

Exhibit B

From: [Jenna Kay](#)
To: ["William Robison"](#)
Subject: RE: SMP2020
Date: Tuesday, February 4, 2020 11:21:04 AM

Your welcome. Please let us know if you think of any other questions.

Regards,
Jenna

From: William Robison [mailto:brobison@ccrslaw.com]
Sent: Tuesday, February 4, 2020 9:52 AM
To: Jenna Kay
Subject: [Contains External Hyperlinks] RE: SMP2020

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Thanks, the overlay of the relevant exhibit seemed to show a change that crosses the line, but when looking at it further I think there was no change.

William D. Robison
Caron, Colven, Robison & Shafton
900 Washington St., Ste. 1000
Vancouver, WA 98660
Phone: (360) 699-3001
Fax: (360) 699-3012
E-Mail: wrobison@ccrslaw.com<mailto:wrobison@ccrslaw.com>

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From: Jenna Kay <Jenna.Kay@clark.wa.gov>
Sent: Tuesday, February 4, 2020 9:37 AM
To: William Robison <brobison@ccrslaw.com>
Cc: Brent Davis <Brent.Davis@clark.wa.gov>
Subject: RE: SMP2020

Hello Mr. Robinson,

Thank you for your inquiry.

I have looked up your property to see how the county proposal impacts it.

I am confirming that no shoreline map changes are proposed that would affect your property. There are some shoreline designation changes on the Plas Newydd farm property, due to the detailed mapping work they have done on their own property, but those changes do not extend to your

property.

Since your property is located along the Lewis River, much of your property does have a Rural Conservancy Resource Land shoreline designation. That designation has been on your property for many years, so it is nothing new.

Please let me know if I can provide more information or answer additional questions. I have also copied our shoreline administrator on this email in case you have any additional questions he can help answer.

Thank you again for reaching out.

Regards,
Jenna



Jenna Kay
Planner II
COMMUNITY PLANNING

564.397.4968



From: William Robison [<mailto:brobison@ccrslaw.com>]
Sent: Monday, February 3, 2020 4:59 PM
To: Jenna Kay
Subject: SMP2020

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I own Pekin Ferry which abuts the east edge of Plas Newydd farm. It appears to me that this plan proposes to re designate my property as Rural Conservancy Resource Land. Is that true? Is it intentional? If so why?
Bill Robison 34115 n.w. Pekin Ferry road Ridgefield.

Sent from my Verizon, Samsung Galaxy smartphone

This e-mail and related attachments and any response may be subject to public disclosure under state law.

From: [Jenna Kay](#)
To: [Help_Desk-County](#)
Subject: FW: Shoreline Master Plan feedback - Marinas
Date: Monday, February 10, 2020 10:44:50 AM

From: Mail Delivery System [mailto:MAILER-DAEMON@smtp2.clark.wa.gov]
Sent: Thursday, February 6, 2020 4:57 PM
To: Jenna Kay
Subject: Undeliverable: Shoreline Master Plan feedback - Marinas

Delivery has failed to these recipients or groups:

outlook_B7B3E16CDC438A8B@outlook.com

A communication failure occurred during the delivery of this message. Please try resending the message later. If the problem continues, contact your helpdesk.

The following organization rejected your message: outlook-com.olc.protection.outlook.com.

Diagnostic information for administrators:

Generating server: smtp2.clark.wa.gov

outlook_B7B3E16CDC438A8B@outlook.com
outlook-com.olc.protection.outlook.com #<outlook-com.olc.protection.outlook.com #5.5.0 smtp; 550 5.5.0 Requested action not taken: mailbox unavailable.> #SMTP#

Original message headers:

Return-Path: <prvs=12999b2b44=Jenna.Kay@clark.wa.gov>
Received: from smtp2.clark.wa.gov (localhost.localdomain [127.0.0.1]) by localhost (Email Security Appliance) with SMTP id 391B3ED91B_E3CB5C2B for <outlook_B7B3E16CDC438A8B@outlook.com>; Fri, 7 Feb 2020 00:56:34 +0000 (GMT)
Received: from cas.clark.wa.gov (esxvm401.clark.root.local [141.185.2.177]) by smtp2.clark.wa.gov (Sophos Email Appliance) with ESMTMP id C2877F3033_E3CB5C1F for <outlook_B7B3E16CDC438A8B@outlook.com>; Fri, 7 Feb 2020 00:56:33 +0000 (GMT)
Received: from ESXVM406.clark.root.local ([141.185.2.168]) by esxvm401.clark.root.local ([141.185.2.177]) with mapi id 14.03.0468.000; Thu, 6 Feb 2020 16:56:33 -0800
From: Jenna Kay <Jenna.Kay@clark.wa.gov>
To: 'William K Mathison' <outlook_B7B3E16CDC438A8B@outlook.com>
Subject: RE: Shoreline Master Plan feedback - Marinas
Thread-Topic: Shoreline Master Plan feedback - Marinas
Thread-Index: AQHV3U2RXPCaJih0CEuyJdvVM2uvu6gO45QQ
Date: Fri, 7 Feb 2020 00:56:33 +0000
Message-ID: <79968EAE93837642B2EE5CDEF9446BC43A37AF16@esxvm406.clark.root.local>
References: <BY5PR08MB6406530A4796F47A5EA44DCBEC1D0@BY5PR08MB6406.namprd08.prod.outlook.com>
In-Reply-To: <BY5PR08MB6406530A4796F47A5EA44DCBEC1D0@BY5PR08MB6406.namprd08.prod.outlook.com>
Accept-Language: en-US
Content-Language: en-US

X-MS-Has-Attach: yes
X-MS-TNEF-Correlator:
x-originating-ip: [141.185.35.206]
Content-Type: multipart/related;

boundary="_007_79968EAE93837642B2EE5CDEF9446BC43A37AF16esxvm406clarkro_";
type="multipart/alternative"
MIME-Version: 1.0
X-SASI-RCODE: 200

From: [Jenna Kay](#)
To: ["William K Mathison"](#)
Subject: RE: Shoreline Master Plan feedback - Marinas
Date: Friday, February 7, 2020 7:55:04 AM

Mr. Mathison,

I am writing to confirm receipt of your comment and to thank you for your participation in the county's Shoreline Master Plan periodic review project.

In case it's helpful to know, in addition to the county's Shoreline Master Program review, each of the cities in Clark County will also be reviewing their Shoreline Master Programs over the course of the next year to year and a half, and will also be holding comment periods. I encourage you to share your comments with these other local jurisdictions as well.

Regards,
Jenna



Jenna Kay
Planner II
COMMUNITY PLANNING

564.397.4968



From: William K Mathison [mailto:outlook_B7B3E16CDC438A8B@outlook.com]
Sent: Thursday, February 6, 2020 4:36 PM
To: Jenna Kay
Subject: Shoreline Master Plan feedback - Marinas

CAUTION: This email originated from outside of Clark County. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Jenna,

One thing that needs to be improved with the Shoreline Master Plan is the marina situation in Clark County. Marina improvements at existing marinas and adding a Marina to The Waterfront in downtown Vancouver.

The Ridgefield Marina needs more transient moorage/boat rental slips and docks. It has a small/newer covered boat slip building that is very nice but the few uncovered docks and slips are so

primitive and rickety a boat would surely get scratched and dented using them, and the electrical looks scary. The few marinas, docks, and boat slips we have on Washington shores should be kept in first class condition NOT distressed.

The Waterfront development in downtown Vancouver made a huge mistake not expanding the ridiculously tiny little transient boat dock. With the new Waterfront Vancouver should be a boating destination. It should have a marina similar to the Riverplace Marina in downtown Portland. The excuses I have heard for not including a nice marina at the biggest City on the Columbia River Washington waterfront are very lame... I consider the excuses an abuse of power by environmental extremists who want everything off limits to humans. There needs to be more balance than that.

The Camas/Washougal Marina is very nice. Bottom line Clark County deserves decent Marinas in Ridgefield, Vancouver, and Camas/Washougal to cover the west, central, and eastern sides of the County. Steamboat landing is a nice private marina but not much of a destination for transient visitors.

This is not too much to ask. Just look at all the marinas on the Portland side. This would be a fraction of what they have. I am not a lone voice on this subject.

Sincerely,

William K Mathison
Battle Ground, WA
360-903-5951

From: [Cathy Steiger](#)
To: [Jenna Kay](#)
Subject: [Contains External Hyperlinks] Re: [Contains External Hyperlinks] Re: Salmon creek
Date: Saturday, February 8, 2020 10:27:27 AM

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Thank you for your attention. Regards, Cathy

On Feb 7, 2020, at 1:35 PM, Jenna Kay <Jenna.Kay@clark.wa.gov> wrote:

Hi Cathy,

It will be the city's Community Development team that manages the shoreline master program, any updates to it, and implementation of it. Any changes to the plan would be approved by the city's Council as well as the state Dept. of Ecology. The Dept. of Ecology is also involved on the implementation side of shoreline master programs too.

I'm not sure who the city's primary shoreline contact is, but if you contact Sam Crummett, the Community Development Director, he should be able to direct you to the best person and answer additional city-specific questions.

Hope this helps.

Regards,
Jenna



Jenna Kay
Planner II
COMMUNITY PLANNING

564.397.4968



From: Cathy Steiger [<mailto:forke.cate@gmail.com>]
Sent: Friday, February 7, 2020 12:03 PM
To: Jenna Kay
Subject: [Contains External Hyperlinks] Re: Salmon creek

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Your answer is what I assumed, but does does give me comfort. What agency approves and follows compliance with City of Battle Ground or any other incorporated area?

On Feb 7, 2020, at 11:56 AM, Jenna Kay <Jenna.Kay@clark.wa.gov> wrote:

Hi Cathy,

Thank you for your note.

The county's Shoreline Master Program only applies to the unincorporated parts of the county. The City of Battle Ground has its own Shoreline Master Program that covers the shorelines of the state within its boundaries, such as Salmon Creek. Similarly, each of the other cities in Clark County have their own Shoreline Master Programs.

Hopefully that answers your question, but if not, please let me know.

Regards,
Jenna



Jenna Kay
Planner II
COMMUNITY PLANNING

564.397.4968



-----Original Message-----

From: Cathy Steiger [<mailto:forks.cate@gmail.com>]

Sent: Friday, February 7, 2020 11:51 AM

To: Jenna Kay

Subject: Salmon creek

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Hi, Jenna,

I see no change proposed for Salmon Creek near me. I am frighten, tho , that it appears jurisdiction and rules governing our stream seems to end where the City of Battle begins. What's with that? Rules for Streams of Statewide Significance I assumed were comprehensive.

What is the jurisdictional overlay of regulations.?

Thank you, Cathy Steiger

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This e-mail and related attachments and any response may be subject to public disclosure under state law.

From: [Jenna Kay](#)
To: "SHARLEEN JAMES"
Subject: RE: Shoreline program
Date: Monday, February 10, 2020 10:11:03 AM

Hello,

Thanks for reaching out.

There are no proposed changes in the county's proposal related to boater access on private property. Does that answer your question? If not, please let me know.

Also, in case it is helpful: the county's proposal only applies to the unincorporated areas in Clark County. If your property happens to be located in one of the cities along the Columbia, i.e. Vancouver, Camas, or Washougal, then the county's proposal would not apply to you.

Please let me know if I can provide any additional information.

Regards,
Jenna



Jenna Kay
Planner II
COMMUNITY PLANNING

564.397.4968



-----Original Message-----

From: SHARLEEN JAMES [mailto:sjames2996@aol.com]
Sent: Saturday, February 8, 2020 4:38 PM
To: Jenna Kay
Subject: Shoreline program

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Hi. I happen to own tide lands along the Columbia River. Are you proposing any changes such as letting boaters up on our property such as Oregon does?

Sent from my iPhone

From: [Derek Huegel](#)
To: [Jenna Kay](#)
Subject: Shoreline Comments
Date: Monday, February 24, 2020 5:51:21 PM

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Hi Jenna,

I would like to request modifications to the list of exemptions preventing folks from building within 100' of a state shoreline. Currently WAC 173-27-040 does not have a provision for a hardship / temporary permit to be issued under a non-substantial development permit and I think there should be.

I think there should be because:

1. The impact the area is less or equal to building a single family home which is currently allowed
2. The use is temporary in nature – it's a hardship
3. The cost of doing a substantial development permit is 8k – 15k and isn't guaranteed – this itself is a hardship.
4. The true number of hardships is limited in it's very nature – this won't be a catalyst for major # of homes going in.
5. I have a customer that want's a house in the area but can't do it legally because she doesn't have the \$ or time to get a substantial development permit and therefore she lives in an RV – terrible situation.

I hope this helps formulate a decent/persuasive case to change the code to allow Hardship Permits without the stress of doing a substantial development permit.

Thanks,

Derek Huegel
360-314-8037

From: [Derek Huegel](#)
To: [Jenna Kay](#)
Subject: Shoreline comments
Date: Tuesday, January 28, 2020 10:25:20 AM

CAUTION: This email originated from outside of Clark County. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Jenna,
Is now the time to make the comments to the state about allowing a hardship near the shoreline?
Thanks,

Derek Huegel
Wolf Industries, Inc.
C: 360.314.8037 O: 360.723.5307



From: [Denis Markian Wichar](#)
To: [Jenna Kay](#)
Subject: Shoreline Master Plan Review
Date: Tuesday, February 25, 2020 3:18:42 PM

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My main concern about the county's shoreline is that what little wetland remains should not be compromised in any way. Already, the only wetland remaining between the two interstate bridges is on the Washington side, at Water Resources Education Center. That is pathetic. Actually, it would be great if the county could and would restore wetland that once existed.

Den Mark Wichar
711 W 25 St
Vancouver WA 98660

"We learn from history
that we don't learn from history."
--- Anglican Archbishop Desmond Mpilo Tutu

From: [Sue Marshall](#)
To: [Jenna Kay](#)
Cc: [Jim Byrne](#); [Fred Suter](#); [Mark Leed \(markleed02@gmail.com\)](#); [Oliver Orjiako](#)
Subject: [Contains External Hyperlinks] Joint Comments FOCC, Sierra Club re Update SMP
Date: Wednesday, February 26, 2020 1:49:49 PM
Attachments: [FoCC & Sierra Club Comments CC Shoreline Management.docx](#)

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Hello Jenna,

Please accept the attached joint comments from Friends of Clark County and Sierra Club - Loo Wit Group, regarding the Shoreline Master Program update.

Thank you very much for your time in meeting with several of us regarding the SMP. It was a very helpful and we appreciate that you and Brent Davis provided your expertise.

We look forward to hearing back from you as the process moves forward.

Best regards,

Sue Marshall

Sent from [Outlook](#)



FRIENDS of CLARK COUNTY
TOGETHER WE THRIVE
PLANTING THE SEEDS FOR RESPONSIBLE GROWTH



Feb. 26, 2020

Jenna Kay
Clark County Community Planning
PO Box 9810,
Vancouver, WA 98666-9810

REGARDING: FRIENDS OF CLARK COUNTY – SHORELINE MANAGEMENT UPDATE COMMENTS

Dear Ms. Kay:

Friends of Clark County (FoCC, Friends) appreciates the opportunity to comment on the 8 year update of its Shoreline Master Program (SMP), as required by the Washington State Shoreline Management Act (SMA), [RCW 90.58.080\(4\)](#). The following comments are jointly submitted on behalf of Friends of Clark County and Sierra Club – Loo Wit Group.

The County has determined “The Shoreline Master Program (SMP) is a set of policies and regulations required by state law that has three basic policy areas: fostering reasonable and appropriate uses, protecting natural resources and promoting public access. There are seven shoreline designations aquatic, natural, urban conservancy, medium intensity, high intensity, rural conservancy residential and rural conservancy resource.” Some of these designations are somewhat confusing such as natural, urban conservancy, medium intensity, rural conservancy residential and rural conservancy resource. Perhaps clearer descriptions could be developed including allowable uses in each category.

No Net Loss

County planners have determined, “No net loss is a key concept of the Shoreline Management Act (SMA). It means that the condition of shoreline ecological functions post-development need to be at least equal to pre-development ecological functions. The no net loss standard is designed to balance the introduction of new impacts to shoreline ecological functions resulting from new development through mitigation sequencing and restoration. Any amendments to the Shoreline Master Program that may occur

through this periodic review process will need to comply with the no net loss standard.” Friends believes the County needs to go further than merely “No Net Loss.

Net Ecological Gain

Presently there are two bills in the legislature, HB 2549 and HB 2550. **HB 2549 - Integrates salmon recovery efforts with growth management.** This bill revises the role of “No Net Loss” into one of a net ecological gain. This is a more modern, enlightened concept and reflects the failings of previous mitigation projects coupled with the effects of climate change. It is being addressed in the Governor’s salmon recovery efforts and in potential salmon recovery dollar distributions. Friends encourages staff to review this concept and incorporate it into current planning.

HB 2550 - Establishing net ecological gain as a policy for application across identified land use, development, and environmental laws, is an environmental community priority that may have far reaching implications for state and city environmental regulatory efforts. The Washington Association of Cities states, “The premise of the proposal, sponsored by Rep. Debra Lekanoff (D–La Conner), is that the decline of Washington State Southern Resident Orca and our inability to recover the state’s endangered salmon runs can be traced to the lack of rigor in the state and local environmental regulations. The argument is that the state’s current “no net loss” approach to environmental standards has failed and that we must institute a “net ecological gain” standard. In recent reviews, planners and legislators have followed the success of the “No Net Loss” concept and have found it lacking. . . . "Net ecological gain" means a standard for a development project, policy, plan, or activity in which the impacts on the ecological integrity caused by the development are outweighed by measures taken consistent with the new mitigation hierarchy to avoid and minimize the impacts, undertake site restoration, and compensate for any remaining impacts in an amount sufficient for the gain to exceed the loss.

Net Ecological Gain. “The concept of net ecological gain is defined for purposes of the Growth Management Act (GMA) as a standard for a development project, policy, plan, development regulation, or activity in which the environmental impacts caused by the development are outweighed by measures taken consistent with the mitigation hierarchy. The mitigation hierarchy is established as the following management options to address environmental impacts, in **descending order of priority**:

- avoidance;
- minimization;
- rehabilitation or restoration;
- offset;
- and compensation.” **HB2549**

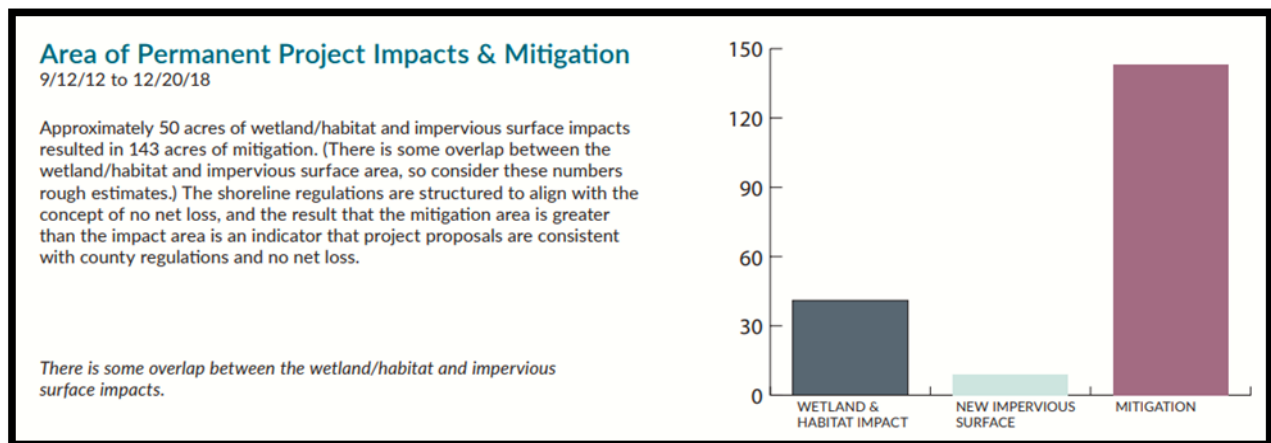
FoCC believe the mitigation activities, should be avoided if possible. This should be the County’s first choice. and should be proactively incorporated early in long range planning and zoning determinations to most effectively **avoid** impacts. If the action cannot be avoided, then it should be kept to a minimum. If mitigation is to occur, it must stay on the same site, or at least in the same watershed. This is designated in Policies 1 & 2 of Chapter 13 Comprehensive Plan – SMP Periodic Review – Jan 2020 Draft, exhibit 2 pg. 5, “. New developments should be located in such a manner as to not require shoreline stabilization measures. 2. When necessary, natural, non-structural shoreline stabilization measures are preferred over structural stabilization measures. Alternatives for shoreline stabilization should be based on the following hierarchy of preference: No action”, . . . then increasing actions needed to minimize disturbance.

Friends agree with net ecological gain and with this priority system. We do not believe it needs to be incorporated into state law, prior to the County adopting it as a guiding policy. We would like to see Clark County in the fore front of promoting this concept. Since it exceeds rather than diminishes the existing standard; it should be legally defensible.

Net Ecological Gain to Address Clean Water Act Compliance

There is an opportunity when development is proposed along a shoreline to address water quality limiting parameters such as elevated temperature, decreased dissolved oxygen, increased turbidity and bacteria. Each site should be evaluated not just for the impact of the development, but also the **site potential** to correct for previous impacts that exacerbate poor water quality. The riparian planting program of Clean Water Services in Washington County, Oregon, is a good example where riparian planting to restore stream buffers are requirement in both land use permitting and a component of their NPDES water quality permit.

The County has provided an inventory of project impacts and mitigation acreage (see below). The chart appears on the County's Shorelines Update webpage. It appears to indicate 50 acres of wetland and shoreline activity, resulted in 143 acres of mitigation. More acres were created through mitigation than consumed from development activities during 2012 through 2018. The ratio of development acres to mitigation acreage is not apparent in this graph. It is not clear how these ratios are set. The different ratios per mitigation activity should be listed for the public. In face of climate change, Friends advocates for increasing the ratio of mitigation for disturbed lands (see climate change section).



Friends has great concern with the present use of the term “Mitigation”. Numerous studies indicate it does not produce the desired effects associated with no net loss. The concept of “No Net Loss” is hard to document, particularly in shoreline areas where levels of shading, underground water flow, temperature increase are difficult to monitor, particularly in the short term. Mitigation needs to be effective in the long term and on many levels, not just the aesthetic.

Often, on the ground, mitigation refers to an acre for acre land swap according to some set ratio. The results are most often visual, without a true evaluation of the true functions and values of an individual parcel. Most often overlooked, are the hyporheic flows that a particular shoreline parcel might provide. Because these flows are sub-surface, they are not often recognized; but are essential to the proper function and values of that shoreline parcel. Tree removal and shade are also functions, that can seem to be easily exchanged, but this is not often the case. Shoreline ecological functions post-development need to be at least equal to pre-development ecological functions. It is the functions and values that must be protected, not merely a swap of modified land.

The focus of the mitigation should be protecting the functions and values of that particular parcel. This means maintaining the hyporheic flow, shade and other functional values; not merely the aesthetics of the property. The functioning needs to occur in perpetuity if possible.

Mitigation Literature Review

In the past, Clark County has relied heavily on mitigation to insure “No Net Loss”, but there are no assurances that it truly works, in restoring subterranean the functions and values associated with a particular parcel. There is doubt that these functions can be completely duplicated or replaced. Here are six peer reviewed citations regarding the effectiveness of mitigation efforts:

- Results from a WASDOT review demonstrated that wetland mitigation on sites were not completely effective. Only one of the 30 mitigation sites reviewed for this study met all of the specified goals, and a few had significant shortfalls. Sixteen of 30 mitigation sites did not obtain their required wetland acreage, and only 96 of 173 performance standards were achieved during the intended monitoring period for sites included in this study. From: **AN EVALUATION OF WETLAND MITIGATION SITE COMPLIANCE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION 2005. Fredrick S. Bergdolt, 1 Cynthia A. Prehmus, 2 and Jesse B. Barham 3 Washington State Department of Transportation, P.O. Box 47332, Olympia, Washington, USA 98504-7332.**

- Based on reviews of both published literature and agency reports, our survey of past mitigation projects nationwide indicates that the success rate of permit - linked mitigation projects remains low overall. In addition, there is continuing difficulty in translating mitigation concepts into legal principles, regulatory standards, and permit conditions that are scientifically defensible and sound. Based on the record of past poor performance, we assert that continued piecemeal revision efforts focused on technical or scientific details are not likely to make compensatory mitigation more effective. From: **Race, M.S. and Fonseca, M.S. (1996), Fixing Compensatory Mitigation: What Will it Take?. Ecological Applications, 6: 94-101. doi:[10.2307/2269556](https://doi.org/10.2307/2269556)**

- Washington. In Washington State, 71 percent wetland compensatory mitigation projects were failing to meet basic permit requirements (Johnson, et al., 2000). In addition, only 65% of the total acreage of wetlands lost was replaced by wetland creation or restoration of new wetland area and only 63% of projects were at least partially compensating for the permitted wetland losses. . . . Mitigation plans should include a detailed assessment of land uses at local, watershed and regional scales including projected changes in land use and development. There has been inadequate assessment of ecosystem integrity and quality. Success criteria for mitigation has often been developed for permit requirements without regards to restoration of ecosystem integrity which encompasses the physiochemical and biological attributes of the wetland or stream.

Discussion -- Successful compensatory mitigation for wetland losses and stream impacts requires restoration of dynamic processes, function, and structure. The intent of restoration is to partially or fully reestablish the attributes of a naturalistic, functioning, self-regulating system (USACE, 1999). Wetland mitigation projects have generally failed due to inadequate incorporation of a hydrologic assessment (Bedford, 1996). The key to a successful stream or wetland restoration is an understanding of the underlying hydrogeomorphic processes, how to measure them and how to replace or incorporate those processes into the restoration project. Successfully compensating for wetland losses requires duplication of wetland structure and function; however, simple measures of function do not exist (Zedler, 1996). From: **Compensatory Mitigation: Success Rates, Causes of Failure, and Future Directions By Bruce A. Pruitt, PhD, PH, PWS US Army Corps of Engineers Engineer Research and Development Center Presented at the Environmental Law Summer Seminar July 26-27, 2013 The Omni, Amelia Island Plantation, FL**

- Estimates of mitigation success vary, but local, regional, and national studies show that most mitigation projects fail to fully achieve their intended goals and are not effectively replacing lost or

damaged resources, habitats, and functions. We are not even close to achieving the goal of no net loss for wetlands and other aquatic habitats.

Land use planning and permit decisions are not adequately informed by an understanding of ecosystem processes or watershed conditions. Opportunities to direct mitigation dollars to the most beneficial restoration and conservation efforts likely are being lost. As a result, we may be inadvertently driving development into the areas that are more appropriate and suited for restoration or conservation. At the same time, there is not confidence that conservation and restoration priorities are harmonized with other local efforts to maintain a buildable lands inventory and protect resource lands, especially agricultural lands. From: **Making Mitigation Work: The Report of the Mitigation that Works Forum p. 1 WA State Dept. of Ecology, PO Box 47600, Olympia WA 98504 - 7600 Publication Number #08 - 06 - 018**

- Several studies determined the level of success of compensatory mitigation projects . . . Though the data indicated that some projects were successful and some projects were unsuccessful, most compensation projects had an intermediate level of success, meaning they were neither fully successful nor completely unsuccessful.
- 25 to 66% of projects were determined to have an intermediate level of success
- 3 to 43% of projects achieved full success
- 7 to 97% of projects were unsuccessful, though half of the studies found that at least 20% of projects were unsuccessful . . . From: **D. Sheldon, T. Hruby, P. Johnson, K. Harper, A. McMillan, T. Granger, S. Stanley, and E. Stockdale, *Wetlands in Washington State - Volume 1: A Synthesis of the Science* p. 6-8 (Washington State Department of Ecology Publication #05-06-006 Olympia, WA: March 2005)**

- The effectiveness of habitat compensation projects in achieving no net loss of habitat productivity (NNL) was evaluated at 16 sites across Canada. Periphyton biomass, invertebrate density, fish biomass, and riparian vegetation density were used as indicators of habitat productivity. Approximately 63% of projects resulted in net losses in habitat productivity. From: **Effectiveness of Fish Habitat Compensation in Canada in Achieving No Net Loss. 2006. Quigley J. T. and D. J. Harper, *Environmental Management* Vol. 37, No.3, pp. 351-366**

Currently, “No Net Loss” is a key concept of the Shoreline Management Act (SMA). It means that the condition of shoreline ecological functions post-development need to be at least equal to pre-development ecological functions. The no net loss standard is designed to balance the introduction of new impacts to shoreline ecological functions resulting from new development through mitigation sequencing and restoration. The county must achieve this standard through both the Shoreline Master Program planning process and appropriately regulating individual developments as they are proposed in the future.” From – **Clark Co Display Panel, Shorelines website.**

FoCC believes there has been a too heavy reliance on mitigation to maintain the concept of no net loss within Clark County. The citations above indicate mitigation has yet to be proven as an effective habitat preservation tool. If the County proposes to utilize mitigation, there needs to be some assurance that the mitigation process is working, with a series of annual inspections to assure effectiveness and compliance. Evaluations of mitigation success or failure need to be made available to the public. Citizens just cannot take it on faith that mitigation works in the face of many scientific studies indicating it is ineffective in many instances and does result in loss of function. The mitigation must be effective for a long timeframe (20 years); ideally in perpetuity.

HB 2549 also incorporates salmon recovery as one of the listed goals of the GMA. “It is specified to include supporting the recovery and enhancement of salmon stocks through net ecological gain from growth planning designed to fulfill tribal treaty obligations and achieve the delisting of threatened or endangered species. The environment and open space and recreation goals of the GMA are also amended to establish a goal of net ecological gain with respect to the protection of the environment and the conservation, protection, and restoration of fish and wildlife habitat.”

Future Climate Change

Climate change and raising sea levels due to melting polar caps will alter the County’s shorelines in the future. As the ocean rises, more water will flood into the Columbia River and its Clark Co. tributaries (Lewis River and East Fork Lewis, Salmon Creek, Lake River, Vancouver Lake, and the Washougal River. These water bodies will climb higher onto the shoreline. The 100-year floodplain is one of the criteria for determining shoreline jurisdiction. The shoreline boundaries will need to be modified in areas where the 100-year floodplain has changed and results in a shift to new and higher shoreline jurisdictions. This impact to county waters needs to be addressed on a frequent and re-occurring basis.

The County will need to develop a mechanism / process in place to address this in the planning and permitting process. Then, County mapping and zoning will need to reflect the reality of the 100-year floodplain and rising sea levels as reflected in current Univ. of Washington and FEMA data. The county appears to have done this. County maps are good. We have no discrepancies with lands included or excluded from the current shoreline designation; however, Certain high bank areas (Wiseman development on East Fork Lewis) are currently sloughing off into the river. Setbacks on high bank or cliff areas; need to be extended further back to protect homes and ensure family safety.

Climate change poses the issue of higher sea level and flooding. But it also can decrease stream flows in warmer months. The last six summers have shown very reduced flows (<40 CFS- a near all-time record) in the East Fork summer flow. While summer flows are down, summer water temperatures are higher than normal. The Dept. of Ecology lists the East Fork Lewis as a 303 (d) river, exceeding the threshold 64° F. temperature for salmonid fishes and excessive bacteria levels. This is especially true for the lower portions of the river. The river below Heisson regularly exceeds this temperature during summer months. Most of the river below this point is unsuitable for trout and salmon during summer. The County should fly drones along the rivers in the summer, monitoring for illegal water withdrawals for lawns and gardens. Riparian landowners should not exceed their water rights, when known. The County needs to beef up its enforcement efforts, and not rely on neighbors informing on fellow citizens.

Temperatures continue to increase beyond those suitable for ESA listed Fish. It is critical that the Shoreline Management Plan lines up with temperature, flow, shade, and other habitat attributes as defined in the fish and wildlife habitat critical areas ordinance. The County must assure that fish species are meeting the latest standards as proposed by WDFW, including extra riparian vegetation in Chinook habitats.

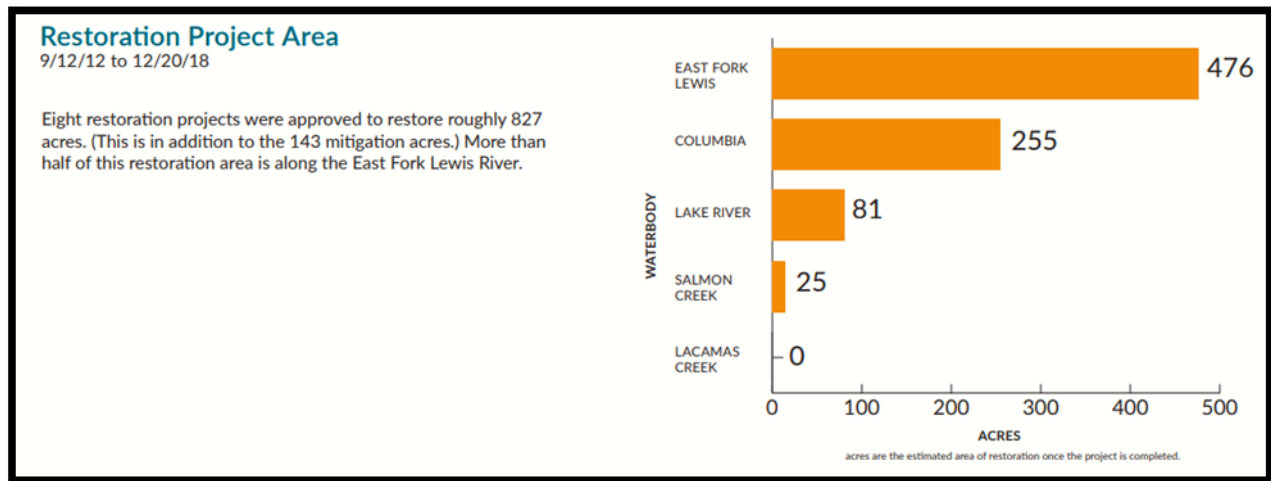
Climate change will also cause a drying of vegetation and increased fire danger in shoreline and other areas. Buffers near homes will need to be extended to provide additional fire protection in shoreline and all areas.

Because we are advocating for an ecological net gain policy; as protected waters fail to meet required standards, what will the County do? What additional mitigation can be employed to counter these losses? What is the impact on ecological net gain or no net loss? What will be the County’s proactive plans?

We urge the county to incorporate adaptation to climate change in the Shoreline Management update.

Restoration Success

Below is an inventory of Restoration Project Areas in Clark County. As you can see from the graph, the majority (58%) of effort has occurred in the East Fork of the Lewis River Basin. Since 2000, the Lower Columbia Fish Recovery Board has delivered \$12.6 million for fish recovery efforts in the East Fork. Much of that was devoted to fish restoration efforts. Clark County has continued to acquire parcels along the East Fork through the Legacy Lands program, costing millions of dollars. In November 2017 alone, the County Councilors authorized issuing \$7 million in bonds to purchase 10 properties spread across the county. Six of which are located in the East Fork Basin



Yet, the East Fork Lewis continues to have increased temperatures and reduced flow regimes, during summer. It is on the Dept. of Ecology's 303(d) list of rivers that fail in temperature flow and bacteria levels. Salmonid numbers returning to the East Fork are also in decline. This would indicate the restoration projects on the East Fork are not realizing their intended goals. The county is not getting a good return for the millions of dollars spent in land acquisition and restoration efforts. Current restoration efforts do not appear to be working. A shift to "Net Ecological Gain" is needed.

Friends agrees with the listed County's Shoreline Modification and Stabilization goal, "The goal for shoreline modification and stabilization is to avoid or minimize the need for shoreline armoring along shorelines of the state and when it is necessary, achieve it in a way that best protects ecosystem processes, shoreline ecological functions and downstream properties", in Exhibit 2 Proposed Amendments to Chapter 13 of the Clark County Comprehensive Growth Management Plan 2015-2035.

Under the goal for Views and Aesthetics, "The goal for views and aesthetics is to assure that the public's opportunity to enjoy the physical and aesthetic qualities of shorelines of the state, including views of the water, is protected to the greatest extent feasible". However, riparian shoreline vegetation which may be less visually pleasing, is essential in providing and preserving riparian shoreline habitat. A clean swarth of grass running to the shoreline edge may be visually enticing, but it does not provide the functions and values of riparian vegetation. Shrubs and their shade, cool water and provide needed insects as food for fish and other species. We should not remove shrubs and trees and replace with grass. Shoreline vegetation should be enhanced, particularly in Chinook habitats.

We would like to see all priority species and habitats protected from nearby adverse uses, not just point habitats. This is particularly important in streams and rivers, where listed threatened and endangered fish species reside and migrate. Streams and riparian areas are often used as migration corridors for many listed and unlisted fish and wildlife species.

In summary, Friends would like to see the County:

- Embrace a shift from “No Net Loss” to a “Net Ecological Gain” objective; to more effectively meet standards that protect and restore public resources. We believe in the hierarchy of mitigation: to more seriously avoid impacts, keep disturbance to a minimum, mitigate on site, and if that is not possible – mitigate in the same reach.
- Monitor new and existing mitigation efforts for functions and values, and to ensure full compliance over time (20 years) and report findings to the public.
- Prepare for anticipated Climate Change Effects of rising sea-level, increased water temperature, and reduced summer stream flows.

Thank you for your attention.

Sincerely,



Sue Marshall, President
Friends of Clark County.



Mark Leed, Chair
Sierra Club – Loo Wit Group

From: [Tim Trohimovich](#)
To: [Jenna Kay](#)
Subject: [Contains External Hyperlinks] Futurewise's comments on the Clark County Shoreline Master Program Update
Date: Wednesday, February 26, 2020 3:20:48 PM
Attachments: [image003.png](#)
[Futurewise Coms on Clark Co SMP Update Feb 26 2020 Final.pdf](#)

CAUTION: This email originated from outside of Clark County. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Kay:

Enclosed please find Futurewise's comments on the Clark County Shoreline Master Program Update. This letter references documents on a data CD we mailed to you yesterday. It should arrive tomorrow.

If you need anything else, please let me know.

Tim Trohimovich, AICP (he/him)
Director of Planning & Law



[Join me for the 30th Anniversary Spring Luncheon & Livable Communities Awards!](#)

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February 26, 2020

Ms. Jenna Kay, Planner II
Clark County Community Planning
PO Box 9810
Vancouver, Washington 98666-9810

Dear Ms. Kay:

Subject: Comments on the 2020 Shoreline Master Program (SMP) Periodic Review.

Send via email to: jenna.kay@clark.wa.gov

Thank you for the opportunity to comment on the 2020 Shoreline Master Program (SMP) Periodic Review. Futurewise strongly supports the review and update. The update is an important opportunity to provide for the recovery of important fish and wildlife resources such as the Chinook salmon and to begin addressing the adverse effects of global warming including sea level rise and increased wildfire danger. We have recommendations address these important issues and to strengthen the SMP review and update included in this letter below.

Futurewise works throughout Washington State to support land-use policies that encourage healthy, equitable and opportunity-rich communities, and that protect our most valuable farmlands, forests, and water resources. Futurewise has members and supporters throughout Washington State including Clark County.

This letter will first summarize our recommendations. We then explain the recommendations in more detail.

Summary of the Recommendations

- Futurewise agrees with the Friends of Clark County and the Sierra Club recommendations that avoiding impacts should be required whenever possible. The Shoreline Master Program Update should include stronger avoidance and minimization requirements. Please see page 2 of this letter for more information.
- Futurewise recommends that Clark County require wider setbacks between development and shoreline and critical areas buffers to protect homes and property from wildfire danger. Please see page 4 of this letter for more information.
- Futurewise strongly recommends that the Clark County Shoreline Master Program (SMP) should comprehensively address sea level rise and include regulations protecting people, property, and the environment from the adverse effects of sea level rise. As is documented below, sea level rise is accelerating and buildings need to be protected from increased flooding. Please see page 4 of this letter for more information.

- We recommend that the County require an analysis of all geologically hazardous which can adversely impact a proposed development and require case-by-case determinations of landslide buffers based on the risk to the proposed development. This will better protect people and property. Please see page 7 of this letter for more information.
- Clark County should adopt up-to-date riparian buffers in Clark County Code (CCC) 40.460.530F.1.a.(3) and CCC 40.460.570 to protect Chinook habitat and other aquatic habitats. Please see page 11 of this letter for more information.
- Please clarify that the SMP protects fish and wildlife habitats depicted in the PHS GIS database as points, lines, and areas. This is needed to protect all priority species and habitats and to comply with the Shoreline Master Program (SMP) Guidelines. Please see page 12 of this letter for more information.
- Please clarify that all development must comply with the fish and wildlife habitat conservation requirements. This is needed to protect all priority species and habitats and to comply with the SMP Guidelines. Please see page 13 of this letter for more information.
- Please update the priority habitat and species list and the priority species and habitats documents listed in the critical areas regulations. This is needed to protect all priority species and habitats and comply with the SMP Guidelines. Please see page 14 of this letter for more information.
- Protect isolated Category III wetlands of less than 2,500 square feet in area and isolated Category IV wetlands of less than 4,350 square feet. This is needed to protect wetland functions and to comply with the SMP Guidelines. Please see page 15 of this letter for more information.
- Increase mitigation ratios for riparian vegetation mitigation in CCC 40.460.570D. to protect fish and wildlife habitats. This is necessary to comply with the SMP Guidelines. Please see page 16 of this letter for more information.
- Prohibit net pen aquaculture for nonnative species in Table 40.460.620-1. This will make the SMP consistent with RCW 77.125.050(1). Please see page 16 of this letter for more information.

Detailed Comments on Exhibit 5 Proposed Amendments to Chapter 40.460 Clark County Code

Futurewise agrees with the Friends of Clark County and the Sierra Club recommendations that avoiding impacts should be required whenever possible. Please see Clark County Code (CCC) 40.460.530A.10 on page 29 of 99

Futurewise agrees with the Friends of Clark County and the Sierra Club that impacts to shoreline ecological functions and systems should be avoided whenever possible and that the Clark County Shoreline Master Program should have stronger avoidance requirements. *As Making Mitigation Work: The Report of the Mitigation that Works Forum* concluded “[e]stimates of mitigation success vary, but local, regional, and national studies show that most mitigation projects fail to fully achieve their intended goals and are not effectively replacing lost or damaged resources, habitats, and functions.

We are not even close to achieving the goal of no net loss for wetlands and other aquatic habitats.”¹ This is why for forum’s “Recommendation 1” is to “Reinforce the Importance of Avoiding and Minimizing Impacts to Resources that are Highly Valuable or Difficult to Replace.”² The Shoreline Master Program regulations must include strengthened avoidance and minimization requirements.

Require wider setbacks between development and shoreline and critical areas buffers to protect homes and property from wildfire danger. Please see Clark County Code (CCC) 40.460.530E. on pages 28 and 29 of 99

The Washington Department of Natural Resources’ database of wildfires on the lands protected by the agency lists more than 1,050 fires in Clark County between 1970 and January 2016.³ Climate change has the potential to increase wildfire risk through changes in fire behavior, wildfire ignitions, fire management, and the vegetation that fuels wildfire.⁴

Setbacks from critical areas buffers provide an area in which buildings can be repaired and maintained without having to intrude into the buffer. It also allows for the creation of a Home Ignition Zone that can protect buildings from wildfires and allow firefighters to attempt to save the buildings during a wildfire. Since a 30-foot-wide Home Ignition Zone is important to protect buildings,⁵ we recommend that CCC 40.460.530E. require a setback at least 30 feet wide adjacent to shoreline and critical area buffers. Combustible structures, such as decks, should not be allowed within this setback to protect the building from wildfires. This will increase protection for people and property. We recommend that a new CCC 40.460.530E.12. be adopted to read as follows with our additions double underlined.

12. There shall be a building setback of thirty (30) feet established on the landward or development facing edge of any buffer required by this chapter. The setback shall be an open space that may include landscaping and paved surfaces. Buildings, decks, architectural features, and combustible structures shall not be constructed in the setback.

¹ ESA and Ross & Associates Environmental Consulting, Ltd., *Making Mitigation Work: The Report of the Mitigation that Works Forum* (Washington State Department of Ecology Olympia, Washington Publication Number: 08-06-018: Dec. 2008) last accessed on Feb. 25, 2020 at: <https://fortress.wa.gov/ecy/publications/SummaryPages/0806018.html> <https://www.futurewise.com/CD/1/0806018.html> and on the CAO on CD on CD 1 enclosed with Futurewise’s Feb. 25, 2020, letter in the Wetlands directory with the filename: “0806018.html.pdf.”

² *Id.* at p. 7.

³ Tetra Tech, *Clark Regional Natural Hazard Mitigation Plan Volume 1 — Planning Area-Wide Elements* p. 14-3 (Clark Regional Emergency Services Agency: Final Aug. 2017) accessed on Feb. 19, 2020 at: http://cresa911.org/wp-content/uploads/2018/04/ClarkCoHazMitPlan_Volume1_Final_2017-09-21v2-2.pdf and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “ClarkCoHazMitPlan_Volume1_Final_2017-09-21v2-2.pdf.”

⁴ *Id.* at p. 14-15.

⁵ Nation Fire Protection Association “preparing homes for wildfire” webpage last accessed on Feb. 19, 2020 at: <https://www.nfpa.org/Public-Education/By-topic/Wildfire/Preparing-homes-for-wildfire> and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “NFPA - Preparing homes for wildfire.pdf.”

Futurewise strongly recommends that the Clark County Shoreline Master Program should comprehensively address sea level rise. Please see CCC 40.460.530D.3. on page 31 of 99

The Shoreline Management Act and Shoreline Master Program (SMP) Guidelines require shoreline master programs to address the flooding that will be caused by sea level rise.⁶ RCW 90.58.100(2)(h) requires that shoreline master programs “shall include” “[a]n element that gives consideration to the statewide interest in the prevention and minimization of flood damages ...” WAC 173-26-221(3)(b) provides in part that “[o]ver the long term, the most effective means of flood hazard reduction is to prevent or remove development in flood-prone areas ...” The areas subject to sea level rise are flood prone areas just the same as areas along bays, rivers, or streams that are within the 100-year flood plain. RCW 90.58.100(1) and WAC 173-26-201(2)(a) also require “that the ‘most current, accurate, and complete scientific and technical information’ and ‘management recommendations’ [shall to the extent feasible] form the basis of SMP provisions.”⁷

Sea level rise is a real problem that is happening now. Sea level is rising and floods and erosion are increasing. In 2012 the National Research Council concluded that global sea level had risen by about seven inches in the 20th Century.⁸ A recent analysis of sea-level measurements for tide-gage stations, including the Astoria, Oregon tide-gauge, shows that sea level rise is accelerating.⁹ The Virginia Institute of Marine Science (VIMS) “emeritus professor John Boon, says ‘the key message from the 2019 report cards is a clear trend toward acceleration in rates of sea-level rise at 25 of our 32 tide-gauge stations. Acceleration can be a game changer in terms of impacts and planning, so we really need to pay heed to these patterns.’

“VIMS marine scientist Molly Mitchell says ‘seeing acceleration at so many of our stations suggests that—when we look at the multiple sea-level scenarios that NOAA puts out based on global models—we may be moving towards the higher projections.’”¹⁰

Climate Central projects two feet of sea level rise for the Columbia River and other tidally influenced water bodies in Clark County by 2100 based on the National Research Council’s mid-range Pacific

⁶ Although the Shoreline Master Program (SMP) Guidelines are called “guidelines,” they are actually binding state agency rules and shoreline management program updates must comply with them. RCW 90.58.030(3)(b) & (c); RCW 90.58.080(1) & (7).

⁷ *Taylor Shellfish Company, Inc., et al., v. Pierce County and Ecology (Aquaculture II)*, Final Decision and Order Central Puget Sound Region Growth Management Hearings Board Case No. 18-3-0013c (June 17, 2019), at 10 of 81 footnote omitted.

⁸ National Research Council, *Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* p. 23, p. 156, p. 96, p. 102 (2012) last accessed on Feb. 5, 2020 at: <https://www.nap.edu/download/13389>.

⁹ William and Mary Virginia Institute of Marine Science, U.S. *West Coast Sea-Level Trends & Processes Trend Values for 2019* accessed on Feb. 5, 2020 at: https://www.vims.edu/research/products/slrc/compare/west_coast/index.php and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “2020-02-05 US West Coast Sea-Level Trends.pdf.”

¹⁰ David Malmquist, *Sea-level report cards: 2019 data adds to trend in acceleration* Virginia Institute of Marine Science website (Jan. 30, 2020) accessed on Feb. 5, 2020 at: https://www.vims.edu/newsandevents/topstories/2020/slrc_2019.php and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “2020-02-05 2019 data adds to sea level rise acceleration trend.pdf.”

coast sea level rise projections.¹¹ The extent of the sea level rise currently projected for Clark County can be seen on the NOAA Office for Coastal Management Digitalcoast Sea Level Rise Viewer available at: <https://coast.noaa.gov/digitalcoast/tools/slr.html>.

Projected sea level rise will substantially increase flooding. As Ecology writes, “[s]ea level rise and storm surge[s] will increase the frequency and severity of flooding, erosion, and seawater intrusion—thus increasing risks to vulnerable communities, infrastructure, and coastal ecosystems.”¹² Not only our marine shorelines will be impacted, as Ecology writes “[m]ore frequent extreme storms are likely to cause river and coastal flooding, leading to increased injuries and loss of life.”¹³

Zillow recently estimated that 31,235 homes in Washington State may be underwater by 2100, 1.32 percent of the state’s total housing stock. The value of the submerged homes is an estimated \$13.7 billion.¹⁴ Zillow wrote:

It’s important to note that 2100 is a long way off, and it’s certainly possible that communities [may] take steps to mitigate these risks. Then again, given the enduring popularity of living near the sea despite its many dangers and drawbacks, it may be that even more homes will be located closer to the water in a century’s time, and these estimates could turn out to be very conservative. Either way, left unchecked, it is clear the threats posed by climate change and rising sea levels have the potential to destroy housing values on an enormous scale.¹⁵

Sea level rise will have an impact beyond rising seas, floods, and storm surges. The National Research Council wrote that:

Rising sea levels and increasing wave heights will exacerbate coastal erosion and shoreline retreat in all geomorphic environments along the west coast. Projections of future cliff and bluff retreat are limited by sparse data in Oregon and Washington and by a high degree of geomorphic variability along the coast. Projections using only historic rates of cliff erosion predict 10–30 meters [33 to 98 feet] or more of retreat along the west coast by 2100. An increase in the rate of sea-level rise combined with larger waves could significantly increase these rates. Future retreat of

¹¹ Climate Central, *Sea level rise and coastal flood risk: Summary for Clark County, WA* p. 1 (2016) accessed on Feb. 14, 2019 at: https://riskfinder.climatecentral.org/county/clark-county.wa.us?comparisonType=postal-code&forecastType=NOAA2017_int_p50&level=7&unit=ft and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “WA_Clark_County-report sea level rise 2016.pdf.”

¹² State of Washington Department of Ecology, *Preparing for a Changing Climate Washington State’s Integrated Climate Response Strategy* p. 90 (Publication No. 12-01-004: April 2012) last accessed on Feb. 5, 2020 at: <https://fortress.wa.gov/ecy/publications/publications/1201004.pdf> and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “1201004.pdf.”

¹³ *Id.* at p. 17.

¹⁴ Krishna Rao, *Climate Change and Housing: Will a Rising Tide Sink all Homes?* ZILLOW webpage (Jun. 2, 2017) last accessed on Feb. 14, 2020 at: <http://www.zillow.com/research/climate-change-underwater-homes-12890/>.

¹⁵ *Id.*

beaches will depend on the rate of sea-level rise and, to a lesser extent, the amount of sediment input and loss.¹⁶

These impacts are why the Washington State Department of Ecology recommends “[l]imiting new development in highly vulnerable areas.”¹⁷

Unless wetlands and shoreline vegetation can migrate landward, their area and ecological functions will decline.¹⁸ If development regulations are not updated to address the need for vegetation to migrate landward in feasible locations, wetlands and shoreline vegetation will decline. This loss of shoreline vegetation will harm the environment. It will also deprive marine shorelines of the vegetation that protects property from erosion and storm damage by modifying soils and accreting sediment.¹⁹ This will increase damage to upland properties.

To prevent these adverse impacts Futurewise recommend that the SMP require new lots and new buildings be located outside the area of likely sea level rise and if that is not possible, buildings should be elevated above the likely sea level rise. These requirements will provide better protection for buildings and people and will also allow wetlands and marine vegetation to migrate as the sea level rises. We recommend the following new regulations be added to the SMP periodic update in CCC 40.460.530D.3. on page 31 of 99.

- h. New lots shall be designed and located so that the buildable area is outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.
- i. Where lots are large enough, new structures and buildings shall be located so that they are outside the area likely to be inundated by sea level rise in 2100 and outside of the area in which wetlands and aquatic vegetation will likely migrate during that time.

¹⁶ National Research Council, *Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* p. 135 (2012).

¹⁷ State of Washington Department of Ecology, *Preparing for a Changing Climate Washington State's Integrated Climate Response Strategy* p. 90 (Publication No. 12-01-004: April 2012).

¹⁸ Christopher Craft, Jonathan Clough, Jeff Ehman, Samantha Joye, Richard Park, Steve Pennings, Hongyu Guo, and Megan Machmuller, *Forecasting the effects of accelerated sea-level rise on tidal marsh ecosystem services* FRONT ECOL ENVIRON 2009; 7, doi:10.1890/070219 p. *6 last accessed on Feb. 5, 2020 at:

<http://nsmn1.uh.edu/steve/CV/Publications/Craft%20et%20al%202009.pdf>. Frontiers in Ecology and the Environment is a peer-reviewed scientific journal. Frontiers in Ecology and the Environment Journal Overview webpage last accessed on Feb. 19, 2020 at: <https://esajournals.onlinelibrary.wiley.com/journal/15409309>. Both on the data CD enclosed with Futurewise's Feb. 25, 2020, letter transmitting supporting materials with the filename: "Craft et al 2009.pdf" and "Frontiers in Ecology and the Environment - Journal Overview" respectively.

¹⁹ R. A. Feagin, S. M. Lozada-Bernard, T. M. Ravens, I. Möller, K. M. Yeagei, A. H. Baird and David H. Thomas, *Does Vegetation Prevent Wave Erosion of Salt Marsh Edges?* 106 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA pp. 10110-10111 (Jun. 23, 2009) last accessed on Feb. 5, 2020 at: <http://www.pnas.org/content/106/25/10109.full> and on the data CD enclosed with Futurewise's Feb. 25, 2020, letter transmitting supporting materials with the filename: "10109.full.pdf." This journal is peer-reviewed. *Id.* at p. 10113.

- j. New and substantially improved structures shall be elevated above the likely sea level rise elevation in 2100 or for the life of the building, whichever is less.

Also, to avoid flooding, erosion, and other adverse impacts on shoreline resources, Futurewise strongly recommends that the County take a comprehensive approach to adapting to sea level rise and its adverse impacts modeled on the process California's coastal counties and cities use. The process includes six steps.²⁰

1. Determine the range of sea level rise projections relevant to Clark County's shorelines subject to tidal influence. The California Coastal Commission recommends analyzing intermediate and long-term projections because "development constructed today is likely to remain in place over the next 75-100 years, or longer."²¹
2. Identify potential physical sea level rise impacts in Clark County's shorelines subject to tidal influence.
3. Assess potential risks from sea level rise to the resources and development on the shorelines subject to tidal influence.
4. Identify adaptation strategies to minimize risks. The *California Coastal Commission Sea Level Rise Policy Guidance* includes recommended adaptation strategies to consider.²²
5. Adopt an updated shoreline master program incorporating the selected adaptation strategies.
6. Implement the updated shoreline master program and monitor and revise as needed. Because the scientific data on sea level rise is evolving, the California Coastal Commission recommends modifying "the current and future hazard areas on a five to ten year basis or as necessary to allow for the incorporation of new sea level rise science, monitoring results, and information on coastal conditions."²³

Require analysis of all geological hazards which can adversely impact a proposed development and require case-by-case determinations of landslide buffers based on the risk to the proposed development. Please see CCC 40.460.530E.2.a. and 3.c. on pages 31 – 32 of 99

The March 22, 2014, Oso landslide "claimed the lives of 43 people, making it the deadliest landslide event in United States history. Of the approximately 10 individuals who were struck by the landslide

²⁰ *California Coastal Commission Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits* pp. 69 – 95 (Nov. 7, 2018) last accessed on Feb. 10, 2020 at: <https://www.coastal.ca.gov/climate/slrguidance.html> and on the data CD enclosed with Futurewise's Feb. 25, 2020, letter transmitting supporting materials with the filename: "0_Full_2018AdoptedSLRGuidanceUpdate.pdf."

²¹ *Id.* at p. 74.

²² *Id.* at pp. 121 – 162.

²³ *Id.* at p. 94.

and survived, several sustained serious injuries.”²⁴ So properly designating geologically hazardous areas and protecting people from geological hazards is very important.

Homeowner’s insurance does not cover the damage from landslides. “Insurance coverage for landslides is uncommon. It is almost never a standard coverage and is difficult to purchase inexpensively as a policy endorsement.”²⁵

None of the Oso victims’ homes were covered by insurance for landslide hazards.²⁶ And that is common when homes are damaged by landslides.²⁷ For example, on March 14, 2011, a landslide damaged the home of Rich and Pat Lord.²⁸ This damage required the homeowners to abandon their home on Norma Beach Road near Edmonds, Washington. Because their homeowner’s insurance did not cover landslides, they lost their home.²⁹ This loss of what may be a family’s largest financial asset is common when homes are damaged or destroyed by landslides or other geological hazards.

Landslide buyouts are rare and when they occur the property owner often only recovers pennies on the dollar. The property owners bought out after the Aldercrest-Banyon landslide in Kelso, Washington destroyed their homes received 30 cents on the dollar.³⁰ This underlines why preventing development in geologically hazardous areas is just plain ordinary consumer protection.

Landslides in Western Washington can run out long distances. The 1949 Tacoma Narrows Landslide, in Tacoma “failed catastrophically along steep” 300 feet high bluffs and ran out 1,500 feet

²⁴ Jeffrey R. Keaton, Joseph Wartman, Scott Anderson, Jean Benoît, John deLaChapelle, Robert Gilbert, David R. Montgomery, *The 22 March 2014 Oso Landslide, Snohomish County, Washington* p. 1 (Geotechnical Extreme Events Reconnaissance (GEER): July 22, 2014) last accessed on Jan. 23, 2020 at: http://www.geerassociation.org/index.php/component/geer_reports/?view=geerreports&layout=build&id=30 and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “GEER_Oso_Landslide_Report.pdf.” If the American territories are included, then the Oso landslide is the second deadliest landslide in American history. R.M. Iverson, D.L. George, K. Allstadt, *Landslide mobility and hazards: implications of the Oso disaster* 412 EARTH AND PLANETARY SCIENCE LETTERS 197, 198 (2015). The Geological Society of America gave an award to *The 22 March 2014 Oso Landslide, Snohomish County, Washington*. Hannah Hickey, Joseph Wartman, David Montgomery honored for Oso landslide report p. 1 (July 15, 2016) on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “GEER Oso Report Receives Award.pdf.”

²⁵ Robert L. Schuster & Lynn M. Highland, *The Third Hans Cloos Lecture: Urban landslides: socioeconomic impacts and overview of mitigative strategies* 66 BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT 1, p. 22 (2007) last accessed on Jan. 23, 2020 at: <https://www.researchgate.net/publication/225794820> *The Third Hans Cloos Lecture Urban landslides socioeconomic impacts and overview of mitigative strategies*.

²⁶ Sanjay Bhatt, *Slide erased their homes, but maybe not their loans* *The Seattle Times* (April 2, 2014) last accessed on Jan. 6, 2020 at: http://old.seattletimes.com/html/latestnews/2023278858_mudslidefinancial.xml.html.

²⁷ *Id.*

²⁸ Ian Terry, *Abandoned and trashed after mudslide, Edmonds house now for sale* *The Herald* (Feb. 11, 2015). The house is for sale after the bank who held the Lord’s mortgage took ownership of the home. *Id.* Last accessed on Jan. 6, 2020 at: <http://www.heraldnet.com/article/20150211/NEWS01/150219829>.

²⁹ *Id.* at p. *6.

³⁰ Isabelle Sarikhan, *Sliding Thought Blog, Washington’s Landslide Blog* Landslide of the Week – Aldercrest Banyon Landslide July 29, 2009 last accessed on Feb. 6, 2020 at: <https://slidingthought.wordpress.com/2009/07/29/landslide-of-the-week-aldercrest-banyon-landslide/>.

into Puget Sound.³¹ This is five times the buff height. The 2014 Oso slide ran out for over a mile (5,500 feet) even through the slope height was 600 feet.³² This was nine times the slope height. Recent research shows that long runout landslides are more common than had been realized.³³ This research documents that over the past 2000 years, the average landslide frequency of long runout landslides in the area near the Oso landslide is one landslide every 140 years.³⁴ The landslides ran out from 656 feet to the 6,561 feet of the 2014 landside.³⁵ The 2013 Ledgewood-Bonair Landslide on Whidbey Island extended approximately 300 feet into Puget Sound.³⁶ In a study of shallow landslides along Puget Sound from Seattle to Everett, the average runout length was 197.5 feet (60.2 m) and the maximum runout length was 771 feet (235 m).³⁷ So only requiring development that must obtain a county approval and is in or within 100 feet of a geologic hazard area to comply with the geologically hazardous area requirements as CCC 40.460.530E.2.a. does not adequately protect people and property. As the cited landslide runouts show, limiting the toe of slope buffer to half of the slope height but not to exceed 15 feet as CCC 40.430.020D.2.a. does will not protect people and

³¹ Alan F. Chleborad, *Modeling and Analysis of the 1949 Narrows Landslide, Tacoma, Washington* xxxi ENVIRONMENTAL AND ENGINEERING GEOSCIENCE 305 p. 305 (1994) last accessed on Feb. 6, 2020 at: <https://pubs.geoscienceworld.org/aeg/eeg/article-abstract/xxxi/3/305/137520/modeling-and-analysis-of-the-1949-narrows?redirectedFrom=fulltext> and cited page on the data CD enclosed with Futurewise's Feb. 25, 2020, letter transmitting supporting materials with the filename: "Modeling and Analysis of the 1949 Narrows Landslide, Tacoma, WA _ Environmental and Engineering Geoscience.pdf" Environmental & Engineering Geoscience is a peer-reviewed journal. Environmental & Engineering Geoscience Complete Author Instructions p. 1 of 6 (May 8, 2012) on the data CD enclosed with Futurewise's Feb. 25, 2020, letter transmitting supporting materials with the filename: "Environmental & Engineering Geoscience Author Instructions.pdf."

³² Jeffrey R. Keaton, Joseph Wartman, Scott Anderson, Jean Benoît, John deLaChapelle, Robert Gilbert, David R. Montgomery, *The 22 March 2014 Oso Landslide, Snohomish County, Washington* p. 56 & p. 144 (Geotechnical Extreme Events Reconnaissance (GEER): July 22, 2014).

³³ Sean R. LaHusen, Alison R. Duvall, Adam M. Booth, and David R. Montgomery, *Surface roughness dating of long-runout landslides near Oso, Washington (USA), reveals persistent postglacial hillslope instability* GEOLOGY pp. *2 – 3, published online on 22 December 2015 as doi:10.1130/G37267.1 and on the data CD enclosed with Futurewise's Feb. 25, 2020, letter transmitting supporting materials with the filename: "G37267.1.full.pdf"; Geological Society of America (GSA) Data Repository 2016029, *Data repository for: Surface roughness dating of long-runout landslides near Oso, WA reveals persistent postglacial hillslope instability* p. 4 and on the data CD enclosed with Futurewise's Feb. 25, 2020, letter transmitting supporting materials with the filename: "2016029.pdf." Geology is a peer-reviewed scientific journal. Geology – Prep webpage accessed on Jan. 23, 2018 at:

<http://www.geosociety.org/GSA/Publications/Journals/Geology/GSA/Pubs/geology/home.aspx#overview> and on the data CD enclosed with Futurewise's Feb. 25, 2020, letter transmitting supporting materials with the filename: "Geology – Prep.pdf."

³⁴ Sean R. LaHusen, Alison R. Duvall, Adam M. Booth, and David R. Montgomery, *Surface roughness dating of long-runout landslides near Oso, Washington (USA), reveals persistent postglacial hillslope instability* GEOLOGY p. *2, published online on 22 December 2015 as doi:10.1130/G37267.1.

³⁵ Geological Society of America (GSA) Data Repository 2016029, *Data repository for: Surface roughness dating of long-runout landslides near Oso, WA reveals persistent postglacial hillslope instability* p. 4.

³⁶ Stephen Slaughter, Isabelle Sarikhan, Michael Polenz, and Tim Walsh, *Quick Report for the Ledgewood-Bonair Landslide, Whidbey Island, Island County, Washington* pp. 3 – 4 (Washington State Department of Natural Resources, Division of Geology and Earth Resources: March 28, 2013) last accessed on Feb. 6, 2020 at: http://www.dnr.wa.gov/publications/ger_qr_whidbey_island_landslide_2013.pdf.

³⁷ Edwin L. Harp, John A. Michael, and William T. Laprade, *Shallow-Landslide Hazard Map of Seattle, Washington* p. 17 (U.S. Geological Survey Open-File Report 2006–1139: 2006) accessed on Feb. 6, 2020 at: <http://pubs.usgs.gov/of/2006/1139/> and on the data CD enclosed with Futurewise's Feb. 25, 2020, letter transmitting supporting materials with the filename: "of06-1139_508.pdf."

property. Similarly, limiting the top of slope buffer to one third of the slope height but not to exceed 40 feet as CCC 40.430.020D.2.b. does will not protect people and property.

The Joint SR 530 Landslide Commission recommends identifying “[c]ritical area buffer widths based on site specific geotechnical studies” as an “innovative development regulation[]” that counties and cities should adopt.³⁸ So we recommend that all properties that may be adversely impacted by a steep slope hazard should have their buffers based on a critical areas report for that site. Construction should not be allowed in buffer areas. These standards are necessary to protect Clark County families and their largest investment, their homes. For these reasons we recommend that CCC 40.460.530E.2.a. be revised to read as follows with our additions double underlined and our deletions struck through.

a. All construction, development, earth movement, clearing, or other site disturbance which may be adversely impacted by ~~requires a permit, approval or other authorization from the County in or within one hundred (100) feet of a~~ geologic hazard area shall comply with the requirements of this Program.

For the above reasons we recommend that CCC 40.460.530E.2.a. be revised to read as follows with our additions double underlined and our deletions struck through.

a. The Shoreline Administrator shall determine the size of the required buffer and setback based upon a critical area report prepared by a geotechnical engineer or geologist. ~~Required buffers and setbacks for development activities in geologic hazard areas are specified in Section 40.430.020.~~

b. ~~The Shoreline Administrator may approve buffers and setbacks which differ from those required by Section 40.430.020(D)(1) if the applicant submits a geologic hazard area study described in Section 2 40.430.030(C), which technically demonstrates and illustrates that the alternative buffer provides protection which is greater than or equal to that provided by the buffer required in Section 40.430.020(D)(1).~~

~~e~~ The Shoreline Administrator may increase buffers or setbacks where necessary to meet requirements of the International Building Code.

³⁸ The SR 530 Landslide Commission, *Final Report* p. 31 (Dec. 15, 2014) accessed on Feb. 6, 2020 at: http://www.governor.wa.gov/sites/default/files/documents/SR530LC_Final_Report.pdf and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “SR530LC_Final_Report.pdf.”

Adopt up-to-date riparian buffers in CCC 40.460.530F.1.a.(3) on page 32 of 99 and CCC 40.460.570 on pages 40 – 42 of 99 to protect Chinook habitat and other aquatic habitats

As has been reported in media and scientific reports, the Southern Resident orcas, or killer whales, are threatened by (1) an inadequate availability of prey, the Chinook salmon, “(2) legacy and new toxic contaminants, and (3) disturbance from noise and vessel traffic.”³⁹ “Recent scientific studies indicate that reduced Chinook salmon runs undermine the potential for the Southern Resident population to successfully reproduce and recover.”⁴⁰ A 2018 analysis by the National Oceanic and Atmospheric Administration and the State of Washington Department of Fish and Wildlife ranked the Lower Columbia spring Chinook stocks that originate in the Lewis River as the 7th highest in importance as food sources for the Southern Resident killer whales.⁴¹ The shoreline master program update is an opportunity to take steps to help recover the Southern Resident orcas, the Chinook salmon, and the species and habitats on which they depend.

The Shoreline Master Program (SMP) Guidelines, in WAC 173-26-221(3)(c), provides in part that “[i]n establishing vegetation conservation regulations, local governments must use available scientific and technical information, as described in WAC 173-26-201 (2)(a). At a minimum, local governments should consult shoreline management assistance materials provided by the department and *Management Recommendations for Washington's Priority Habitats*, prepared by the Washington state department of fish and wildlife where applicable.”

The State of Washington Department of Fish and Wildlife has recently updated the Priority Habitat and Species recommendations for riparian areas. The updated management recommendations document that fish and wildlife depend on protecting riparian vegetation and the functions this vegetation performs such as maintaining a complex food web that supports salmon and maintaining temperature regimes to name just a few of the functions.⁴²

The updated *Riparian Ecosystems, Volume 1: Science synthesis and management implications* scientific report concludes that the “[p]rotection and restoration of riparian ecosystems continues to be critically important because: a) they are disproportionately important, relative to area, for aquatic species, e.g.,

³⁹ State of Washington Office of the Governor, Executive Order 18-02 Southern Resident Killer Whale Recovery and Task Force p. 1 (March 14, 2018) last accessed on Feb. 18, 2020 at:

https://www.governor.wa.gov/sites/default/files/exe_order/eo_18-02_1.pdf and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “eo_18-02_1.pdf.”

⁴⁰ *Id.*

⁴¹ National Oceanic and Atmospheric Administration and the State of Washington Department of Fish and Wildlife, *Southern Resident Killer Whale Priority Chinook Stocks* p. 6 (June 22, 2018) last accessed on Feb. 18, 2020 at:

<https://www.documentcloud.org/documents/4615304-SRKW-Priority-Chinook-Stocks.html> and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “SRKW-Priority-Chinook-Stocks.pdf.”

⁴² Timothy Quinn, George F. Wilhere, and Kirk L. Krueger, technical editors, *Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications* pp. 265 – 68 & p. 270 (A Priority Habitat and Species Document of the Washington Department of Fish and Wildlife, Olympia, WA: Updated Jan. 2020) last accessed on Feb. 18, 2020 at: <https://wdfw.wa.gov/publications/01987/> and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “wdfw01987.pdf.” This report was peer-reviewed. *Id.* at pp. 11 – 12.

salmon, and terrestrial wildlife, b) they provide ecosystem services such as water purification and fisheries (Naiman and Bilby 2001; NRC 2002; Richardson et al. 2012), and c) by interacting with watershed-scale processes, they contribute to the creation and maintenance of aquatic habitats.”⁴³ The report states that “[t]he width of the riparian ecosystem is estimated by one 200-year site-potential tree height (SPTH) measured from the edge of the active channel or active floodplain. Protecting functions within at least one 200-year SPTH is a scientifically supported approach if the goal is to protect and maintain full function of the riparian ecosystem.”⁴⁴ For Clark County, the stream length-weighted third quartile 200-year SPTH is 235 feet.⁴⁵

We recommend that shoreline jurisdiction should continue to include the 100-year flood plain⁴⁶ and that the buffers for river and stream shoreline be increased to use the newly recommended 200-year SPTH of 235 feet and that this width should be measured from the edge of the channel, channel migration zone, or active floodplain whichever is wider.⁴⁷ New development, except water dependent uses should not be allowed within this area.⁴⁸ This will help maintain shoreline functions and Chinook habitat.

Clarify that the SMP protects fish and wildlife habitats depicted in the PHS GIS database as points, lines, and areas. Please see CCC 40.460.530F.1.a.(4) on page 32 of 99

The Shoreline Master Program (SMP) Guidelines in WAC 173-26-221(2)(a)(ii) provide that shoreline master programs “must” “[p]rovide a level of protection to critical areas within the shoreline area [including fish and wildlife habitat conservation areas] that assures no net loss of shoreline ecological functions necessary to sustain shoreline natural resources[.]”⁴⁹ WAC 173-26-191(2) provides in relevant part that “[t]he terms ‘shall,’ ‘must,’ and ‘are required’ and the imperative voice, mean a mandate; the action is required ...”

The actual location of most fish and wildlife habitats are identified through the Washington Department of Fish and Wildlife’s (WDFW) Priority Habitats and Species (PHS) geographic

⁴³ *Id.* at p. 270.

⁴⁴ *Id.* at p. 271.

⁴⁵ Amy Windrope, Timothy Quinn, Keith Folkerts, and Terra Rentz, *Riparian Ecosystems, Volume 2: Management Recommendations* p. A2-3 (A Priority Habitat and Species Document of the Washington Department of Fish and Wildlife, Olympia: May 2018 Public Review Draft) last accessed on Feb. 18, 2020 at <https://wdfw.wa.gov/publications/01988/> and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “wdfw01988.pdf.”

⁴⁶ Authorized by RCW 90.58.030(2)(d)(i).

⁴⁷ Amy Windrope, Timothy Quinn, Keith Folkerts, and Terra Rentz, *Riparian Ecosystems, Volume 2: Management Recommendations* p. A2-8 (A Priority Habitat and Species Document of the Washington Department of Fish and Wildlife, Olympia: May 2018 Public Review Draft).

⁴⁸ Timothy Quinn, George F. Wilhere, and Kirk L. Krueger, technical editors, *Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications* pp. 270 – 71 (A Priority Habitat and Species Document of the Washington Department of Fish and Wildlife, Olympia, WA: Updated Jan. 2020).

⁴⁹ The SMP Guidelines specifically recognize fish and wildlife habitat conservation areas as critical areas. WAC 173-26-020(8); WAC 173-26-221(2)(a)(ii).

information system maps and datasets.⁵⁰ This habitat data is depicted as points, lines, and polygons, the polygons are also referred to as areas.⁵¹ The enclosed screen shots from the PHS on the Web website show various habitats in unincorporated Clark County.⁵² As you can see, the habitats are shown as lines and areas. The line habitats include the federally threatened Coho and Chinook salmon. The area habitats include the state endangered Sandhill Crane and waterfowl concentrations.⁵³ However, the current shoreline master program does not protect the area and line habitats. CCC 40.460.530F.1.a.(4) only requires review for developments that are near but will impact out of water priority species and habitats for point habitats, not line or area habitats. WAC 173-26-221(2)(a)(ii) requires no net loss of all fish and wildlife habitat conservation areas including the habitats shown in the databases as areas and lines.⁵⁴ By failing to protect habitats depicted as lines and areas, CCC 40.460.530F.1.a.(4) fails to comply with this requirement. To address this inconsistency with the SMP Guidelines, we recommend that the following amendment to CCC 40.460.530F.1.a.(4) with our additions double underlined and our deletions double struck through.

(4) Other Priority Habitats and Species (PHS) Areas. Areas identified by and consistent with WDFW priority habitats and species criteria, including areas within one thousand (1,000) feet of individual priority habitats and areas used by priority species ~~point sites~~. The county shall defer to WDFW in regards to classification, mapping and interpretation of priority habitat species.

Clarify that all development must comply with the fish and wildlife habitat conservation requirements. Please see CCC 40.460.530F.2.a. on page 32 of 99

The Shoreline Master Program (SMP) Guidelines in WAC 173-26-221(2)(a)(ii) provide that shoreline master programs “must” “[p]rovide a level of protection to critical areas within the shoreline area [including fish and wildlife habitat conservation areas] that assures no net loss of shoreline ecological

⁵⁰ Washington Department of Fish and Wildlife, *Using PHS Data: Frequently Asked Questions* pp. 1 – 2 of 5 accessed on Jan. 22, 2018 at <http://apps.wdfw.wa.gov/phsontheweb/faq.htm> and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “PHS on the Web FAQs.pdf.”

⁵¹ *Id.* at 1 – 2 of 5; Washington Department of Fish and Wildlife, PHS on the Web screen shots pp. 1 – 4 accessed on Feb. 18, 2020 at: <http://apps.wdfw.wa.gov/phsontheweb/> and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “2020-02-18_10-37-06 PHS on Web Clark Co.pdf.” materials.

⁵² Washington Department of Fish and Wildlife, PHS on the Web screen shots pp. 1 – 4.

⁵³ *Id.* at pp. 1 – 3; Washington Department of Fish and Wildlife, Priority Habitats and Species identified for Clark County accessed on Feb. 18, 2020 at: <https://wdfw.wa.gov/species-habitats/at-risk/phs/list> and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “Copy of 2019_distribution_by_county.xls.”

⁵⁴ *Olympic Stewardship Found. v. State Envtl. & Land Use Hearings Office through W. Washington Growth Mgmt. Hearings Bd.*, 199 Wn. App. 668, 690, 399 P.3d 562, 572 (2017) review denied *Olympic Stewardship Foundation v. State Department of Ecology*, 189 Wn.2d 1040, 409 P.3d 1066 (2018) and *certiorari denied Olympic Stewardship Foundation v. State of Washington Environmental and Land Use Hearings Office*, 139 S.Ct. 81, 202 L.Ed.2d 25 (Oct. 01, 2018) “In fact, reasonable and appropriate uses should be allowed on the shorelines only if they will result in no net loss of shoreline ecological functions and systems. See RCW 90.58.020; WAC 173-27-241(3)(j).” See also *Futurewise v. Stevens County*, EWGMHB Case No. 05-1-0006, Final Decision and Order (Jan. 13, 2006), at 2 *affirmed Stevens Cty. v. Futurewise*, 146 Wn. App. 493, 497, 192 P.3d 1, 3 (2008) *review denied Stevens Cty. v. Futurewise*, 165 Wn.2d 1038, 205 P.3d 132 (2009).

functions necessary to sustain shoreline natural resources[.]” WAC 173-26-186(8)(b)(ii) also provides that “[l]ocal master programs shall include regulations ensuring that exempt development in the aggregate will not cause a net loss of ecological functions of the shoreline.”

However, CCC 40.460.530F.2.a. only applies to proposals within a habitat area which require a permit, approval, or other authorization from the County. To ensure that exempt development in the aggregate will not cause a net loss of ecological functions of the shoreline as WAC 173-26-186(8)(b)(ii) requires, we recommend that CCC 40.460.530F.2.a. be amended to require review of all site disturbing proposals. Our recommended deletions are double struck through.

a. All construction, development, earth movement, clearing, or other site disturbance proposals within a habitat area ~~which require a permit, approval, or other authorization from the county~~ shall be reviewed pursuant to Chapter 40.440 and shall comply with the requirements of this section.

Please update priority habitat and species list and the priority species and habitat documents listed in the critical areas regulations.

The Washington State Department of Fish and Wildlife regularly updates the priority habitats and species list. The most recent list was updated in 2019 and is enclosed on the data CD that includes the documents cited in this letter. In addition, other the management recommendations for the priority species have been updated and other recommendations are being updated, such as the mammal recommendations.

CCC 40.460.530B.4. provides that CCC 40.440.010C.2. applies to the protection of priority habitats and species in shoreline jurisdiction. CCC 40.440.010C.2. references two out of date documents. To adequately protect shoreline functions, CCC 40.440.010C.2. should be updated with our additions double underlined and our deletions double struck through.

2. Best Available Science. Definitions and maps of habitat areas are based on best available science, as defined in WAC 365-195-905 (Criteria for determining which information is the “best available science”) and described in the following documents:

a. The current ~~1999~~ Washington Department of Fish and Wildlife Priority Habitats and Species List;

b. The State of Washington Department of Fish and Wildlife’s current ~~1997~~ mManagement rRecommendations for the priority habitat or priority species ~~Washington’s Priority Habitats~~;

[No additional amendments recommended to CCC 40.440.010C.2.]

Protect isolated Category III wetlands of less than 2,500 square feet and isolated Category IV wetlands of less than 4,350 square feet

The Shoreline Master Program (SMP) Guidelines in WAC 173-26-221(2)(a)(ii) provide that shoreline master programs “must” “[p]rovide a level of protection to critical areas within the shoreline area [including wetlands] that assures no net loss of shoreline ecological functions necessary to sustain shoreline natural resources[.]”⁵⁵ WAC 173-26-191(2) provides in relevant part that “[t]he terms ‘shall,’ ‘must,’ and ‘are required’ and the imperative voice, mean a mandate; the action is required ...” WAC 173-26-221(2)(c)(i)(A) requires Shoreline Master Program regulations “to achieve, at a minimum, no net loss of wetland area and functions ...”

Small wetlands provide important wetland functions. The State of Washington Department of Ecology has summarized the science applicable to small wetlands:

- The studies of the correlation of wetland size to wildlife use conflict somewhat in their findings, but most generally conclude that small wetlands are important habitats (particularly where adjacent buffer habitats are available) and that elimination of small wetlands can negatively impact local populations.
- Small wetlands provide habitat for a range of species that are not a subset of the species found in larger, more permanently inundated wetlands. Small wetlands do not just provide a smaller area for the same array of amphibian species found in larger wetlands.
- Small wetlands are very important in reducing isolation among wetland habitat patches. Smaller wetlands provide significant habitat for wildlife and affect the habitat suitability of larger wetlands by reducing isolation on the landscape.
- The presence of small wetlands reduces the distance between wetlands and thus increases the probability of successful dispersal of organisms. This, in turn, likely increases the number of individuals dispersing among patches in a wetland mosaic, thereby reducing the chance of population extinction.
- Isolated wetlands provide the same range of wetland functions as non-isolated wetlands. Isolated wetlands provide important water quantity, water quality, and habitat functions.⁵⁶

⁵⁵ The SMP Guidelines specifically recognize wetlands as critical areas. WAC 173-26-020(8)(a); WAC 173-26-221(2)(c)(i).

⁵⁶ D. Sheldon, T. Hruby, P. Johnson, K. Harper, A. McMillan, T. Granger, S. Stanley, and E. Stockdale, *Wetlands in Washington State - Volume 1: A Synthesis of the Science* pp. 5-12 – 5-13 (Washington State Department of Ecology Publication #05-06-006 Olympia, WA: March 2005) last accessed on Aug. 15, 2019 at: <https://fortress.wa.gov/ecy/publications/summarypages/0506006.html> and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “0506006.pdf.”

CCC 40.460.530B.5. provides that CCC 40.450.010C.2.a. applies to wetlands under the jurisdiction of the Shoreline Management Act. CCC 40.450.010C.2.a. exempts from wetland protections isolated Category III wetlands less than 2,500 square feet in area and isolated Category IV wetlands less than 4,350 square feet in area. So, these wetlands can be adversely impacted without any replacement of the lost functions. This violates WAC 173-26-221(2)(a)(ii) and WAC 173-26-221(2)(c)(i)(A). CCC 40.460.530B.5. should be repealed to comply with the SMP Guidelines and the Shoreline Management Act.

Increase mitigation ratios for riparian vegetation mitigation in CCC 40.460.570D. on page 41 of 99 to protect fish and wildlife habitats

No net loss of ecological functions is a requirement for shoreline management programs.⁵⁷ A peer-reviewed study concluded that “[i]t appears that riparian habitats are much more difficult to compensate for because 57% of projects sampled for this variable resulted in a net loss and no projects achieved a net gain.”⁵⁸ The study continued “even if projects were entirely compliant and created twice as much compensation habitat compared to the [impacted habitat], the Habitat Policy goal of [no net loss] NNL would still not always be achieved.”⁵⁹

Mitigation ratios of 1 to 1 will not result in no net loss for riparian vegetation. We recommend that CCC 40.460.570D be amended to read as follows with our additions double underlined.

D. If vegetation removal cannot be avoided, it shall be minimized and then mitigated at a minimum ratio of one to one (1:1), and shall result in no net loss of shoreline ecological functions. Riparian vegetation shall be replaced at a ratio of 2.25 in mitigation area to 1 of the area adversely impacted. Lost functions may be replaced by enhancing other functions; provided, that no net loss in overall functions is demonstrated and habitat connectivity is maintained. Mitigation shall be provided consistent with an approved mitigation plan.

Prohibit net pen aquaculture for nonnative species in Table 40.460.620-1. Shoreline Use, Modification, and Development Standards on page 44 of 99

RCW 77.125.050(1) provides that the State of Washington Department of Natural Resources “may authorize or permit activities associated with the use of marine net pens for nonnative marine finfish aquaculture only if these activities are performed under a lease of state-owned aquatic lands in effect on June 7, 2018. The department may not authorize or permit any of these activities or operations after the expiration date of the relevant lease of state-owned aquatic lands in effect on June 7, 2018.”

⁵⁷ WAC 173-26-186(8)(b) & (d); WAC 173-27-241(3)(j).

⁵⁸ Jason T. Quigley and David J. Harper, *Effectiveness of Fish Habitat Compensation in Canada in Achieving No Net Loss* 37 ENVIRONMENTAL MANAGEMENT 351, p. 356 (2006) and on the data CD enclosed with Futurewise’s Feb. 25, 2020, letter transmitting supporting materials with the filename: “Effectiveness of Fish Habitat Compensation in Canada in Achieving No Net Loss 2006.pdf.” This article was peer-reviewed. *Id.* at p. 364.

⁵⁹ *Id.* pp. 361 – 62.

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February 26, 2019
Page 17

Consistent with RCW 77.125.050(1), Table 40.460.620-1 should prohibit marine net pens for nonnative marine finfish aquaculture.

Thank you for considering our comments. If you require additional information, please contact me at telephone 206-343-0681 Ext. 102 and email: tim@futurewise.org.

Very Truly Yours,

A handwritten signature in blue ink, consisting of two stylized, overlapping 'S' shapes.

Tim Trohimovich, AICP
Director of Planning and Law

From: [FLORES, HUGO \(DNR\)](#)
To: [Jenna Kay](#)
Subject: [Contains External Hyperlinks] Clark County SMP Periodic Review Comments
Date: Thursday, February 27, 2020 7:55:40 AM
Attachments: [SMPPrComments.pdf](#)

CAUTION: This email originated from outside of Clark County. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Jenna,

Thank you for the opportunity to provide comments on the Clark County SMP Periodic Review. Let me know if you have questions.

Hugo

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WASHINGTON STATE DEPT OF
**NATURAL
RESOURCES**

February 25, 2020

Jenna Key, Planner II
Clark County Community Planning
1300 Franklin Street PO Box 9810
Vancouver, WA. 98666-9810

RE: Clark County SMP Periodic Review

Dear Jenna,

Thank you for the opportunity to provide comments on the Clark County Shoreline Master Program Periodic Review. The Department of Natural Resources (DNR) manages 2.6 million acres of state-owned aquatic lands for the benefit of current and future citizens of the state. As steward of these lands, DNR is responsible for balancing the benefits provided by state-owned aquatic lands, which include encouraging direct public use and access; fostering water dependent uses; ensuring environmental protection; utilizing renewable resources; and when in agreement with these public benefits, generating revenue which is also a public benefit. The Department of Natural Resources' comments take into consideration these public benefits and are intended to avoid inconsistencies with the Clark County SMP. DNR staff have reviewed the proposed Clark County SMP amendments and provided comments summarized in the table attached to this letter. If you have questions, you may contact me at (360) 902-1126 or hugo.flores@dnr.wa.gov

Sincerely,

A handwritten signature in black ink, appearing to read "Hugo Flores".

Hugo Flores
SMA-GMA-Harbor Areas

Location	Text	Comment	Suggested Language
<p>4. Floating homes and on-water residences. Proposed Code Change to CCC 40.460.250(B)(7) and 40.460.630(K)(11) and (12).12(a)</p>	<p>Floating homes shall be moored at sites established as floating home moorages consistent with Section 40.460.630(C)</p>	<p>40.460.630(C) addresses boating uses which reference DNR requirements and other state guidance. DNR is very supportive of this and commends Clark County for this approach. However, the lack of a definition for "floating home moorages" does not provide specific criteria and guidelines. This opens many potential interpretations for floating home moorages.</p>	<p>DNR would suggest adding language that identifies what a floating home moorage is and that they can only be located at established marinas/boating facilities according to 40.460.630(C).</p>
<p>4. Floating homes and on-water residences. Proposed Code Change to CCC 40.460.250(B)(7) and 40.460.630(K)(11) and (12).12(c)</p>	<p>Floating homes may relocate within a moorage or between moorage sites, consistent with the standards of Section 40.460.630(C) and 40.460.630(K).</p>	<p>DNR's WAC 332-30-171(a-c) addresses the issue of grandfather sites for floating homes. According to this, local governments need to identify specific sites and circumstances for floating house moorage in an adopted local shoreline management plan that provides for the present and future needs of all uses, considers cumulative impacts to habitat and resources of statewide value, identifies specific areas or situations in which floating house moorage will be allowed, and justifies the exceptional nature of those areas or situations; and (c) The floating house moorage is compatible with water-dependent uses existing in or planned for the area.</p>	<p>DNR would suggest adding language that identifies the specific circumstances for moving floating homes.</p>

Location	Text	Comment	Suggested Language
<p>4. Floating homes and on-water residences. Proposed Code Change to CCC 40.460.250(B)(7) and 40.460.630(K)(13).13(a)</p>	<p>New floating on-water residences shall be moored at sites established as a floating on-water moorages consistent with Section 40.460.630(C).</p>	<p>40.460.630(C) addresses boating uses which reference DNR requirements and other state guidance. DNR is very supportive of this and commends Clark County for this approach. However, the lack of a definition for "floating on-water moorages" does not provide specific criteria and guidelines. This opens many potential interpretations for floating on-water moorages.</p>	<p>DNR would suggest adding language that identifies what a floating on-water moorage is and that they can only be located at established marinas/boating facilities according to 40.460.630(C).</p>
<p>4. Floating homes and on-water residences. Proposed Code Change to CCC 40.460.250(B)(7) and 40.460.630(K)(11) and (12).12(c)</p>	<p>On-water residences may be relocated within a moorage or between moorage sites, consistent with the standards of Section 40.460.630(C) and 40.460.630(K).</p>	<p>DNR's WAC 332-30-171(7)(a-c) addresses the issue of grandfather sites for floating homes. According to this, local governments need to identify specific sites and circumstances for floating house moorage in an adopted local shoreline management plan that provides for the present and future needs of all uses, considers cumulative impacts to habitat and resources of statewide value, identifies specific areas or situations in which floating house moorage will be allowed, and justifies the exceptional nature of those areas or situations; and (C) The floating house moorage is compatible with water-dependent uses existing in or planned for the area.</p>	<p>DNR would suggest adding language that identifies the specific circumstances for moving on-water residences as established by WAC 332-30-171(7)(a-c).</p>

From: [Van Zwalenburg, Kim \(ECY\)](#)
To: [Jenna Kay](#)
Cc: [Rothwell, Rebecca \(ECY\)](#); [Bunten, Donna \(ECY\)](#)
Subject: [Contains External Hyperlinks] CAO comments - priorities for the SMP
Date: Friday, February 28, 2020 5:19:20 PM
Attachments: [Ecology CAO comments.docx](#)
[Flood Hazard Areas NFIP regulations and your SMP.msg](#)

CAUTION: This email originated from outside of Clark County. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Jenna:

I wanted to send this quick email regarding this topic in case I need to leave suddenly again.

I copied the comments (from the email I forwarded to you earlier in the week) into the attached Word document and then annotated it to help set priorities for you in addressing these. In large measure, our concerns are focused on buffers, how they can be reduced and where things can occur – generally encroachment should be limited to the outer portion of the buffer.

The basis for my comments lies in the SMP Guidelines requirement to ensure no net loss of ecological function along with the need to ensure your regulations are consistent with the most current, accurate, and complete scientific or technical information available (WAC 173-26-201(2)(a)).

One other small piece, or perhaps not so small piece to think about, has to do with the incorporation of your Flood Code (because it is embedded into your CAO) directly into the SMP. I am attaching an email I sent to Cayla Cothron about the same issue, and while specific to the Vancouver SMP, I am providing it for your consideration.

We can talk more about all of this. It may also be that for the time being we leave the flood provisions in the SMP as is. If the County hasn't had issues with implementation, this could be a low priority item to be more fully addressed at a later date and after Ecology's policy around this has gotten clearer (and written down!).

Kim

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Ecology comments on Clark County CAO¹

- 40.450.040.C.1 Reduced width: We recommend including language that all applicable design elements shall be implemented in order to be eligible for the buffer reduction from high intensity to moderate intensity. Otherwise, applicants may select only one or two that won't sufficiently reduce the intensity of the impact to warrant the buffer reduction. Also, Ecology's guidance does not include the option of reducing buffers from moderate intensity to low intensity through the impact-reducing measures. The impact-reducing measures aren't designed to reduce the adjacent impacts to low-intensity land use, which include uses such as forestry and unpaved trails. In no case should a buffer width based on the habitat function of a wetland be reduced in exchange for reductions in water quality impacts from adjacent land uses (40.450.040.C.1.a.3 (surface water management) and C.1.b (LID design)).

The County should be aware that Ecology recently changed its guidance on habitat scores. A habitat score of 5 is now considered to be low habitat function (previously, only 3-4 were considered to be low function). In section C.1.c(1) the language should be changed to "...scores higher than five (5)..." to reflect this change. Also, C.4.b should say "fewer than six (6) points."

40.450.040.C.2 states that the minimum buffer should be not less than the low-intensity buffer, which could represent a 50% reduction from our standard buffer recommendation. We believe that this represents a high-risk approach resulting in buffers that are not wide enough to protect the wetland's functions, and we recommend limiting the amount of reduction or average to 25% of the standard buffer width that would be required by the habitat score and the adjacent land use (i.e., the buffer should not be averaged or reduced to below 75% of the standard buffer).

- 40.450.040.C.3.a: Buffer averaging should not be used in combination with other buffer reduction methods on the same buffer segment.
- 40.450.040.C.4.b should state "(fewer than six (6) points..." (see above comment on habitat scores). Also, "the outer edge" is vague. We recommend limiting facilities to the outer 25% of the buffer.
- 40.450.040.C.5.b: We recommend including more specificity about how functions would be replaced. Would this mean requiring more buffer area to compensate for the area that is lost in the crossing?
- 40.450.040.C.6 should say "buffer reduction per 40.450.040.C.1" rather than "buffer reduction via enhancement."
- 40.450.040.D.1.a: These criteria for avoidance aren't consistent with mitigation sequencing. See <https://ecology.wa.gov/Water-Shorelines/Wetlands/Mitigation/Avoidance-and-minimization>. The applicant should be made aware that if state and federal permits are required, the Corps and Ecology do not interpret "avoidance" as it is described here.

Comment [VZK(1): My comments are intended to provide you with some guidance and identify priorities for addressing where we find the CAO no longer meeting most current, accurate, and complete scientific and technical information available.

Ensuring your critical areas provisions are consistent with Ecology's wetland guidance meets this requirement. (WAC 173-26-201(2)(a))

Comment [VZK(2): Jenna: Addressing this issue is important to ensure provisions are consistent with the SMP Guidelines requirement to meet no net loss of shoreline ecological functions. At the very least, the option to allow for reduction of buffers from moderate intensity to low intensity should not apply in shoreline jurisdiction, nor should the buffer width be reduced in exchange for reductions in water quality impacts (last sentence).

Comment [VZK(3): Limiting buffer modifications in shoreline jurisdiction, whether by averaging or reduction to no more than 25% should be a requirement in the SMP. Any greater reduction would be authorized by shoreline variance.

Comment [VZK(4): If this isn't clear in the SMP it should be. Mechanisms to reduce buffers should not be combined. The issue here may simply be a result of the way this provision is written.

Comment [VZK(5): It appears the numerical issue was addressed. Facilities should be limited to the outer 25% of wetland buffers in shoreline jurisdiction.

Comment [VZK(6): This is an important clarification.

¹ These comments were sent via email from Rebecca Rothwell to Sharon Lumbantobing on 4/16/2019 after review of proposed amendments to Title 40.450.040 submitted to Department of Commerce on March 20, 2019.

- 40.450.040.D.4.b: We recommend including additional criteria for considering preservation. See pages 40-41 of <https://fortress.wa.gov/ecy/publications/documents/1606001.pdf>.
- 40.450.040.D.4.c(4): This language is not consistent with interagency joint mitigation guidance or the wetland rating system regarding HGM classes separately within a wetland. We recommend removing it.
- 40.450.040.D.5.a: The meaning of this is not clear. Buffer loss doesn't result from wetland fill.
- 40.450.040.D.6: This language is not consistent with interagency joint mitigation guidance. The required width of the perimeter buffer should be sufficient to protect the proposed category of the compensation wetland and its proposed level of function, particularly habitat functions. If the applicant proposes to increase habitat functions then the buffer needs to be wide enough to protect those habitat functions.
- 40.450.040.D.8: Stormwater facilities must meet the avoidance and minimization criteria. They are considered an impact that must be compensated. This section should also state "fewer than six (6) points" (see above comment on habitat scores).
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- 40.450.040.D.9: Underground utility crossing can have adverse effects on wetlands due to draining or soil disruption. You should consider adding language about BMPs for these situations.
- 40.450.040.D.10: This section should say "consistent with D.1" since D.1 doesn't prohibit any activities. However, we wonder if this language is necessary? Is there a list of allowed uses provided in this chapter? If so, consider deleting this language because it may generally allow uses that have adverse effects on wetlands not specifically anticipated in this language.
- 40.450.030.D.1 should state that the identification of wetlands and delineation of their boundaries pursuant to this Title shall be done in accordance with the approved federal wetland delineation manual and Regional Supplement to the Corps of
- Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (2010). All areas within the county meeting the wetland designation criteria in that procedure are hereby designated critical areas and are subject to the provisions of this Title.
- 40.450.030.D.2.e(4) should state specifically what type of wetland "class;" does this refer to Cowardin class or HGM class?
- 40.450.030.D.2.g: This isn't clear. How does the acreage affect buffer size? Since this section is about delineation, we recommend deleting part of the sentence so that it reads "Acreage of each wetland on the site."
- 40.450.030.E.2 should state that "Buffer widths are established by comparing the wetland rating category, the habitat score, and the intensity of land uses..." since habitat scores are used in the tables.

Comment [VZK(7): I note that the definition for "wetland delineation manual" refers to WAC 173-22-035 which ultimately tells you which manual to use. It's an awkward way to get there and you might consider adding the language directly into the SMP:

- 40.450.030.E.2, Table 4 should include rows for habitat scores of 8 and 9 points. Ecology has determined that Category III wetlands with these habitat scores do exist. Since the county's buffer widths are based partially on habitat score, the Category III table should include buffers for wetlands with 8 or 9 points (which are the same as the buffers for Category I and II wetlands with 8 or 9 points). We recommend that the county adopt the buffer tables as shown in our guidance (<https://fortress.wa.gov/ecy/publications/documents/1606001.pdf>). These recommended buffers are dependent upon proper implementation of the buffer reduction criteria as discussed in the first bullet above.
- 40.450.030.E.3.c: The inability to create a non-buildable tract is not sufficient reason to allow a residential lot to extend into a wetland or its buffer. Mitigation sequencing must be applied.
- 40.450.030.E.4.b(1): What is meant by "vertical separation?" Is there a minimum height measurement? It's not clear that vertical separation would result in a functionally isolated buffer.
- 40.450.030.E.4.b(2): This approach is not consistent with how the rating system is applied. We recommend deleting it.

Comment [VZK(8): I no longer see the referenced table in your CAO so this may be moot.

Comment [VZK(9): The cited provision should not be applicable in shoreline jurisdiction.

Comment [VZK(10): This provision should not be applicable in shoreline jurisdiction.

From: [Van Zwahlenburg, Kim \(ECY\)](#)
To: [Cothron, Cayla](#)
Subject: Flood Hazard Areas, NFIP regulations and your SMP

Hi Cayla:

I think I brought up the issue of incorporating your flood code directly into the SMP by reference (usually happening because these codes are often embedded in a community's CAO). We (Ecology) have been thinking about a policy shift that would remove the "hard" reference which brings the language into the SMP, and making it a soft reference – in other words, acknowledging that the flood code is important and development needs to be consistent with it but not including it directly into the SMP. This, in part, to avoid conflicts with specific NFIP process requirements.

Our Guidelines in WAC 173-26-221(3) address flood hazard reduction and it does suggest integrating SMP flood hazard reduction provisions with other regulations and programs including flood plain regulations and the NFIP, among others. However, I don't think this suggestion to integrate leads to a requirement to adopt your NFIP program into the SMP. We likely wouldn't even be talking about this if your CAO included a few things about flood hazards and then referenced off to another part of the City's code for your NFIP ordinance.

When I look at Chapter 5A, certain sections of the flood code look appropriate to include but others which really look like building code requirements, do not. See for example: 6. Construction Materials and Methods, and 10. Residential Construction, particularly where it starts to address Fully Enclosed Areas Below the Lower Floor, talks about openings, etc. There are other provisions for non-residential buildings as well.

We do need to ensure the SMP meets the requirements of WAC 173-26-221(3)(c) and some additional language may need to be added. The SMP includes policies in 3.6.2. Some of the explicit standards required by the Guidelines are in 6.4.3.1 Flood Control Works. My question is whether the SMP includes provisions addressing WAC 173-26-221(3)(c)(i):

(c) **Standards.** Master programs shall implement the following standards within shoreline jurisdiction:

(i) Development in flood plains should not significantly or cumulatively increase flood hazard or be inconsistent with a comprehensive flood hazard management plan adopted pursuant to chapter [86.12](#) RCW, provided the plan has been adopted after 1994 and approved by the department. New development or new uses in shoreline jurisdiction, including the subdivision of land, should not be established when it would be reasonably foreseeable that the development or use would require structural flood hazard reduction measures within the channel migration zone or floodway. The following uses and activities may be appropriate and/or necessary within the channel migration zone or floodway:

- Actions that protect or restore the ecosystem-wide processes or ecological functions.
- Forest practices in compliance with the Washington State Forest Practices Act and its implementing rules.

- Existing and ongoing agricultural practices, provided that no new restrictions to channel movement occur.
 - Mining when conducted in a manner consistent with the environment designation and with the provisions of WAC [173-26-241](#) (3)(h).
 - Bridges, utility lines, and other public utility and transportation structures where no other feasible alternative exists or the alternative would result in unreasonable and disproportionate cost. Where such structures are allowed, mitigation shall address impacted functions and processes in the affected section of watershed or drift cell.
 - Repair and maintenance of an existing legal use, provided that such actions do not cause significant ecological impacts or increase flood hazards to other uses.
 - Development with a primary purpose of protecting or restoring ecological functions and ecosystem-wide processes.
 - Modifications or additions to an existing nonagricultural legal use, provided that channel migration is not further limited and that the new development includes appropriate protection of ecological functions.
 - Development in incorporated municipalities and designated urban growth areas, as defined in chapter [36.70A](#) RCW, where existing structures prevent active channel movement and flooding.
 - Measures to reduce shoreline erosion, provided that it is demonstrated that the erosion rate exceeds that which would normally occur in a natural condition, that the measure does not interfere with fluvial hydrological and geomorphological processes normally acting in natural conditions, and that the measure includes appropriate mitigation of impacts to ecological functions associated with the river or stream.

A colleague of mine in our Bellevue office recently worked on the decision for the City of Kenmore periodic review.

The recommended language added is shown below:

g. KMC Chapter 18.55, Article XIX, Flood Hazard Areas. While the Flood Hazard Areas regulations apply within shoreline jurisdiction, the regulations, themselves, are not incorporated as part of this Shoreline Master Program.

Her rationale:

[Recommended change: Do not incorporate flood hazard regulations into the SMP.](#)

Flood hazard regulations are not necessary for consistency with RCW 90.58 or the SMP guidelines. The purpose of these regulations is for NFIP certification, not the SMA. These regulations, by-and-large, are building codes. By incorporating these regulations into the SMP, any applicant that needs to deviate from these would need to obtain a shoreline variance, which could be hard to obtain. Furthermore any amendments to these that may be required by the NFIP would then need to go through the SMP amendment process. Several definitions in this section are inconsistent with SMA definitions. Ultimately, these unnecessary permitting and process steps could threaten the City's ability to maintain its certifications under the NFIP. We recommend that the SMP contain a soft reference to its flood hazard regulations and that these be implemented separately from the SMP.

I am sure we will have more to discuss regarding this particular issue, but did want to send this on.

Kim

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