined with extensive tree removal, would impact sheltering wildlife and public safety. There is no assessment of how the remaining trees in the proposed narrow 200-foot

"buffer" along the shoreline would be affected by adjacent tree removal; it is probable that tree removal would degrade the health of nearby trees in the proposed "buffer" wildlife habitat connecting two Important Habitat Hubs.

- The Traffic Impact Analysis fails to address how Levels of Service to public parks, public natural amenities, and scenic byway would be impacted by traffic from this development. Further, it fails to address the known public safety issues which would be exacerbated by increased traffic from the 152 potential new housing units, since fourplexes would be allowed on all 38 lots under a new statewide law.

Because of this site's unique specific characteristics and unique physical setting, and because of the subdivision application's profound flaws, the city does not have the accurate, sufficient, and objective information it needs to identify and assess potential significant adverse impacts.

Moreover, the application materials themselves indicate that the proposal is likely to have a significant adverse impact on the natural environment, the built environment, and public health and safety.

We ask the city to protect our public interest and prevent harms to the community:

Please Require an Environmental Impact Statement, so that any permit decisions are based on a full

understanding of the risks to the environment, and to public safety.

Sincerely,

Don and Beth Snyder

Aven, Heather M.

From: Sophie Swan <sunfloweringswan@gmail.com>
Sent: Tuesday, April 23, 2024 2:57 PM
To: Bell, Kathy M.; Sundin, Steven C.; Lyon, Blake G.
Subject: Require an EIS for the Proposed Subdivision on Mud Bay Cliffs

Dear Ms. Bell, Mr. Sundin, and Mr. Lyon,

I ask you to prevent harms to Bellingham's publicly-owned spaces connected to Mud Bay Cliffs, and to safeguard our community against known and severe subdivision development risks, by requiring an Environmental Impact Statement (EIS) be prepared for *The Woods at Viewcrest*, a proposed subdivision on the mature woodlands and wetlands of Mud Bay Cliffs.

The proposed subdivision (of 4 current lots into 38 proposed lots, with up to 152 housing units) would likely impose **significant adverse impacts to the environment**. In addition to these adverse impacts, the developer's application materials are flawed in substantive ways, which further exposes the public's interests, including public investments in neighboring fish and wildlife habitats, to considerable risk. The likely significant adverse impacts, coupled with the substantive application flaws, compel the city to issue a State Environmental Protection Act (SEPA) Determination of Significance and require an EIS.

A. Unique and Special Site. The location of the proposed subdivision is unique both in its **specific characteristics** and its **physical setting**. These unique characteristics and physical setting are important factors that influence why the current subdivision proposal is likely to have significant adverse environmental impacts. The site of this proposed subdivision is currently distinguished by these features:

Specific Characteristics

- **Important Habitat Hub**. The 2021 City of Bellingham *Wildlife Corridor Analysis* designates this property, which consists of rare mature shoreline woodlands and wetlands habitat, as an *Important Habitat Hub* – and one of the only *Important Habitat Hubs* in south Bellingham that remains unprotected.

- **Geohazards**. Significant landslide, erosion and seismic hazards exist throughout the site, and they are sensitive to development disturbances including hydrological changes.
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Moreover, the application materials themselves indicate that the proposal is likely to have a significant adverse impact on the natural environment, the built environment, and public health and safety.

I ask the city to protect our public interest and prevent harms to the community:

Require an Environmental Impact Statement, so that any permit decisions are based on a full understanding of the risks to the environment, and to public safety.

Sincerely,

Sophie Swan

Aven, Heather M.

From: Mike Toney <mikeb.toney@gmail.com>
Sent: Tuesday, April 23, 2024 8:44 PM
To: Bell, Kathy M.; Sundin, Steven C.; Lyon, Blake G.
Subject: Require an EIS for the Proposed Subdivision on Mud Bay Cliffs
Attachments: MUD_Bay.docx

Dear Mr. Sundin, Ms. Bell, and Mr. Lyon,

I am joining others in Bellingham and beyond to ask you to require an EIS for the proposed subdivision on Mud Bay Cliffs. I believe such an EIS would show the proposed development would do significant environmental harm. In my walks along Mud Bay, I frequently observe eagles and other wildlife in the area of the proposed development. The eagles and other wildlife would surely abandon the Cliffs if this proposed development is allowed to proceed. I also meet many individuals from outside the surrounding area who visit the area because of its wildlife and its unique and beautiful physical features. Indeed, the parking lot by the entrance of Mud Bay is often full of cars from outside the immediate area. If the proposed development proceeds without an EIS and significantly harms the Mud Bay the damage cannot be undone. As a senior citizen who visits this area with his young grandchildren and many visitors from distant places who marvel at this unique area I urge you to require an EIS.

I have read the attached letter from another person requesting an EIS and am including it with my request because I believe it more fully documents the reasons for requiring an EIS for the proposed subdivision on Mud Bay Cliffs.

Respectfully,

Michael Toney

220 Sea Pines Road

Bellingham, WA 98229

To: Kathy Bell, Senior Planner, kbell@cob.org

Steve Sundin, Senior Planner, ssundin@cob.org

Blake Lyon, Planning & Community Development Department Director, bglyon@cob.org

Planning & Community Development Department

210 Lottie Street

Bellingham, WA 98225

From: Michael Toney, 220 Sea Pines Road, Bellingham WA 98229

April 23, 2024

Subject: Require an EIS for the Proposed Subdivision on Mud Bay Cliffs

Dear Ms. Bell, Mr. Sundin, and Mr. Lyon,

I ask you to prevent harms to Bellingham's publicly-owned spaces connected to Mud Bay Cliffs, and to safeguard our community against known and severe subdivision development risks, by requiring an Environmental Impact Statement (EIS) be prepared for *The Woods at Viewcrest*, a proposed subdivision on the mature woodlands and wetlands of Mud Bay Cliffs.

The proposed subdivision (of 4 current lots into 38 proposed lots, with up to 152 housing units) would likely impose **significant adverse impacts to the environment**. In addition to these adverse impacts, the developer's application materials are flawed in substantive ways, which further exposes the public's interests, including public investments in neighboring fish and wildlife habitats, to considerable risk. The likely significant adverse impacts, coupled with the substantive application flaws, compel the city to issue a State Environmental Protection Act (SEPA) Determination of Significance and require an EIS.

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is the sole access to multiple public parklands, trail systems, and public natural amenities).

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development at this site will not harm local ecosystems and water quality. Clearly, development of infrastructure such as roads, retention walls, driveways, structures and other hardscaping will alter the topography and the flow of water on this geologically complex site. With soils disturbances and proposed infrastructure cutting across the site, it is probable that saturation, drainage, and flooding would be greatly affected. Erosion, rockfall, landslide and flooding to the north would be likely, unless plans are developed using Hydrology information. These likely impacts could severely affect neighboring public and private lands, waters, and wildlife habitat.

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Because of this site's unique specific characteristics and unique physical setting, and because of the subdivision application's profound flaws, the city does not have the accurate, sufficient, and objective information it needs to identify and assess potential significant adverse impacts.

Moreover, the application materials themselves indicate that the proposal is likely to have a significant adverse impact on the natural environment, the built environment, and public health and safety.

I ask the city to protect our public interest and prevent harms to the community:

Require an Environmental Impact Statement, so that any permit decisions are based on a full understanding of the risks to the environment, and to public safety.

Sincerely,

(Signature)

Aven, Heather M.

From: noreply@cob.org on behalf of City of Bellingham <noreply@cob.org>
Sent: Tuesday, April 23, 2024 9:25 PM
To: G.Proj.Wood at Viewcrest
Subject: Public Comment -Alicia Toney
Attachments: Public Comment - 667.pdf

City of Bellingham

Public Comment

Entry Details

NAME	Alicia Toney
CHOOSE TOPIC	The Woods at Viewcrest
COMMENT OR TESTIMONY	I have reviewed the SEPA application and supporting documentation. I am part of the Protect Mud Bay group and know that a public comment letter is being submitted with all the various specific code requirements the applicant is not meeting, and all the gaps or errors in the application materials that indicate a DNS is not an appropriate response to the application. In addition I have reviewed various City of Bellingham initiatives to protect trees, habitat, the remaining intact pocket estuary, achieve urban planning that protects the environment and continues to support Bellingham as a climate resilient location. The property

	proposed for development is the last track of continuous habitat that connects to Clark's Point and supports many species including Great Blue Herons that nest nearby and Bald Eagles. As a professional environmental planner working in permitting large scale construction projects, I am concerned with the judgment of the City's professionals in the determination of the type of wetlands the Bay consists of and that adding a stormwater outfall to this pocket estuary wouldn't have a significant adverse environmental impact. If this property were to be developed it would only be diligent of the City to require an EIS in response to well documented noncompliance with state and federal environmental protections outlined by the comment letters submitted by the Protect Mud Bay Cliffs group. My family enjoys visiting the beach below the proposed development and have a hard time understanding why the City wouldn't be requiring more stringent environmental analysis to be completed before developing this pristine track of land. My proposed solution is to require an EIS to confirm this type of development is not only consistent with state and federal regulations but also consistent with the City of Bellingham's commitment to environmental stewardship.
EMAIL	aliciakemper30@hotmail.com
DATE	4/23/2024

Aven, Heather M.

From: Cheryl Adkinson <adkinson1@gmail.com>
Sent: Wednesday, April 24, 2024 6:48 PM
To: Bell, Kathy M.; Sundin, Steven C.; Lyon, Blake G.
Subject: The Woods at Viewcrest

To: Kathy Bell, Senior Planner
Steve Sundin, Senior Planner
Blake Lyon, Planning & Community Dev Dept Director

From: Cheryl D. Adkinson MD
415 Arbutus Pl
Bellingham, WA 98225

Date: 4/24/2024

Subject: Please! Require an Environmental Impact Statement

Dear Ms. Bell, Mr. Sundin, and Mr. Lyon,

Thank you very much for all the work you do to try to follow the myriad laws and regulations that impact decisions on city planning, to weigh the conflicting interests of citizens, to arbitrate the opposing demands of protecting natural resources, stimulating the economy and providing housing for the ever growing number of people who wish to make Bellingham their home. I am writing as a person who was born and grew up in Bellingham and now has returned to retire. My perspective is that we have many land resources we can sacrifice to provide housing for our city that are not uniquely valuable natural resources. Mud Bay Cliffs is not one of those spaces. It is a unique treasure of very steep, heavily wooded, apparently fragile rocky terrain that stands guard over the only large estuary in Bellingham. What sense does it make to risk destroying this estuary to build upper-end housing, just after spending millions of dollars to create the tiny estuary at Squalicum Creek? Upper end housing is not what the city needs; we need affordable housing. The Mud Bay Cliffs are a pearl on display to visitors entering Bellingham on scenic Chuckanut Dr. They are a key component to a major Wildlife Corridor, an important support to the salmon population that we are so keen to protect, and provide the feeding grounds and shelter to the heron colony that was forced to move by development along Chuckanut. The city had invested in protecting the heron colony in its current location, and so should attend carefully to the likely impact on that very heron colony before allowing construction that threatens their feeding and storm shelter habitat.

What I am saying is that we must have an Environmental Impact Statement prior to making any decision regarding allowing *The Woods at Viewcrest* to move forward. Such a build is likely to have significant adverse impacts to the environment that are irreversible. The property was designated an 'Important Habitat Hub' in the 2021 Bellingham Wildlife Corridor Analysis. This area, even to an untrained eye, has significant erosion, landslide and seismic

vulnerabilities. We need to know much more about these vulnerabilities and the negative impact the development would have on the efforts of the city to protect wildlife, support fisheries, preserve exceptional natural beauty, and provide safe places for people to live before this development is approved.

Furthermore, it has been made clear to me that the developer's application materials are substandard in a number of ways, including failing to adequately identify these significant risks and adverse impacts, e.g., incomplete stormwater management plan, failure to acknowledge the property is an "Important Habit Hub" that connects to two" Important Habitat Corridors" and hence offers no plan to ameliorate potential devastating impacts on Habitat, failure to provide a Hydrology assessment, and failure to address the impact of the development on ground water flow, which is likely to increase erosion, flooding, and landslides.

Clearly, due diligence is imperative to avoid a travesty to the natural environment, a dangerous housing environment, and a threat to safety on adjacent public and private lands. It is for these reasons that I urge you to issue a State Environmental Protection Act (SEPA) Determination of Significance and require an EIS.

Thank you kindly for your attention.

Aven, Heather M.

From: Kelly Bird <kellzbird@gmail.com>
Sent: Wednesday, April 24, 2024 6:55 PM
To: Lyon, Blake G.; Bell, Kathy M.; Sundin, Steven C.
Subject: Woods at Viewcrest public comments

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- **Traffic Safety and Level of Service**.
    - Traffic safety issues have been well documented on Edgemoor's narrow, hilly roads with limited sightlines, including where Viewcrest Road intersects Chuckanut Drive (State Route 11). The traffic conditions where Fairhaven Middle School meets the 12th Street Bridge are particularly dangerous. These well-documented issues create precarious and unsafe conditions for walkers, runners, cyclists, and motorists. The city has been notified of these hazardous conditions but has yet to take any action to mitigate them.

- Viewcrest Road and the roadways it intersects provide unique access to important public amenities. These amenities tend to have more visitors seasonally and on weekends. Viewcrest's intersection with Chuckanut Drive is significant as an access point to public amenities including Clark's Point, Hundred Acre Woods (trailhead at the intersection), and the Chuckanut Scenic Byway (which itself is the sole access to multiple public parklands, trail systems, and public natural amenities).

B. Severe Application Flaws. The proposed subdivision application is severely flawed. Objective and comprehensive assessments suitable to this unique site and setting must be completed to address these flaws before an informed consideration of any subdivision proposals can be made. For example:

- The Stormwater Management Plan is incomplete, lacking key required plan elements. As proposed, the subdivision would result in significant increases in runoff volumes, speeds, and sediment/pollution loads. Moreover, by discharging polluted stormwater into the Mud Bay Estuarine Wetlands, significant adverse environmental impacts are probable. The plan fails to address how the ecologically sensitive Mud Bay Estuarine Wetlands, and the Public Shoreline, will be impacted by this development.
- The Wildlife Habitat Assessment fails to: identify this site as an *Important Habitat Hub* connected to other nearby hubs by two *Important Habitat Corridors*; address the harmful wildlife *Habitat Network* fragmentation the proposed development would cause; address impacts to the Mud Bay Estuarine Wetlands and salmon habitat of Chuckanut Village Marsh and Chuckanut Creek; address impacts to the Post Point Heron Colony (feeding and sheltering); provide a sufficient wildlife inventory.
- The Geotechnical Investigation & Geohazard Report fails to assess the impact of development on groundwater flow and the likely increase in probability, frequency and magnitude of flooding, erosion, and landslide activity. It is documented that development activities would likely make the site hazardous for the subdivision residents, neighbors, and the community at large. These dangers would begin with development disturbances, and would persist for decades to come.
- There is no Hydrology assessment at all, which this unique site's characteristics and setting necessitate. A Hydrology report is essential to evaluate potential environmental impacts, and ensure that any development at this site will not harm local ecosystems and water quality. Clearly, development of infrastructure such as roads, retention walls, driveways, structures and other hardscaping will alter the

topography and the flow of water on this geologically complex site. With soils disturbances and proposed infrastructure cutting across the site, it is probable that saturation, drainage, and flooding would be greatly affected. Erosion, rockfall, landslide and flooding to the north would be likely, unless plans are developed using Hydrology information. These likely impacts could severely affect neighboring public and private lands, waters, and wildlife habitat.

- The applicant has failed to show how tree removal during both initial infrastructure development, and then later by lot owners, would impact the **mature woodland**. There is no assessment for how the gales from worsening storms, combined with extensive tree removal, would impact sheltering wildlife and public safety. There is no assessment of how the remaining trees in the proposed narrow 200-foot "buffer" along the shoreline would be affected by adjacent tree removal; it is probable that tree removal would degrade the health of nearby trees in the proposed "buffer" wildlife habitat connecting two Important Habitat Hubs.
- The Traffic Impact Analysis fails to address how Levels of Service to public parks, public natural amenities, and scenic byway would be impacted by traffic from this development. Further, it fails to address the known public safety issues which would be exacerbated by increased traffic from the 152 potential new housing units, since fourplexes would be allowed on all 38 lots under a new statewide law.

Because of this site's unique specific characteristics and unique physical setting, and because of the subdivision application's profound flaws, the city does not have the accurate, sufficient, and objective information it needs to identify and assess potential significant adverse impacts.

Moreover, the application materials themselves indicate that the proposal is likely to have a significant adverse impact on the natural environment, the built environment, and public health and safety.

I ask the city to protect our public interest and prevent harms to the community:

Require an Environmental Impact Statement, so that any permit decisions are based on a full understanding of the risks to the environment, and to public safety.

Sincerely,

Kelly Bird

Aven, Heather M.

From: noreply@cob.org on behalf of City of Bellingham <noreply@cob.org>
Sent: Wednesday, April 24, 2024 4:29 PM
To: G.Proj.Wood at Viewcrest
Subject: Public Comment -Kate Grinde & Bill Bode
Attachments: Public Comment - 671.pdf

City of Bellingham

Public Comment

Entry Details

NAME	Kate Grinde & Bill Bode
CHOOSE TOPIC	The Woods at Viewcrest
COMMENT OR TESTIMONY	631 Clark Rd Bellingham, WA 98225 April 24, 2024 To Whom It May Concern: We are writing regarding the March 25th, 2024 'Woods at Viewcrest' development proposal that includes site development for at least 38, and up to 152, individual lots, the supporting paved surfaces, and utilities. There are many impacts the City, its planning department and hearing examiner must seriously evaluate while reviewing the plans

and considering approval for the development of this property.

We fully support the work the Protect Mud Bay organization has done and their comments in its recent submittal and call for an EIS.

Additionally we feel it is important that the Planning Department consider the following:

The Traffic Impact Anaylsis (TIA) submitted with the plan only focuses on the Chuckanut/Viewcrest intersection (which as drivers we can attest is not as safe as the TIA describes). Interestingly the counts for those studies were done on Wednesday, August 26, 2020 when the school year had yet to start and during a time when the COVID pandemic was still a major issue with regard to stay-at-home education.

Additionally, the TIA does not address the impacts of increased traffic loads and opportunities for “auto/auto, auto/pedestrian, auto/bicycle interactions” on Viewcrest itself, which is currently undersized and presents hazardous situations due to it topography, narrow design, and lack of sidewalks. An increase in traffic along the road would only create more negative issues.

The TIA also does not address what would be greatly increased congestion, travel times, and dangerous left turns at the corner of Chuckanut Drive, Hawthorne Rd, and Park Ridge Rd in front of Fairhaven Middle School, espescially as the work and school days begin and end. That intersection is already overloaded (as is the bridge to the north of the intersection) at those times due to it being the primary southern entrance into Bellingham and route to the school for almost all families living south of that intersection. The fact that the TIA was based on information gathered at that time in 2020 and did not address the two other major impacts greatly weakens its validity.

	The proposal also seems to go against many of the City's current programs including the Climate Action Plan, the Community Tree Program, The Proposed Trail in the Park's Recommended Facilities Plan from 2020, and providing affordable housing as by it's own admission these homes are to be "high end." Please consider these issues, along with those raised by the Protect Mud Bay organization, when deciding what to do next with the application. Sincerely, Kate Grinde & Bill Bode
EMAIL	wbkg@comcast.net
DATE	4/24/2024

Aven, Heather M.

From: Tara Bott <tara.bott@gmail.com>
Sent: Wednesday, April 24, 2024 12:56 PM
To: Bell, Kathy M.; Sundin, Steven C.; Lyon, Blake G.
Subject: Please Require an EIS for Mud Bay Cliffs

Dear Ms. Bell, Mr. Sundin, and Mr. Lyon,

As a resident in Chuckanut Village, thank you for taking the time to listen to our concerns on this subject. Many of us in the neighborhood, and the wider Bellingham community, are very concerned with the proposed development on Mud Bay Cliffs, and the detrimental impact it will have on this incredibly fragile ecosystem.

I ask you to prevent harms to Bellingham's publicly-owned spaces connected to Mud Bay Cliffs, and to safeguard our community against known and severe subdivision development risks, by requiring an Environmental Impact Statement (EIS) be prepared for *The Woods at Viewcrest*, a proposed subdivision on the mature woodlands and wetlands of Mud Bay Cliffs.

The proposed subdivision (of 4 current lots into 38 proposed lots, with up to 152 housing units) would likely impose **significant adverse impacts to the environment**. In addition to these adverse impacts, the developer's application materials are flawed in substantive ways, which further exposes the public's interests, including public investments in neighboring fish and wildlife habitats, to considerable risk. The likely significant adverse impacts, coupled with the substantive application flaws, compel the city to issue a State Environmental Protection Act (SEPA) Determination of Significance and require an EIS.

A. Unique and Special Site. The location of the proposed subdivision is unique both in its **specific characteristics** and its **physical setting**. These unique characteristics and physical setting are important factors that influence why the current subdivision proposal is likely to have significant adverse environmental impacts. The site of this proposed subdivision is currently distinguished by these features:

Specific Characteristics

- **Important Habitat Hub**. The 2021 City of Bellingham *Wildlife Corridor Analysis* designates this property, which consists of rare mature shoreline woodlands and wetlands habitat, as an *Important Habitat Hub* – and one of the only *Important Habitat Hubs* in south Bellingham that remains unprotected.
- **Geohazards**. Significant landslide, erosion and seismic hazards exist throughout the site, and they are sensitive to development disturbances including hydrological changes.
- **Storm Microclimate.** This location is well-known locally for its microclimate of gales during storms – among the strongest gales in Bellingham. Gale intensity has been increasing over the past decade due to climate change. The existing mature woodland acts as a protective buffer for wildlife (both resident and sheltering), and for the community.

Physical Setting

- **Wildlife Network**. This *Important Habitat Hub* is the center part that links two other *Important Habitat Hubs* – Clark's Point and Chuckanut Village Marsh/ Chuckanut Bay Open Space – all of which are connected to a larger, protected *Wildlife Network*. The public has invested heavily to protect and maintain the Hubs and Corridors of this Wildlife Network.
- **Estuarine Wetlands**. Mud Bay Cliffs is a key watershed adjacent to Mud Bay's Category I Estuarine Wetlands.
- **Stormwater**. Most drainage from this site flows directly into the Mud Bay Estuarine Wetlands. Drainage discharges from existing city stormwater outlets have already begun to impair the health of this wetland habitat.
- **Great Blue Herons**. The Post Point Colony of Great Blue Herons relies on this site for shelter, and on the Mud Bay Estuarine Wetlands to feed their young. This Heron Colony fled its previous home near Chuckanut Bay as a result of subdivision development activity. Significant public investment has been made to provide habitat protection for this Colony at its new Post Point nesting location.
- **Salmon.** Juvenile salmonids rely on clean water and safe passage through the Mud Bay Estuarine Wetlands, Chuckanut Village Marsh, and Chuckanut Creek. Significant public investment has been made to restore these habitats for salmon.
- **Traffic Safety and Level of Service**.

- Traffic safety issues have been well documented on Edgemoor's narrow, hilly roads with limited sightlines, including where Viewcrest Road intersects Chuckanut Drive (State Route 11). The traffic conditions where Fairhaven Middle School meets the 12th Street Bridge are particularly dangerous. These well-documented issues create precarious and unsafe conditions for walkers, runners, cyclists, and motorists. The city has been notified of these hazardous conditions but has yet to take any action to mitigate them.
- Viewcrest Road and the roadways it intersects provide unique access to important public amenities. These amenities tend to have more visitors seasonally and on weekends. Viewcrest's intersection with Chuckanut Drive is significant as an access point to public amenities including Clark's Point, Hundred Acre Woods (trailhead at the intersection), and the Chuckanut Scenic Byway (which itself is the sole access to multiple public parklands, trail systems, and public natural amenities).

B. Severe Application Flaws. The proposed subdivision application is severely flawed. Objective and comprehensive assessments suitable to this unique site and setting must be completed to address these flaws before an informed consideration of any subdivision proposals can be made. For example:

- The Stormwater Management Plan is incomplete, lacking key required plan elements. As proposed, the subdivision would result in significant increases in runoff volumes, speeds, and sediment/pollution loads. Moreover, by discharging polluted stormwater into the Mud Bay Estuarine Wetlands, significant adverse environmental impacts are probable. The plan fails to address how the ecologically sensitive Mud Bay Estuarine Wetlands, and the Public Shoreline, will be impacted by this development.
- The Wildlife Habitat Assessment fails to: identify this site as an *Important Habitat Hub* connected to other nearby hubs by two *Important Habitat Corridors*; address the harmful wildlife *Habitat Network* fragmentation the proposed development would cause; address impacts to the Mud Bay Estuarine Wetlands and salmon habitat of Chuckanut Village Marsh and Chuckanut Creek; address impacts to the Post Point Heron Colony (feeding and sheltering); provide a sufficient wildlife inventory.
- The Geotechnical Investigation & Geohazard Report fails to assess the impact of development on groundwater flow and the likely increase in probability, frequency and magnitude of flooding, erosion, and landslide activity. It is documented that

development activities would likely make the site hazardous for the subdivision residents, neighbors, and the community at large. These dangers would begin with development disturbances, and would persist for decades to come.

- There is no Hydrology assessment at all, which this unique site's characteristics and setting necessitate. A Hydrology report is essential to evaluate potential environmental impacts, and ensure that any development at this site will not harm local ecosystems and water quality. Clearly, development of infrastructure such as roads, retention walls, driveways, structures and other hardscaping will alter the topography and the flow of water on this geologically complex site. With soils disturbances and proposed infrastructure cutting across the site, it is probable that saturation, drainage, and flooding would be greatly affected. Erosion, rockfall, landslide and flooding to the north would be likely, unless plans are developed using Hydrology information. These likely impacts could severely affect neighboring public and private lands, waters, and wildlife habitat.
- The applicant has failed to show how tree removal during both initial infrastructure development, and then later by lot owners, would impact the **mature woodland**. There is no assessment for how the gales from worsening storms, combined with extensive tree removal, would impact sheltering wildlife and public safety. There is no assessment of how the remaining trees in the proposed narrow 200-foot "buffer" along the shoreline would be affected by adjacent tree removal; it is probable that tree removal would degrade the health of nearby trees in the proposed "buffer" wildlife habitat connecting two Important Habitat Hubs.
- The Traffic Impact Analysis fails to address how Levels of Service to public parks, public natural amenities, and scenic byway would be impacted by traffic from this development. Further, it fails to address the known public safety issues which would be exacerbated by increased traffic from the 152 potential new housing units, since fourplexes would be allowed on all 38 lots under a new statewide law.

Because of this site's unique specific characteristics and unique physical setting, and because of the subdivision application's profound flaws, the city does not have the accurate, sufficient, and objective information it needs to identify and assess potential significant adverse impacts.

Moreover, the application materials themselves indicate that the proposal is likely to have a significant adverse impact on the natural environment, the built environment, and public health and safety.

I ask the city to protect our public interest and prevent harms to the community:

Require an Environmental Impact Statement, so that any permit decisions are based on a full understanding of the risks to the environment, and to public safety.

Sincerely,

Tara Bott

BRICKLIN & NEWMAN LLP
lawyers working for the environment

Reply to: Seattle Office

April 24, 2024

VIA E-MAIL TO woodsvc@cob.org

City of Bellingham
Planning and Community Development Department
210 Lottie Street
Bellingham, WA 98225

Re: The Woods at Viewcrest
Project Nos. SUB2022-0011/VAR2022-0002/CAP2022-0005/SHR2022-0007/
SHR2022-0008/VAC2022-0001/SEP2022-0013

Dear Planning and Community Development:

We are writing on behalf of Protect Mud Bay Cliffs to comment on the "Woods at Viewcrest" subdivision proposal. Protect Mud Bay Cliffs has also submitted its own comprehensive comment letter and exhibits, including expert opinions, providing a considerable amount of critical information and input. Rather than repeat every single point that they made in their letter and exhibits, suffice it to say that we echo and agree with the contents and arguments made therein.

Based on our review of the materials, it is plainly evident that this development proposal will have probable significant adverse environmental impacts and, therefore, the City must issue a Determination of Significance (DS) and require that an Environmental Impact Statement (EIS) be prepared pursuant to the State Environmental Policy Act (SEPA), ch. 43.21C RCW. The environmental risks associated with this proposed subdivision on the hazardous steep slopes so close to and above Mud Bay, a vital environmental resource, are extremely concerning and warrant full environmental review.

At this early stage in the application process, we have only just begun to review the full range of legal issues and complicated environmental and technical information associated with this proposal. We anticipate providing additional information and raising new legal issues as this process moves forward, but for now, with this letter, we want to emphasize the importance of issuing a Determination of Significance as soon as possible so that the public has an opportunity for meaningful engagement on this controversial project before any recommendations or decisions are made. A non-EIS behind closed-door type of environmental review that excludes meaningful public involvement would not only undermine public trust in the City, but it will also inevitably lead to excessive delay and costs associated with litigation.

State Environmental Policy Act

A. The Legal Requirements of SEPA.

Under SEPA, when a proposed development may cause more than a moderate adverse environmental impact to an area, the reviewing city is required to fully assess that proposal in an Environmental Impact Statement (EIS) before it can approve the development proposal. When it's evident early in the permitting review process that a proposal "may" have significant adverse environmental impacts, the agency must require an EIS.[1]

"Significant" is defined as "a reasonable likelihood of more than a moderate adverse impact on environmental quality"[2] Synonyms for "moderate" include "modest, average, medium, ordinary and mediocre."[3] "Moderate" is defined as "tending toward the mean or average amount or dimension" and "having average or less than average quality; Mediocre."[4] The definition of "significant" states: "The severity of an impact should be weighed along with the likelihood of its occurrence. An impact may be significant if its chance of occurrence is not great, but the resulting environmental impact would be severe if it occurred."[5]

WAC 197-11-330 specifies criteria and procedures for determining whether a proposal is likely to have a significant adverse environmental impact. That section makes it clear that, among other things, location matters. In determining an impact's significance, the responsible official shall take into account that the same proposal may have a significant adverse impact in one location, but not in another location.[6] The SEPA rules also recognize that the "several marginal impacts when considered together may result in a significant adverse impact."[7] It is of particular concern when a proposal may adversely affect sensitive or special areas.[8] Also, of particular concern is when a proposal may adversely affect endangered or threatened species or their habitat.[9]

The threshold determination is probably the most important single step in the SEPA process.[10] The policy of SEPA, which is to ensure via a detailed statement the full disclosure of environmental information so that environmental matters can be given proper consideration during decision making, is thwarted whenever an incorrect threshold determination is made.[11] When making a threshold determination, the city must collect and review information reasonably sufficient to evaluate the environmental impact of the proposal; take a searching, realistic look at the potential hazards; and,

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1 WAC 197-11-360.
2 WAC 197-11-794(1).
3 *Merriam-Webster Thesaurus* (2023).
4 *Id.*
5 WAC 197-11-794(2).
6 WAC 197-11-330(3)(a).
7 WAC 197-11-330(3)(c).
8 WAC 197-11-330(3)(e).
9 *Id*.
10 WAC 197-11-310; *Norway Hill Pres. & Prot. Ass'n v. King Cnty. Council*, 87 Wn.2d 267, 273, 552 P.2d 674, 678 (1976)
11 *Id.*

with reasoned thought and analysis, candidly and methodically address the environmental concerns.

SEPA regulations require that the lead agency "shall prepare its threshold determination … at the earliest possible point in the planning and decision-making process, when the principal features of a proposal and its environmental impacts can be reasonably identified.[12] The threshold determination "shall be made as close as possible to the time an agency has developed or been presented with a proposal."[13] The SEPA rules state that a proposal exists when an agency is presented with an application.[14]

The benefits of the EIS process as contrasted with that of the DNS and MDNS process cannot be overstated. It is especially critical that an EIS be prepared when a project is highly controversial, such as this one. The EIS process promotes transparency, accountability, and inclusivity. When an EIS is prepared, the public is given an opportunity for meaningful involvement. Public involvement is of primary importance with regard to SEPA and is one of its main objectives – *i.e.*, that the public be informed so that they can be involved in the decision making process.[15]

A Draft EIS provides comprehensive information about the project's impacts and suggested mitigation *before* the public submits comments, allowing people who are directly impacted by and interested in a project to fully understand its potential effects on the environment and their community, before they provide their written input. Because it provides an opportunity for the community to voice fully informed and educated concerns, in addition to asking questions and offering suggestions, it can lead to improvements in project design and mitigation measures. This process also fosters public trust in and accountability of the governmental agency.

When an DNS or MDNS is issued for a highly controversial project instead of an EIS, expensive and time-consuming litigation inevitably becomes a poor substitute for the EIS process. Requiring an EIS at the beginning of the process tends to ultimately save time and resources in the long run for everyone in situations where it's a certainty that the DNS or MDNS will be appealed.

B. The Woods at Viewcrest subdivision proposal will have significant adverse environmental impacts.

It is plainly evident that the proposed subdivision will have significant adverse environmental impacts and, therefore, that an EIS must be required for the Woods at Viewcrest proposal. We address each element of the environment that is impacted by this proposal in turn below.

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12 WAC 197-11-055(2); *see also Lands Council*, 176 Wn. App. at 803-04.
13 WAC 197-11-310.
14 WAC 197-11-055(2)(a).
15 WAC 197-11-500 through 570.

1. Mud Bay is a Category I estuarine wetland.

Perhaps the most stunning omission and error in the application materials is the developer's attempt to ignore that Mud Bay is a regulated estuarine wetland.

In the project documents, the developer oddly refers to Mud Bay as "Chuckanut Bay." This error is perplexing, considering that Mud Bay and Chuckanut Bay are clearly separate geographical features, each with their own unique traits and importance. Mud Bay is known for its extensive mudflats and marshy areas. It is an estuarine habitat that serves as an important feeding and nesting ground for various bird species. Mud Bay is also subject to regulations aimed at protecting its sensitive ecosystem, while those same regulations don't apply to Chuckanut Bay. Chuckanut Bay is a very different and distinct body of water. Foremost in distinction -- it is not classified as an estuarine environment. The Bay is an inlet of the larger Salish Sea and is known for its clear waters and recreational opportunities, such as boating, kayaking, and sightseeing.

The mislabeling of Mud Bay leads to a significant issue: the developer has refused to recognize Mud Bay as a regulated wetland. For example, the Wetland Delineation Update & Critical Areas Summary for the Woods at Viewcrest Project (Feb. 24, 2022) states: "Within 1,000 ft of the project area, Chuckanut Bay is an unvegetated, intertidal zone and does not meet wetland criteria."[16] The area that is referred to in this quote as "Chuckanut Bay" is actually Mud Bay. The claim that Mud Bay is not a wetland is a fundamental error that has no basis in science, law, or fact. Mud Bay is, unequivocally, a regulated wetland.

The City of Bellingham has formally designated Mud Bay as an E2USN, estuarine wetland.[17] The National Wetland Inventory also designates Mud Bay as an estuarine wetland with a specific classification of E2USN, which stands for an Estuarine,[18] Intertidal,[19] Unconsolidated Shore,[20]

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[16] Wetland Delineation Update & Critical Areas Summary for The Woods at Viewcrest Project (February 24, 2022) at 4

[17] *See* Attachment A to this letter.

[18]

> The Estuarine System consists of deepwater tidal habitats and adjacent tidal wetlands that are usually semienclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines, there is appreciable dilution of sea water. Offshore areas with typical estuarine plants and animals, such as red mangroves (Rhizophora mangle) and eastern oysters (Crassostrea virginica), are also included in the Estuarine System.
> Wetland Classification Codes | U.S. Fish & Wildlife Service (fws.gov).

[19] The substrate in these habitats is flooded and exposed by tides; includes the associated splash zone. Wetland Classification Codes | U.S. Fish & Wildlife Service (fws.gov)

[20] Includes all wetland habitats having two characteristics: (1) unconsolidated substrates with less than 75 percent areal cover of stones, boulders or bedrock and; (2) less than 30 percent areal cover of vegetation. Landforms such as beaches, bars, and flats are included in the Unconsolidated Shore class. Wetland Classification Codes | U.S. Fish & Wildlife Service (fws.gov)

Regularly Flooded[21] wetland.[22]

For regulatory purposes, wetlands are generally defined the same way by the City of Bellingham, by Washington state, and by the relevant federal agencies – and that definition includes the following language:

> Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.[23]

In Bellingham, "relatively undisturbed estuarine wetlands larger than 1 acre" are Category I wetlands.[24] Category I wetlands require a high level of protection to maintain their functions and the values society derives from them."[25]

Freshwater indicators are not applied to an estuarine wetland. The DOE Wetland Manual states: "The rating system is intended for use primarily with vegetated, freshwater, wetlands as identified using the federal wetland delineation manual and the appropriate regional supplements."[26] The Manual states:

> Estuarine wetlands are also put into a separate category because the indicators used to characterize how well a freshwater wetland functions cannot be used for estuarine wetlands. No rapid methods have been developed to date to characterize how well estuarine wetlands function in the state at the time of this update.[27]

Also, Ecology defines "estuarine wetland" to include "mud flat intertidal areas" like Mud Bay.[28]

Dr. John Rybczyk, Ph.D., the Academic Director of Marine and Coastal Science for Western Washington University, wrote to our client about Mud Bay in an email, which is in Exhibit E of the Project Mud Bay Cliffs comment letter. Dr. Rybczyk is an estuarine ecologist and professor at

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21 Tides alternately flood and expose the substrate at least once daily. Wetland Classification Codes | U.S. Fish & Wildlife Service (fws.gov).

22 *See* Attachment B to this letter.

23 BMC 16.55.510; WAC 365-196-200(23); RCW 90.58.030(2)(h); 40 C.F.R. § 120.2; ACE Wetlands Delineation Manual (army.mil) at A14.

24 BMC 16.55.280(A)(1).

25 Wetland Manual at 5.

26 The Bellingham code states that wetlands "shall be rated" according to the Department of Ecology's (DOE) Washington State Wetland Rating System for Western Washington (DOE Wetland Manual).

27 Wetland Manual at 6 (emphasis added).

28 Stormwater Manual at 1049 (2019SWMMWW (wa.gov)).

Western Washington University whose work focuses on coastal wetlands. Dr. Rybczyk has been taking his Wetlands Ecology students to Mud Bay for the past 23 years.

Dr. Rybczyk explained that Mud Bay is classified by the U.S. Fish and Wildlife Service as an E2USN wetland. He also explained that he concurred with this classification, and that he had in fact observed vegetation within Mud Bay. He also explained that the presence of vegetation does not change whether Mud Bay is a wetland:

> I have also observed the native eelgrass, Zostera marina, growing in Mud Bay. This would perhaps change the designation of region one above, from Estuarine, Intertidal, *Unconsolidated Shore*, Regularly Flooded, to Estuarine, Intertidal, *Aquatic Bed*, Regularly Flooded. However, the USFW wetlands inventory requires 30% aerial coverage of aquatic vegetation to change the designation from Unconsolidated Shore to Aquatic Bed. I don't have any data regarding the exact % coverage. Nonetheless, both designations are wetland designations.

Dr. Lyndon Lee also reviewed the Woods at Viewcrest proposal and drafted a technical memorandum that addressed Mud Bay's status as a wetland. Dr. Lee is an estuarine ecologist. Dr. Lee served as the Senior Wetland Ecologist for the U.S. Environmental Protection Agency (EPA) Headquarters Office of Wetlands Protection, Washington, D.C. In 1995, he earned certification as a Professional Wetlands Scientist (#385). Since 1987, Dr. Lee has led over 100 waters/wetlands training courses for EPA and several other federal, state, and local agencies and organizations through the National Wetland Science Training Cooperative. In his opinion memo, which is attached as Exhibit E to Protect Mud Bay Cliffs' comment letter, Dr. Lee states:

> Based on its large size and current condition and using the "Special Characteristics" rating criteria in the Washington State Wetlands Rating System (Hruby, 2014), Mud Bay is a Category I estuarine wetland. According to guidance provided in the Washington State Wetlands Rating System, Category I wetlands are those that –
>
> 1. Represent a unique or rare wetland type; or
>
> 2. Are more sensitive to disturbance than most wetlands; or
>
> 3. Are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or
>
> 4. Provide a high level of functions. We cannot afford the risk of any degradation to these wetlands because their functions and values are too difficult to replace.[29]

[29] Dr. Lee Technical Memorandum (April 18, 2024) at 5.

Because the errors in the project materials regarding Mud Bay are so foundational and fundamental to the environmental and regulatory review of this project, the City must require that this error be corrected before proceeding with any additional review of impacts and/or regulatory requirements associated with Mud Bay. As an example of how deeply this error permeates into the project materials, none of the developer's reports or assessments that address critical areas mention Mud Bay as a wetland, so all of those reports are incomplete because they all fail to identify critical areas within/adjacent to the project site. The City will see upon review of PMBC's submitted comments that this threshold error must be resolved before any meaningful review can occur.

2. The project will cause significant adverse impacts to Mud Bay.

As established above, Mud Bay is a Category 1 estuarine wetland. Ecologically rich, Mud Bay provides crucial fish and wildlife habitat. Mud Bay provides food for a wide variety of bird species, including migratory birds who flock there to rest during their migrations. Bellingham recognizes and protects a Great Blue Heron Colony that is to the north and west of the project site. The great blue herons are observed regularly flying from their colony site, over the proposed development site, and then landing in Mud Bay immediately downslope from the project site. The herons then use this area to feed for the day before returning to the colony. The area is mapped as having several Endangered Species Act protected species that rely on Mud Bay. This includes threatened and/or endangered anadromous fish that travel in Mud Bay. The Mud Bay mudflats provide crucial habitat for a variety of marine invertebrates, serving as nurseries for young fish. Protecting Mud Bay is essential for preserving biodiversity, supporting local fisheries, and ensuring a healthy environment for the community. It is a rare coastal gem that is not only picturesque, but also a vital sanctuary for countless species of plants and animals, making it a haven for nature lovers and environmentalists alike.

As demonstrated in detail by Protect Mud Bay Cliffs and the expert opinions included with their comment letter, the proposal poses a number of threats to the Mud Bay ecosystem. Among other things, the steep slopes on and adjacent to the site risk considerable erosion during construction and sediment transport to Mud Bay and stormwater runoff from the project will discharge directly into Mud Bay. Meanwhile, as it stands, the project materials don't even acknowledge the existence of Mud Bay or acknowledge that it is a regulated wetland. There is no consideration of the specific and unique impacts to this Category 1 estuarine wetland.

Rather than repeat the evidence here, suffice it to say that the information provided by Protect Mud Bay Cliffs demonstrates that, without question, an EIS must be required for this project. The Woods at Viewcrest subdivision will clearly have significant adverse impacts to Mud Bay and the project materials provide incorrect, incomplete, and inadequate information upon which to assess those impacts.

3. The Project will cause significant adverse geohazard and unstable slope impacts.

Attempts have been made in past decades to develop the subject property, but apparently the terrain and impacts associated with this unique site have proven too risky to move forward. This alone tells us that the risks associated with development of this property are quite serious and any proposal must receive a high degree of scrutiny and careful review.

In 2009, the Ann Jones LP family representatives retained Pacific Surveying & Engineering to perform a reconnaissance-level geologic investigation of the subject property for purposes of exploring development options. Pacific prepared a Geologic Feasibility Investigation for the subject property dated December 31, 2009. That report highlighted significant risks associated with development of the site due to existing geohazards, including erosion, landslide, and seismic hazards. The information in that report must be carefully considered by the City during its environmental review.

More recently, engineering geologist Dan McShane reviewed the Element Solutions report and provided his opinion about the potential steep slope impacts in a memo dated March 19, 2024. That memo, which is attached as Exhibit C to Protect Mud Bay Cliffs' comment letter, provided a summary of the risks associated with steep slopes and geohazard impacts of the project. The issues that he raised therein reveal major omissions and errors in the project materials.

Protect Mud Bay Cliffs also provided important information about potential geohazard impacts in its April 22, 2024 comment letter. Rather than repeat everything here, suffice it to say that the information provided by Protect Mud Bay Cliffs and Dan McShane demonstrates that an EIS must be required for this project. The Woods at Viewcrest subdivision will clearly have significant adverse geohazard impacts to Mud Bay and the project materials provide incorrect, incomplete, and inadequate information upon which to assess those impacts.

4. The project will cause significant adverse traffic impacts.

Protect Mud Bay Cliffs also provided important information about potential traffic impacts that will be caused by the project in its April 22, 2024 comment letter and in Exhibit G to that letter. Like the others, the information provided by Protect Mud Bay Cliffs demonstrates that an EIS must be required for this project. The Woods at Viewcrest subdivision will have significant adverse traffic and transportation impacts and the project materials provide incorrect, incomplete, and inadequate information upon which to assess those impacts.

5. The project will cause significant adverse impacts associated with the removal of mature coastal forest.

Protect Mud Bay Cliffs also provided important information about impacts associated with the removal of mature coastal forest in its April 22, 2024 comment letter and in Exhibit I to that letter. Again, the information provided by Protect Mud Bay Cliffs demonstrates that an EIS must be

required for this project. The Woods at Viewcrest subdivision will have significant adverse tree and forest removal impacts and the project materials provide incorrect, incomplete, and inadequate information upon which to assess those impacts.

Preliminary Plat

In Bellingham, preliminary plats are approved only if an applicant can demonstrate that it meets the criteria listed in BMC 23.16.030(A). An early review of the application materials indicates that the development proposal falls short of meeting these criteria. We discuss each of the relevant criterion in turn below.

As we stated at the beginning of this letter, we have only just begun to review the full range of legal issues and complicated environmental and technical information associated with this proposal. As this process moves forward and we have more time to review the materials and collect information, we may present additional grounds to the planning department or to the Examiner related to preliminary plat approval under BMC 23.16.030.

A. The proposal violates Bellingham Municipal Code provisions.

In order to be approved, the Woods at Viewcrest application materials must demonstrate that the proposal is consistent with the Bellingham Municipal Code.[30] The Preliminary Plat for the Woods at Viewcrest cannot be approved because it violates several code provisions.

1. Stormwater code violations.

The proposal fails to satisfy the minimum requirements for stormwater management set forth in BMC 15.42.060 as required by BMC 15.42.040(A). Many of these violations are rooted in the fact that the developer has failed to acknowledge that Mud Bay is a wetland.

The purpose of the city's stormwater code is to minimize "water quality degradation in streams, ponds, lakes, wetlands and other water bodies," the "degradation of habitat and habitat forming processes in streams, ponds, lakes, wetlands…;" and to "minimize the impact of increase runoff, erosion and sedimentation caused by land development and maintenance practices."[31] The developer's failure to acknowledge that Mud Bay is a wetland violates these policies.

Highly qualified stormwater engineer, Dr. Richard Horner, Ph.D., prepared a comment letter on the stormwater issue dated March 18, 2024, which is attached to the Project Mud Bay Cliffs comment letter as Exhibit B. In his letter, Dr. Horner demonstrated that the proposal fails to satisfy Minimum Requirements. He also explained how an improperly designed stormwater system could have devastating impacts on the project site including Mud Bay. We refer the City to Mr. Horner's

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30 BMC 23.16.030(A)(1).
31 BMC 15.42.010(C).

letter for purposes of demonstrating that this proposal is inconsistent with the City's stormwater code.

2. Violation of BMC 23.08.060(E)(2).

The Bellingham Code limits the number of lots that can be served by a private access easement. Specifically, BMC 23.08.060(E)(2) limits a private access easement to serve a maximum of four lots. The proposed project design includes a private shared driveway that extends off the terminus of the East Road. That private access easement is proposed to serve 8 lots in violation of BMC 23.08.060(E)(2).

The developer acknowledges that the proposal violates the code and requests that the City approve a variance (Variance #1) to excuse the project from adherence to this provision. This request should be denied because the developer has requested a waiver of this provision solely for the purpose of maximizing development.

A subdivision variance may be only if it is shown to be consistent with the following criteria:

> 1. a. Because of unusual shape, the location of preexisting improvements, other extraordinary situation or condition, or physical limitation including, but not limited to, exceptional topographic conditions, geological problems, or environmental constraints, in connection with a specific piece of property, the literal enforcement of this title would involve difficulties, result in an undesirable land division or preclude a proposal from achieving zoned density; or
>
> b. The granting of the variance will establish a better lot design resulting in a development pattern found to be consistent with the neighborhood character including, but not limited to, development orientation to the street, setbacks, lot orientation, or other contextual element associated with the proposed development; and
>
> 2. The granting of any variance will not be unduly detrimental to the public welfare nor injurious to the property or improvements in the vicinity and subarea in which the subject property is located.[32]

The variance request does not meet the criteria listed above. The enforcement of the 4-lot maximum would not create difficulties, result in an undesirable land division, or preclude the proposal from achieving zoned density. The only thing that will happen is that the developer's proposed plat would lose four lots. The impacted lot layout could be redesigned so that the

[32] BMC 23.48.040(A).

remaining four lots are larger. Such a result would be consistent with the purposes behind the code the includes this limitation.

Further, the variance does not result in a better lot design. It simply results in a denser lot design directly near a steep slope area that leads to a wetland. "Better" is not synonymous with a developer achieving a maximalist development.

Lastly, the granting of the variance in this instance would be detrimental to the public welfare because it would authorize denser development near critical areas for no discernible reason other than to allow more lots. This is especially concerning given the issues raised in this letter related to stormwater deficiencies and critical area protections (*e.g.,* Mud Bay).

Variance #1 is not necessary to reduce impacts. That request is solely about building more lots along a private easement than the code allows. With this, the proposal fails to meet the criteria for approval in both BMC 23.16.030(A)(1) and (A)(4).

3. Critical areas and shorelines code violations.

The Preliminary Plat for the Woods at Viewcrest also cannot be approved because it violates several provisions in the City's critical areas and shorelines code. We address those issues in detail below in our discussion about the Critical Areas Permit and Shoreline Permit applications for the proposal.

B. The proposal cannot reasonably be developed in conformance with applicable provisions of the critical areas and shoreline code.

The fact that the developer has attempted to ignore that Mud Bay is a wetland reveals, in and of itself, that even the developer implicitly agrees that the proposal cannot reasonably be developed in conformance with applicable provisions of the critical areas and shoreline code when we acknowledge that Mud Bay is a regulated wetland. As is demonstrated below, because Mud Bay is indeed a Category I estuarine wetland, the proposal cannot reasonably be developed in conformance with applicable provisions of the critical areas and shoreline code.

C. The Woods at Viewcrest will not serve the public use and interest.

As proposed, especially because it does not accept or acknowledge the importance of Mud Bay for purposes of public interest, the Woods at Viewcrest will not serve the public use and interest and it is not consistent with the public health, safety, and welfare. A development proposal that will cause significant adverse environmental impacts to Mud Bay, while not even acknowledging its unique qualities or its existence, is not serving the public interest.

Critical Areas Permit

Pursuant to BMC 16.55.070(A), "any proposal to alter any critical area and/or required buffer" shall require a critical area permit. The City of Bellingham sets a high standard when it comes to actions taken in critical areas:

> Any action taken pursuant to this chapter shall result in equivalent or greater functions and values of the critical areas associated with the proposed action, as determined by the best available science. All actions and developments shall be designed and constructed in accordance with mitigation sequencing (BMC 16.55.250) to avoid, minimize, and restore all adverse impacts.
>
> Applicants must first demonstrate an inability to avoid or reduce impacts, before restoration and compensation of impacts will be allowed. No activity or use shall be allowed that results in a net loss of the functions or values of critical areas.[33]

The City requires critical area reports be completed for development within or adjacent to critical areas:

> B. If the proposed project is within, adjacent to, or is likely to impact a critical area, the city shall:
> 1. Require a critical area report from the applicant that has been prepared by a qualified professional, to be reviewed and evaluated;
> 2. Determine whether the development proposal conforms to the purposes and performance standards of this chapter, including the criteria in BMC 16.55.200, Review criteria;
> 3. Assess the potential impacts to the critical area and determine if they can be avoided or minimized; and
> 4. Determine if any mitigation proposed by the applicant is sufficient to protect the functions and values of the critical area and public health, safety, and welfare concerns consistent with the goals, purposes, objectives, and requirements of this chapter.[34]

Critical area reports are required to be consistent with best available science.[35] Any evaluation of critical areas and their buffers must include a "confirmation, location and description of existing function of all critical areas and/or critical area buffers in relation to the proposed activity."[36]

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33 BMC 15.66.190.
34 BMC 16.55.090.
35 BMC 16.55.180.
36 BMC 16.55.205(B)(4).

Bellingham has general review criteria that applies to any alteration or development within critical areas or their buffers.[37] Bellingham then has specific regulations that apply depending on the type and characteristics of the critical area. The City's general review criteria for alterations to critical areas are as follows:

> 1. The proposal minimizes the impact on critical areas in accordance with mitigation sequencing (BMC 16.55.250);
> 2. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;
> 3. The proposal is consistent with the general purposes of this chapter and the public interest;
> 4. Any alterations permitted to the critical area are mitigated in accordance with mitigation requirements in BMC 16.55.240 and 16.55.260 and additional requirements as outlined in specific critical area sections;
> 5. The proposal protects the critical area functions and values consistent with the best available science and results in no net loss of critical area functions and values; and
> 6. The proposal is consistent with other applicable regulations and standards.[38]

A. The Critical Areas Reports fail to identify Mud Bay as a critical area.

The critical areas reports submitted by the applicant fail to confirm, locate, and describe the existing functions of Mud Bay and its buffers in relation to the proposed development in violation of BMC 16.55.205(B)(4). Likewise, the reports did not include identification and characterization of Mud Bay and its buffer as required by BMC 16.55.210(C)(4).

The failure to identify and assess Mud Bay is a fundamental and foundational error as explained in the above section regarding SEPA review. It is certainly not consistent with best available science. The city cannot determine whether the development proposal conforms to the purposes and performance standards of the critical areas code, assess the potential impacts to Mud Bay, or determine whether they can be avoided or minimized because the project materials fail to provide the necessary and accurate information for that review.

Because Mud Bay is both a wetland and a fish and wildlife habitat conservation area and because the developer is proposing to place its stormwater facility within the Mud Bay buffer, the proposal is in violation of Bellingham code provisions that require, at a minimum, that this critical area be identified and assessed.

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37 BMC 16.55.200.
38 BMC 16.55.200(A).

B. Wetland protections.

The proposal is in violation of Bellingham code provisions associated with wetland protection.

The "construction, reconstruction, demolition, or expansion of any structure" is considered a "regulated activity" when they occur within a wetland or its buffer.[39] This includes the construction of a stormwater conveyance system. Per BMC 16.55.300, "no regulated activity may be conducted within a regulated wetland or wetland buffer without a permit from the director."[40] Stormwater facilities in wetland buffers are prohibited, BMC 16.55.320, unless an exception applies.[41]

Mud Bay is a Category I wetland pursuant to BMC 16.55.280.A.1. Pursuant to BMC 16.55.340, the buffer for Mud Bay is up to 200 feet. The stormwater discharge outfall is proposed to be located within this buffer area. The renderings from the developer show this outfall within 20 feet of the shoreline. That is a violation of the City's critical areas code.

Furthermore, Wetland A is a Category III wetland. The applicant's consultant incorrectly identifies Wetland A as a Category IV wetland and therefore applies the wrong buffer to that wetland. In addition, the applicant's consultant conducted its site visits during the dry season – they should be required to test the site when seasonal seeps, seasonal ponding, seasonal water flow, and seasonal vegetation would be detected.

C. Steep slope protections.

The proposal is in violation of Bellingham code provisions associated with steep slope protection.

The city breaks geologically hazardous areas down into four categories: Erosion Hazard, Landslide Hazard, Seismic Hazard, or Mine Hazard.[42] Erosion areas are those with a certain soil type and a slope greater than 30%.[43] Landslide hazard areas include areas with slopes equal to or greater than 40% with a "vertical elevation change of at least 10 feet. Slope shall be calculated by identifying slopes that have at least 10 feet vertical elevation change within a horizontal distance of 25 feet or less."[44]

The code contains general performance standards for alterations within a geologically hazardous area or its buffer. Specifically, alterations of geologically hazardous areas or associated buffers may only occur for activities that:

> 1. Will not increase the threat of the geological hazard to adjacent properties beyond predevelopment conditions;

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39 BMC 16.55.310(F).
40 BMC 16.55.300(A).
41 BMC 16.55.330.
42 BMC 16.55.410.
43 BMC 16.55.420(A).
44 BMC 16.55.420(B).

> 2. Will not adversely impact other critical areas;
> 3. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than predevelopment conditions; and
> 4. Are certified as safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington.[45]

The buffer for erosion or landslide hazard areas may be reduced down to 10-feet at the director's discretion.[46] However, alterations of an erosion or landslide buffer "may only occur for activities for which a hazard analysis is submitted and certifies that:

> a. The development will not increase surface water discharge or sedimentation to adjacent properties beyond predevelopment conditions;
> b. The development will not decrease slope stability on adjacent properties; and
> c. Such alterations will not adversely impact other critical areas.[47]

"Utility lines and pipes shall be permitted in erosion and landslide hazard areas only when the applicant demonstrates that no other practical alternative is available."[48]

In his March 19, 2024 comment letter mentioned above, Dan McShane addressed the risks to steep slopes posed by the Viewcrest proposal. He states that the current information in the application is inadequate in many respects for a proper review of consistency with these provisions. He explained that a full geologic hazard and risk assessment should be completed for the proposed stormwater pipe and that this analysis should include an analysis of the impacts of a break in the stormwater pipe.[49] He also explained that threats to the pipe had not been properly evaluated. Without these evaluations the city has no way to ensure that the above criteria have been satisfied. Critical to this is the fact that Mud Bay must first be identified properly before the City can provide a proper review of the project under these provisions.

D. Fish and Wildlife Habitat Conservation Area Protections.

The proposal violates Bellingham code provisions associated with fish and wildlife habitat conservation area protections.

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45 BMC 16.55.450(A).
46 BMC 16.55.460(A)(1)(b).
47 BMC 16.55.460(A)(2).
48 BMC 16.55.460(A)(5).
49 McShane at 3.

Fish and wildlife habitat conservation areas (FWHCA) include "areas in which state or federally designated endangered, threatened, and sensitive species have a primary association."[50] "The State Department of Fish and Wildlife maintains the most current listing and should be consulted for current listing status."[51] Mud Bay is a FWHCA under this provision. Per BMC 16.55.470(A)(4), Mud Bay is a FWHCA also because it is "waters of the state."

When an endangered, threatened, or sensitive species has a primary association with a FWHCA or its buffer, then no development is allowed unless a habitat management plan is provided.[52]

For development that impacts waters used by anadromous fish, such as salmon, the following performance standards apply:

> 1. All activities, uses, and alterations proposed to be located in water bodies used by anadromous fish or in areas that affect such water bodies shall give special consideration to the preservation and enhancement of anadromous fish habitat, including, but not limited to, adhering to the following standards:
> a. Activities shall be timed to occur only during the allowable work window as designated by the Washington Department of Fish and Wildlife for the applicable species;
> b. An alternative alignment or location for the activity is not feasible;
> c. The activity is designed so that it will not degrade the functions or values of the fish habitat or other critical areas;
> d. Shoreline erosion control measures shall be designed to use bioengineering methods or soft armoring techniques, according to an approved critical area report; and
> e. Any impacts to the functions or values of the habitat conservation area are mitigated in accordance with an approved critical area report.[53]

The City must ensure that the project is consistent with these requirements with respect to Mud Bay.

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50 BMC 16.55.470(A)(1).
51 BMC 16.55.470(A)(1)(b).
52 BMC 16.55.500.
53 BMC 16.55.500(B).

Shoreline Management Act

A. The Proposal is inconsistent with SMA Policies set forth in RCW 90.58.020.

All development and use of the shorelines of the state must be consistent with the policies set forth in RCW 90.58.020. That provision states:

> 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 is designed to insure the development of these shorelines in a manner which, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest. 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.[54]

The proposed development will not promote and enhance the public interest because it will cause significant adverse environmental impacts to Mud Bay and it does not even accept or acknowledge the existence and importance of Mud Bay as an estuarine wetland and fish and wildlife habitat area. The proposal will cause adverse effects to the land and its wildlife, and the waters of the state and their aquatic life.

B. The Shoreline Substantial Development Permit cannot be approved.

A shoreline substantial development permit may not be approved unless the following criteria are satisfied:

> C. In order to be approved, the director must find that the proposal is consistent with the following criteria:
>
> 1. All regulations of this program appropriate to the shoreline designation and the type of use or development activity proposed shall be complied with, except those bulk and dimensional standards that have been modified by approval of a shoreline variance under BMC 22.06.040, Variances.
>
> 2. All policies of this program appropriate to the shoreline designation and the type of use or development activity proposed shall be considered and substantial compliance demonstrated. A reasonable proposal that cannot fully conform to these policies may

[54] RCW 90.58.020.

> be permitted, provided it is demonstrated that the proposal is clearly consistent with the overall goals, objectives and intent of the program.
>
> 3. For projects located on shorelines of statewide significance, the policies of Chapter 22.04 BMC shall be also be adhered to.[55]

Based on these criteria, among other things, the proposal must comply with the city's shoreline general and specific performance standards specified in BMC 22.08.030, BMC 22.08.040, BMC 22.08.060, and BMC 22.08.080.[56] These provisions address protections of wetlands and geologic hazard areas within shoreline areas.

Starting with wetlands specifically, BMC 22.08.060 states that all shoreline development within a wetland or its buffer must comply with the critical area regulations for wetlands within the shoreline. These regulations include the establishment of specific buffers for shoreline wetlands. Because Mud Bay is a wetland, it is entitled to these protections. The critical area report and habitat assessment report that describe shoreline conditions fail to identify Mud Bay as a wetland, and therefore the applicant's proposal and site plans do not contemplate these specific buffers. For example, BMC 22.08.060(C)(2)(a) states that the buffer of a Category I wetland like Mud Bay "shall not be reduced." Yet the developer proposes an outfall within the Mud Bay area. The shoreline development cannot be approved as proposed.

Also, stormwater management facilities are not allowed in wetland buffers within the shoreline unless an exception applies.[57] "Wetland hydrology shall not be adversely affected by stormwater management."[58] Stormwater management in the shoreline is further regulated by BMC 22.08.210, as discussed in more detail below.

The critical area regulations for geologic hazard areas within the shoreline jurisdiction are in BMC 22.08.080. Those provisions echo the same requirements in BMC 16.55.450(A) that we discussed above.[59] Thus, the same problems that we discussed above apply here as well.

Generally, BMC 22.08.030 states: "Critical areas that are within the shoreline jurisdiction are to be protected and managed in such a manner that the result of any use activity or development is no net loss of shoreline ecological function."[60] And "[d]evelopment within critical areas shall result in no net loss of ecological function."[61] Also of relevance in this case: "All activities, uses and alterations proposed to be located in water bodies used by anadromous fish or in areas that affect such water bodies shall give special consideration to the preservation and enhancement of

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55 BMC 22.06.030
56 BMC 22.06.030(B).
57 BMC 22.08.060(H).
58 BMC 22.06.060(I).
59 BMC 22.08.080(A); BMC 16.55.450(A).
60 BMC 22.08.030(A)(1).
61 BMC 22.08.030(B)(1)(a).

anadromous fish habitat including, but not limited to, adhering to the standards within this program."[62]

Specific to saltwater fish and wildlife conservation areas, BMC 22.08.040 states: "Development within critical saltwater habitats including . . . holding areas for forage fish, such as . . . mudflats … should result in no net loss of ecological function…"[63] No structure of any kind shall be placed in critical saltwater habitats, such as mudflats, unless they result in no net loss of ecological function, are associated with a water-dependent use, and meet the following criteria:

> a. The project, including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat;
>
> b. Avoidance of impacts to critical saltwater habitats by an alternative alignment or location is not feasible or would result in unreasonable and disproportionate cost to accomplish the same general purpose;
>
> c. The project is consistent with the state's interest in resource protection and species recovery;
>
> d. The public's need for such an action or structure is clearly demonstrated and the proposal is consistent with protection of the public trust, as embodied in RCW 90.58.020;
>
> e. Shorelands that are adjacent to critical saltwater habitats shall be regulated per the requirements within this program.[64]

Bellingham's shoreline code also contains regulations for the development of stormwater in the shoreline overlay:

> 1. Stormwater management facilities shall be located outside of critical areas and their required buffers except as specified in BMC 22.08.010(B)(4), Shoreline buffers, and shall be subject to the requirements in BMC 22.08.120, Shoreline modifications/stabilization.
>
> 2. Stormwater management facilities shall be subject to the policies and regulations in BMC 22.08.110, Water quality, stormwater, and nonpoint pollution.

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62 BMC 22.08.030(B)(3).
63 BMC 22.08.040(A)(1).
64 BMC 22.08.040(B)(1).

> 3. Stormwater management facilities shall provide a minimum of enhanced treatment as defined by the latest version of the Department of Ecology Stormwater Manual for Western Washington, and as further specified in Chapter 15.42 BMC, as amended, and per BMC 22.08.110, Water quality, stormwater, and nonpoint pollution.
>
> 4. When stormwater management facilities are proposed within shorelines and adjacent to required buffer areas, they shall be designed to provide additional riparian vegetative cover and increase or improve existing habitat corridors including habitat for anadromous fish.
> 5. New stormwater conveyance facilities (outfalls) shall not be constructed within required shoreline or critical area buffers unless no other feasible alternative exists.
>
> 6. Individual shoreline permits shall include a requirement that an applicant prepare a stormwater management facility maintenance program for a five-year period that includes the following elements:
> a. Frequency and detail of maintenance of the facilities (this includes but is not limited to catch basin insert and vault cartridge replacement, removal of noxious vegetation, pipe and overflow clean-out and outfall and diffuser maintenance);
> b. Copy of signed and implemented contract verifying the entity that will perform the maintenance action and the frequency of the maintenance; and
> c. A maintenance report shall be submitted to the planning department each year for five years from the date of issue of the original shoreline permit.[65]

Furthermore:

> Conveyance structures may be permitted within a required shoreline buffer when all of the following are demonstrated:
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> i. No other feasible alternatives with less impact exist;
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> ii. Mitigation for impacts including water quality is provided;
>
> iii. Stormwater conveyance facilities shall incorporate fish habitat features; and

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[65] BMC 22.08.210(B).

> iv. Vegetation shall be maintained and, if necessary, added adjacent to all open channels and ponds in order to retard erosion, filter out sediments, and shade the water. Additional vegetation shall consist of species capable of achieving a height sufficient to provide substantial shade to the adjacent water body, provided they do not alter channel migration and flood conveyance capacity.[66]

As it stands, the proposal violates multiple requirements in the code provisions above primarily because of the significant adverse impacts that will be caused to Mud Bay. Indeed, it's unclear whether this proposal can adhere to these regulations at all considering that Mud Bay is a Category I estuarine wetland as well as a fish and wildlife conservation area.

C. The Criteria for Substantial Shoreline Development Permits have not been satisfied.

The developer is not entitled to a shoreline conditional use permit. At the most basic level the developer has failed to show that the proposed stormwater system will protect Mud Bay.

In order to obtain a shoreline conditional use permit, the applicant shall demonstrate the following:

> 1. The provisions spelled out in the master program have been met and the proposed use is consistent with the policies of the Act;
>
> 2. The proposed use will cause no significant, adverse impacts to the shoreline environment, ecological functions, or other uses;
>
> 3. The proposed use will not interfere with the normal public use of public shorelines;
>
> 4. That the proposed use of the site and design of the project is compatible with other authorized uses within the area and with uses planned for the area under the comprehensive plan and the program;
>
> 5. The proposed use will not be contrary to the purpose and intent of the environment designation in which it is located and the general intent of the master program;
>
> 6. The proposed use(s) shall provide a long-term public benefit in terms of providing public access or implementing habitat restoration that is consistent with the goals of this program; and

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66 BMC 22.08.010(B)(4)(g).

> 7. That the public interest shall suffer no substantial detrimental effect.[67]

As discussed previously, the developer has ignored Mud Bay's wetland status and therefore failed to employ Ecology's required BMPs for stormwater management within or near an estuarine wetland. The developer's proposal to discharge stormwater into a Category I wetland without employing wetland-related BMPs for stormwater, *see* Dr. Horner Letter, is not consistent with the City's shoreline master program or the state's shoreline management act. Therefore, criterion 1 has not been satisfied.

In addition, the City's shoreline master program (SMP) states that "this program seems to administer protection of critical areas within the shoreline jurisdiction that is at least equal to that of the critical areas ordinance and provides no net loss of shoreline ecological function."[68] The developer's proposal is inconsistent with this purpose because it fails to acknowledge all critical areas impacted by the project site. The SMP does not allow this; the SMP is intended to protect critical areas in equal fashion to the critical areas ordinance.

Furthermore, the City has no way of determining whether "no net loss" can be achieved, which is required by the SMP and SMA. The SMP and SMA both set a "no net loss" standard for development within the shoreline. No Net Loss is defined as follows:

> "No net loss of ecologic function" means maintenance of the aggregate total of the city's shoreline ecological functions, including processes. (See definition of "ecologic function.") The no net loss standard requires that the impacts of shoreline development and/or use, whether permitted or exempt, be identified and mitigated such that there are no resulting significant adverse impacts on shoreline ecological functions. Each project shall be evaluated based on its ability to meet the no net loss goal commensurate with the scale and character of the proposed development. The baseline for no net loss shall be the level of shoreline ecological functions and environmental resource productivity as established in the 2004 City of Bellingham Shoreline Characterization and Inventory and as established by a required critical area report as part of the application submittal requirements specified in Appendix E.[69]

Per the definition above, the baseline for "no net loss" is established by the City of Bellingham Shoreline Characterization and Inventory and as established by a required critical area report. But the developer's critical area report omits Mud Bay as a critical area. Thus, if the city were to evaluate whether the proposal achieves no net loss, the baseline for that evaluation would be

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67 BMC 22.06.050(C).
68 BMC 22.01.030(C).
69 BMC 22.10.010.89

couched in the falsehood that Mud Bay is not a wetland. This pollutes any "no net loss" evaluation. Because the developer has not shown that no net loss can be achieved given Mud Bay's estuarine wetland status, the first shoreline conditional use permit has not been satisfied.

The developer has also failed to satisfy criterion no. 2 for the same underlying reasons that it failed to satisfy criterion no. 1 – the developer has failed to show that its proposal will not have significant, adverse impacts to Mud Bay. Dr. Horner addressed this issue extensively in his March 18, 2024, comment letter. Dr. Horner explained that an improperly managed stormwater will result in erosion, sediment transport, and hydrology changes that would have devastating impacts on a fragile ecosystem like Mud Bay. He also explained that how the stormwater manual section I-C.3 includes specific requirements for protecting wetlands:

> If the wetland is a special characteristic wetland (such as mature or old growth forest wetlands, bogs, estuarine wetlands, wetlands of high conservation value, coastal lagoons, and interdunal wetlands), implement Runoff Treatment BMPs with the most advanced ability to control nutrient loads. Consider using Runoff Treatment BMPs with infiltration and active biological filtration.

The developer has not employed Ecology's mandatory BMPs for stormwater development within a wetland buffer. Dr. Horner explained how these BMPs serve to protect an estuarine wetlands function. Without employing the protections developed and determined by Ecology to be protective of estuarine wetlands, the developer cannot show that its proposal will not have significant, adverse impacts to the environment. Criterion no. 2 cannot be satisfied.

The proposed use will absolutely disrupt the public's use of Mud Bay, and therefore the third criterion cannot be satisfied. The developer's stormwater pipe will still be discharging into Mud Bay even when the bay is completely drained during low tide – hence where the term "mud flats" comes from. Beach combers, shellfish harvesters, and other recreational users of the bay will now be exposed to this discharge that will rest on top of the substrate until the tide comes back in, pushing all the stormwater discharge directly towards the Chuckanut Bay Marsh. (A marsh which the city has spent millions of dollars trying to restore.)[70] To put a fine point on this, Dr. Rybczyk has been taking his students to Mud Bay for 23 years. If the Viewcrest proposal moves forward as designed, then all future students will be visiting a Mud Bay that has been altered by a stormwater system that is not designed for wetland conveyance. The days of students visiting a more pristine Mud Bay will have passed.

As a final note about the Chuckanut Bay Marsh, the City should take extra care to ensure the public's use of Chuckanut Bay Marsh will not be disrupted with the influx of stormwater being introduced from Mud Bay through the rising tide.

[70] Chuckanut Village Marsh Restoration - City of Bellingham (cob.org)

The developer has also notably failed to satisfy Criterion no. 5, which requires a proposed use be consistent with the purpose of the encompassing shoreline designation. In this case, the shoreline designation is "Natural," which states in part that "Natural designated shorelines are best suited for very low-intensity uses to ensure that ecological function and ecosystem-wide processes are maintained."[71] The developer has made no showing that Mud Bay's ecosystem as an estuarine wetland will be maintained. This is interwoven with the lack of wetland BMPs and no net loss issue.

Additionally, it is the City's policy for the Natural shoreline designation that "Preservation of ecological function of shorelines including critical areas should have priority over public access, recreation and development objectives whenever a conflict exists."[72] The purpose of the shoreline Natural designation is to "protect those shoreline areas that are relatively free of human influence or that include intact or minimally degraded shoreline functions intolerant of human use." The developer has prioritized its own development objectives by ignoring Mud Bay's wetland status; this approach does not preserve the ecological functions of critical areas as required, but instead lowers the bar for the developer to convey stormwater. Such an approach also does not jibe with the "priority" that ecological functions are required to take over development objectives. For these fundamental reasons, and likely more, criterion no. 5 has not been satisfied and the SCUP cannot be approved.

Lastly, criterion no. 7 has not been met because it is not in the public interest to allow a stormwater system to discharge into a valuable state and City resource like Mud Bay without employing the BMPs required by Ecology. Those BMPs are intended to protect water quality, and by extension the general public. Moreover, fidelity to code is always in the public interest. The SCUP application must be denied.

Conclusion

For the foregoing reasons, we request that the City issue a Determination of Significance for the Woods at Viewcrest subdivision proposal as soon as possible as required by SEPA. We also request that the City carefully consider and review the legal issues associated with approval and permit decisions that we've identified above.

Very truly yours,

BRICKLIN & NEWMAN, LLP
s/Michael Rea
Michael Rea
s/Claudia M. Newman
Claudia M. Newman

cc: Client

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71 BMC 22.03.030(A)(1).
72 BMC 22.03.030(A)(2)(e).

ATTACHMENT A

City of Bellingham WASHINGTON

CityIQ Map - Wetlands

Legend

Streams
- Culvert
- Main
- Stream

Site Specific Delineation
Additional Site Specific Delineations
Wetlands 2015 Inventory
Other Inventories
Wetlands 2003 Inventory
Wetlands 1992 Inventory

Notes

Printed: 4/24/2024 8:04:10 AM

1,986 0 993 1,986 Feet

THIS MAP IS NOT TO BE USED FOR NAVIGATION

ATTACHMENT B

U.S. Fish and Wildlife Service

National Wetlands Inventory

USFW Wetland Mapping

April 16, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Aven, Heather M.

From: Jill Campione <jillcampione@gmail.com>
Sent: Wednesday, April 24, 2024 5:02 PM
To: Bell, Kathy M.; Sundin, Steven C.; Lyon, Blake G.
Subject: Subject: Please Protect Our Precious Mud Bay Cliffs

Dear Ms. Bell, Mr. Sundin, and Mr. Lyon,

If we want to be like our southern neighbors (California) we could go ahead and take down the trees and pollute the estuary in Mud Bay to make way for the housing at Mud Bay Cliffs - “the Woods Development at Viewcrest”. After all, we know that Bellingham, like all cities, needs more money and high density is en vogue in city planning right now. We can up the traffic and overall noise and make the windy, hilly roads more dodgy for us residents to drive or walk, run, or bike. We can dislocate the wildlife, (forget about the heron colony that we have been trying to protect - they can find a new place), take down a lot of trees, let go of the buffer from those storm gales (who believes in erosion and climate change anyways?) and then we can live with the California Dream: high density housing on a cliff.

In California, they say, "This used to be beautiful when the orchards were here". We will similarly be telling our children that the estuary “used to be beautiful” and the cliffs above "used to be populated with trees, owls and deer”.

This is NOT the legacy to leave to our city — to future generations. It is important to lessen this idea of so many houses in such a small space. It IS important to take this seriously — to think about the land, the wildlife… the long-lasting negative effects — the erosion, killing of trees that bring protection to residents and wildlife, the estuary (to keep it healthy with less runoff, not more), to care about residents that live in an area, who desire to live in a space that honors the delicate balance of a coexistence with nature. This is not a balance of living with nature. **This is putting high density housing into a gem of land while erasing the gem.** It goes against everything I thought Bellingham was trying to be. I really thought Bellingham was a city that was trying to honor the balance of respecting and honoring the land.

We do not need to revisit the 1970’s flawed concepts of making easy money without consequences. There are consequences for poor planning. The land, wildlife and the residents will be the ones that will be the recipients of poor planning decisions. When we go down to Mud Bay to walk our dogs or kayak… let us not have to say… “oh this used to be beautiful… “… “this used to have herons”… “this used to have way more trees”. We have something so beautiful here. It’s a gem for everyone to enjoy and we can’t get it back once it is gone from too much building in such a small space.

I ask the city to reconsider going forward with such a large project, to protect our public interests and prevent permanent damage to the environment at Mud Bay Cliffs.

Sincerely,

Jill Campione

217 Sea Pines Lane

Bellingham, WA 98229

520 Linden Road
Bellingham, WA 98225
(831) 264-3363

April 23, 2024

Blake Lyon, Planning & Community Development Department Director
Kurt Nabbefeld, Development Services Manager/SEPA Official
Kathy Bell, Senior Planner
Steve Sundin, Senior Environmental Planner

City of Bellingham
210 Lottie Street
Bellingham, WA 98225
(Sent via email)

Cc: (via email)
Mayor Kim Lund
Renee LaCroix, Assistant Public Works Director
Bellingham City Council
woodsvc@cob.org

Subject: Require an Environmental Impact Statement for *The Woods at Viewcrest*

Dear City Staff,

As a resident of the city's Edgemoor neighborhood, I'm writing to express my strong opposition to your department granting permit approvals for *The Woods at Viewcrest* subdivision due to a long list of significant adverse impacts this project will likely have on public safety and the natural environment.

Because this project presents the clear and present threat of significant adverse impacts, I'm requesting the city to issue a threshold Determination of Significance under regulations and guidelines stipulated by the State Environmental Protection Act so that an Environmental Impact Statement (EIS) can be prepared before any development occurs. The EIS would allow for a full and impartial analysis of the potential impacts of this subdivision and ensure that any development that does occur on this property is in full compliance with federal, state and local regulations.

A primary reason for requiring an EIS for this project has to do with 1) the ecological importance of Mud Bay, 2) the limited infrastructure currently in place to handle the increase in traffic that would result from the new subdivision, and 3) the natural features of the site that make it especially sensitive to development. As the applicant states in their building application:

> *The Property is constrained by significant extraordinary conditions related to physical limitations, exceptional topography, geological problems and environmental constraints. There are steep slopes, exposed rock, wetlands and other environmentally sensitive areas spread across the Property. These physical constraints make construction of the full improvements required by the*

referenced codes (BMC 23 and 13) impractical, difficult, and will result in an undesirable land division.[1]

To date, the applicant has submitted technical reports and other project documents that contain significant errors and omissions, which also underscores the need for a thorough and unbiased EIS. These errors and omissions have been noted several times in previous public comments submitted to the city as well as in expert-opinion letters submitted by scientific and technical consultants. In addition, the applicant is requesting numerous variances due to geologic hazards and other natural features on the property that make it impossible to follow the city's municipal code. In contrast, this site comes with increased risks and should require greater adherence to the BMC's minimum standards.

The following features explain why the subdivision is likely to have significant adverse environmental impacts and why an EIS should be required:

Wildlife. The 2021 City of Bellingham *Wildlife Corridor Analysis* designates the property as an *Important Habitat Hub*, and one of the only *Important Habitat Hubs* in south Bellingham that remains unprotected. In addition, the property connects two other hubs, namely Clark's Point and Chuckanut Village Marsh/Chuckanut Bay Open Space.[2] These natural areas are connected to an even larger *Wildlife Network.* The city has invested a significant amount of public funding to protect and maintain these hubs and networks which the proposed subdivision would severely undermine by eliminating the natural corridor that connects them.

Estuarine Wetlands. Mud Bay supports Category I Estuarine Wetlands as defined by the state's Department of Ecology. Category 1 wetlands receive the highest level of protection due to their rarity and the important role they serve as nursery and feeding grounds for fish and other wildlife. Based on a review of the proposed development site, there is a high likelihood that the project will impose significant adverse impacts on water quality, habitat, and biodiversity in these Category I wetlands.

Over the last two decades, significant public funding has gone into restoring Mud Bay's wetlands. In 2011, the City of Bellingham, in conjunction with Whatcom County, the Whatcom Marine Resources Committee (MRC), and the Lummi Nation, completed the Chuckanut Village Marsh Restoration. This restoration "enhanced the area's ability to provide pocket estuary functions, including improving water quality and providing rearing, foraging and osmo-regulation for juvenile salmonoids migrating from nearby Chuckanut Creek." Several technical experts have pointed out in the public record that the likely adverse environmental impacts of the proposed subdivision will negate the benefits provided by the marsh restoration, impair the overall habitat and biodiversity of Mud Bay, and potentially chase away Bellingham's sole surviving great blue heron colony, which feeds in Mud Bay's wetlands and roosts in the mature trees growing on the cliffs where the proposed subdivision is planned.

Stormwater Runoff. Most of the drainage from the proposed building site will flow directly into Mud Bay's estuarine wetlands. Drainage discharges from existing city stormwater outlets have already begun to impair the health of the wetlands due to a lack of maintenance by the city. Because the applicant has

[1] City of Bellingham, The Woods at Viewcrest Project Narrative; https://cob.org/wp-content/uploads/2024-02-23-project-narrative.pdf

[2] City of Bellingham, Wildlife Habitat Assessment, March 2003 Draft; https://cob.org/wp-content/uploads/wildlife-habitat-assessment-2003.pdf

failed to consider that Mud Bay consists almost entirely of Category I estuarine wetlands, the stormwater plan they submitted proposes to discharge runoff directly into Mud Bay without addressing Best Management Practices (BMPs) for flow control, hydroperiod protection, or outlet structure placement. During ebb tides, when Mud Bay empties, stormwater from the development will concentrate, undiluted by saltwater, directly on the wetlands. When the flow of saltwater returns during high tide, instead of diluting the polluted stormwater and carrying it out toward Chuckanut Bay, the polluted stormwater will be carried toward shore, toward the environmentally sensitive and ecologically significant salt marsh.

Wildlife. The great blue heron colony that nests at Bellingham's Post Point relies on the forest above Mud Bay for roosting. In addition, the herons use Mud Bay's estuarine wetlands to forage for their chicks. The Post Point heron colony abandoned its previous location on Chuckanut Bay in 1999 due to construction activity for another subdivision. There is every indication that the herons will also flee Mud Bay once building on the cliffs begins. The city has invested a significant level of public funding to protect the nesting habitat at Post Point. However, the success and long-term presence of this nesting site depends on the herons having unrestricted access to their feeding grounds in Mud Bay.[3]

Salmon. Currently, three species of salmon travel through Mud Bay. These salmon rely on clean water and safe passage through the estuarine wetlands into Chuckanut Village Marsh and Chuckanut Creek. Once again, significant public investment has been made to restore these habitats for adult and juvenile salmon. Stormwater runoff with its mix of oil and other pollutants, as well as excess sediment from construction and urbanization on the unstable cliffs above Mud Bay, presents a significant threat to salmon and other estuarine species.

Geohazards: Significant landslide, erosion and seismic hazards exist throughout the building site; these hazards will increase due to grading of soil and rocks, tree-clearing and vegetation removal, as well as hydrological changes that may occur during and after construction. These geohazards represent an imminent threat to public safety and to the health and welfare of the wetlands at the base of the cliffs.

Windstorms: Mud Bay is well known locally for the gale winds that buffet the cliffs during storms, which are among the strongest gales recorded in all of Bellingham. Gale intensity has increased over the past decade due to climate change. The existing mature woodland on the property serves as a protective buffer for wildlife and the surrounding neighborhood, which will be severely exposed once the mature trees are cut down to create the subdivision. The applicant and the city have failed to assess how gales from worsening storms, combined with extensive tree removal on the cliffs, would impact wildlife and the residents who live nearby.

Traffic. Traffic safety issues due to narrow, winding roads with limited sightlines have been well documented for the surrounding Edgemoor neighborhood, whose streets are considered "substandard" by the BMC due to their narrow driving lanes, absence of sidewalks and lack of street parking. These roads create precarious and unsafe conditions for pedestrians, cyclists and motorists alike. Residents have repeatedly notified the city about these hazardous conditions, but the city has yet to take action to mitigate the situation while continuing to allow more development. This is especially troubling given that current plans for the subdivision call for creating 38 new building lots which could eventually include up to 152 housing units. Despite this possibility, neither the city nor the applicant have proposed any plans to expand the neighborhood's capacity to handle the additional traffic these residences would generate.

[3] City of Bellingham, RESOLUTION NO. 2004-10, A RESOLUTION AFFIRMING THE IMPORTANCE OF CONSERVATION AND PROTECTION OF THE POST POINT GREAT BLUE HERON NESTING COLONY; https://cob.org/wp-content/uploads/2004-10-heron-resolution.pdf

Application Flaws. The application, reports and supporting materials are severely flawed. These flaws must be corrected before the city can make an informed decision about the project. For example:

The Stormwater Management Plan is incomplete, lacking key requirements. As currently proposed, the subdivision would result in significant increases in runoff volumes, speeds, and sediment/pollution loads. Moreover, by discharging polluted stormwater into Mud Bay's Category I estuarine wetlands, significant adverse environmental impacts are highly likely. Yet the applicant's proposal fails to address how the wetlands, as well as the public shoreline, will be impacted by the runoff.

Furthermore, the Wildlife Habitat Assessment fails to identify this site as an *Important Habitat Hub* connected to other nearby hubs by two *Important Habitat Corridors*. It also fails to address the harmful fragmentation of the *Habitat Network* that the proposed development would cause. In the case of specific wildlife, the assessment fails to address impacts to salmon and their habitats, including nearby Chuckanut Creek and Chuckanut Village Marsh, as well as potential impacts to the herons that nest at Post Point.

The Geotechnical Investigation & Geohazard Report fails to assess both the short-term and long-term impacts of development on groundwater and surface flow and the likely increase in the frequency and magnitude of flooding, erosion, and landslides. These adverse impacts pose a serious threat to public safety, both for residents of the subdivision as well as citizens walking on the public shoreline below.

Clearly, installing new infrastructure, such as roads, retention walls, driveways, homes and other hardscaping, will alter the topography and the flow of water on this geologically complex site. And yet, the applicant has not submitted a Hydrology Assessment, which this site's characteristics and setting clearly necessitate. A hydrology assessment is essential to evaluate potential environmental impacts and to ensure that any development will not harm local ecosystems and water quality. With new infrastructure cutting across the site, it's likely that saturation, drainage, and flooding will be greatly affected. Erosion, rockfalls, and landslides will also become more frequent unless plans to stabilize the cliffs are developed using precise hydrological data. These likely impacts would also impact public and private lands, waters, and wildlife habitat adjacent to the subdivision.

In addition, the applicant has failed to show how tree removal during initial construction, and then later by homeowners, will impact the mature woodlands on the site. Furthermore, there has been no assessment of how the adjacent trees in the proposed 200-foot "buffer" along the shoreline would be affected by tree removal, even though it's probable that trees removed upslope would degrade the health of these nearby trees that supposedly comprise the buffer.

Finally, the Traffic Impact Analysis fails to address how Levels of Service to public parks, public amenities, and the scenic byway on Chuckanut Drive would be impacted by traffic from the subdivision. Furthermore, the building application fails to address the known public safety issues which would be exacerbated by increased traffic from 152 potential housing units.

Based on these and other issues, it's abundantly clear that the city does not have enough information to adequately assess the significant adverse impacts that may result from this subdivision. Hence, the only logical next step is for city officials to issue a Threshold Determination of Significance and begin the process of completing an EIS. Anything less than this will pose a grave threat to public safety and the natural environment of Mud Bay.

Thank you for taking the time to read my letter. Please include my comments in the Administrative Record.

Sincerely,

Ava Ferguson