Vera, here are my notes from our conversation with a few extra thoughts:

- 1. What is the geologic data on major and crustal fault lines in Milwaukie?
- 2. How near to the proposed development is the closest fault line major or crustal? Who is assessing the danger or safety of this distance?
- 3. Has a geomorphologist been consulted about the nature of that particular patch of land to be built upon?
- a. what is the present depth and composition of the soil on the land to be built upon?
  - b. what is below the soil? Is it stable lava rock?
  - 4. Will the homes be built on bedrock? Why might this be a good idea? (or not)
- 5. How stable will the landfill the developers plan to put in be in an earthquake or flood event? Is the proposed depth adequate? Is the composition of the landfill appropriate in lieu of the dangers of the flood plain and the natural incline of the land surface?
- 6. The word "mitigation" is sometimes used only as a "catchword" which can make the general public happy and content. But due to the nature of climate change; the obvious and potential danger of earthquakes and flooding mitigation can only be short sighted, in my opinion, and a panacea against looking at reality. (and an effort to make money on a project)
- 7. The expression "100 year flood event" was used during the Tuesday meeting. This expression, in reality, does NOT mean since there was a flood in 1996 there won't be another one until 2096! This is information that a geomorphologist could explain to you.

Received via email from Mary Weick, 19th Ave resident.

# RECEIVED

By Vera Kolias, AICP at 1:59 pm, Jul 25, 2019

In Reference to NR-2018-005 "Elk Rock Estates": Datum and its applicability to flood elevation

#### Dear Ms Kolias:

In general, "datum" is the term used to mean the reference framework within which distance is measured relative to the Earth, such as when creating a map[1]. As a geophysical term, datum can refer to the manner and extent to which the Earth is not a perfect sphere, for calculating distances on the Earth's surface between points at sea level. Datum can also define the zero elevation, for measuring heights above or depths below sea level. In the latter usage, datum is sometimes qualified as "vertical datum". For purposes of understanding the hundred year flood elevation in the vicinity of 12205 and 12225 SE 19<sup>th</sup> Avenue, Milwaukie Oregon, the relevant usage of datum is the vertical datum used to measure heights above sea level.

What does "define the zero elevation" mean?

Leaving aside vertical elevations for a moment, consider instead temperature.

In the early 1700s, the Germanic scientist Daniel Fahrenheit devised a scale for measuring temperature[2]. In this scale, the zero temperature corresponds with the coldest temperature which could be reliably reproduced in the laboratories of the day. It can be understood as the freezing temperature of a mixture of ice, water, and ammonium chloride. This temperature scale also has 180 evenly spaced degrees between the freezing point of pure water and the boiling point of pure water (at sea level and one atmosphere of pressure). This Fahrenheit temperature scale is the scale most commonly used in the United States; it is the scale on which water freezes at 32° and boils at 212°.

A contemporary of Daniel Fahrenheit, the Swedish astronomer Anders Celsius, also devised a temperature scale[3]. After subsequent revision, the Celsius temperature scale defined its zero temperature as the temperature at which pure water freezes (at sea level and one atmosphere of pressure). This Celsius temperature scale is familiar in high-school science classes in the US, and in common use in much of the rest of the world, as the scale on which water freezes at 0° and boils at 100°.

In both scales, the temperature at which water freezes is the same; water cannot be forced to stay liquid thirty-two degrees colder simply by measuring with a Celsius thermometer. The two temperature scales define their zero temperatures differently. A simple mathematical formula converts a temperature measured on the Fahrenheit scale to the same temperature measured on the Celsius scale. Using this formula, the zero temperature on the Fahrenheit scale is equal to approximately -17.77 degrees Celsius. (Note that the Celsius degree is of a different magnitude than the Fahrenheit degree. Fortunately, vertical datums do not have the equivalent complication of defining the foot to be a different distance.)

Similarly to the Fahrenheit and Celsius scales using different definitions for the zero temperature, there are several different ways of defining what elevation constitutes the zero elevation for measuring vertical distance. Depths below the surface are typically measured from average low tide, and depth datums vary from one another in part based on which low tides are included in the average. For distances up toward the sky, the most usual zero elevation is "sea level", meaning the average location of the surface of the ocean.

Since sea level varies with the tides over the course of a day, and the tides vary within a month and across a year, many measurements must be taken to fully understand where average sea level really

is. This will yield a good understanding of where sea level is for places covered by the ocean, where sea level can be measured directly. For places which do not border on the ocean, such as the Portland, Oregon metro area (and most of the continental United States), mathematical modeling is used to extrapolate from the measurements taken at the coasts. When a datum is created, the specific way to do this extrapolation is codified into the datum. The codified extrapolation used in each datum is based on the then-current understanding of the not-quite-spherical shape of the Earth.

Over several decades through the late 1920s, tidal measuring stations in the coastal United States and Canada pooled their data in an attempt to determine the average height of the ocean, so that mean sea level could be used as the zero elevation for subsequent use in maps and coordinate systems. This effort culminated in a datum currently called National Geodetic Vertical Datum of 1929, or NGVD 29[4].

After NGVD 29 was created, put to use, and codified into law, subsequent scientific and field observations began to call into question whether NGVD 29 was the best possible datum for its intended purposes. A new effort to determine sea level began in the 1970s and resulted in the North American Vertical Datum of 1988, or NAVD 88 [5]. NAVD 88 differs from NGVD 29 in a number of important respects, and reflects a greater understanding of the physical properties and shape of the Earth. (This greater understanding stems in part from the scientific use of computers and satellites subsequent to 1929.) Following the creation and validation of NAVD 88, the Federal Emergency Management Agency (FEMA) officially adopted NAVD 88 as the datum of reference, including for flood maps [6].

When an elevation at a specific location is known with respect to NGVD 29, and one wishes to locate that elevation on a map which is drawn in NAVD 88, it is necessary to convert the NGVD 29 elevation into an NAVD 88 elevation. Similarly to how conversion of a temperature from Fahrenheit to Celsius does not change the physical temperature, such a datum conversion does not change the physical elevation. Datum conversion determines the number in the new datum which corresponds to exactly the physical elevation at the known number in the old datum, after adjusting for the difference in zero elevation between the two datums.

Various calculation tools exist for this purpose. In the vicinity of Portland, Oregon, the conversion of a given elevation in NGVD 29 to NAVD 88 may be approximated by adding three and nineteenfortieths feet to the NGVD 29 elevation [7]. In other words:

NGVD 29 elevation in feet + 3.475 feet = NAVD 88 elevation in feet This formula is an approximation of calculations which vary depending on latitude and longitude, where that variation stems from local variation in both of NGVD 29 and NAVD 88 regards the extrapolation of sea level to places not touched by the sea. A more detailed discussion of the exact calculation applicable to a specific location is outside the scope of this exposition. Interested parties may find more information about these vertical datums and datum conversion at the National Geodetic Survey [8].

The relevance to the Milwaukie Municipal Code (MMC) and the base flood elevation in the vicinity of Spring Park results from the specification of some elevations in NGVD in MMC, and the general need to locate all elevations on FEMA maps during the planning process. Because FEMA converted all operations to NAVD 88, any elevation line which is to be located on a FEMA map must first be converted to and expressed in the NAVD 88 datum. However, note at MMC 18.04.030 "Definitions" [9] the definition of the term "Area of February 1996 inundation":

"Area of February 1996 inundation" means the areas along the Willamette River and its backwaters of Johnson and Kellogg Creeks that were flooded to elevation 34.5 (NGVD) in

February of 1996.

The parenthetical indicates that the NGVD datum is the applicable datum for the 34.5 elevation figure. Note further the definition of the term "Water surface elevation":

"Water surface elevation" means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, (or other datum, where specified) of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas. (Ord. 1983 § 2, 2008; Ord. 1899 § 2, 2002)

Finally, note the definition of the term "Design flood height":

"Design flood height" means the higher elevation of the following:

- 1. The elevation of the one hundred (100)-year storm as defined in FEMA Flood Insurance Studies and shown as Zone A on Flood Insurance Rate Maps; or
- 2. Water surface elevation of 34.5, the elevation of the February 1996 flood event measured for the Willamette River.

In item 2 of the definition for "Design flood height", since it is defined as a "water surface elevation" without giving a specific datum, the definition of "water surface elevation" governs. Under that definition, the "water surface elevation of 34.5" in item 2 of "design flood height" is in reference to NGVD 29. This is further internally consistent with the definition of "Area of February 1996 inundation" above, which uses the same 34.5 figure in specific reference to the NGVD datum in description of the same event called out in item 2 of "design flood height".

To convert the 34.5 NGVD 29 value to the NAVD 88 datum used on FEMA maps, the applicable calculation is:

34.5 NGVD 29 + 3.475 = 37.975 NAVD 88

at least to a first approximation; location-sensitive tools such as are available to civil engineers and city planners may yield a slightly different value in NAVD 88 after taking into consideration the precise latitude and longitude at which the vertical conversion applies.

In oral testimony before the Planning Committee on July 23, 2019, the attorney representing the applicant was not persuaded that the 34.5 figure in Design flood height referred to the NGVD datum. I am personally persuaded by the text of MMC 18.04.030 as detailed above. I expect and believe the Planning Committee will be similarly persuaded that the text of Milwaukie code adequately establishes that the 34.5 figure in Design flood height item 2 is in reference to NGVD 29.

Thus, after relevant datum conversion, the elevation referred to as 34.5' NGVD 29 in municipal code is approximately 37.975' NAVD 88, for use with FEMA maps and comparison to the FEMA 100-year flood elevation. In reference to NR-2018-005 "Elk Rock Estates", applicant's materials indicate a finished floor elevation of 37.4' on several buildings, and a finished road elevation of 37.4' as well. These elevations appear on FEMA-derived maps without annotation, and are understood to be elevations in the NAVD 88 datum used on FEMA maps. Since 37.4 feet NAVD 88 is less than the 37.975 feet NAVD 88 water surface elevation for the inundation of February 1996, the applicant's materials indicate finished floor and finished road elevations below the water surface elevation of the inundation of February 1996. On this basis, the application is materially in violation of Milwaukie building standards as documented in Milwaukie Municipal Code, and therefore, application NR-2018-005 should be denied.

Sincerely, Steve Gerken 12114 SE 19<sup>th</sup> Avenue, Milwaukie

#### References:

- [1] "Datums And Reference Frames", https://www.ngs.noaa.gov/datums/index.shtml . Retrieved 2019-07-28.
- [2] "Fahrenheit", https://en.wikipedia.org/wiki/Fahrenheit . Retrieved 2019-07-28.
- [3] "Celsius", https://en.wikipedia.org/wiki/Celsius. Retrieved 2019-07-28.
- [4] "National Geodetic Vertical Datum of 1929 (NGVD 29)",

https://www.ngs.noaa.gov/datums/vertical/national-geodetic-vertical-datum-1929.shtml. Retrieved 2019-07-28.

- [5] "North American Vertical Datum of 1988 (NAVD 88)",
- https://www.ngs.noaa.gov/datums/vertical/north-american-vertical-datum-1988.shtml. Retrieved 2019-07-28.
- [6] "Vertical Datum", https://www.fema.gov/media-library-data/20130726-1615-20490-4828/vertical\_datum\_letter.pdf. Retrieved 2019-07-28.
- [7] "How to convert City of Portland datum to another datum",

https://www.portlandoregon.gov/transportation/article/70676. Retrieved 2019-07-28. To convert from NGVD 29, first add 1.375 feet to reach City of Portland datum, then add 2.10 feet to go from City of Portland datum to NAVD 88.

- [8] "Vertical Datums", https://www.ngs.noaa.gov/datums/vertical/. Retrieved 2019-07-28.
- [9] "18.04.030 DEFINITIONS", https://www.qcode.us/codes/milwaukie/view.php?topic=18-18\_04-18\_04\_030. Retrieved 2019-07-28.

Needed Housing as regards NR-2018-005

Dear Ms Kolias:

Applicant's materials as detailed in the packet for the July 23, 2019 hearing before the Milwaukie Planning Committee include a letter dated July 16, 2019, on letterhead of Schwabe Williamson & Wyatt, in which it is asserted that the application is a "Needed Housing" application under the definition of ORS 197.303(1). The letter then details various exceptions to Milwaukie Municipal Code and the Milwaukie Comprehensive Plan which would flow from that assertion, if true. However, applicant provides no evidence, in the letter or elsewhere in application materials, to substantiate the assertion that the application is in fact a "Needed Housing" application under ORS 197.303(1).

Per the text of ORS 197.303(1), "needed housing" means:

...all housing on land zoned for residential use or mixed residential and commercial use that is determined to meet the need shown for housing within an urban growth boundary at price ranges and rent levels that are affordable to households within the county with a variety of incomes, including but not limited to households with low incomes, very low incomes and extremely low incomes, as those terms are defined by the United States Department of Housing and Urban Development under 42 U.S.C. 1437a.[1]

Note that under the definition of ORS 197.303(1), not all housing is needed housing. In order to qualify, housing must be:

- determined to meet a demonstrated need;
- for housing within an urban growth boundary;
- at price ranges and rent levels that are affordable to households within the county with a variety of incomes.

Applicant has not demonstrated that a need exists for housing with three to five bedrooms per unit and 2.5 to 3.5 bathrooms per unit, having garages well within the inundation zone of February 1996, four blocks away from a sewage treatment plant, and one block away from a rail line on which the railroad parks idling diesel locomotives at all hours of the day and night. It may be inferred that applicant believes there is a need, and pursues the application based on that belief. However, having a belief is not the same as showing need. Belief cannot be substituted for demonstration. In order to qualify as needed housing, applicant bears the burden of showing that a need exists for the proposed housing, and applicant has not done so.

While it is trivial to demonstrate that the subject property is within the Portland metro area urban growth boundary, applicant still bears the burden of establishing that the application fulfills necessary criteria. Applicant has not provided a map or statement specifically demonstrating that the subject property is within the urban growth boundary.

Applicant has not provided intended price range or rent information, other than the term "market rate". Assuming a rational residential mortgage market with foreclosure rates remaining below 1% [2], while remembering the irrational mortgage market that led to the real estate crash of 2008 [3], it may be assumed that most real estate transactions which close are affordable to the buyer. This does not by itself establish that the transacted property is affordable to households within the county with a variety of incomes. If the houses in question are priced such that they are affordable to investment bankers,

hedge fund managers, and the starting guards for the Portland Trail Blazers, it seems unlikely that this would constitute a variety of incomes for the purposes of ORS 197.303(1). Applicant has provided neither specific intended price ranges, nor data on the variety of household incomes within the county and the prices or rents that would be affordable on those incomes. Lacking this information, the application does not substantiate an assertion that its proposed housing will be at price ranges and rent levels that are affordable to households within the county with a variety of incomes.

Because the applicant has not met the burden of showing that the proposed development meets a demonstrated need, or the burden of showing that the intended price range or rent is affordable to a variety of household incomes in the county, applicant cannot substantiate the assertion that the proposal is for needed housing. Since the applicant bears the burden of proof, and has not provided proof, the application cannot be considered a needed housing application. Due to the application not being a needed housing application, applicant is not due any exceptions from Milwaukie Municipal Code or exceptions from the Milwaukie Comprehensive Plan, and is not due the opportunities to amend the application or propose conditions of approval detailed in ORS 197.522.

Sincerely, Steve Gerken 12114 SE 19<sup>th</sup> Avenue Milwaukie

#### References:

[1] "ORS 197.303 - "Needed housing" defined - 2017 Oregon Revised Statutes", https://www.oregonlaws.org/ors/197.303. Retrieved 2019-08-01.

[2] "Foreclosure rate U.S. 2005-2018", https://www.statista.com/statistics/798766/foreclosure-rate-usa/. Retrieved 2019-08-01.

[3] "United States housing bubble", https://en.wikipedia.org/wiki/United\_States\_housing\_bubble. Retrieved 2019-08-01.

From: Marco Clark <mcxiaoma@gmail.com>
Sent: Friday, August 02, 2019 2:25 PM

To: Vera Kolias

**Subject:** Elk Rock Estates Development Proposal

#### Greetings,

It is with great concern I write to you in regard to the proposed development in the Island Station neighborhood. My wife, son and I live at 12111 SE 20th Ave, Milwaukie, and enjoy our walks to Elk Rock on nearly a daily basis. Our concerns with the proposed development are as follows:

- 1) The development is planned in a flood pain. When (not if) the next flood occurs it will destroy the 10 proposed homes, and there is a good chance they will be abandoned rather than rebuilt, leaving 10 derelict structures in what was otherwise scenic wildlife habitat. This reason alone should be adequate to deny changes to the zone restrictions.
- 2) The impact on the view shed for those who are enjoying Elk Rock. More houses equals less natural habitat for plants and wildlife.
- 3) Impact on wildlife in the area. Elk Rock is home to numerous species, to include nesting raptors. The building of this development and its lasting impact will disrupt this vital habitat.
- 4) Allowing Elk Rock Estates to change not one, but three zoning restrictions sets a dangerous precedent for future construction in the City of Milwaukie. Our family, like many others, chose Milwaukie, and specifically Island Station, due to the low density housing zoning.
- 5) This development will negatively impact the safety of this community. Island Station does not have sidewalks on any of its streets. An increase in traffic volume of roughly 10-20 more vehicles will make walking in the neighborhood less safe as we are forced to walk in the streets.
- 6) I suspect the owner of Elk Rock Estates does not live in the Island Station neighborhood, and thus will only see monetary benefit from this development without incurring any of the negative externalities (to include abandoned houses after the next flood). It has come to my attention that the developer has claimed "residents in the community support the development." I believe this to be extremely disingenuous. Our family was never asked if we approved of this development. All residents I've spoken to in the neighborhood have also not been solicited for their opinions outside of the July 23rd meeting. This calls into question the character and integrity of the developer.

I hope this email is helpful in making your decision. If you would like further input please feel free to reach out to me.

--

Marco Clark

mcxiaoma@gmail.com

From: Rebecca Banyas <banyasr@gmail.com>
Sent: Friday, August 02, 2019 11:54 AM

To: Vera Kolias

**Cc:** Ann Ober; Mark Gamba; Milo Denham; Charles Bird

**Subject:** Elk Rock Estates

Hello Vera -- As a Milwaukie resident of Island Station, I am writing to state my concerns about the "Elk Rock Estates" development in Island Station.

As you well know, building in a flood plain presents challenges. I am very concerned that with the unpredictability of unusual weather events we will face due to climate change, that it is ill advised to approve building in a flood plain. Given Milwaukie's commitment to climate change, keeping this area natural and free of human structures seems like a sensible step. Has the City's Climate Action staff person reviewed and weighed in on this proposal?

My primary concern about this dense development in a residential neighborhood, however, is traffic.

There are two primary entrances to the neighborhood, Sparrow and Bluebird Streets. Both are narrow roads without sidewalks, as is 19th, where the development is proposed. I live at the corner of Sparrow Street and 22nd, a route frequently used by pedestrians, cyclists and cars to access Spring Park and Elk Rock Island. The increase in traffic on Sparrow Street in the last five years has been incredible, due to the increasing popularity of Spring Park, the Willamette, and Elk Rock Island. Summer weekends are extremely hectic, as witnessed by people parking up and down Sparrow Street and 19th, as well as on private property, to access the river.

The addition of 12 residences with their household cars will add to an already challenging traffic situation on Sparrow St. As stated, it is a narrow road with no sidewalks, and it is heavily used by pedestrians, dog-walkers, kids walking to the school bus, and cyclists. It's quite depressing to think of adding many more cars using the street daily, adding to air pollution and noise. There is also the noise and polluting traffic generated by construction -- lots of big rigs with large loads of materials. What route will all these trucks use?

In addition, the turn from 22nd onto Sparrow is downright dangerous -- a bad accident waiting to happen . Auto drivers fly around that corner, putting walkers at risk.

The very least that should be expected of this developer is a traffic management plan, both during construction and after completion. I ask that the City of Milwaukie do its due diligence here, as well -- traffic into this neighborhood is in need of better management. I believe if you put a "counter" on Sparrow you would be very surprised at the number of cars travelling up and down this little street.

Thanks for your time.

Rebecca Banyas 503-303-7337 home 310-405-4534 mobile

**From:** 3rdrockchiro@gmail.com

**Sent:** Friday, August 02, 2019 10:45 AM

**To:** Vera Kolias **Subject:** NR-2018-005

Dear Ms Koliasv,

I do not live in this particular neighborhood but I visit Elk Rock Park often an I support my neighbors objections to the 9 or 12 unit housing development being considered. This is the first I have heard about this development and I wonder if you are aware how it affects not only this particular neighborhood but surrounding neighbors and visitors to this wonderful natural resource and neighborhood. I understand progress and need for housing but not in sacrifice of the history and viability of established neighborhoods and the impacts not only to surrounding neighborhoods but to the environment, floodplain, and natural habitat.

Thank you for allowing my wife and me comment on the livability of our neighborhoods and parks.

Sincerely,

Robert Murakami and Lulu Moonwood Murakami

Sent from Windows Mail

From: Howard Lanoff <howardlanoff@yahoo.com>

**Sent:** Thursday, August 01, 2019 10:51 AM

To: Vera Kolias
Subject: Elk Rock Estates

Hello Vera,

I walk along 19th street on my way to Elk Rock and am happy to see the open area of the slough. It brings me a feeling of peace to be able to have that little piece of land empty. We have so much urban density that our green spaces are becoming limited. The thought of putting 9 houses on that property makes me sad and feel the injustice of money over green spaces. Milwaukie already is among the cities in the U.S with the fewest number of parks and green spaces.

Please keep this space green.

Howard Lanoff 503-744-0623

From: Kate Morrison <katemorrisoncreative@gmail.com>

**Sent:** Wednesday, July 31, 2019 4:34 PM

To: Vera Kolias

**Subject:** Fwd: Island Station development

#### Greetings Vera,

I'm writing in regard to the proposed development. I wasn't able to attend the public discussion about it, unfortunately, but I spoke to a few neighbors who were there and I understand that the developer suggested that he had the support of the neighborhood, which is entirely untrue. I live on Wren and 20th, within a block of the proposed development. I walk my dogs twice a day and am in regular contact with my neighbors—*not one* of them supports this proposed development. Here are some of the reasons this is the wrong direction for not only the neighborhood, but for Milwaukie:

- 1. This area is an annual nesting habitat for bald eagles. For the five years I've lived here, I've seen them every spring in the trees down the street. There's been a new baby (or two) every year. I understand that point was also discounted by the developer in the meeting.
- 2. Elk Rock Slough is one of very few natural habitats for beaver, which are critical for a healthy ecosystem—this one including fish, herons, osprey and much more.
- 3. Portland is losing critical natural spaces in exchange for housing that isn't well thought out but makes developers and tax-supported government money. I find it a conflict of interest that the agencies making the rules about housing are the ones making the money via taxes.
- 4. This neighborhood's street infrastructure simply couldn't handle the increased traffic. If you drive through it, you'll see what I mean. Our streets are awful with potholes everywhere that are rarely taken care of. I find it hard to believe that this development and any taxes it would generate would go toward supporting the streets or other infrastructural needs.
- 5. The path that 19th street creates from the park on Eagle to Elk Rock park—the one that people/cyclists/cars share without trouble now—would no longer be possible with the increase in traffic. Couple more residents with the summertime increase in traffic of visitors to Elk Rock, it would be a mess and would put pedestrians and cyclists in greater danger.
- 6. On the west side of Elk Rock is the deepest part of the Willamette River. When the river rises each spring, the water spills over to the east side of the rock, and it floods the slough. Some years the water gets so high that the water table rises and many of us (even higher up) have flooded basements. Building on that site is careless. Who would build right IN the flood plain? It makes no sense.

It seems that this development is more about money for the developer than anything else. It would change too many things that make this part of Portland unique and desirable for visitors and neighbors to enjoy. Please let me know if I can provide any more information or assist in any way. Thank you for considering the neighbors' concerns; they are many.

Kate Morrison

509-301-7000 www.k8morrison.com

From: Sent: Fo: Cc: Subject:	priscilla Elliott <pskillet@gmail.com> Wednesday, July 31, 2019 2:28 PM Vera Kolias robertschristopher4@gmail.com Comments on Elk Rock Estates</pskillet@gmail.com>
•	for sending Chris and I the 'dossier' on elk rock estates. After reading. I have formulated my comments as for posting & best regards
outlandish requests profit- which have a	the city's been dealing with this builder for a while. Looking through the litany of his recently released to pursue this project -seemingly fueled solely by misguided ambition and desire for maximum personal all already been denied, this latest seems as greedy as it is exhausting, which doesn't mean this least-worst ce and permanent disruption on the slough/greenway/floodplain/eagle habitat/park edge should be
the new pier, lookin	being restored, as the TriMet is invigorating downtown, as people flock to Elk Rock to drop their boats in at an at a second regressive, dangerous, selfish "plan", Milwaukie seems to be one irreversible decision away from a future and livability and charm of this whole city and riverfront.
oad, during this tim	a to put maximum density housing on a floodplain, in the HCA, between two parks, on a small city access ne of increased natural disaster and climate change is shortsighted and dangerous, given the additional c, parking, runoff, FEMA, fire & police departments, etc.
pecause it is such a	h Ave. who staked my lifetimes earnings on refurbishing an existing abandoned home in island station—wonderful place— some hopeful part of me would see this land added to the park, wetlands restored, to the c. To help make Milwaukie and Portland a sorely needed viable city of the future.
But the alternative i	is insane.
t's called out by the	e experts in your literature:

"The following deficiencies are recommended to be resolvedA significantly different layout that eliminates the need for road access onsiteA complete alternatives analysis that updates viable development options according to stormwater and floodplain no-net-rise issues Are they willing to reduceto significantly avoid and minimize floodplain and HCA impacts?"
—Sarah Hartung, Senior Biologist
"Adjacent private property to the north and south of Spring Park also have significant natural resource value. These areas are functionally part of the Elk Rock Island Natural Area"
— Elk Rock Natural Management Plan - adopted by the city of Milwaukie 1995
Thank you,
Priscilla Elliott
Sent from my iPhone

From: Steve Gerken <argentpickle@yahoo.com>

**Sent:** Wednesday, July 31, 2019 1:06 AM

**To:** Vera Kolias

**Subject:** NR-2018-005 and neighborhood or community input

#### Hello Ms Kolias--

I'd like to point out that, with respect to the written record and testimony at hearing of neighbor comment on NR-2018-005:

- ??- the letter sent in March 2019 by the ISNDA land use committee had extensive concerns about how the applicant's plans would detrimentally affect parking, traffic, views, sidewalks, and the woonerf character of SE 19th Avenue;
- ??- the letter sent in March 2019 by Milo Denham also had extensive concerns about how the applicant's plans would detrimentally affect parking;
- ??- other comments sent by neighbors in March 2019, and included in the staff report of May 20, 2019, were stridently opposed to applicant's plans;
- ??- additional comments included in the staff report of July 16, 2019 also opposed applicant's plans;
- ??- oral testimony of Pam Denham and of Milo Denham at the July 23, 2019 hearing raised concerns about how applicant's plans would detrimentally affect neighborhood parking;
- ??- oral testimony of Chris Roberts at the July 23, 2019 hearing raised extensive concerns regards disaster preparedness, river flooding, and planning with awareness of ongoing climate change and its effects on river flows, and expressed incredulity that anyone would think new residential construction in the flood plain is a good idea; and
- ??- no comment or testimony of an Island Station resident expressed unqualified support.

This record of neighbor comment and testimony does not support applicant's claim in the July 23, 2019 hearing that he has the support of the neighborhood.

Further, the applicant was most recently in an ISNDA meeting in December 2018. The written record indicates the applicant's plans were significantly revised April/May 2019 and again in June/July 2019.?? It ought not be presumed that any ISNDA endorsement of the December 2018 plans also applies to the current plans.

Any claim by the applicant of having neighborhood or community support appears disingenuous at best.

Regards, Steve Gerken 12114 SE 19th Avenue Milwaukie

From: Gavin Bondy <gavinbondy@gmail.com>

**Sent:** Tuesday, July 30, 2019 10:30 PM

To: Vera Kolias

**Subject:** The Potential Housing Project on SE 19th

Hi Vera,

I was given your email address and told you are the person to voice my concerns to about the potential housing project west of 19th Avenue in Island Station.

Thank you for your consideration.

While I don't know all the details of the potential effects on our wild area there, I do suspect they would not be positive for the bald eagles, the beavers, and such. I have personally been witness to the annual nesting of the eagle family there. Across the street from me lives a man, Doug Stowell, who can tell you their habits in much more detail. This is a high concern.

Beyond that though, the plans for so many tiny houses crammed onto the parcel would not only change the character of our neighborhood in an unfavourable direction, but would maximize the increase in traffic on 19th avenue, potentially overburdening the woonerf that works so well right now. It seems nobody around here wants that woonerf to change.

While a local government might see high density as a boon, bringing in more taxable units than a more graceful development, this kind of planning increases the budget burden, as well. I believe San Francisco has learned this lesson recently.

I also have friends who lived in a house that periodically flooded the ground floor, and can tell you: That is never a good situation to have to deal with. They eventually got fed up and moved away.

Over all, the present plan reeks of careless greed, and I, for one, don't want that touching my neighborhood.

Thank you again for your consideration.

- Gavin Bondy

Gavin Bondy 1912 SE Wren Milwaukie, OR 97222 USA tel: (503) 799-7839

email: GavinBondy@gmail.com

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From: Sean Garmire <seangarmire@gmail.com>

**Sent:** Sunday, July 28, 2019 9:54 AM

**To:** Vera Kolias

**Subject:** Regards nr 2018 005

Hello there. This is concerning the plan and houses built in the floodplain of the Willamette River. Only someone who has no foresight would ever consider building a house in a flood plane. There is no question homes will be submerged underwater at some point, causing massive property damage and more pollution into an already polluted river. Please have some common sense and do not build in a flood zone. There are plenty of places above the high watermark to build.

People also shouldn't build on top of active volcanos or on the beach at low tide. These things are obvious.

Thanks!

Sean

From: Harriet & Doug <a href="mailto:haredoug@comcast.net">harriet & Doug <a href="mailto:haredoug@comcast.net">haredoug@comcast.net</a>>

**Sent:** Sunday, July 28, 2019 2:39 PM

**To:** Vera Kolias

**Subject:** Proposed Elk Rock "estates" development

Dear sir or madam,

My family strongly opposes the proposed 12-unit, three stories tall housing development being considered in our city's floodplain.

Please contact me with developments in this review process.

Sincerely,

Douglas W. Musgrove 11549 SE Home Ave. Milwaukie OR 97222

From: joanne tracy <cup.a.jo@comcast.net>
Sent: Tuesday, August 06, 2019 12:24 PM

**To:** Vera Kolias

**Subject:** NO on the development of Willamette Slough

Hello. I have lived in the Island Station area for over five years. I have spent a great deal of time walking, reflecting, photographing in the Willamette Slough area. This is NOT the place for development next to a conserved area. The only benefit to doing this is for some home owners and since when do we give a variance for the satisfaction of the few who would live there?

I ask that the developer in question alter the plans to a much smaller footprint. Large scale construction will destroy native habitats. Native habitats are what we want to protect and encourage. Clearly this developer is out to make a killing. Literally.

Thank you for the chance to voice my concerns. If I wasn't leaving soon on a trip I would add much more to this letter, Joanne Louise Tracy

From: Mary Neustadter <mwneustad@aol.com>
Sent: Tuesday, August 06, 2019 12:13 PM

To: Vera Kolias

**Subject:** Elk Roc Estates Comment Letter

Vera:

I have several objections to Elk Rock Estates development:

At a time when we are faced with massive climate change, we are still building in the 100 year floodplain. While our regulations allow for it, is the applicant doing all he can to avoid the floodplain in the first place? Has this been thoroughly explored? And, has the applicant been able to meet all the requirements including ensuring that the new the new development does not cause increased flooding elsewhere should he build in the floodplain?

Furthermore, at a time when we are threatened with an enormous decline in biodiversity that threatens the extinction of a million plants and animals, we are contemplating building in a Habitat Conservation Area (HCA). In fact, the applicant is seeking approval for the new development through a Natural Resource Cluster Development that, in turn for mitigation to the HCA, the applicant can take advantages of variances that would allow him to be more creative in clustering the buildings on the property to avoid encroachment of the HCA. Is the mitigation presented by the applicant adequate - removing 23,000 square feet from the Habitat Conservation District in perpetuity for \$41,000 of improvements to vegetation elsewhere in the HCA. I think not. Furthermore, has the applicant really explored how to best use the variances to cluster the buildings to avoid impacting the HCA?

There is real concern by the community about the impact the additional traffic will have to those living on 19th Street and Sparrow Street, but has anyone thought about the impact to those people living on River Road north of Sparrow Street? I live at 12213 SE River Road, just three houses north of the intersection of River Road and Sparrow Street. It is likely that most if not all of the traffic leaving the Elk Rock Estates will go east on Sparrow Street and turn north on River Road past my house since it is the most direct route to McLoughlin Blvd. and the easiest way to exit the development. At times during morning traffic, there are cars stacked up from the light at McLoughlin Blvd. all the way up River Road and past my house – about 2.5 blocks - waiting for the light to turn green. The traffic on River Road has become increasingly congested over the last three years. Roads in the immediate area accessing McLoughlin Blvd. were closed when the MAX was put in and River Road was made into a one way street below Sparrow to mitigate the flow of traffic. There has been significant development south on River Road outside Milwaukie's jurisdiction and the new inhabitants rely on River Road to access McLoughlin Blvd. The additional traffic generated by Elk Rock Estates will only continue to degrade this situation. Please consider doing a traffic study to see if/how traffic can be mitigated given this new development.

I am so aware of the compromise we need to make today in this very complex world as we push against urban growth boundaries but there is just no excuse for making bad choices. I recommend we open up the decisional meeting of the Planning Commission on September 10<sup>th</sup>to the public to ensure everyone has a voice.

Mary Neustadter

From: Theressa Silver <tsilver2@spiretech.com>
Sent: Tuesday, August 06, 2019 8:04 AM

To: Vera Kolias

**Subject:** Do Not approve the NR-2018-005 "Elk Rock Estates" Development

Dear Ms Kolias,

I am writing to strenuously object to the proposed development. From the very beginning of this process Gillis Properties LLC has submitted inaccurate, incomplete, internally inconsistent, and flat out misleading materials. They seem to be willing to say whatever they have to say in order to be allowed to build their subdivision. There is nothing to support the "Natural Resources Cluster" designation for the proposed development. What they are proposing is a standard subdivision and they seem to be hoping that if they call it a "Natural Resources Cluster" we won't notice that they're sticking that subdivision in an environmentally fragile wetlands.

I sincerely believe that building the proposed subdivision will be detrimental to the character of the neighborhood as well as disruptive to the natural habitats currently protected along the riverbank.

Furthermore, they have not demonstrated trustworthiness and I am deeply concerned that regardless of any limitations put on them by the planing commission, once they start construction, they are unlikely to adhere to the plan. For these reasons their application should be denied.

Sincerely, Theressa Silver 12114 SE 19th Ave Milwaukie, OR 97222

**From:** Michele Bertaux-Zabaglio <michele.bert.zab@gmail.com>

**Sent:** Tuesday, August 06, 2019 7:42 AM

**To:** Vera Kolias

**Subject:** Comments for Elk Rock Estates proposal

#### Dear City of Milwaukie Planning:

I oppose development of the flood plain in the Elk Rock Estates proposal. This flood plain is adjacent to a larger area - a beloved and much-visited natural environment - which needs and deserves protection. It's part of the heritage of the city of Milwaukie and the Island Station neighborhood.

From downtown Milwaukie, I walk to Spring Creek and Elk Rock Island almost daily. In the past two years, I have observed eagles, osprey, peregrine falcons, herons, kingfishers, pheasants - and more - in nesting and food-hunting activities here. We do not need more of the Elk Rock Estates sort of housing in Mikwaukie. It doesn't come under the heading of affordable. Nor is it in keeping with the neighborhood.

There is also the matter of sea-level rise generally and the subduction event specifically. In my opinion, it's irresponsible to put a housing development in this area. Nor is it in keeping with the intentions set out by the city to promote sustainability, livability and affordability. It would be worthwhile to designate this floodplain as permanently a conservation area that cannot be developed.

Just yesterday, at an Elk Rock cleanup followed by a talk on ER Island geology, Bill Burns of the Oregon Department of Geology and Mineral Industries (DOGAMI), spoke of the unique habitat along the river edge of that part of the flood plain, because of natural springs that come out there due to geological formations.

Please do the right thing by the citizens and the environment by not granting permission for this development.

Sincerely, Michele Bertaux 513-207-6709 10671 SE Harrison St Milwaukie Rising Tides 1 of 2

Dear Ms Kolias--

According to legend, in the year 1028 King Canute set his throne at the water's edge and commanded the rising tide not to wet his feet [1].

We've learned a little about the oceans since King Canute's time. He knew of the inevitability of the tide and the futility of commanding Nature to obey; we know these precepts to still be true today. We also know now that the level of the sea is not fixed over a span of centuries or decades or even years; the average level of the seas has risen measurably since 1990, and at an accerated rate since 2002 [2]. In ten days of June 2019 alone, 80 billion tons of Greenland's glacier ice melted into the sea [3]. The following month, a heat dome that had brought record-breaking high temperatures to Europe moved over Greenland, causing some of the most marked melting in recorded human history [4] and melting at a rate that had not been forecast to occur for another fifty years [5]. The situation in Antarctica is comparable: land ice on the southernmost continent is melting six times faster than in the 1970s [6]. All the polar glacier melt contributes to a measurably rising ocean.

We also know the effects of the rising seas. We see it in the basements of Miami's luxury high-rises, and on the streets of Miami [7], where flooding has become as regular as the full moon. We see it in an increasing frequency of sunny-day flooding due to higher high tides, in East Coast cities including Baltimore and Washington D.C. [8] We see it in photos of city streets underwater in Annapolis, Boston, Galveston, New York City, and Norfolk VA [9]. In the Norfolk area, floods threaten to make the largest naval base in the world inaccessible.

We know that the river which surrounds Elk Rock Island is affected by ocean tides in its reach downriver of the Oregon City falls. On sunny summer days, the river gages at Portland and at Oregon City show a clear daily tidal variation, with a daily peak-to-trough range of about four feet [10]. As the rising ocean flattens the total water slope between Milwaukie and the sea, we can expect to see a rise in the average river level here also. Further, a flatter river system between the Milwaukie riverbanks and the open ocean can be expected to produce slower-moving water, leading to flood crests which are both higher and longer-lasting than history alone would predict.

King Canute was a pious man, and attributed to God what some today would attribute to Nature. After the sea lapped around King Canute's legs, he hung up his crown and declared the inadequacy of his royal command to hold sway over the waters. Shall we be as wise? Or shall we allow a land developer to plant the footings of new buildings in the floodplain, and demand the river never bathe their legs? I should think that for all we have learned, we can be at least as astute as King Canute, and show better sense than to plant houses' toes in the floodplain. Let us be wise, and deny permit to NR-2018-005.

Regards, Steve Gerken 12114 SE 19<sup>th</sup> Avenue Milwaukie Rising Tides 2 of 2

#### References:

[1] "King Canute and the tide", https://en.wikipedia.org/wiki/King\_Canute\_and\_the\_tide. Retrieved 2019-08-05.

- [2] "Understanding the Greenland Ice Sheet: Polar Portal", http://polarportal.dk/en/groenlands-indlandsis/nbsp/viden-om-groenlands-indlandsis/. Retrieved 2019-08-05.
- [3] "A record melt event in mid-June | Greenland Ice Sheet Today", https://nsidc.org/greenland-today/2019/07/a-record-melt-event-in-mid-june/. Retrieved 2019-08-05.
- [4] "The Greenland Ice Sheet is in the midst of one of its greatest melting events on record The Washington Post", https://www.washingtonpost.com/weather/2019/07/31/greenland-ice-sheet-is-throes-one-its-greatest-melting-events-ever-recorded/. Retrieved 2019-08-05.
- [5] "Greenland's ice wasn't supposed to melt like last week until 2070 | TheHill", https://thehill.com/opinion/energy-environment/456112-greenlands-ice-sheet-wasnt-expected-to-melt-like-this-until-2070. Retrieved 2019-08-05.
- [6] "Climate change: Antarctic ice melting is accelerating", https://www.usatoday.com/story/news/world/2019/01/14/climate-change-antarctic-ice-melting-accelerating/2575410002/. Retrieved 2019-08-05.
- [7] "BBC Future Miami's fight against rising seas", http://www.bbc.com/future/story/20170403-miamis-fight-against-sea-level-rise. Retrieved 2019-08-05.
- [8] "NOAA Technical Report NOS CO-OPS 090",
- https://tidesandcurrents.noaa.gov/publications/Techrpt\_090\_2018\_State\_of\_US\_HighTideFlooding\_with\_a\_2019\_Outlook\_Final.pdf. Retrieved 2019-08-05.
- [9] "Sea level rise, high tides cause sunny day flooding in coastal cities Business Insider", https://www.businessinsider.com/sea-level-rise-high-tides-sunny-day-flooding-coastal-cities-2018-4. Retrieved 2019-08-05.
- [10] "National Weather Service Advanced Hydrologic Prediction Service", https://water.weather.gov/ahps2/river.php?wfo=pqr&wfoid=18685&riverid=203289&pt%5B %5D=144162&pt%5B
- %5D=142246&allpoints=144254%2C141263%2C142810%2C144173%2C144257%2C142028%2C147483%2C142704%2C144162%2C142246%2C142980%2C141602%2C144049%2C144431%2C153802%2C144435%2C144243%2C146799&data%5B%5D=hydrograph. Retrieved 2019-08-05.

From: John Clinton <cptclinton@gmail.com>
Sent: Monday, August 05, 2019 6:15 PM

**To:** Vera Kolias

**Subject:** Regarding NR-2018-005

Dear Vera Kolias,

I'm writing in opposition to the purposed development between SE 19th and the Willamette River.

My wife and I have lived in Milwaukie for just short of 6 years now. When we found our home it was a perfect wonderland. Close to downtown but felt far away with large lots, too many natural mature trees to count, and a wonderful water front. The Elk Rock Park, in particular, has been a staple of a warm summer day and will only become more popular in our family as our young son gets older. That is unless this development is approved.

This purposed development goes against everything that makes Milwaukie special. It's huge, gaudy houses are just another incremental step in making Milwaukie over crowded and absorbed by the big city. Everything we came here to avoid. Not to mention they are knowingly building on the flood plain which just doesn't make sense. The first time the waters rise and these homes are swamped the residents will look to the insurers and the community for help.

I'm all for more housing and I understand the need. However, this is not the way. My family and my community vehemently oppose this development. You can expect more emails stating the same from my neighborhood.

John Clinton 1085 SE Rim Rock On Milwaukie, OR 97267

From: charlene toman <ckt360@gmail.com>
Sent: Monday, August 05, 2019 3:58 PM

**To:** Vera Kolias **Subject:** elk rock estates

Greetings vera, as for making our voices heard, I'm a resounding no on this development being Built.

- 1) The natural areas in milwaukie are worth saving!
- 2) Too much infill building everywhere. If I wanted to live in Portland

With all buildings looking the same, too expensive for average person, parking Options way way down, way more traffic, river views blocked by very expensive Housing for a few and certainly not the many, pollution/sewage runoff, etc. -I would have stayed in Portland and Not moved to milwaukie long ago. Many others echo my sentiments.

- 3) If a flood happens, who saves the proposed new neighborhood? The taxpayers? Seems like the folks who want expensive houses built in natural unsafe areas, should Pay for their own 'rescue' if one is needed. (like building on government land until a Natural disaster hits, many examples here).
- 4) Driving up housing prices for the entire city.
- 5) Where is tax revenue going? Fancy new schools, light rails, developer tax breaks Like the multi story apartments where bernards' used to be, etc. is this being looked at Other than more tax revenue for the city? Who are these developers? From Oregon, Clackamas County, out of state, out of country? How do we find out. Non-local developers have no Concern for our local interests obviously. Maybe local developers have no concern either, depends On where people with money have their values).
- 6) Where do the slough concerns get voiced and to whom? What is the process? If local residents have their concerns aired, who listens? What is that process like? Who ultimately makes the decision on this development?

Thanks for readying, caring, listening and info gathering. I look forward to your response. Thank you-ck

Sent from Mail for Windows 10

From: tieneke pavesic <tienekep@comcast.net>

**Sent:** Monday, August 05, 2019 3:08 PM

**To:** Vera Kolias **Subject:** NR-2018-005

## Hello,

I'd like to go on record against this proposed development. The road is too tight to accommodate such a large scale project and that much traffic. The train tracks will block large trucks from one side. It also imposes on the park and we should not be allow new development on a flood plane.

I live in the area on Fairoaks Ln.

Thanks.

From: Lura Lee < lura.lee1010@gmail.com>
Sent: Monday, August 05, 2019 11:23 AM

To: Vera Kolias

**Subject:** new development near Elk Rock, Milwaukie / NR-2018-005

I was walking by Elk Rock which is just down the street from me. It is a favorite place to walk, explore and appreciate our dwindling natural areas along the river.

Much to my dismay I saw a posting on the telephone pole about a proposed development between the slough and SE 19th avenue.

First, let me say I realize the county is in need of more taxes and also there is a big push for high density housing, but I would hope there is a more proper place for this type of development.

Along the river, is not one of them.

From my understanding, this development would block the view of the island from SE 19th. That view is one of the joys of the neighborhood.

The developer apparently has told the county that he has support of the community.

Not sure where he came up with that bit of fantasy, but it was not talking to people affected by the development.

It would be sad to have only the few people in the development to have a view of the beautiful island.

thank you

Lura Lee

503-679-6401

From: carol timper <cjtimper@yahoo.com>
Sent: Monday, August 05, 2019 9:37 AM

**To:** Vera Kolias **Subject:** Elk Rock Estates

Dear City of Milwaukie,

I understand that I can still respond to this ridiculous variance proposal to build 11 house in the flood plain, in the Willamette gre enway.

I was out of town for both the proposed meeting dates.

I live at 12206 SE 19th Avenue and this would directly impact me and the good feature of my home. Not only would this comple tely destroy the livability of our unique neighborhood by trying to squeeze 11 homes into the space of perhaps 3, it would make it impossible to feel safe walking on 19th Avenue. Not to mention the increase of 20-

30 new resident vehicles that would come with it. We spent a lot of time with the City of Milwuakie as a neighborhood making the street design for 19th Avenue. The additional homes and traffic would make all our efforts of this futile.

Elk Rock Island/Milwaukie Bay Park has become a popular destination and especially on hot days with its access to the river. This past weekend alone there where easily 50 more vehicles in the area near spring park and vehicle were parking on the hill of our property and up SE Wren. It was crazy! There has also been an increase of walkers who travel from the area of Milwaukie Bay Pa rk & Kellogg Park. "Elk Rock Estates" would likely give 25 or more cars to the neighbor hood on a daily basis on top of the increa sed visitors. I can swear that on a daily basis the listed speed limit of 15 mph is not adhered to or enforced. The people coming in to this area who do not live in this neighborhood are traveling 25-

30 MPH on any given day. I completely see that there will be a tragic accident and allowing the variances for 11 homes will direct ly impact this area.

I have restrictions of what I am allowed to do with my property as I live on the corner and several feet of both the front and side of my home have restrictions as to what I can do. I for example cannot build any hardscapes on the front or side of the property. I also cannot build a garage due to the City code and how much covered space I am allowed. This proposal is asking for a multitu de of variances that you should not allow either.

I bought my house knowing it was on a corner lot and I would have limitations. The people who bought the properties in front of us also bought knowing they would have limitations. I strongly urge that no additional variances be made for the "Elk Rock Estat es" proposal including not allowing a new street entrance from SE 19th Avenue.

Best regards,

Carol Timper Home owner at 12206 SE 19th Avenue

From: Steve Gerken <argentpickle@yahoo.com>

**Sent:** Sunday, August 04, 2019 6:09 PM

**To:** Vera Kolias

**Subject:** Brief comment on NR-2018-005 "Elk Rock Estates"

Hello Ms Kolias--

I have a few brief thoughts on NR-2018-005 about the applicant's proposal to replant the portion of the property on the west side of the slough, as mitigation for environmental harm brought about due to construction.

First, according the US Forest Service, bitter cherry is a shrub unless provided with deep fertile soil.

(https://www.fs.fed.us/database/feis/plants/tree/pruema/all.html#BOTANICAL%20AND%20ECOLOGICAL%20CHARACTERISTICS) It's not clear that the soil in the mitigation area is such that bitter cherry should count as a tree for purposes of mitigation. Second, Oregon white oak grows a taproot of anywhere between six and twenty feet in depth.

(https://www.blm.gov/or/districts/salem/files/white\_oak\_guide.pdf) The augured depth probes in the mitigation area did not discover soil depths sufficient to accommodate the taproot of an Oregon white oak.?? Both these species should be reconsidered; they seem unsuitable to appear in a list of mitigation trees given the site conditions.

Third, at a broader scope, the proposed mitigation area is already heavily vegetated.?? We can be judgmental about whether we are personally fond of the plants there, but the fact remains that the proposed mitigation site already provides cover, nest sites, and food sources for small birds, and by attracting small birds it provides a food source for various raptors.?? The vegetation also provides food and cover for insects and rodents. There is already an ecosystem in place.?? Tearing out the vegetation in the mitigation site destroys the ecosystem that is already there, and would itself be a loss of habitat.?? Replanting the area with different vegetation can mitigate the harm done in uprooting what is currently in the mitigation area, but it should not count double as also mitigating harm done elsewhere.

Finally, I am dismayed that the proposed security to ensure good performance of a planting mitigation is a financial bond.?? Loss of habitat is not a situation in which money remedies the harm.?? If the planting mitigation fails, the construction project is out of compliance with a fundamental condition of its existence.?? Letting the failure be remedied with a financial transaction creates the appearance that we are willing to sell indulgences on our environmental protection regulations.?? It creates a moral hazard in which a builder can weigh the finances of the bond vs the mitigation, and choose not to service the mitigation.?? A more appropriate security on the performance of a planting mitigation, which communicates the seriousness of environmental protection, and one less likely to create a moral hazard, would be to itemize the sequence in which the new residences would be demolished and the land returned to its undisturbed state in the event the mitigation underperforms.

Regards, Steve Gerken 12114 SE 19th Avenue Milwaukie HCA Impacts and Alternatives regards NR-2018-005

#### Dear Ms Kolias:

In regards the HCA impacts of NR-2018-005 "Elk Rock Estates", per Milwaukie Municipal Code 19.402.12 "General Discretionary Review" [1] the impact analysis is incomplete without considering the water absorption capacity of the soil at the site, and the reduction to zero of that capacity under any area developed with impervious hardscaping.

In its current state, the existing undeveloped vegetated soil on the subject property absorbs water during rainfall, retaining some of the rain within the soil and thereby preventing some fraction of the rainfall over the subject property from reaching the Willamette River. Applicant proposes to cover several tens of thousands of square feet of currently vegetated soil with residences, roads, driveways, and other hardscaping. Following such development, rain falling over the impervious developed surfaces would be diverted across other soils, possibly through a swale, but in all cases generally into the Willamette River.

During severe rain, during which soils become saturated, rainwater falling over impervious development cannot be absorbed by other already-saturated soils toward which it may be diverted. In these conditions, the volume of water which would have been absorbed by the vegetated soil had the site remained undeveloped would instead flow into the Willamette River. In this manner, impervious hardscape development contributes to a rise in the river level during severe rain.

While not a "fill" in the volumetric sense as applies to cuts and fills in the floodplain, the elimination of soil absorbtive capacity due to coverage by impermeable hardscaping has an effect on the river comparable to that of an unbalanced fill in the floodplain: the level of the river rises, especially during the severe situations in which all possible reserves are needed to prevent and mitigate flooding.

For roads and driveways, use of porous asphalt, if a viable option subject to engineering constraints, would allow rainwater to permeate through the paved surface and be absorbed by the underlying soil [2]. This would mitigate the absorbtion impacts of the roads and driveways.

For residences, no known mitigation allows the soil underneath the building foundation to absorb the rain falling on the roof. Per code and best practices, rain falling on a residence roof is to be collected (generally via gutters and downspouts) and directed away from the residence foundation. For the area covered by new residences, that soil area becomes completely unable to absorb water during rainfall; the water absorbtion capacity of the area covered by residences drops to zero.

Note that applicant's current proposal includes a planting area for mitigation of HCA impacts. For purposes of soil absorbtion, the proposed planting area is already undeveloped vegetated soil. The general nature of the proposed planting is that it would change what the plants are which constitute the vegetation. This is not reasonably expected to materially increase the water absorbtive capacity of the soil in the planting area, and thus does not mitigate the reduction of water absorbtive capacity due to impervious hardscaping and new residences in the construction area.

In the case of residences, then, the most effective available mitigation for reduction in absorbtive capacity is to cover as little land as possible. This is trivially achievable by not building new residences on the subject property, thereby eliminating new buildings, new roads, new driveways, and all other new impermeable surfaces on the site.

Of the alternatives consistent with the proposed use of developing new residential construction, one previously proposed alternative of putting nine townhouses along SE 19<sup>th</sup> Avenue would considerably reduce the impermeable area compared to applicant's proposal. Applicant objected to this approach on the basis that it involves commercial loss due to demolition of existing residences, and also objected on the basis that the nine housing units in this approach is less than the twelve housing units in applicant's approach.

Of these objections, the first is moot for purposes of HCA consideration. HCA impact and alternative criteria do not include commercial viability as a listed criterion for decision-making among possible alternatives, so a commercial loss in connection with a particular alternative does not weigh into the applicability of that alternative for HCA purposes. Regards the objection on the number of housing units, an alternative exists which results in a total of twelve housing units on the site, while materially reducing the area of impermeability. As an added bonus, this approach also retains the existing residences.

## The SRO Approach

If.

- the existing residences at 12205 and 12225 SE 19th Avenue are retained and remodeled; and
- a two-story, ten-unit Single Room Occupancy (SRO) building is constructed between the existing residences,

the site will retain the existing structures, have a total of twelve housing units at the end of development, and the area of impermeability due to new construction can be reduced from several tens of thousands of square feet to about two thousand square feet [3]. This approach mitigates the water absorbtive capacity issue much more effectively than applicant's proposal and should be considered an alternative approach for purposes of HCA determination.

Regards, Steve Gerken 12114 SE 19<sup>th</sup> Avenue Milwaukie

#### References

- [1] "19.402.12 General Discretionary Review", https://www.qcode.us/codes/milwaukie/view.php? topic=19-19\_400-19\_402-19\_402\_12&frames=off. Retrieved 2019-08-03.
- [2] "Porous Asphalt", http://www.asphaltpavement.org/index.php? option=com\_content&view=article&id=359&Itemid=863. Retrieved 2019-08-04.
- [3] See for example Jolene's First Cousin, https://guerrilladev.co/jolenes-first-cousin/. (Retrieved 2019-08-03.) In that design, two buildings share a common site. Of the two buildings, the one to the south contains ten SRO units and relevant amenities. The design is not directly applicable in that it also contains commercial retail space, which is inappropriate for the subject property. However, the example serves to illustrate that ten SRO housing units can be fit into a two-story building with an approximate footprint of 50' by 35'.

**From:** David Peters <dlpupholstery@icloud.com>

Sent: Saturday, August 03, 2019 6:02 PM

**To:** Vera Kolias

**Subject:** Future homes on SE 19th ave

I'm writing to state my opinion on the proposed development on SE 19th ave. As a resident of Island Station for over 6 years, I do not want to see this construction happen. The property is in the flood plain and visible from Elk Rock Island and Spring Park. Forcing a half dozen homes onto this property is ridiculous, and only being asked for because someone bought it as a investment thinking they could cash in. After no luck finding someone to buy it as is, they decide to build their own subdivision to make a profit. Why should this be allowed just so some speculator can make a profit off of his bad decision to pay too much for the property?

David Peters 12120 SE 21 st Ave Milwaukie OR 97222 Sent from my iPhone

From: Victoria Mendez <msvictoriakm@gmail.com>

**Sent:** Saturday, August 03, 2019 11:14 AM

**To:** Vera Kolias **Subject:** Elk Island Estates

Hello, My name is Victoria Mendez I am a home owner in the Island Station neighborhood. I 'm terrified at the idea of a large development in our very small neighborhood. The impact on the environment and the community will be devastating, First its in a flood plane, second our streets are not built for all of the construction and traffic, third the Island and the neighborhood is already being impacted by the increased activity and and traffic daily. The traffic impact to our neighborhood alone is insane, our streets are not meant for more than one car at a time, there isn't room for two cars to even pass each other. This neighborhood is historic and should have protections like all other historic neighborhoods. They should not be able to do something like this to our community without all of us having a say and a vote. This in not just any empty lot, its a WETLAND and its a delicate environment that needs protection not development. PLEASE consider the impact to the environment and our small community that will be affected beyond repair. Leaving the current home owners and tax payers out of this decision is wrong. You are making a huge mistake for our environment and our community and we the voters are taking notice. All peoples involved in pushing this through should be ashamed. Please reconsider this incredibly destructive development.

Sincerely,
Concerned Island Station home owner/tax payer/voter
Victoria Mendez

From: Beth Mills <contact.bethmills@gmail.com>

**Sent:** Sunday, August 04, 2019 8:53 PM

**To:** Vera Kolias

**Subject:** Against Elk Rock Estates

Dear Ms Kolias,

I live on River Road and often walk down by the river via Spring Park & Kellog Park.

I feel it would be detrimental to build 12 3 story units in this area. I feel it is irresponsible and greedy of the city to allow this to move forward.

Think about our children and the legacy we leave them.

Sincerely,

Beth Mills

12425 SE River Rd Milwaukie

From: S J L <serafinejl@gmail.com>
Sent: Sunday, August 04, 2019 9:32 PM

To: Vera Kolias

**Subject:** concerns about the "Elk Rock Estates" development in Island Station.

Hello Vera -- I am writing to state my concerns about the "Elk Rock Estates" development in Island Station.

Building in a flood plain is short sighted at best, as conventional wisdom has shown, especially given the climate changes we are currently facing. This alone should trigger a denial from the city.

My primary concern to this plan is the dense development in a neighborhood that does not have dense housing. I moved here because it is NOT dense housing. I moved here for the narrow streets and NO sidewalks. I like this about my neighborhood. This project will change the vibe in the entire neighborhood. This one project alone has the ability to change the entire feel to this neighborhood.

In addition to that is the limited driving access in and out of it. Since I have lived here there are many more people coming into the neighborhood especially on weekends to access Spring Park and Elk Rock Island. The increase in traffic on Sparrow Street in the five years has been incredible, in large part to the popularity of Spring Park, the Willamette, and Elk Rock Island. Summer weekends are extremely hectic, as witnessed by people parking up and down Sparrow Street and 19th, as well as on private property, to access the river.

The addition of 12 residences with their household cars will add to an already very challenging traffic situation in the area. The streets are narrow roads with no sidewalks, and it is heavily used by pedestrians, dog-walkers, kids walking to the school bus, and cyclists.

I moved into this neighborhood for these very things, narrow streets with no sidewalks and the ability to walk around the neighborhood without having to worry about fast driving cars. I like the peaceful, quietness of the neighborhood I invested to live in and adding 12 more houses to this area will increase traffic by a substantial percentage. Therefore change the whole vibe of the neighborhood. This one project alone has the ability to change the entire feel to this neighborhood. This area is not density housing area, this project will change that to become more density populated area. I for one chose to live in this area because it is NOT dense.

This project will change the entire vibe of the neighborhood, it will increase traffic, it is being built on a flood plain, these are the reasons I sincerely hope this project is denied.

Many thanks, Serafine Lilien 12204 SE 21st Ave. Milwaukie, OR 97222

From: Tracy, Jana <jtracy@blm.gov>
Sent: Tuesday, August 06, 2019 1:33 PM

To: Vera Kolias

**Subject:** Elk Rock Estates Proposal

To whom it concerns,

I am sending my comments to you regarding the proposed Elk Rock Estates.

I am very disappointed in the City of Milwuakie that they are even considering allowing ten houses to be built on the former Smith acreage.

I have followed the city's land use laws for my property, including a Right of Way permit to alter the slope in front of my home at 12206 SE 19th Ave. Why should the residents in Elk Island Station abide by rules you change so easily for real estate developers? In building these ten homes, there are too many rules that would be violated that our neighbors have followed for years.

This proposal does not conform to the future neighborhood goals. The site is within the Willamette Greenway where all types of birds, butterflies, bees, reptiles and other animals call home. There is also a quietness of the neighborhood not found in other neighborhoods. This proposal will disrupt the habitat in the area, create excessive noise and remove protections from the defined Greenway area within the neighborhood.

The neighborhood is an area where bikers, cars, pedestrians, birdwatchers, runners, skaters, skateboarders and small children use the same narrow streets. Elk Rock Island is also a place other neighborhoods enjoy because of the access to the Willamette River. Adding 10 homes in a small space is going to increase traffic on these narrow streets. Anyone injured from added cars is a liability to the city as they are willing to provide a variance to so many of the codes they already set forth.

Please do not risk the environment and the neighborhood for added tax value. In the end, it will not be worth it. I have noticed a lot of housing developments underway in the Milwaukie area. There is going to be plenty of housing without Elk Rock Estates. Even the sound of such a place is not in line with any neighborhood unless it is in Portland, Wilsonville or Lake Oswego.

I am not opposed to having a few homes on this property. However, ten homes is past the point of decency. Even your land use laws forbid it.

I hope the city has heard of climate change and the value of open areas with greenery to combat the heating of the planet. I would hope that the city also knows that with climate change comes more flooding especially in flood plains like this property.

I will not support this plan and will do everything in my power to stop it. Use your common sense and end this nonsense. Do the right thing for our neighborhood and planet.

Jana Tracy PMP
Kapala IT Project Manager
503-808-6188
(cell) 503-810-6266
jtracy@blm.gov

From: Steve Gerken <argentpickle@yahoo.com>

**Sent:** Tuesday, August 06, 2019 1:16 PM

**To:** Vera Kolias

**Subject:** Crawlspace wall height, other concerns regards NR-2018-005

#### Hello Ms Kolias--

Regards the proposal NR-2018-005, please note that applicant's plans call for crawlspace construction on buildings 1 through 6 with crawlspace (garage) floor at approximately 33 feet elevation and finished floor at 37.4 feet elevation (crawlspace floor elevation is estimated from topo lines as the most current engineering drawing does not label this elevation). This would lead to a crawlspace foundation wall height of about four and a half feet measured from the crawlspace floor to the finish floor. Milwaukie Municipal Code 18.040.150.G.6 caps the height of crawlspace walls in flood zones at a maximum of four feet. It cannot be determined from applicant's supplied materials that the proposal is in compliance with MMC 18.04.150.G.6 . The Planning Commission should not grant a permit unless applicant can establish compliance with all relevant code including MMC 18.04.150.G.6.

An earlier comment from Marco Clark, on 2 August 2019, raised the concern that following a flood event up to 10 structures in the proposed development would be abandoned as derelict. A relevant section of municipal code in which the planning commission can evaluate this concern is MMC 18.04.010.F.

An earlier comment called out the reduction to zero of rainwater absorbtive capacity of soil covered by new residences. A relevant section of the Comprehensive Plan in which the planning commission can evaluate this concern is CHAPTER 5 — TRANSPORTATION, PUBLIC FACILITIES AND ENERGY CONSERVATION, under the section heading "Drainage and Streets".

A comment from much earlier in the application process raised the concern that MMC 19.505.3.D.11 is not being met. No subsequent materials from applicant address the concern that as proposed, new residential construction which includes large west-facing windows without design for summer shading will lead to excessive energy use for cooling, in violation of the both the above code section and Milwaukie's energy conservation goals in the Comprehensive Plan. Multiple proposed buildings in applicant's plans have such west facing expanses of window without summer shade. This is in violation of the above section of MMC.

Sincerely, Steve Gerken 12114 SE 19th Ave Milwaukie

From: Christopher Roberts <robertsc@lclark.edu>

**Sent:** Tuesday, August 06, 2019 3:56 PM

**To:** Vera Kolias

**Subject:** Environmental objections to Elk Rock Estates

#### Environmental

The applicant's responses to environmental issues raised by the proposed development was insufficient at best, and indicative of disregard for public safety at worst. These issues and the applicable criteria were all discussed in detail in the May 20 staff report, and insufficiently answered by the applicant in the public meeting on July 23rd.

In discussion with a team of environmental lawyers, we have confirmed that these environmental issues are myriad, but key among them are:

- (1) compliance with the floodplain development requirements,
- (2) avoiding or minimizing impacts to natural resources under the criteria in MMC 19.402; and
- (3) compliance with the Willamette Greenway conditional use criteria at MMC 19.401.6.

The applicant's responses to these issues fall far short of the applicable criteria, and since the burden of proving that a variance should be granted falls on the applicant, for these reasons alone the variance request should be denied.

But this is before the Planning Committee because human judgment is required to determine whether the law should be "bent" instead of applied "straight", or should it be variously instead of uniformly applied. Each variance becomes a precedent for the next, and the threat of a slippery slope is very real when the profit motive is so strong behind development at all costs. For this reason this variance might not be a one-off, but instead it could set a litigation trend whereby other builders eager to encroach on our natural wonders demand other and even worse variances.

In this case, the request is for a variance, that is, to make an exception to what others before us determined to be the best way to manage our city and its resources. Among the many questions we must ask is, can we see better in the long-term than our predecessors? In this case, we certainly can. But does this better foresight in regard to flood-risks recommend relaxing the standards set long before now regarding building in the floodplain? Absolutely not. In face, the reverse. We should be raising our building standards, not diminishing or disregarding them.

All this suggests that the Planning Committee also bears the burden of understanding how the past few decades of flooding experience are not the proper baseline for the flooding to come. We have warnings from all across the country that the convergence of climate change and intensifying regional weather patterns are leading to 100-year floods occurring every five years in some locales. That the Portland area has been spared for a few years has led to complacency among many. It was this complacency that I heard in the applicant's response to queries about last year's flooding in Salem. The implications was clearly that, well, that was Salem, not here. This complacent posture wants us to think, "So it can't happen here" but without saying something so ridiculous out loud. Nonetheless, this was the clear implication of their lack of concern about the recent Salem floods.

What makes this variance request not only negligent environmentally but also a direct threat to the public good is that, even beyond the predictable increase in seasonal and flash flooding that will come with accelerating climate change, there are particular dangers in SE Portland that make the applicant's complacency about flood risks a danger to himself and others.

First, the southeast flanks of Mount Hood haven't seen a significant forest fire in decades. With drier summers and consequent increases in wildfires, such an event is entirely predictable within the next decade or two, probably before construction on these misbegotten homes could be completed. And with these fires will come landslides, debrisswollen rivers and inundated flood plains. The proposed variance would increase the pain of this predictable flooding ten-fold, whereas this area should instead serve as a buffer for flooding and wildlife alike.

Second, the glaciers on Mount Hood currently serve a buffering function in the hydrological cycle, allowing the winter snows to release as a trickle over the summer instead of as sudden melts and floods in the spring and early summer. Sad to say, those glaciers will only be there for a few more years, and then the entire watershed will be much more vulnerable to flooding than before.

These are just two of the many reasons that this development proposed in this location is particularly ill-conceived. To make the point clear: it is entirely probable that these two events will converge in the next decade, and Elk Rock Estates will suffer for this inability to see how the future will be predictably different from the past.

Right next to the oldest landmass in the Portland area, some 40 million years old, this variance would build a monument to short-sighted ambition, a sandcastle at the edge of the low tide line.

The 1996 flood levels are obsolete in regards to real-world applications. In asking for a particular exemption through this variance the applicant asks the Planning Committee to use its collective judgment, and this knowledge of a changing world all around us will hopefully inform that judgment. Please say No to this variance and this development.

From: kary king <karyking57@gmail.com>
Sent: Tuesday, August 06, 2019 3:54 PM

To: Vera Kolias
Subject: Elk Rock Estates

No to development. Yes to restoration. Natural habitats on flood plains. Not big buildings & cars

From: Christopher Roberts <robertsc@lclark.edu>

**Sent:** Tuesday, August 06, 2019 3:32 PM

To: Vera Kolias

**Subject:** Save the Willamette Slough from Elk Rock Estates

Hello Vera.

Thank you for fielding public comments.

The City of Milwaukie has recently made a significant investment in the public goods that we all enjoy. With this variance proposal to build Elk Rock Estates in a floodplain a central feature of Milwaukie's public river face, the Willamette Slough, stands endangered with irreversible encroachment that feeble "mitigation" efforts can never undo. This is why in the short period allowed I want to speak out in resistance to this encroachment upon the Elk Rock Island ecosystem, and in particular defense of the east bank of the Willamette Slough.

The developer's case for a "variance" to allow construction in the floodplain depends upon the "undeveloped" condition of the easement-slash-turnabout. The developer would "develop" this hardpacked, undernourished area between 19th St and the Willamette Slough with even more flood-intensifying impacts on this terrain. These would be in the form of impermeable surfaces like: a new road perpendicular to 19th St, ten driveways, and ten single-family three-story homes in this floodplain.

In stark contrast to this developer's vision, people I talk to see the good in a restored floodplain. Instead of a "development" that encroaches on the Slough's east bank, the developer and various public partners could restore this fallow but impacted area. Instead of seeking variance after misguided radiance to try and "develop" it, this would serve the Elk Rock Island ecosystem that faces increasing impacts from all sides, as well as serve the public good of moderating floodwaters by means of native plant and wildlife.

As the impacted but undevelopable floodplain slowly fills with spongy mosses and other hydrophilic native plants, this itself would be a public good, as the Willamette Slough Restoration Project would be educational for the entire community. In particular, there are several public schools within a 5 mile radius of the site, and their K-12 science classes could treat this Project as an active learning laboratory. In this way an "undeveloped" floodplain could support the flourishing of the plant and wildlife that call Elk Rock Island home, as well as the people of Milwaukie and greater Portland.

Actually this should be a win-win situation: with the east bank of the Slough restored, the rest of the applicant's property in the floodplain could be a private interface with this project, thus with his existing residential footprint providing a sublime experience for people who would value this kind of respectful, environment-friendly building. This is the kind of development for nature lovers that would serve the builder better than simply maxing out square footage. In other words, the applicant should get on board with this because it would increase the value of his property not by maximizing the quantity of square-footage packed into a tiny, vulnerable footprint, but through the quality of experience his residents on his current footprint would enjoy with this restored Slough as their backyard.

Development cannot be mitigated, but development coupled with restoration can benefit both sides of the interface. Instead of encroaching upon the Willamette Slough, a public effort to restore it drawing on multiple stakeholders and constituencies would actually increase both the value of the developer's current footprint and the fallow floodplain land.

If the applicant could see the value in this project that is more in line with Milwaukie's civic vision, then we might begin a different kind of development in this special landscape, and this relationship could serve as a model for the way a city like Milwaukie should strive to embellish the ecosystem that enframes our local natural wonder, Elk Rock Island.

Sincerely, Christopher Roberts Twelve-Year Resident of Waverly Greens Apartments New co-proprietor at 12203 SE 19t St in Milwaukie