COMPLETE WRITTEN TESTIMONY SUBMITTED FOR JUNE 27, 2024 PLANNING COMMISSION HEARING

Planned Unit Development (PUD #24-01)

Susan Norris
[redacted]
Rockaway Beach, OR 97136
[redacted]

June 20, 2024

City Planner
City of Rockaway Beach
275 S Hwy 101
PO Box 5
Rockaway Beach, OR 97136
cityplanner@corb.us
www.corb.us

My questions and thoughts are as follows:

- I would like to receive concurrence/explanation from the Rockaway Beach City Council, that the Nedonna Wave initial application is not subject to the 10 year rule which requires that if a project is not started within 10 years, a new application must be filed. If they are not subject to this rule as noted by Mary Johnson in the meeting on June 20th, I would like to know why not.

- During last week's presentation by the lawyer of Anna Sona, it was stated that the subject development land bordered by Song, Kittiwake and Riley, had a little water in it at the corner of Riley and Kittiwake and that the land had already been filled. I would like to know his definition of "little". Today, I again checked this land and found the following:

    - At North side of Riley and East side of Kittiwake, there is a pool of water that is about 1' deep, 3-4' wide and 14' long.
    - On East side of Kittiwake, about 70' from Riley, there is a pool of water that is about 1' deep, 5-6' wide and 10' long.
    - On East side of Kittiwake, near Song St, there is another pool that is about 1' deep, 10' wide and 25' long.

    This sure seems like a lot to me. Would you consider this a little?

    In addition, if this has been filled as stated, this property is a prime example of a wetland – a wetland that has been here for hundreds if not thousands of years. Rain works its way down the coast range to this wetland area. The wetland can be filled over and over again, and water will still erode it. Mitigation is a joke and merely a loop-hole that developers and lawyers have invented to build over the top of a wetland.

    Just look at the houses that are on Song St, Duke and on Kittiwake looking down Song. All this had been filled in and yet each of these houses has experienced some water encroachment. It is a wetland that should be preserved.

- In addition, this land has a sign on it (now unreadable) that is on the East side of Kittiwake, about 70' North of Riley). It stated that the roped in land was protected and preserved as part

of the State of Oregon wetlands initiative and was donated as such. The roped area starts at the house located at Song and Duke, turns left on Kittiwake, turns left on Riley and goes about 40' East on Riley. What has happened to this? We were all told that this was a donation and that the wetland would be preserved forever, yet now it sounds like Anna Song is taking it back and replacing it with a much smaller parcel if anything at all.

- These developers need to told that both Tillamook County and the City of Rockaway Beach have implemented a limit on STRs (Short Term Rentals). Old permits will be phased out as ownership changes until the limit is met. Buyers of any such developed houses will not be allowed to rent them unless permits are available.

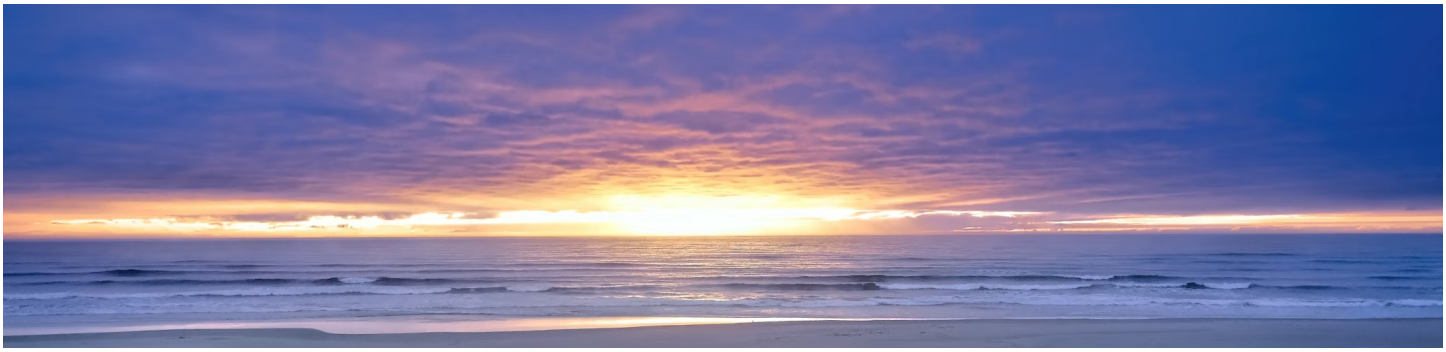
- This new application by Anna Song, asks for major changes both in the number of houses and size. At this time, the correct decision is to deny the application. Instead of building more houses on one lot, perhaps she should consider combining lots and building fewer houses.

In addition, Rockaway City should be seriously looking at its infrastructure before embarking on massive development plans. It is debatable as to whether there is enough good water to support all the newly planned developments, let alone the existing ones. The water that we do have, periodically reeks of chlorine or something else that is beyond description.

Why can't Rockaway Beach become the ecological gem and leader of the coast, such as shown with the Rockaway Big Tree Trail and future Salmonberry Trail. Please quit building indiscriminately.

Thank-you for listening,

Susan Norris



"Every species is a masterpiece, exquisitely adapted to the particular environment in which it has survived. Who are we to destroy or even diminish biodiversity?" E.O. Wilson, Biologist

Albert LePage, [redacted], Eugene, Oregon 97405

June 27th, 2024

City Planning Commission
276 Hwy 101 S.
Rockaway Beach
Oregon, 97136

Comments RE: PUD #24-1:
"Continued Consideration of an Application from Nedonna Development LLC"

Hello:

With Respect and Gratitude I address you as all my relations, for we are all related, we all connected not only in the great web of life, but also with all living beings in the genetic tree of life.

This testimony is submitted to provide information about the wildlife that is apparently associated with the landscape relative to the proposed development, and offer further information for your consideration in decision-making.

The *Oregon Department of Fish and Wildlife (ODFW)* provides an online mapping **"Compass" tool** that generates a brief report of relative to their Oregon Conservation Strategy, and the attached report includes the proposed development area.

Strategy habitats along with both observed and modeled strategy species are the most relevant data relative to the proposed development. As the *ODFW* website notes, "Strategy Habitats are habitats of conservation concern within Oregon that provide important benefits to Strategy Species."

Strategy species of greatest conservation need, strategy habitats, and native habitats of conservation concern, based upon ODFW's overall Oregon Conservation Strategy plan, are detailed, as can be seen in the attached report. *(Image: Northern Spotted Owl, BLM)*

Since the report generated expanded the area beyond the proposed development area, each species map overlay was specifically analyzed for the approximate proposed development area and at its edges, to more accurately reflect both observed and modeled strategy species for the specific land area.

Highlights of this generated report for the specific area as follows:

- ***Strategy Habitats*** of conservation concern: **Wetlands** are the dominant native habitat of the landscape

Observed Strategy Wildlife:

- Peregrine Falcon (American)
- **Marbled Murrelet**
- Olive-sided Flycatcher
- Townsend's Big-eared Bat
- Purple Martin

Modeled Strategy Wildlife:

- Peregrine Falcon (American)
- **Marbled Murrelet**
- Olive-sided Flycatcher
- Townsend's Big-eared Bat
- Purple Martin
- Black Oystercatcher
- **Northern Spotted Owl**
- Coastal Tailed Frog
- Columbia Torrent Salamander
- California Myotis
- Fringed Myotis
- Hoary Bat
- Long-legged Myotis
- Silver-haired Bat

- ***Observed*** Strategy Wildlife: Among the wildlife species, of note is the **Northern Spotted Owl**, which is listed* as **"threatened,"** and the **Marbled Murrelet *as endangered by the state or threatened at the federal level.***

Image: *Juvenile Marbled Murrelet at sea / Credit: USFWS/R. Macintosh*

- Modeled ***Strategy Wildlife Habitat***: The report shows the landscape could potentially be home to a variety of strategy species, which are detailed in the report.

*Source: Threatened, Endangered, and Candidate Fish and Wildlife Species ODFW

**Wildlife species distribution models developed and maintained by the Oregon Biodiversity Information Center (ORBIC) occurring within the area of interest. Note that these models indicate potential "good" or "fair" habitat for these species, and do not necessarily mean that the species occurs within the area of interest." Source: ODFW Compass Tool

Finally, in closing, given every inch of land and water, especially at this time in history when natural areas are impacted and continue to disappear . . . given every inch that can be preserved can make a difference in protecting the diversity of species . . . and being aware of the strategy wildlife observed or modeled for the proposed development, **we all have to ask ourselves, what kind of place do we want to live in**, what kind of world do we want to leave future generations, **what kind of life would we have without wildlife?**

May the information provided in my testimony guide you in regards to these questions, and your decisions relative to the proposed development.

Respectfully,

Al LePage

Albert LePage, M. Ed. Science, B.S. Biology
Member, Society for Conservation Biology

Attachment: ***Oregon Conservation Strategy report***, generated using the Oregon Department of Fish & Wildlife (ODFW) Compass mapping tool

ODFW Compass

Oregon Conservation Strategy Report

Proposed Development and Surrounding Areas

Jun 27, 2024

Leaflet | Sources: ESRI, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), © OpenStreetMap contributors, and the GIS User Community

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Area mi^2: 2

Ecoregions:
- Coast Range

Conservation Opportunity Areas:
- Nehalem River Estuary, COA 009

Strategy Habitats:
- Coastal Dunes
- Estuaries
- Late Successional Mixed Conifer Forests
- Flowing Water and Riparian Habitats
- Wetlands

Documented Strategy Fish:
- Chinook Salmon - Spring Run
- Chum Salmon
- Coho Salmon
- Green Sturgeon
- Pacific Lamprey
- White Sturgeon

Observed Strategy Wildlife:
- Peregrine Falcon (American)
- Brown Pelican (California)
- Caspian Tern
- Harlequin Duck
- Marbled Murrelet
- Olive-sided Flycatcher
- Townsend's Big-eared Bat
- Tufted Puffin
- Purple Martin
- Western Snowy Plover

Modeled Strategy Wildlife Habitat:

Peregrine Falcon (American)
Black Oystercatcher
California Myotis
Caspian Tern
Clouded Salamander
Coastal Tailed Frog
Columbia Torrent Salamander
Fork-tailed Storm-Petrel
Fringed Myotis
Hoary Bat
Leach's Storm-Petrel
Long-legged Myotis
Marbled Murrelet
Northern Spotted Owl
Olive-sided Flycatcher
Red Tree Vole
Silver-haired Bat
Townsend's Big-eared Bat
Tufted Puffin
Purple Martin
Western Toad

For information on data sources see http://dfw.state.or.us/maps/compass/reportingtool.asp

Compass
dfw.state.or.us/maps/compass
OREGON Fish & Wildlife
www.dfw.state.or.us
the OREGON CONSERVATION STRATEGY
oregonconservationstrategy.org

ALTERMAN
LAW GROUP

MEMORANDUM

To: City of Rockaway Beach

From: Dean N. Alterman
Alterman Law Group PC

Date: June 27, 2024

Re: Nedonna Wave Planned Unit Development – Phase 2 application
City file no. #SPUD 07-19
Our file no. 5701.001

I'm writing this memorandum in response to the staff report and public comments from the June 20 public hearing.on the application of Nedonna Development LLC and its principal Anna Song to subdivide Tract F (Tax Lot 10400) and Tax Lot 10500 of Nedonna Wave Phase 1 to be Phase 2 of the planned unit development that the city approved in 2008 in City File No. #SPUD 07-19. I'll take the issues raised in turn.

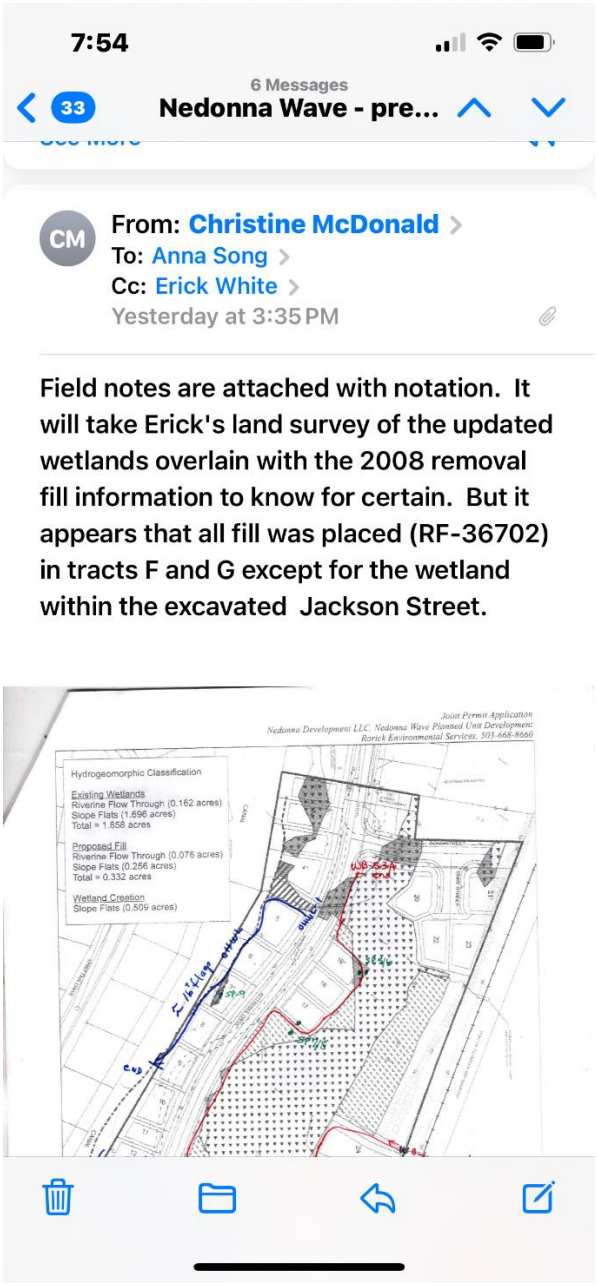
1. Excavation has not begun

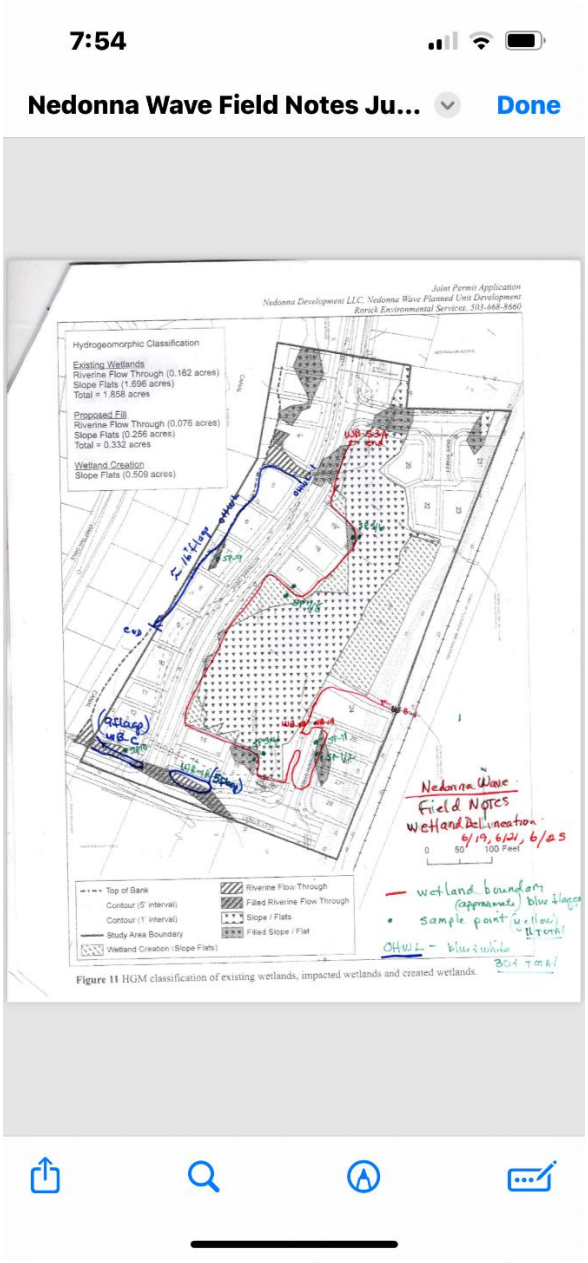
Three persons who testified said that the applicant has already begun to excavate for Phase 2. What they mistook for excavation was the clearing of brush so that Mrs. Song's wetlands consultant could inspect the property, verify the previously-approved fill, and delineate where the wetlands are today. Here are two pictures of areas that were cleared for the inspection.

There aren't any pits. There aren't any dirt piles. All that happened was that Mrs. Song had some of the undergrowth mowed so that the property could be inspected.

2. Current location of the wetlands

Christine McDonald, Mrs. Song's wetlands consultant, inspected the property on June 19 and 21. Ms. McDonald reports that the approved fill appears to have been placed. The only





question here is the status of Jackson Street, part of which is now a wetland. The attached letter from Bill Howard of Earth Works Excavation explains that he completed the approved excavation and the fill of all areas except Jackson Street years ago when the project was approved. He excavated Jackson Street (not then a wetland) to prepare it for rockfill and paving, but did not complete the fill and paving. That's why Jackson Street is now a wetland: as Mr. Howard describes it, the excavation caused "a bathtub effect holding water creating a possible wet land area."

Mr. Howard also confirms that no excavation work has been done since Phase 1 was completed.

3. Tract E and emergency egress (tsunami route)

On Mrs. Song's behalf I went to the property after last week's hearing and looked at the path that now serves as a tsunami route. Mrs. Song is not sure how the path came to be on her property but to remove this issue from consideration at tonight's meeting, she is withdrawing her request related to the potential future vacation of the stub of Riley Street.

Mrs. Song does note that in 2009 the city contemplated that the developer of the property to the south (the future Nedonna Estates) would construct an emergency egress to Highway 101 from the Nedonna Estates property. Nothing in the approval of Mrs. Song's PUD and of Phase 1 suggests that the city was requiring her to provide emergency access to and across the railroad through Tract E.

4. Force main extensions

Staff recommends, based on the report of the city engineer, that the applicant be required to construct a regional pump station on the property, a force main from that pump station to the White Dove pump station, and a force main from the 23rd Street pump station to the 17th Street pump station. The engineer's reason is that the existing sewer lines sometimes overflow and are not adequate to serve existing development.

Mrs. Song does not object to building a pump station on her property and connecting it to the White Dove pump station. She does object to shouldering the entire cost without reimbursement from the other benefited owners. The property to the south, when developed, will benefit from the Riley Street pump station. It will also be placing twice the burden on the sewer system that Mrs. Song's PUD will create.

a. Riley Street pump station and the force main to White Dove

Immediately south of Mrs. Song's property and Riley Street is a tract of 16.73 acres. In 2007 the owner of that property, Nedonna Estates, LLC, applied for permission to subdivide that

tract into 47 residential lots and two tracts with the potential for future development.[1] The staff report recommended that the city require Nedonna Estates to "Engineer and install to City Standards an extension of the existing 6" diameter White Dove sewer force main from existing discharge manhole at 23rd Avenue to a new discharge manhole at 17th Avenue. Continue with a new 10" gravity sewer main from 17th Avenue to 14th Avenue to attenuate sewer flows. In lieu of said gravity line, applicant should install a new pump and force main on the east side of Hwy. 101 per sewer facilities plan. This is required to alleviate surcharging of the 23rd Avenue manhole, a current problem at that location."

If the city requires Mrs. Song to build the pump station and the force main to White Dove, then it should also enter into a reimbursement agreement with her for future development, including Nedonna Estates, to reimburse her for a share of the cost of the pump station and force main proportionate to the number of lots in the future development.

b. Force mains not connected to the project

The city also proposes a condition that would require Mrs. Song to install force mains some distance from the site, to remedy the inadequacy of the present system that serves Nedonna Beach. Based on a Google Earth view, there are about 340 houses in Nedonna Beach. Mrs. Song proposes to add about 20 houses, which when complete would bring the total to about 360 houses. Mrs. Song's project would account for only about 6% of the demand on the sewer mains in Nedonna Avenue. Under *Dolan v. City of Tigard*, 512 US 374 (1994) and later cases including *Koontz v. St. Johns River Water Management District*, 570 US 595 (2013), a local government may not require a landowner to dedicate property or pay to construct public improvements unless the dedication or payments are approximately proportional to the effects of the proposed land use. In this instance, where Mrs. Song's project represents about 6% of the impact on the Nedonna Beach sewer mains, it is unreasonable to require her to pay 100% of the cost to remedy their current inadequate incapacity.

5. Conclusion

The applicant is ready to continue the development of the Nedonna Wave PUD and requests your approval of the preliminary plat with the addition of the two lots.

Attachments: Letter from Bill Howard, Earth Works Excavation
2009 staff report for Nedonna Estates (different developer)
Sewer plan, City of Rockaway Beach showing pump stations

[1] Rockaway Beach Application No. #07-09.

EARTH WORKS
EXCAVATION
24675 Hwy 101 S., Cloverdale, Oregon 97112

HUBZone
Historically Underutilized Business Zone
SBA
HUBZone Certified Small Business

June 27, 2024

To All Concerned.

This letter is to clear up any questions on my work completed on Nedonna Wave.

1. My original contract with Anna Song was for a single phase subdivision Nedonna Wave. All mass grading including lot leveling, street excavation, and wet land mitigation was completed. This included a large increased wet land area. All utility installations included sanitary sewer, storm sewer, domestic water, and dry utility conduit for cable and power to all lots was completed. Utilities included all required testing except for two manholes where paving was not complete. Because of an economic downturn the decision was made to divide the project into multiple phases and the work for the sewer pump station and two streets was put on hold.
2. The excavation for Jackson Street was done but the rock fill and paving for the street was not completed causing a bathtub effect holding water creating a possible wet land area.
3. It was noted that we were on site working. There has been no excavation work for the project done sense the finish of phase one. There was one day of black berry mowing on Annas lots for the inspection of the wetland mitigation work originally done. This was done for ease of access for Annas wet land expert and a representative of Tillamook County planning department. The mowing work was only done along the wet land boundaries on the private property lines for visual and measuring inspections.

[redacted]

Bill Howard
Earth Works Excavation

BEFORE THE CITY PLANNING COMMISSION OF ROCKAWAY BEACH, OREGON
Application # 07-09 Nedonna Estates Planned Development Subdivision
Staff Report Date: October 23, 2007
Public Hearing Date: (first continued) October 23, 2007

COPY

I. Application Information:

Applicant:	Tai Dang, Member, Nedonna Estates, LLC
Property Owner:	Nedonna Estates, LLC
Engineer / Surveyor:	Ron Larson, HLB Otak, Inc.
Location Description:	Within the City Limits of Rockaway Beach; West on Beach Drive, North on Nedonna Avenue; East on Riley Street to property
Assessor's Plat:	2N 10W 20AC, TL 3000, 3100, 3200, 3300, 3400, 3500, 2N 10W 20 TL 518
Legal Description:	Partition 1998-09, Parcel 1, 2, 3; Partition 1998-07, Parcel 1, 2, 3
Development Zone(s):	SA Zone, R-1 Zone, FHO Zone, HO Zone, Wetland Notification Overlay Zone
Property Size (by zone):	Total Site Area: ~16.73 acres
Property Dimensions:	~2,500' (North to South) x 480' (East to West)

II. Description of Request:

The applicant requests the approval of Nedonna Estates Application #07-09, a 47-lot Planned Unit Development Subdivision.

Total Area of Ownership:	16.73 Acres	
R-1 Zone Area:	9.89 acres	[1 lot per 5,000 square feet density]
SA Zone Area:	6.93 Acres	[0 lots per acre residential density]

Proposed Planned Development Subdivision:

Number of Lots:	47 residential development lots and two tracts, Tract 1 and Tract 4 with the potential for future development.
Tract 1:	0.68 acres: 0.6 acres R-1 Zone; 0.08 acres SA Zone
Tract 4:	3.65* acres: 2.11 acres R-1 Zone; 1.54 acres SA Zone *Tract 4 will be reduced in area by the extension of Egress Road as a public right-of-way.
Open Space Tracts:	Two Tracts: Tract 2: 1.8 acres; Tract 3: 4.36 acres
Rights-of-way:	*Kittiwake Drive*, extension of an existing 40' right-of-way to a 50' right-of-way. *Western Street*, extension of an existing 50' right-of-way *Riley Street*, extension of an existing 50' right-of-way *Egress Road***, new 40' right-of-way, name subject to approval

with City Standards. At the time development of Tract 4 is proposed, the property owner shall extend and construct the Egress Road right of way for vehicular access consistent with City Standards.

6. The property owner shall dedicate to the City and shall construct to City Standards the extension of Kittiwake Drive, a 40' wide public right of way increased to a 50' right of way.
7. The property owner shall ensure that the final plat provides a minimum 25' access width for each lot. The property owner shall install access to flag lots at the time of street construction.

On-site improvements:

1. The property owner shall comply with RBZO Article 13, Section 43 Improvement Standards and Approval.
2. Improvements required by RBZO Article 13, Section 44 Improvement requirements shall be installed at the expense of the property owner.
3. Geotechnical engineering shall be provided for all site development plans to address identified hazards.
4. The property owner shall dedicate an 8' wide Public Utility Easement that is located in the first 8 feet of property parallel to the front property line.
5. The property owner shall be financially responsible for submitting engineered construction plans for on-site improvements for water, fire access, hydrants, and water supply, sewer, stormwater drainage, and streets in general conformance with the approved tentative plan.
6. The property owner shall work with the power company, Tillamook PUD, and other utilities to serve the site and shall comply with all requirements necessary for provision of services.
7. Easements shall provided by the property owner where they required in writing by applicable regulatory agencies for the installation of required utilities.
8. The property owner shall record and file with the City a non-remonstrance agreement as a deed restriction on each property proposed for development to ensure participation in any LID process intended to provide improvements to transportation to and within the Nedonna Beach area.

Off-Site Improvements:

1. Engineer and install to City Standards a regional sewer pump station and related housing including, but not limited to: 3-phase duplex station with controls, divot crane, on-site generator, telemetry, lighting and fencing.
2. Engineer and install to City Standards a sewer force main from the regional pump station to White Dove pump station.
3. Engineer and install to City Standards the construction Riley Street and Western Street crossing of McMillan Creek. Staff would recommend a box culvert be utilized in lieu of a bridge crossing due to future maintenance issues. Should the applicant request bonding of the crossing, the bond cost should be based on the highest cost option.

4. Engineer and install to City Standards a connection into the existing water mains on Kittiwake Drive and on the west side of McMillan Creek on Riley Street to provide a looped water system.
5. Engineer and install to City Standards an extension of the existing 6" diameter White Dove sewer force main from existing discharge manhole at 23rd Avenue to a new discharge manhole at 17th Avenue. Continue with a new 10" gravity sewer main from 17th Avenue to 14th Avenue to attenuate sewer flows. In lieu of said gravity line, applicant should install a new pump and force main on the east side of Hwy. 101 per sewer facilities plan. This is required to alleviate surcharging of the 23rd Avenue manhole, a current problem at that location.
6. Improvements required by the Tillamook County Road Department, require the property owner to be financially responsible for paving Western Street to Nedonna Avenue; for applying dust treatments; and for road maintenance to the County Road system where necessary to an identified construction access route for the construction traffic.
7. The property owner(s) shall record and file with the City a non-remonstrance agreement to ensure that current and future property owners in the Nedonna Estates subdivision will not remonstrate against the formation of the Local Improvement District (LID) for road improvements to benefit the Nedonna Beach area. Improvements to access to the Nedonna Beach area may include:
    1. The installation of a second emergency egress to US Highway 101 suitable for use by pedestrians and emergency vehicles which will include the installation of a culvert at Nedonna Creek and shall be subject to the approval of applicable regulatory agencies.
    2. Improvements to the existing access at Beach Street and US Highway 101 including a south bound right turn lane which will include the installation of a culvert at McMillan Creek and shall be subject to the approval of applicable regulatory agencies.
    3. Improvements to the existing access at Beach Street and US Highway 101 to increase the stacking distance for vehicles waiting to enter the highway during a train crossing and may include a right turn acceleration lane which will include the installation of a culvert at McMillan Creek and shall be subject to the approval of applicable regulatory agencies.

Building Permits:

1. With application for building permit, as a condition of approval, an engineered stormwater drainage plan for each lot shall installed at the expense of the property owner.
2. Prior to building permit approval, a suitable screen, such as a split rail fence and engineered erosion control measures shall be installed on the upland boundary at the expense of the property owner.
3. Site development plans for each lot shall be evaluated for compliance with the criteria of applicable criteria including the Rockaway Beach Zoning Ordinance Hazard Overlay Zone, Flood Hazard Overlay Zone and Wetland Land Use Notification Zone at the time of application for building permit. Due to the presence of wetlands, local, state, and federal permits may be required.

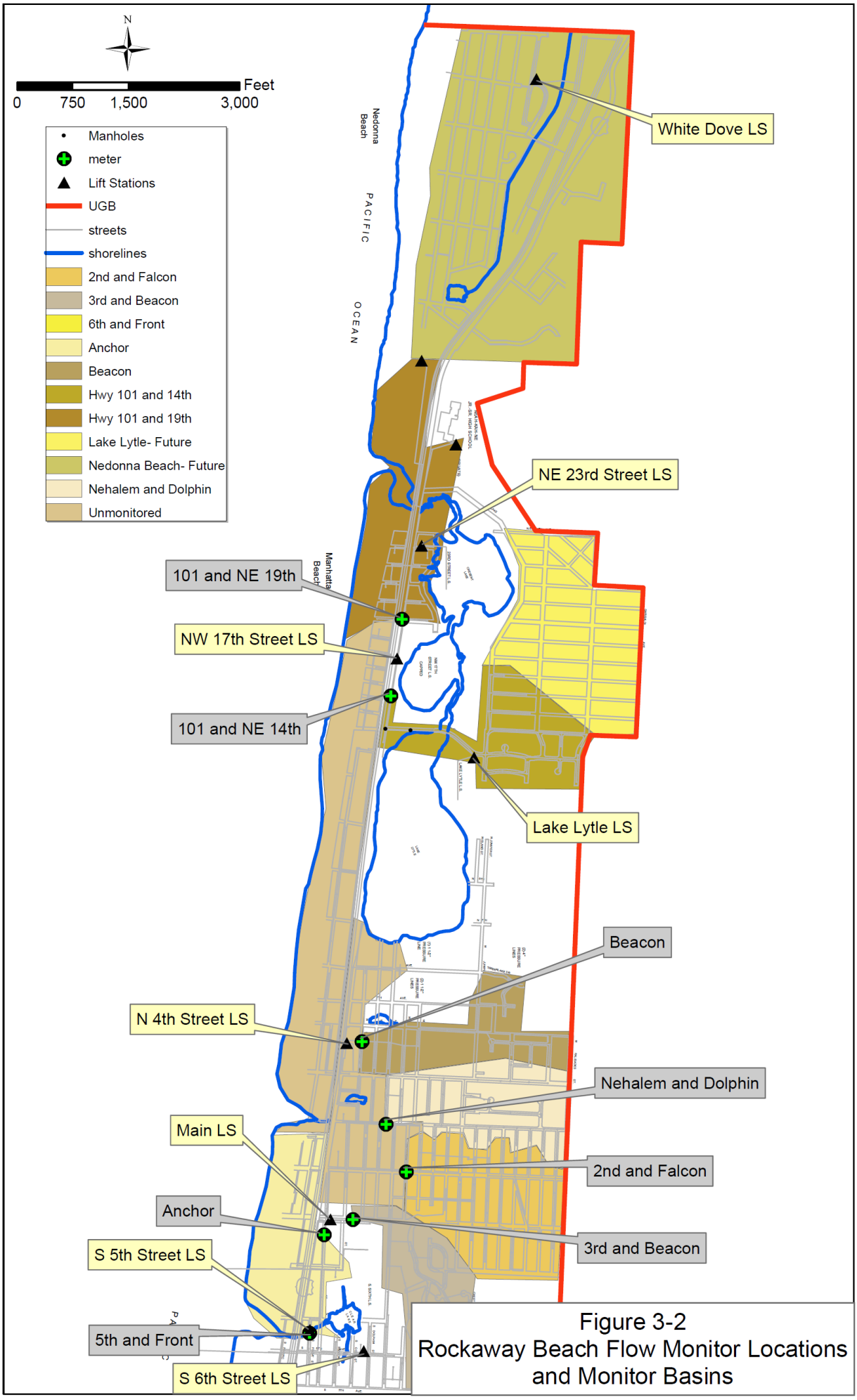


Figure 3-2
Rockaway Beach Flow Monitor Locations and Monitor Basins

From:	nancy webster
To:	City Planner
Cc:	nancy webster
Subject:	Nedonna Wave PUD 24-01
Date:	Thursday, June 27, 2024 2:30:10 PM
Attachments:	11-November-2023newsletter.pdf

Attention: Mary Johnson, City Planner for Rockaway Beach

A comprehensive moratorium on new construction in the Nedonna Beach neighborhood needs to be enacted, since there are issues regarding both public safety and public health that need to be resolved. The primary public safety concern is the fact that there is only one way to drive into, and one way to drive out of, this neighborhood of over 400 dwelling units. The neighborhood is in a tsunami zone. Eventually, there will be a major earthquake that will generate a tsunami large enough to wipe out every house. With only about twenty minutes after the earthquake to escape the oncoming deadly waves, most long-term residents know to walk as fast as they can towards higher ground; the many short-term rental occupants probably will not, and, therefore, they will try to drive out. With only one exit, that will compound the disaster. The City has ignored this potentially lethal situation for decades. The Oregon Fire Code requires two access points for emergency vehicles. A major fire here could be catastrophic for lack of proper access. It is long past time for a solution to this problem. The Rockaway Beach City Council has the authority to enact a moratorium on more development until it resolves the issue of evacuation safety.

Nedonna Beach lies within the boundaries of the groundwater source-protection area for the wells below the neighborhood that provide drinking water for Rockaway Beach. Additional development in Nedonna Beach will be detrimental to providing safe and clean drinking water from those wells. We are already experiencing water shortages at the Coast during the summer. (Please see the attachment concerning summer water shortages in the nearby Neahkahnie water district.) How many more water users can be supported by Jetty Creek and the backup wells? This is yet another reason that a moratorium on development needs to be enacted.

Finally, from an ecological point of view, there should be no more degradation of the few remaining wetlands in Nedonna Beach. These wetlands provide habitat for many animals. They support native plants. They help to filter the water and lessen the possibility of flooding.

The permit to build the Nedonna Wave development should be denied or rescinded for all of the above-mentioned reasons.

Thank you.
Robert A. Larson
[redacted] White Dove Ave.
Rockaway Beach, Oregon

NOVEMBER 2023 NEWSLETTER

Office hours: 10:30AM to 3:00PM, Monday through Friday
Other times by appointment
Phone (503) 368-7309 Fax: (503) 368-6900
Email: nwdmanager@nehalemtel.net

WATER EMERGENCY CONTACT PROCEDURE

If you have a water pressure problem/emergency call the office number (503) 368-7309 and if no one answers, be sure to leave a message as the line might be in use when you call and will kick you over to messaging. If you don't reach anyone at the office, then call (503) 804-4649 and if no answer, also leave a message. You can also come to the office, 9155 Nehalem Rd. during regular hours.

November Update 2023

The recent rainfall has stabilized the flow from our springs, and the flow is expected to increase as our watershed gets more rainfall. Due to the dry summer our area experienced, the District had requested that customers voluntarily conserve water as reflected in the signs that the District posted.

Unfortunately, looking at the July/August period, the water usage in 2023 was 18% higher than during the same period in 2022. As in the past, a relatively small number of customers used much of the water. The top 25% used over 60% of the water billed, averaging over 28,000 gallons for the 2-month period. The middle 50% used 32% of water billed, averaging 7,248 gallons. Check your July/August water bill to see how much water you used and how you compare to others.

This lopsided use of Neahkahnie water presents a real challenge to the District Board...and to ratepayers. We have only the water nature provides, and if the recent summer trends continue, our options for sustainability narrow to two: conservation, especially by the heavy users, or very expensive new infrastructure with even higher water rates. Let's plan to make conservation our top priority in the summer months.

Thank you,

The Neahkahnie Water District & The Neahkahnie Water Conservation Committee

From:	nancy webster
To:	City Planner
Cc:	nancy webster
Subject:	Nedonna Wave Proposed Development PUD 24-01
Date:	Thursday, June 27, 2024 4:18:22 PM
Attachments:	NKN WD DALE TImmons Two Application Reviews June 2020 EXH B copy.pdf Timmons Comments July 10 Workshop 7-25-18 copy 2.pdf

Rockaway Beach City Planning Department,

The City of Rockaway Beach's drinking water is sourced from both Jetty Creek (surface water) and wells located within the Nedonna Beach Neighborhood (ground water.) These drinking water sources are used sometimes together and sometimes separately. The entire Nedonna Beach neighborhood is listed by DEQ as within the surface water source protection area.

The western section of Nedonna Beach is still under county jurisdiction and on septic systems. The wells within the Nedonna Beach neighborhood are subject to both septic intrusion, salt water intrusion, and chemical contaminants.

The proposed Nedonna Wave development is within the DEQ surface source water protection area. **Although this new construction would be on sewer, this construction and new residences would result in further contanimats in our ground water source area.**

Please read the attached reports commissioned by the Neahkahnie Water District regarding potential surface and ground drinking water contaminants. This report includes information about both septic tanks and neighborhood chemical usage. It appears that a substantial part of these reports data would apply to the Nedonna Beach surface drinking water source.

Summary from 7-25-2018. Report Commissioned by Neakhanle Water District. Dale M. Timmons, Registered Professional Geologist. RG 23252. (see second attachment summary pages 5 and 6.

> **"The developer's representatives failed** to reveal **important information** to **the stakeholders and to the District. The explanations regarding monitoring of the proposed septic systems was** woefully **inadequate**. **The** only **conclusion** that can be **taken away from the** Developer's **presentations is that once** the **systems are sold and installed, it will be up to** the **homeowners to properly operate,** monitor**, maintain and** repair, and **police these systems. There is no** way **a home owners association will be** able to police **these** systems**.** As **we all know, most** people **will** forgo septic maintenance **or concern as long as** the toilets **flush and the sinks drain. Beyond that,** "**out of sight, out of mind". Once** the developer **has sold the lots, he will** be **gone.** There **are no proposed financial safeguards or financial assurances being offered** by **the** developer **to address contamination** of the **District's water supply that** is **likely** to **occur in** the **future** from the proposed development."

"The potential for contaminating the District's water supply with contaminants other than biological effluent is very real. Homeowners cannot be trusted to keep stored chemicals in secondary spill containment facilities. It will be impossible to prevent homeowners from using fertilizers, herbicides, pesticides or other chemical gardening products. Their automobiles, lawnmowers and other power equipment will leak oil and other fluids like gasoline, diesel, power steering fluid, brake fluid, antifreeze and grease. Pharmaceuticals will exit their septic systems along with everything else that should not be discharged down drains leading to septic systems. The septic system and soil infiltration of effluent will effectively treat only the biological portion of the effluent contaminants. The rest will enter the ground and migrate. There is no way to tell how long it will take for contaminants to begin showing up in the water supply but is virtually guaranteed that they will."

"The contamination may or may not ever exceed regulatory drinking water standards. But is that what the stakeholders want? Do they want to allow their drinking water to be tainted at all? Keep in mind that EPA's carcinogenic risk assessment process "is a process to estimate the nature and probability of adverse health effects in humans who may be exposed to chemical in contaminated media" (https://www.epa.gov/risk/human-health-risk-assessment). This process is imperfect, complicated, and is often based on animal studies. In addition, as science improves, new risks are being discovered and allowable exposure levels are continually being revised. Many cancers are caused by chronic exposure to low concentrations of carcinogens and new carcinogens are being discovered every day. What is certified safe by the EPA today may very well not be safe tomorrow."

Today Oregon Coastal Communities are facing a drinking water crisis. We need to place a moratorium on development until we can ensure both safe and abundant water.

Thank you,

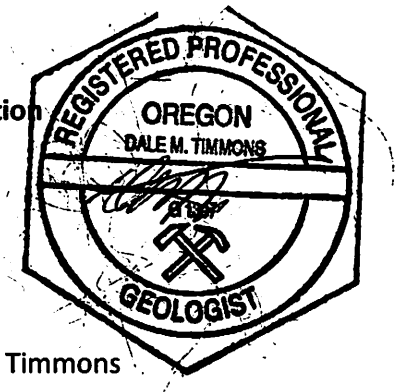
Respectfully Nancy Webster
POBox 1291, Rockaway Beach, Oregon 97136

Neahkahnie Water District

Review of the Summit at Manzanita Development Application

Dale Timmons, R.G.

June 27, 2019



Introduction

The Neahkahnie Water District NKNWD or "District" engaged the services of Timmons Associates (i.e., Dale Timmons) to review certain documents pertaining to the proposed development called: Summit at Manzanita. Mr. Timmons is a licensed Geologist in Oregon and a licensed Geologist and Hydrogeologist in Washington State. He has spent his career in the management and cleanup of hazardous and radioactive waste including contaminated groundwater.

The proposed development is located in northwest Oregon on the southern slope of Neahkahnie Mountain near the communities of of Neahkahnie and Manzanita. The developer/owner is: Pacifica Land Conservation, LLC and Seventeen Enterprises, LLC hereinafter referred to as "Developer" or "Declarant".

The purpose of this review is to assess the Developer's proposed approach for protecting the pristine water quality and quantity of the water supply for the District as presented in an incomplete Application for Land Division (Application) submitted to the Tillamook County Department of Community Development on or around March 29, 2019. The specific sections of the Application that were reviewed include:

- Boeger & Associates memos Dated March 11, 2019 and July 5, 2018
- Horning Geosciences geologic hazard report
- Farallon Technical Memo
- A&B Septic Service O&M contract example
- Septic site evaluations
- Declaration of CC&Rs
- DEQ-DHS Source Water Assessment Report from 2005 (cursory review)
- Drinking Water Protection Plan of 2011
- CwM-H2O report entitled: Neahkahnie Water District Drinking Water Quality Protection Feasibility Study dated February 2018

Additional documents reviewed included:

- The District's Ordinance 2018-1
- The District's Resolution 2018-2019-3
- Multiple scientific and government publications that are referenced throughout and at the end of this document.

In addition to reviewing the above documents for familiarization, completeness and feasibility as appropriate, it was requested that an assessment of alternatives be conducted that have the potential to characterize and define flow mechanisms and fate and transport mechanisms that might contribute to the migration of contaminants to the springs from surface and subsurface sources.

Risks to the District's Water Supply

The District's primary water supply originates from three springs. A fourth spring (Pirate Spring) serves as an emergency backup water source. The three primary springs produce water from what appear to be preferential groundwater pathways in landslide deposits. The water is quality is pristine. Little is known about the sources and groundwater flow pathways that contribute water to the springs with the exception that water emerges at the surface from landslide deposits. Little is known about the subsurface geology beyond the published information on the regional geology and geological history. The geologic map published by the U.S. Geological Survey that is repeatedly referenced in the Application (i.e., Wells, Snavely, et.al.) was mapped at a scale of 1:48,000. This scale is not adequate to formulate meaningful groundwater flow models in and surrounding the proposed development nor to predict contaminant flow pathways from potential sources of pollution to the District's springs.

The ground surface in most of the area encompassed by the proposed development consists of shallow soils underlain by landslide deposits of unknown but likely variable thickness. Descriptions of subsurface confining layers that are hypothesized to control groundwater flow are all interpretations based upon sparse data. To summarize, almost nothing is known about where and how groundwater flows in the subsurface in and around the proposed development.

A cursory review of readily available information from credible sources reveals a growing concern regarding how human activities are degrading groundwater. Some of these sources and their notable contained quotes include:

> **The journal: Environmental Science and Technology in June 2017, an article which states:**
>
> https://pubs.acs.org/doi/10.1021/acs.est.6b04778
>
> > ***Wastewater effluent is the primary source of pharmaceuticals, hormones, consumer product chemicals, and other organic wastewater compounds (OWCs) commonly detected in surface water, groundwater, and drinking water.*** [1-5]
>
> This study was the most comprehensive assessment of septic systems showing them as important sources of emerging contaminants, raising health concerns since many of these chemicals, once discharged, end up in groundwater and drinking water supplies. The study showed that septic systems in the United States routinely discharge

pharmaceuticals, consumer product chemicals, and other potentially hazardous chemicals into the environment.

US Geological Survey: Pesticides in Groundwater

https://www.usgs.gov/special-topic/water-science-school/science/pesticides-groundwater?qt-science_center_objects=0#qt-science_center_objects

"*The effects of past and present land-use practices may take decades to become apparent in groundwater. When weighing management decisions for protection of groundwater quality, it is important to consider the time lag between application of pesticides and fertilizers to the land and arrival of the chemicals at a well. This time lag generally decreases with increasing aquifer permeability and with decreasing depth to water. In response to reductions in chemical applications to the land, the quality of shallow groundwater will improve before the quality of deep groundwater, which could take decades*."

EPA: Getting up to Speed, Groundwater Contamination

https://www.epa.gov/privatewells/potential-well-water-contaminants-and-their-impacts

"Ground water contamination is nearly always the result of human activity. In areas where population density is high and human use of the land is intensive, ground water is especially vulnerable. Virtually any activity whereby chemicals or wastes may be released to the environment, either intentionally or accidentally, has the potential to pollute ground water. When ground water becomes contaminated, it is difficult and expensive to clean up."

EPA describes residential sources to groundwater contamination as:

"Fuel oil storage tanks, household chemical storage and use, swimming pool chemical storage, septic tanks and leach fields, sewer lines, floor drains, lawn fertilizer storage and use."

A comprehensive review of available references pertaining to groundwater contamination sources is beyond the scope of this review. However, even a cursory review of available articles reveals that there is an increasing concern regarding what are referred to as ***Emerging Contaminants***. The U.S. Geological Survey and the U.S. EPA have identified the following four groups of contaminants for further study: https://www.safewater.org/fact-sheets-1/2017/1/23/emerging-contaminants

1. Veterinary and human antibiotics
2. Human drugs

3. Industrial and household products (such as insecticides, detergents, fire retardants, fuels)
4. Sex and steroidal hormones

These four groups encompass thousands of compounds. Many of these are not yet regulated. Chronic exposure to and their lasting effect on human health and the environment is not well understood. It is safe to say that some may prove to be innocuous and others may prove to have lasting harmful effects.

Of the documents included in the Application, most of the information dedicated to protecting groundwater revolves around septic system design, septic system operation and maintenance and how these systems can prevent groundwater contamination from bacteria and pathogens derived from human waste. There is very little discussion about the growing concern over Emerging Contaminants or surface contamination caused by human activity in residential areas.

Application for Land Division Review, Comments and Notes

Review of: Declaration of Protective Covenants, Conditions, Restrictions (CCRs) and Easements for Summit at Manzanita

The cover sheet of this document states that it was "*prepared to address the many concerns the Water District called to our attention…*".

This review is a critical assessment of how these CCRs may or may not protect the pristine water quality currently enjoyed by the NKNWD consumers. It also presents many questions that need to be addressed in order to provide explanations to the District regarding how the CCR's will actually provide the protections claimed.

Section 1.6, Bylaws: Bylaws are referenced but are not present in the document. They are only referenced in Section 8.9 stating that they will be recorded with Tillamook County. Enforceable critical requirements that protect the District's water supply and how they can be effectively monitored should be described.

Section 2.2, Annexation of Additional Property, Subsection c, d & e: These sections state that the Declarant may modify or exclude any existing restrictions and establish new land classifications, uses, restrictions, covenants and conditions as the declarant may deem to be appropriate.

This Section 2.2 essentially allows the Declarant to do anything it wants with the subject property. The primary concern of NKNWD is to preserve its pristine water quality. A relaxation of upgradient restrictions could increase infiltration from septic systems, increase pollution risks from human activity (as evidenced by contamination of Pirate Spring with atrazine) result in significant increases in impervious surfaces (from

driveways, roads and roofs). These conditions would threaten ground water quality, increase runoff and reduce natural infiltration which would also adversely affect ground water quantity.

Section 2.4, Withdrawal of Property: Declarant reserves the right to withdraw all or a portion of the Initial Property at its discretion. If the Declarant exercises withdrawal, what is the effect on ground water protections described in the CCRs? This is not clear.

Section 6.10, Pest and Weed Control and Section 6.27, Exterior Chemicals:

Section 6.10 requires owners to control "noxious insects or vermin" and to control noxious weeds on the Owner's Lot. At the same time, Section 6.27 prohibits the use of fertilizers, herbicides, insecticides or other chemicals for control of insects, vermin and weeds. These two sections are not consistent with each other. Owners who invest in property, homes and landscaping cannot be relied upon to never apply fertilizers, pesticides or herbicides to their property. It is not reasonable to assume that the restrictions specified in Section 6.2.7 will be followed, monitored or enforced by all property owners and their guests, visitors or renters.

Section 6.29: Water District Protection Plan:

This section places responsibility of compliance with the Protection Plan on the Architectural Control Committee. Because the Declarant has complete control over this committee including its membership (see Section 7.4), there is no basis upon which NKNWD can be assured that any actions taken by the Architectural Control Committee are independent or unbiased. This section would allow the Declarant to take actions for the benefit of the Declarant without regard to water quality. Further, Section 6.29 states that a licensed third party "hydrologist" will review all plans for construction, landscaping, maintenance, drainage and other similar activities submitted to the Architectural Review Committee. There are no "hydrology" licenses offered in the State of Oregon. NKNWD is concerned about ground water quality and potential threats to its quality and quantity. Thus, a hydrologist would not be qualified to assess threats to groundwater. Only a hydrogeologist should be engaged for such an assessment. Unlike Washington, Oregon does not offer a specialty hydrogeology license. Thus, any assessment of ground water should be undertaken by a geologist licensed in Oregon, preferably with experience in hydrogeology and a specialty license in hydrogeology from another state.

Sections 7.1 Architectural Review, 7.4 Membership: Appointment and Renewal, 7.5: Majority Action, & 7.6 Liability:

The Declarant has complete control over the Architectural Review committee including its membership and can take action at its sole discretion without community meetings or community input. This means that the Architectural Review Committee (and the Board of Directors of the Owners Association) are the Declarant. It is not reasonable to

assume that NKNWD can be assured that policy changes, appointments or other actions taken by the Architectural Control Committee or the Board are independent and unbiased or taken solely for the benefit of the Declarant. Furthermore, the Declarant states that all costs incurred in actions taken by the Declarant will be paid for by applicants, but the Declarant accepts no liability for any of its actions even if those actions cause damage to owners, occupants, builders or developers.

In conclusion, the CCRs do not provide meaningful or enforceable policies or assurances for protection of the District's water quality.

Review of CwM-H2O Report: Draft Neahkahnie Water District Drinking Water Quality Protection Feasibility Study

Table E1: Potential impacts to Springs 1, 2, and 3 are characterized as "High" from septic discharge and "Low" from stormwater runoff and "Medium" for risks of development affecting spring yields. For all of these risks, "Mitigation 1" is identified as an effective mechanism for mitigating these risks. Mitigation 1 is identified as:

"Expand residential development exclusion zones to minimize the potential for contaminants to commingle with the groundwater source of the springs or runoff into spring capture boxes via stormwater. Exclusion zone enlargement will also help minimize impacts to spring water yields."

In the Executive Summary, the following statements are made in reference to the four mitigation techniques discussed:

> "*No other reasonable alternative exists*." and,
>
> *"The economic and social benefits of the development outweigh the environmental costs of Degradation."*

The first statement confirms that groundwater will be impacted by development but ignores the most effective mitigation which is to prevent development altogether. The second statement places a priority on development and relegates the District's fragile and pristine water supply to that of a secondary concern. Considering all of the uncertainties regarding local groundwater flow and transport mechanisms and all of the risks that have been glossed over in the Developer's application, this second statement is shocking. In addition, this statement is not supported by any quantitative comparison between the "*economic and social benefits*" and the "*costs of degradation*". Appendix F of the Neahkahnie Drinking Water Protection Plan clearly demonstrates that the cost of groundwater remediation or the cost of replacement of the drinking water supply in other localities ranges from hundreds of thousands to many tens of millions of dollars. What is the comparative social and economic benefit of the proposed development to the people who drink, bathe and cook with the District's water supply?

The most reasonable mitigation method disscused in the CwM report is Mitigation 1: "*Expand the residential exclusion zones"*. While having merit, the difficulty with this mitigation method is that the sources and subsurface pathways of the water produced by Springs 1, 2, and 3 have not been conclusively confirmed. In addition, there is no exclusion zone identified. Even if an exclusion zone was identified, it would be based on conjecture of the sources and subsurface pathways of the groundwater produced by the springs.

Section 3.1.4

This section states*: CwM has used this information to refine the geologic and hydrogeologic* ***conceptual model*** *of the groundwater source that supplies water to Springs 1, 2, and 3.*

"The geology of the site and area surrounding the District has been mapped at or near the surface…"

It is important to note that there have been no investigations of the subsurface in the area of interest. The limited number of logged wells (there are three, one of which is only 20-ft. deep) is insufficient to characterize the source, transport mechanisms or flow rates of groundwater for Springs 1, 2, and 3. There is no evidence of pump tests or other tests performed to assess hydraulic conductivity with the singular exception of the abandoned Well Till 22, estimated to produce 10 gal/min from bailing.

Well: Till 22: The well location and log indicate the Alsea Formation is penetrated at the surface. The well was bailed, and flow rate was estimated at 10 gal/min. The total depth was 105-ft. and the well was abandoned. This well is approximately 2,000-ft. southeast and downgradient of Spring 3 (the closest spring) and penetrates the Alsea formation (according to Figure 3). Thus, this well has little relevance to the District's water supply.

Well: Till 362: The log states a pump test was not performed and the well was a dry hole and was abandoned. Depth 102-ft. This well is approximately 600-ft. WNW and upgradient from Spring 2. Since no water was found in this well, it sheds little light on groundwater sources or flow paths. However, the fact that this well is dry supports the hypothesis that the area contains subsurface preferential flow paths instead of a local consistent water table.

Well: Till 50988: This well was drilled to only 20 ft. and the log identifies clay from the surface to the total depth of the well. It is identified as a dry well although the log indicates that water was encountered from 14 to 20 ft. This well does not reveal useful data regarding groundwater flow with the exception that there is no flow at this location as deep as 20 ft. and that it did not penetrate material typically described as landslide deposits.

The logs of all three wells do not provide enough data to draw any reasonable conclusions regarding groundwater fate and transport mechanisms in the area of the proposed development**.**

It is not reasonable to assume that the upper surface of the aquitard underlying the landslide deposits is planar. This is because landslides are deposited on surface topography and surface topography in a mountainous region is never planar. This buried surface topography could significantly influence groundwater flow paths. Figure 4 in the report shows that the contact between landslide deposits and the underlying Astoria Formation is characterized by a series of question marks. This presumed boundary follows the surface contours and show a consistent thickness for the landslide deposits throughout the cross section. It is not reasonable to assume that the landslide deposits are the same thickness throughout the area of interest or that the depth to the Astoria Formation is consistent or that the contact between the landslide deposits and the Astoria Formation follow the surface topography. Well 362 appears to penetrate basalt at a depth of 43 ft which continues to the total depth of the well. Cross sections shown in the CwM report do not show any basalt near the location of Till 362.

Despite the obvious uncertainties and inconsistencies presented above, the report states:

"*The soils and formations logged at these three wells support the conceptual site model and associated geologic units presented here."*

It is uncertain how this conclusion was reached since the cross section in Figure 5 is not consistent with the well log from Till 362. In addition, the report states (Page 6):

"*The refined conceptual site model for geology within the District is based on available data and professional interpretation of the visible geologic landforms and features."*

It should be stressed that the available data reveals nothing about the subsurface groundwater flow and the visible geologic features in the proposed development include almost exclusively cover soil and predominantly landslide deposits, all of which are heavily forested.

Further uncertainty is introduced by the inconsistency between Figures 3 and 4. In Figure 3, the line A-A' shows that the Astoria Formation bedrock is exposed at the surface on the eastern 1/3 of this cross-section line. However, Figure 4, which is a cross section of the subsurface along the line A-A', shows the Astoria formation a minimum of 50 ft. below the surface underlying the landslide deposits in all locations.

On Page 7, the report states: "*Stratification near the Spring 1 includes the following units and thicknesses, presented in order of position relative to the ground surface:*

- *Soils of approximately one to five feet thick;*
- *Grande Ronde Basalt approximately 700 feet thick; and*

- *Marine sedimentary structures of the Astoria and Alsea formations with a maximum thickness of 250 feet, and unknown thickness, respectively."*

An examination of Figure 5 shows that Spring 1 is approximately 400-ft. from the presumed location of the Grand Ronde Basalt formation and that the only statement that can be made about the strata near Spring 1 is that it is located in landslide deposits. The other statements regarding the strata near Spring 1 are conjecture.

On Page 7, the following paragraph states:

"*Between the upper reaches of the drainage divide (the peak of Neahkahnie Mountain) and Spring 1, landslides and reverse dip-slip faulting have caused extensive unconformities, dipping, and weathering of the geologic units. In this section of the District, geologic units from the upper portion of the District have been fragmented, weathered, and commingled to create landslide deposits that are highly conductive of groundwater flow due to their compositional isotropy and fracturing. Regional mapping (Figure 3) show an east-west trending fault located approximately 800 to 1,300 feet north of U.S. Route 101 within the District (USGS, 1994). Above this fault, the igneous material of the Grande Ronde Basalt unit surficially dominates (Figure 5), while landslide and marine sedimentary materials dominate on the downthrown side of the fault (Figure 4). Groundwater from the base of the Grande Ronde Basalt unit discharges into these landslide deposits before surfacing at the springs. Stratification in the lower section of the District includes the following units and thicknesses, presented in order of position relative to ground surface: soils, 1 to 10 feet thick; landslide deposits, 50 to 100 feet thick; and marine sedimentary structures of the Astoria (unknown thickness) and Alsea formations (maximum thickness of 250 feet).*"

The statements above are, for the most part based upon assumptions and conjecture. The only certainty is that there are extensive landslide deposits down-gradient of the assumed location of the east-west trending fault depicted in Figures 3 & 5, and that groundwater flows through this material somewhere. The depth of the landslide deposits is not known but is likely variable. The report states that the soils in the area of interest are "well drained" (Section 3.1.5). This is confirmed by Pete Adamson who's observations have confirmed that during periods of heavy rainfall, no ponding of water has been observed. This strongly suggests that contributions to the ground water are also from infiltration from the surface of the landslide deposits; not just from Grand Ronde basalt and could represent significant contribution to the groundwater supply.

The sources of data referenced range from 14 to 56 years old and address regional geological formations that were mapped at a scale of 1:48,000. Mapping at this scale cannot describe the microcosm of geological features that affect groundwater flow in the area of interest.

Section 3.2, Pages 8, 9, & 10

These pages describe the exceptional quality of the water supply for NKNWD. These pages go on to describe how pollutants originating from development and septic systems can be detected and monitored and recommend that monitoring will identify degradation of water quality so that mitigating measures can be taken. What these pages fail to mention is that once pollutants are identified in the drinking water for the District, the pollutants are already in the ground and are not likely to be reduced or eliminated for years or decades even if all upgradient human activity were immediately ceased. Instead of describing how to identify and monitor pollutants entering the water supply, it would be more appropriate and reasonable to determine how to prevent the introduction of pollutants altogether.

Section 4. Assessment of Potential Impacts

The first bullet on Page 11 describes: "*A conceptual residential development within the watershed and groundwater recharge areas of Spring 1, 2, and 3*." This concept assumes that the groundwater recharge areas are known with certainty. They are not. The paragraph continues to state that "*groundwater flow paths were evaluated to assess the potential risk of contaminants mixing with groundwater and discharging at the springs*". It is important to stress that groundwater flow paths are simply not known. Thus, any statement to the effect that they were evaluated is erroneous.

Section 4.2.1.1: Groundwater Impacts:

The first sentence in this section clearly states that residential development poses a risk of contaminating and degrading the Neahkahnie water supply. It is further stated without qualification that the ground water originates in the Grand Ronde Basalt and that recharge is ***almost*** exclusively upgradient of any residentially zoned areas. The fact is that very little is known about the contributing sources to the groundwater and that nothing has been documented regarding the contribution to groundwater from surface infiltration in the landslide deposits.

The section goes on to state: "*The area zoned for residential development is a small portion of the total recharge area to the springs*". This is not a reasonable statement because the recharge area for the springs is not known. It is assumed.

This section continues on Pages 14 and 15 where "potential" groundwater flow paths are speculated, groundwater drainage divide locations are assumed, recharge areas are assumed, groundwater flow directions are characterized as "likely", and ground water travel times are based upon assumed data. On Page 14, the report states regarding

Development Area 1: "*DA1 water quality impacts to Spring 2 are possible should a preferential transport pathway exist but are unlikely and not quantifiable.*" How can something be not quantifiable and unlikely at the same time?

All of the assumptions, speculations, conceptual models, projections, scenarios and data used in estimating risks ignore the simple fact that the depth and subsurface topography of the confining layers (which are assumed to be the Astoria Formation and the boundary of the invasive Grand Ronde Basalt units) and the locations and sources of the preferential groundwater pathways are not known. The fact remains that there is no available data upon which to formulate reasonable, prudent or pragmatic recommendations that would preclude the potential for contamination of the water supply by proceeding with a proposed development.

This section concludes with the statement: "*Existing site hydrogeologic data is limited…. To further refine and quantify projected impacts, additional characterization of the site's hydrogeology should be conducted. Such characterization could include soil sampling, aquifer testing, and hydrogeologic tracer testing*."

In addition to other methods that could be employed for further site characterization, this statement is correct.

Section 4.3: Risk Mitigation and Alternatives Feasibility

Section 4.3.1.2 states that all the potential impact alternatives carry with them high severity of consequences. This statement clearly leads one to the obvious conclusion that excluding areas to be developed is the most effective for protecting groundwater resources. The section discusses expansion of the "exclusion zone" but the exclusion zone is not defined other than a vague reference to excluding development zones. Given the uncertainties surrounding the groundwater sources, transport mechanisms, recharge locations, groundwater divides and configurations/topographies of the confining boundaries, the only reasonable method for protecting groundwater quality is to preclude development in areas where there is even the smallest chance of impacting the District's water quality. Studies could be conducted in an attempt to quantify recharge areas and flow pathways, but they would likely take years to complete and require significant funds to execute.

Sections 4.3.1.3 Spring Surface Water Protection Alternatives

This section states:

"*Potential impacts from surface water runoff as a result of a conceptual development were determined to be Low*."

It is ironic that the water from Pirate Spring (the District's emergency backup water source) was tested in May 2018 for pollutants and atrazine was detected in the spring water. Atrazine is a restricted use herbicide that is commonly used for agricultural applications and requires a certified pesticide applicator's license. It is also known to infiltrate soil and migrate to groundwater. The fact that atrazine has been detected in Pirate Spring shows conclusively that the herbicide was applied or spilled upgradient of Pirate Spring (specific location unknown).

Water from Springs 1, 2 and 3 were sampled and analyzed at the same time the water from Pirate Spring was sampled and analyzed. No contamination was detected in Springs 1, 2 and 3.

The detection of atrazine in Pirate Spring suggests that potential impacts from surface water runoff for Springs 1, 2, and 3 are significantly higher than "Low".

Other mitigating strategies listed including Low Impact Development (LID) and pesticide/fertilizer restrictions. These sound good on paper, but considering the high rates of precipitation in the proposed development area, LID may not be very effective. Pesticide/fertilizer restrictions cannot be effectively enforced. Use of septic systems with enhanced design can provide enhanced assurances that biological contaminants are effectively treated (with the possible exception of viruses). However, there is no identified long-term mechanism to effectively police or enforce their proper operation or maintenance. Over time, one or more of these systems would likely fail resulting in releases of raw sewage. In addition, septic systems do little or nothing to prevent the release of chemicals that are not subject to biological degradation such as pharmaceuticals, metals, cleaning chemicals or other compounds (Emerging Contaminants) that will inevitably be flushed down toilets, drains or released to the ground surface.

Slurry walls and permeable reactive barriers can be effective at inhibiting the flow of contaminants. They are sometimes used in ground water remediation projects to prevent subsurface lateral contaminant migration downgradient of where a spill occurred. In addition to being extraordinarily expensive, these strategies require an in-depth knowledge of local groundwater flow mechanisms. Slurry walls must be anchored at their base into a confirmed impermeable or very low permeability stratigraphic unit. Otherwise, tainted water will simply flow around or under the barriers. The Astoria Formation might be a suitable anchor but there is little data that confirms its depth or suitability as an anchor. Reactive barriers allow water to flow through them with the goal of adsorption of contaminants. They also require detailed knowledge of groundwater flow regimes. Thus, with the current lack of understanding of how and where water is flowing in the subsurface, these strategies could not be employed with any level of confidence. Furthermore, such barriers would likely reduce water production rates at the springs (perhaps significantly).

Monitoring is an effective way to identify the arrival of contamination at a source of drinking water. However, once the contamination is in the groundwater, it will be there for a very long time. While monitoring should be continually used to assess groundwater quality, employing it as a strategy to wait for the arrival of contamination after development has taken place is not a reasonable or prudent mitigating approach.

Establishing a sewer connection for an upgradient development would be effective at diverting sewage away from infiltration. Sewers would not eliminate risks from chemicals used by households or from stormwater runoff. In addition, a risk of a sewer line failure would remain, especially in an area where ground movement has been known to take place (landslide deposits and earthquakes).

The demonstrated uncertainties regarding groundwater fate and transport mechanisms in the area of interest coupled with the detection of atrazine in Pirate Spring (which can only be attributed to surface application or spill of this herbicide upgradient of the spring) shows that the District appears to have acted prudently by enacting Emergency Ordinance 2018-1, Water System Regulations and by preparing Resolution 2018-2019-3 To Prepare an Ordinance to Condemn Certain Property. This prudence is further demonstrated by the erroneous belief stated in the CwM report that surface water runoff represents a Low potential impact to groundwater when in fact it appears to represent a much higher risk.

The CwM study correctly states that the most effective mitigating approach is to "expand the exclusion zone". While no "exclusion zone" is identified to expand, it is reasonable to interpret this mitigating strategy as preventing development in areas where there is any risk of infiltration reaching the District water supply. Considering the lack of knowledge of subsurface groundwater flow mechanisms in and around the proposed development, only the most conservative exclusion zone expansion is reasonable and prudent.

Section 4.3.2: Highway 101

There will always be a risk of a spill on Highway 101 that could impact the water quality of Spring 3. The proposed Summit at Manzanita development would increase traffic at the entrance of the community. During a public workshop that took place on July 10, 2018, the risks of a spill on Highway 101 were represented as minimal. While the chances of an accident in the wrong place by a tanker truck or similar carrier are small, the potential consequences are catastrophic for Spring 3.

At the July 10 workshop, it was stated that no middle turn lane would be constructed to accommodate residential traffic to the new development. The section of Highway 101 where residential traffic would slow or stop to turn into the proposed development often exhibits very challenging visibility, particularly at night during periods of fog or

heavy precipitation (which is often). The combination of poor visibility and slowing or stopped traffic will increase the risks of an accident at or near the locations where vehicles would turn into the proposed development.

During the workshop, Mr. Long of CwM mentioned that a spill on highway 101 would not affect the water quality of Spring #3. He stated that a response would be immediate and that if the spill (let's assume gasoline or diesel) were allowed to flow down the natural drainage, groundwater at Spring #3 would not be affected. This assumes that an accident involving a spill would occur and that the spill would stay entirely in a desired channel or area, and that the spill from a catastrophic accident would all be directed to the desired location. This is unlikely and unreasonable to assume.

If thousands of gallons of fuel were spilled on Highway 101 in the wrong place upgradient of Spring #3, the initial response would be police and/or fire department personnel possessing little or no spill containment equipment or capability. It typically takes hours for meaningful response equipment and personnel to arrive onsite. The fuel would spread down-slope quickly and be readily absorbed into the soil. Because of the steep terrain and dense trees/plant life, access to affected areas and removal of affected soils would be severely complicated if not impossible. The spill would work its way deeper through the soil column until encountering the ground water. The spill would kill all the plants/trees encountered (thus exacerbating soil erosion and risks of slope failure) and leave residual fuel in the soil column which would be re-mobilized with every rainfall. A spill such as this in the wrong place would contaminate Spring #3 for decades.

Horning Geosciences Report:

The Horning Geosciences Report does a good job summarizing the already-published regional and historical geology of the area. In addition, there are detailed descriptions of the soils in the area of interest as observed in multiple shallow excavations. The report describes slope instability, rockslides, rock falls and seismic hazards throughout the area of interest especially in areas where slopes are inclined more than 30%. No soil borings, geotechnical studies or subsurface investigations outside of shallow test pit observations were conducted. It is clearly stated that landslide deposits of unknown thickness obscure the geologic relationships of the bedrock geology and that conclusions are for the most part, interpretive. There is no reference or evidence that past geotechnical studies have been conducted in the area. Since the entire area is known to be or known to have been subject to land movement, it would be reasonable and prudent to conduct geotechnical and slope stability studies as a prerequisite to any development or construction.

The topic of groundwater fate and transport is only casually mentioned by referencing: Source Water Assessment Report (DHS/DEQ, 2005) which speculates upon the source of groundwater and for which there is controversy (see Farallon Technical Memorandum). One statement that stands out and is particularly important for the District is that the soils tend to possess high permeability and have suitable drainage for septic systems. While supporting data is absent, local observations confirm that water readily infiltrates the soil. This means that infiltration of water from the surface to the groundwater will take place in the areas where the test pits were excavated.

In nearly all of the hazard descriptions, words and phrases including: "probably", "interpreted to be", "probable", "possible", "possibly", "perhaps", "likely", "unlikely", "suggested", "may", "may have", "may be", "appears", "could have", "believed to be", "implies", "expected to", "uncertain", "moderate uncertainty", "commonly", "variable", "considerable uncertainty", "difficult to say", "odds may be", "speculate", "expected", "tends to be", "difficult to accurately quantify", "cannot accurately predict", "low probabilities" and "unknown" are repeatedly used. The use of these words and phrases coupled with the lack of any subsurface data (with the exception of three well logs which are not referenced in the report and not very relevant anyway) indicates that Horning Geosciences knows as much as anyone about the subsurface movement of water in the region of the development; which is next to nothing.

At the same time, the conclusions of the Horne Geosciences report definitively state that the proposed development will cause no permanent effects on adjacent areas, "*drainage will not change*", and that "*the proposed development is not expected to have adverse environmental effects."* It is unclear how such definitive statements can be made based on a lack of data and such inconclusive evidence.

Because the Horning report does not address subsurface groundwater flow characteristics (which is not surprising since there is almost no data), this report is largely irrelevant with respect to threats to the District's water quality. However, the uncertainties and risks regarding the potential for land movement (which are clearly articulated) raises questions regarding the integrity of septic systems and/or sewer drainage in the likely event of a future landslide or earthquake.

Farallon Consulting Technical Memorandum

The Farallon Technical Memorandum presents a plausible scenario regarding the source and transport mechanisms for groundwater flow in the area of the proposed development. Much of Farallon's conclusions are based upon historical publications. Farallon interprets the thickness of the landslide deposits to be relatively thin but acknowledges that there is no subsurface data upon which to verify conclusions and assessments.

Farallon interpreted Well: Till 362 as penetrating Grand Ronde Basalt. This is inconsistent with the cross section presented in the CwM report (Figure 5) where the well is shown to penetrate landslide deposits. Well 362 logs show that most of the basalt encountered was broken or with a conglomerate description. Farallon interprets this basalt as invasive Grand Ronde Basalt. The well is located very close to the east-west trending fault which is believed to have truncated portions of the surficial Grand Ronde Basalt. Without additional data, the material penetrated by Till 362 could be interpreted as invasive Grande Ronde Basalt (as described by Farallon), remnants of truncated surficial basalt or deposits disturbed by faulting or landslide deposits consisting of broken basalt. The width of the disturbed zone caused by fault movement could be considerable and whether Till 362 penetrates any part of this disturbed zone is not known. Thus, the geological conclusions reached by Farallon must be questioned.

It is important to keep in mind that Till 22 and Till 362 were both drilled for the purpose of locating water. They were not drilled with the intent of characterizing local geology or for correlating subsurface geological units or strata. There is no reason to believe that the observations of the Water Well Constructors for these two wells are inaccurate but there are no indications that that the drillers were geologists either. Thus, descriptions of the lithology of the cores extracted from the drilling activities (it is assumed that descriptions were from cores) may not accurately reflect geologically significant features that could help identify the nature of the geological units penetrated by the wells.

The inconsistencies of the various subsurface interpretations and the uncertainties regarding the small scale subsurface geologic structures that would influence groundwater movement are apparent. These inconsistencies and uncertainties highlight the fact that definitive assurances to protect the District's water quality following land development cannot be made.

The Farallon Technical Memorandum addresses potential impact from septic systems with respect to biological contamination. The memorandum is also clear that septic systems are not effective for wastes other than biological human wastes. The Memorandum also recommends that use of pesticides, herbicides, fertilizers or other chemicals applied to the land should be prohibited. While this is a noble goal, it is not reasonable to expect all property owners (initial and resale owners), their guests, renters or other visitors to be honest, honorable, trustworthy and to obey all rules & regulations and to never flush anything down their sinks or toilets or never apply or spill anything that could contaminate groundwater. There is no effective or reliable method for policing or enforcement of homeowner restrictions or human behavior for perpetuity. Thus, it is also reasonable to predict that contamination will be released to the groundwater and that this contamination will make its way to the District's water supply.

Boeger & Associates Memorandums

July 2018 Boeger Memorandum

The July 2018 Memorandum states on Page 1: "*The goal of this report is to show that the proposed development will not provide a measureable impact to the district's water source*." This statement raises questions regarding the objectivity of both Boeger Memorandums.

The description of the proposed septic systems includes effectiveness on nitrates and fecal coliforms. On Page 4 of the Memorandum, it states:

> "*In addition, any virus that may survive the anaerobic environment of the septic tank and the aerobic environment of the AX20 RT treatment unit, will be either be eliminated or permanently trapped in the natural soil environment of the drain field system. In an extreme case where a virus or bacteria may move beyond the drain field limits, only a few feet of soil would be needed to render the virus ineffective. The closest spring to any of the drain field systems is hundreds of feet, and thus there is no viable threat to the springs from possible viruses."*

This statement is in direct contradiction to the EPA Publication: Movement and Longevity of Viruses in the Subsurface:

https://nepis.epa.gov/Exe/ZyPDF.cgi/1000467W.PDF?Dockey=1000467W.PDF

which states conclusively that viruses can survive in the soil for weeks or months and can easily be transported a kilometer or more to groundwater sources and wells. On Page 5 of this publication, it states: *"Persistence of enteric viruses in ground water beneath land treatment sites and septic tank discharges has been well documented in a review by Keswick and Gerba (1980) where viral particles were recovered at distances of over 1 kilometer from their source"* The survivability of viruses is dependent on many factors; most importantly temperature. However, it is inappropriate and unreasonable for the Memorandum to offer the above statement as fact.

Furthermore, the Neahkahnie Water Protection Plan developed by the Oregon Association of Water Utilities specifically states on Page 5: "*The Short-term (two year) time frame is used as a conservative estimate of the survival time for viruses."* And*: "Neahkahnie Water District's water supply is considered* ***susceptible to viral contamination".***

As with most of the other documents presented in the Application, statements are made pursuant to how drain field locations, pumping system installations, materials of construction, drainage systems, surface runoff control and transfer pipe installations will all maximize the protection of ground water from human-derived bacteria but not contaminants that bypass septic systems. While the described precautions will help, the

discussions omit the fact that groundwater flow characteristics are not understood, groundwater source areas are hypothetical, and capture zones are based upon regional geological data; not small-scale subsurface geology. The Farallon Memorandum is also silent on the potential for landslides which occur from time to time and other ground movement induced by earthquakes (of which a large one is imminent). Even small movements in the ground are enough to crack fiberglass septic tanks and to break plastic transfer pipes (which are the cited materials of construction).

March 2019 Boeger Memorandum

3.0 Existing Conditions Within Critical Area – Existing High-Risk Activities

This Memorandum references two existing homes and a location where an individual appears to have defecated. These are referred to as high risk activities according to the CwM report. The Memorandum further states that there are no restrictions for fertilizer or pesticide use and that all nitrates from the septic system have infiltrated the soil. There are no data that show how much effluent the septic system has released, whether the property owner uses landscaping chemicals or how often the two residences are occupied or for what duration. In addition, there are no data that correlate the residential structures with any preferential groundwater flow pathways (which are believed to exist, but their locations and hydraulic connections are unknown). In addition, the hydraulic conductivity of the subsurface into which septic effluent is discharged is not known. Thus, the distance and expected travel time required for a contaminant plume to reach a preferential flow pathway is not known.

The inclusion of this section of the Memorandum seems to imply that the presence of two residential structures and an isolated instance of human feces on the ground, which have not yet impacted the District's water quality provides assurance that many more such structures (and people) would pose minimal risk to ground water quality. Such an implication is unreasonable.

The Memorandum further describes the operations and maintenance of advanced septic systems, their efficiency and how they enhance protections with respect to nitrates, bacteria and pathogens. There is no discussion of household chemicals, pharmaceuticals, or other chemicals (Emerging Contaminants) that are unaffected by septic treatment.

Pesticides/Fertilizers

The Memorandum agrees with pesticide/fertilizer restrictions recommended by the CwM report. As mentioned earlier, it is not reasonable to assume that all property owners, their renters, guests and visitors will comply with the restrictions and there is

no way to police or enforce the restrictions. The fact remains that the Pirate Spring already exhibits detectable levels of atrazine from it being applied or spilled upgradient of the spring.

Chemical Spills

Chemical spills can and do occur in residential areas due to activities such as pesticide/herbicide use, heavy equipment operation, asphalt work, home construction, household chemical storage yard equipment use and maintenance and do-it-yourself, automobile repairs. The Memorandum assumes that the CCRs (the current version of which does not address chemical spills) will be an effective mechanism for preventing groundwater and surface water contamination. The Memorandum states: *"If a minor spill occurs on the ground, it is expected the natural soils on this site will soak up the liquid and the area will naturally remediate over a short period of time."* And: *"If the spill is considerable, it may be prudent to dig up the impacted soils and either place them in a designated location on the site to allow them to aerate to where they are not hazardous or discard them at the closest landfill or approved location."*

These rather sunny but implausible and, in some cases illegal scenarios ignore federal and state statutes regarding the spill of regulated substances as referenced below. In addition, the process described as "natural remediation" appears to be a new term in environmental cleanup terminology. There is a process called "natural attenuation" which can be employed in the event regulatory approval is granted for small quantity spills that occur in locations where there is no threat of contamination reaching a usable aquifer. This type of approval is granted sparingly and rarely and would not be granted in the proposed development site under any circumstance. "Designated Location" is not identified. Does this mean a covered area inside of a spill containment? Not likely. The remedial remedy of allowing the impacted soils to "aerate" assumes the spill consists of a volatile compound that will promptly evaporate. If the spill were motor oil, the volatility of which is very low, "aeration" could take a very very long time.

The problem with the scenarios described above assume that the person or persons responsible for spills will 1) be aware of the requirements for responding to a spill, 2) will know the reportable quantities for the substance spilled, 3) will know the circumstances under which reporting is required, 4) will have readily available spill control or containment materials and equipment, and 5) know how to effectively use the spill control materials for the substance spilled. For example, would they know that any sheen observed in the waters of the United States is a reportable spill? A sheen on surface water draining into storm water is reportable. These described scenarios assume that a homeowner, visitor, renter or guest will act immediately and employ techniques for remediation to control the spreading of spills, have on hand the proper type of sorbent materials to sequester the contamination and then properly dispose of

the used sorbent materials. The scenarios also assume that the spiller will be able to recognize the difference between impacted soils and non-impacted soils, have proper tools on hand, immediately dig up and properly contain the impacted soils, provide temporary appropriate secondary containment, provide dry temporary storage and then dispose of what could be characterized as hazardous waste appropriately and legally.

The most likely spills that will be caused by homeowners include petroleum hydrocarbons commonly found in and around households (gasoline, diesel, motor oil, hydraulic fluid, solvents, oil-based paint, ethylene glycol etc.). Spills of other compounds (for example lead-tainted sulfuric acid from a leaking lead-acid battery) are certainly possible but would be expected to be less common. It is not reasonable to assume that homeowners will follow all the rules. It is even less likely that any reportable spill will be reported due to fear of liability, fines or other repercussions. The most likely spill response by homeowners, renters, visitors and guests will be to either ignore, hide or cover up the spill. Whatever was spilled, the reportedly high permeability of the soils would result in rapid infiltration of the contamination into the soil column.

Federal Requirements

https://www.epa.gov/emergency-response/when-are-you-required-report-oil-spill-and-hazardous-substance-release#oil%20spills

"*Any person or organization responsible for a release or spill is required to notify the federal government when the amount reaches a federally-determined limit.*"

Oregon Statutes:

https://www.oregon.gov/deq/Hazards-and-Cleanup/env-cleanup/Pages/How-To-Report-A-Spill.aspx

"*You are responsible for the immediate cleanup of your spill, regardless of the quantity involved. The responsibility lies with the person who spills the product, as well as the person owning or having authority over the oil or hazardous material."*

6.0 Concerns to Groundwater Quantity

Loss of Spring Capacity

The Memorandum disagrees with the CwM report on the percentage of impervious surfaces that would divert water away from infiltration to stormwater drainage. The CwM report estimates that development would result in a 50% increase in impervious surface area and the Boeger Memorandum estimates 10%. No surface area calculations or summations accompany either estimate. Regardless of whether either figure is accurate, the presence of any impervious surfaces will reduce infiltration and have the

potential to reduce the quantity of water available to the District. The Memorandum further estimates that impervious surfaces of 10% would result in a reduction of water production at the District's springs by less than 1% or by an undetectable amount. This guess is based on the unproven conclusion that the vast majority of recharge occurs almost exclusively upgradient of any residentially zoned area. While it is likely that most of the recharge occurs in the Grande Ronde Basalt, it is unknown how much infiltration from the proposed development area contributes to spring flow. Thus, any estimates based upon existing data are primarily speculation.

In the end, it will only take one major event (earthquake, landslide, large spill) to damage the District's water supply for decades. It is not reasonable to assume that property owners, their renters, guests and visitors will follow all of the rules and behave in a manner that precludes the possibility of contaminants polluting the District's water supply. Contamination of Pirate Spring supports this statement.

A&B Septic Service Operations and Maintenance Description

The A&B document is described as a contract. However, it is simply a list of services and associated costs for operating and maintaining an A&B septic system. The only paragraph that looks like a contractual clause (General Terms and Conditions) specifies payment terms and indemnification of A&B Septic. There are no federal/state/county or local statutes cited that require the owner of a septic system to renew an operations and maintenance (O&M) agreement after the initial contract has expired. The document states that the county will be notified if the "contract" is not renewed and that an annual report will be submitted to an unidentified "Regulatory Agency" but there is no discussion of how the owner will be compelled to continue to conduct proper O&M of the system following the first two years of operation. There is discussion of a telemetry system that monitors the septic installation but there is no statement demonstrating that telemetry is required to be installed or maintained. The other question is: What if A&B goes out of business?

If an owner decides not to renew their contract with A&B, will the County condemn the property or somehow force the owner to operate the septic system appropriately and monitor the operation? Will a "Regulatory Agency" force an owner to reinstate another contract with A&B or another service provider and how would this be enforced? Is there a statute that prevents the owner from operating and maintaining the septic system themselves? The above uncertainties have not been addressed in any way. These uncertainties represent risks to the District's water quality.

Site Evaluation Report for On-Site Sewage Disposal System Suitability

The site evaluations for the proposed development lots are all identical except for the dates of the site evaluations and the dates on the notifications. There are thirty evaluation letters in three batches of ten each. The dates for each batch are as follows:

1. Ten letters dated September 19, 2017 for evaluations that took place on August 29, 2017
2. Ten letters dated November 21, 2017 for evaluations that took place on October 26, 2017
3. Ten letters dated February 27, 2018 for evaluations that took place on February 7, 2018

The identical documents state that all the evaluations included among other things:

- An assessment of soil types and "*how well they drain and evidence of good soil structure for treatment*".
- "*Depth to temporary and permanent groundwater tables*".
- "*Wells located on the site or adjacent sites*."

The site evaluation reports raise several questions including:

- What methods were used by the County to assess soil drainage characteristics for each of the test pits and what data was collected to support this conclusion?
- What methods were used to assess "soil structure for treatment" and where is recorded data from these assessments?
- What were the depths to the "temporary and permanent groundwater tables"? How were these depths determined?
- What did the county determine from wells in the area? There are only two wells of any significant depth that were both dry, were abandoned long ago and have little relevance to groundwater flow characteristics.

Either all the soils in all of the test pits are identical or the assessment reports are perfunctory in nature and do not reflect an assessment that was conducted in earnest. The letters appear to be form letters and lack site-specific information. No data are provided to support any of the assessments.

Neahkahnie Water District Drinking Water Protection Plan

This plan states: *"The goal of this drinking water protection plan is to alleviate possible impacts to the water system from either a natural catastrophe or a potential contaminant source."*

The protection plan (Plan) states on Page 2 that the delineation of the water protection area was determined by "*hydrogeological mapping and researching the characteristics of*

the aquifer." The author; Mike Collier is neither a trained geologist or hydrogeologist so it is difficult to understand how he is qualified to map the hydrogeology of the area or assess the characteristics of the aquifer especially when so little is known about the subsurface. The language in this report is strikingly similar to that presented in the Source Water Assessment Report prepared by the Oregon Department of Health Services and the Oregon Department of Environmental Quality. It is confirmed that the Source Water Assessment Report is the source of the geological and hydrogeological statements that appear in the Protection Plan.

On Page 3, it is stated: "*Groundwater movement in this area is mostly restricted to fracture zones in the Alsea and Astoria Formation, through areas of sandstone/ mudstone in the Grand Ronde Basalt, and through the unconfined Landslide deposits emerging as springs in surface depressions".* This statement is contrary to conclusions reached by consultants representing the Summit at Manzanita and in the accompanying geological references. In these documents, The Astoria Formation is described as having low permeability acting as the underlying confining surface for groundwater that is believed to migrate in preferential pathways near or at the base of the landslide deposits. Any water movement due to fractures in other than basalt is speculative and most likely minor as evidenced by Well Till 022. The Alsea Formation is described as being much deeper in the area of the proposed development and is not likely to contribute to or influence the District's water supply in any way.

When water becomes polluted by a toxin and treatment is required, it represents an unanticipated (and very large) cost to the water system and ultimately the water consumers. The Plan correctly states that the least expensive management plan for protecting the water supply is through proactive community action and education. Compared to prevention, the cost of cleanup/remediation/treatment is documented to be between 5 and 200 times the cost of prevention. In the case of the District's water supply, this figure could be much higher. In the event the District's water supply were to become contaminated due to development upgradient of the springs, who would pay the remediation or source replacement costs?

In summary, the best and least expensive option for protecting the District's water supply is prevention of pollution in the first place.

Source Water Assessment Report Prepared by:

Oregon Department of Human Services
Health Services
Drinking Water Program
And
Oregon Department of Environmental Quality

Water Quality Division
Drinking Water Protection

The Source Water Assessment Report makes it clear in the beginning that its conclusions and model are based upon assumptions. Specifically, it states:

> "*The conceptual model for groundwater flow to the Neahkahnie Water District springs is based on the following assumptions:*
>
> - *Most of the groundwater discharging at the springs originates in the Grande Ronde Basalt and discharges to the Landslide Deposits before discharging at the springs.*
> - *The contact between the Grande Ronde Basalt and the Invasive Grande Ronde Basalt acts as a barrier to groundwater flow.*
> - *The area that falls inside the Necarney Creek watershed does not contribute water to the Neahkahnie Water District Springs.*
> - *The base of the Grande Ronde Basalt, where it comes in contact with underlying formations acts as a barrier to groundwater movement.*"

These assumptions are repetitions of historical geological work all of which was conducted at a regional scale. They appear reasonable but have not been confirmed with field data other than surface observations.

The report describes three zones (1, 2, and 3) which represent short, intermediate, and long-term groundwater flow regimes and maps the boundaries of each of these regimes. "*For the Neahkahnie Water District, the areas inside Zone 1 and Zone 2 are considered highly sensitive due to the presence of landslide deposits and shallow bedrock"*. The report specifically states that the regimes are drawn based on assumption of recharge areas. Again, no specific data exists to confirm or to quantify the assumptions used or the conclusions drawn.

Outline of Possible Assessment Alternatives to Characterize Groundwater Flow and Transport Mechanisms that might Contribute to Contaminant Migration

After reviewing the information presented in the Summit at Manzanita Application including the various reports by contributing consultants, it is clear that the groundwater flow mechanisms and fate and transport mechanisms at the proposed development are poorly understood. It is generally believed that the bulk of groundwater recharge (the source of water for the District's drinking water supply) takes place upgradient of the proposed development in the Grande Ronde Basalt. It is

known that infiltration of precipitation takes place throughout the proposed development but the relative contributions of upgradient recharge and downgradient infiltration have not been quantified.

Based upon how the District's springs emerge at the surface, it appears that groundwater flows along preferential pathways in the subsurface, presumably in landslide deposits. Geologic maps by the U.S. Geological Survey show an east-west trending fault that is described as "concealed, approximately located or inferred". This suspected fault is upgradient of the District's wells. It's zone of disruption and angle of penetration are not described except for "conceptual" cross section B-B' in the CwM report. The influence (if any) that this fault may have on groundwater flow is not known.

The surficial deposits in the proposed development are predominantly landslide deposits. Geologic maps indicate that the Astoria Formation outcrops in the eastern portion of the proposed development and east of Spring 3. There is disagreement regarding the depth of the landslide deposits. The topography of the contact between the landslide deposits and the underlying confining layer is not known. If the groundwater flows through preferential pathways in the landslide deposits, then the topography of its base most likely has a profound influence on the flow pathways.

The severity of the consequences of contaminating the District's water supply cannot be overstated. The Summit at Manzanita application and it's contained consulting reports outline a wide variety of mitigations, engineering approaches and assessments as mechanisms to protect the District's water supply. The problem is that nobody knows where the water is in the subsurface. Certainly, there are scenarios that are more probable than others, but with so little known about the subsurface structure, all the engineering and mitigation measures discussed are, for the most part, conjecture.

In order to provide any degree of certainty in protecting the District's fragile drinking water supply, knowledge of the subsurface far beyond what is currently known is necessary. Investigations to identify flow paths and transport mechanisms could include a combination of one or more of:

1. Drilling, coring and logging multiple monitoring wells beginning at or near the springs with additional wells installed progressively upgradient as data suggests. The purpose of these wells would be to determine:
    a. Thickness of soil, and landslide deposits
    b. Identification of the depth to the water table and zones of high water flow (preferential flow paths)
    c. Map the contour of the contact between the landslide deposits and the underlying aquitard
    d. Determine contour of the water table
    e. Determine the zone of disruption from the east-west trending fault and determine (if possible) the fault's influence on groundwater transport

f. Conduct pump tests where appropriate to determine hydraulic conductivity
g. Assess possible contribution of infiltration to water supply
h. Determine specific sources of recharge

2. Assess zones of influence by using tracer studies
   a. Once wells are installed, they can be used as injection points for tracers
   b. Tracers will help establish preferential flow pathways and will quantify transport velocity
   c. Tracers will help quantify the high, intermediate and low risk zones
3. Use of Cross-Borehole Ground Penetrating Radar (GPR)
   a. Recent advances in GPR techniques have shown success in locating groundwater flow paths:

      https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2016WR019498

   b. GPR combined with tracer studies can (under the right conditions) accurately locate preferential groundwater pathways in the proposed development
   c. Boreholes used to refine geological understanding can also be used for a GPR assessment

A detailed plan for implementing one or more of these types of investigations is beyond the scope of this review. While detailed costs for the alternatives outlined above have not been quantified, it is expected that they would be substantial. In addition, the time required to conduct a comprehensive study of the site aquifer would be measured in months or years.

The cost and time required for a comprehensive assessment of groundwater may be considered by others as unreasonable, however, moving forward with a development with the known risks and lack of understanding of groundwater flow mechanisms is even more unreasonable.

Additional References

1. **Environmental Quality Abstract - Groundwater Quality**
   Artificial Sweeteners Reveal Septic System Effluent in Rural Groundwater, Vol. 46 No. 6, p. 1434-1443, October 26, 2017.

   https://dl.sciencesocieties.org/publications/jeq/abstracts/46/6/1434

2. **US Geological Survey, Fact Sheet 072-03, January 2004**, Is Septic Waste Affecting Drinking Water From Shallow Domestic Wells Along the Platte River in Eastern Nebraska?

   https://pubs.usgs.gov/fs/fs07203/

   Abstract: The quality of drinking water from shallow domestic wells potentially affected by seepage from septic systems was assessed by analyzing water samples for substances derived from septic systems. The effects of septic systems on water from domestic wells was demonstrated using several tracers including bacteria, virus indicators, dissolved organic carbon, nitrogen species, nitrogen and boron isotopes, and organic compounds such as prescription and nonprescription drugs. Domestic wells seemed to be most vulnerable to septic-waste contamination when they were sand-point wells within 100 feet of a septic system and were less than 45 feet deep in a shallow, thin aquifer.

3. **Septic Systems are a Major Source of Emerging Contaminants in Drinking Water**

   https://phys.org/news/2017-06-septic-major-source-emerging-contaminants.html

   Abstract: "*A new analysis shows that septic systems in the United States routinely discharge pharmaceuticals, consumer product chemicals, and other potentially hazardous chemicals into the environment. The study, published June 15 in the journal Environmental Science & Technology, is the most comprehensive assessment to date of septic systems as important sources of emerging contaminants, raising health concerns since many of these chemicals, once discharged, end up in groundwater and drinking water supplies.*"

   Wastewater effluent is the primary source of pharmaceuticals, hormones, consumer product chemicals, and other organic wastewater compounds (OWCs) commonly detected in surface water, groundwater, and drinking water. (References 1-5 below)

   (1) Kolpin, D. W.; Furlong, E. T.; Meyer, M. T.; Thurman, E. M.; Zaugg, S. D.; Barber, L. B.; Buxton, H. T. Pharmaceuticals, hormones, and other organic wastewater contaminants in U.S. streams, 1999− 2000: A national reconnaissance. Environ. Sci. Technol. 2002, 36 (6), 1202−1211.

   (2) Barnes, K. K.; Kolpin, D. W.; Furlong, E. T.; Zaugg, S. D.; Meyer, M. T.; Barber, L. B. A national reconnaissance of pharmaceuticals and other organic wastewater contaminants in the United States - I) Groundwater. Sci. Total Environ. 2008, 402 (2−3), 192−200.

   (3) Focazio, M. J.; Kolpin, D. W.; Barnes, K. K.; Furlong, E. T.; Meyer, M. T.; Zaugg, S. D.; Barber, L. B.; Thurman, M. E. A national reconnaissance for pharmaceuticals and other organic wastewater contaminants in the United

States - II) untreated drinking water sources. Sci. Total Environ. 2008, 402 (2−3), 201−16.

(4) Benotti, M. J.; Trenholm, R. A.; Vanderford, B. J.; Holady, J. C.; Stanford, B. D.; Snyder, S. A. Pharmaceuticals and endocrine disrupting compounds in U.S. drinking water. Environ. Sci. Technol. 2009, 43 (3), 597−603.

(5) Loos, R.; Locoro, G.; Comero, S.; Contini, S.; Schwesig, D.; Werres, F.; Balsaa, P.; Gans, O.; Weiss, S.; Blaha, L.; Bolchi, M.; Gawlik, B. M. Pan-European survey on the occurrence of selected polar organic persistent pollutants in ground water. Water Res. 2010, 44 (14), 4115−4126.

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October 5, 2019

Neahkahnie Water District
9155 Nehalem Road
Nehalem, Oregon 97131
Attn: Richard Felly, General Manager

Subject: COMMENTS ON SUMMIT AT MANZANITA ADDITIONAL PERMIT SUBMITTAL

Dear Mr. Felly:

Pursuant to your request, please find below my comments on three documents prepared by Morgan Civil Engineering, Inc. and Boeger & Associates. The three documents include:

1. Storm Water Plan for the Summit at Manzanita, Tax Lot 202, Map 3N 10W 20, Parcel 2 of Partition Plat 2018-07, Neah-Kah-Nie, Tillamook County, Oregon #16-12-Sev
2. Engineering Portion of Geologic Hazard Report for Road and Utility Development of Tax Lot 202, Map 03N 10W 20, Parcel 2 of partition Plat 2018-07, Neah-Kah-Nie, Tillamook County, Oregon (The Summit at Manzanita) #16-12-Sev both dated July 23, 2019.
3. Addendum to Geologic Hazard Report: Sanitation Improvements, Boeger & Associates Letter dated August 8, 2019.

These documents provide some information on how storm water will be managed at the proposed development (Summit at Manzanita) and information on engineering and geologic hazards related to construction at the proposed development.

The contents of the above-referenced documents do not change the concerns or conclusions reached in my earlier comments: Review of the Summit at Manzanita Development Application dated June 27, 2019.

The Storm water plan outlined by Morgan Civil Engineering specifically describes how stormwater runoff will be managed in a manner to encourage infiltration. Any contamination contained in the runoff that infiltrates the ground will contaminate ground water. Morgan also encourages the use of fertilizers in the development to accelerate vegetative growth with the intent of reducing erosion. Application of fertilizer is contrary to assurances made by the developer that fertilizers and pesticides would be prohibited in the proposed development. Contamination of Pirate Spring with Atrazine has shown that the Neahkahnie Water District springs are vulnerable to contamination by the land application of chemicals. Suggesting they be used in the proposed development is unreasonable.

The engineering portion of the geologic hazard report relies almost exclusively on a geologic hazard report prepared by Tom Horning. Mr. Horning's report was found to be irrelevant with respect to

groundwater fate and transport and irrelevant with respect to the potential for contamination of ground water. Mr. Horning's report and Morgan's report both emphasize the hazards represented by landslides which are likely to occur in the event of an earthquake. The Morgan report and the Boeger letter both state that the designs outlined will adequately protect development infrastructure from "*reasonably foreseeable ordinary hazards*". The report and letter omit earthquakes as reasonably foreseeable.

For many geographic locations, earthquakes would not be considered reasonably foreseeable. However, the geologic and geophysics community agrees that a large subduction-related earthquake is overdue along the Oregon and Washington Coasts. It is not a question of ***if*** there will be an earthquake, it is a question of ***when***. Thus, an earthquake at the site of the proposed development should be considered reasonably foreseeable and can be expected to cause landslides which will sever sewer lines, drainage lines and would damage other infrastructure including the rupture of fiberglass septic tanks.

It can be reasonably concluded that an earthquake and accompanying landslides will result in the introduction of contamination into the groundwater and consequently contamination of the Neahkahnie Water District water supply. This would be in addition to contamination that will be invariably introduced to the groundwater by septic systems and by surface water that will be contaminated by virtue of development itself.

Sincerely,

Dale M. Timmons, R.G.

Morgan Letter dated July 28, 2019 (Storm Water Plan...)

Page 1, 2nd Paragraph: Paragraph clearly states that storm water will be subject to infiltration. This means that any contaminants in the storm water will infiltrate and be transported to ground water. Likely to be transported to Spring(s).

Page 2, Lots 2-4, and Lot 1: It should be noted that "downslope from these areas" is toward Spring 3.

Page 3, Lots 20-29: Efforts described here and elsewhere to slow the flow of runoff will reduce erosion as designed but will also increase infiltration in these areas. If runoff is contaminated, infiltration will contaminate groundwater.

Page 3, Lots 17-19: The infiltration area described is upgradient of Spring 3. If infiltration is contaminated, groundwater will be contaminated.

Page 5, Berms (Mountain Drive), 2nd Paragraph: This paragraph states that "Longer duration storms have reduced flows". Why do longer storms have reduced flows? This does not make sense. Longer storms produce more precipitation for longer periods, thus increasing flows. Once the ground is saturated, flows will also increase.

Page 5, Berms (Mountain Drive), 4th Paragraph: What is the basis for the statement: "...a larger storm will pass without causing infrastructure damage."?

Page 6, Summary: The statement is made that water runoff will be contained for 30 minutes. Storms on the Oregon Coast can last for many days. What happens after 30 minutes?

Morgan Civil Engineering Letter Dated July 23, 2019, Engineering Portion of Geologic Hazard Report...

Page 3, Findings and Hazards Analysis, Third Paragraph: The effects of the seismic activity described will sever buried sewer lines, septic lines and would likely crack or damage the fiberglass septic tanks described in the Application. This would release contamination to the subsurface and result in contamination of groundwater.

Page 4, Localized Slope Instability: This paragraph correctly states that steeper slopes are subject to ongoing soil creep. Soil creep can easily damage septic and sewer lines. Instead of practicing "extra consideration" in these areas, it is more reasonable to avoid developing these areas altogether.

Page 6, B. Road Location and Road Based Support: This and other sections clearly show that all of the topsoil wherever there is a building, road, or structural support will have to be removed. Erosion and silting will occur during excavation activities. In addition, the underlying soils will be compacted in the process. This will reduce infiltration and increase runoff. Also, excavation and transport of this much top soil and subsequent required backfilling will result in heavy construction equipment traffic. All of these activities increase the risks of a spill of hydraulic fluid, diesel fuel, grease, anti-freeze, motor oil and other chemicals used during these activities.

Page 7, Last Paragraph: This paragraph specifies the use of fertilizer to encourage the growth of re-vegetation. The Developer has specifically stated in the Application that fertilizers and pesticides should

not be used under any circumstances. Is the Developer now recommending that fertilizers be applied to the soils in the proposed development?

Page 8, E. Construction of Underground Utility Trenches, 4th Paragraph: The water district does not have wells as stated in this paragraph. In addition, there is no established correlation between drainage channels or routes and subsurface groundwater flow paths. With respect to the reference to the reviews conducted by the "hydrogeologist" and the "County Sanitarian", please see: *Neahkahnie Water District Review of the Summit at Manzanita Development Application* by Dale Timmons, R.G. dated June 27, 2019.

Page 9, G. Stormwater Management, Runoff and Drainage, 1st Paragraph: This paragraph describes multiple efforts to encourage the infiltration of runoff from the proposed development. If runoff is contaminated from the various sources common in residential communities, it will contaminate groundwater.

Page 11, Summary Findings and Conclusions:

1. It is stated that there are no immediate adverse effects on adjacent properties from future house construction. There is no statement regarding the potential for long term adverse effects. It is stated that there is a potential for decreased runoff quality. Degraded quality means contamination. Infiltration of contaminated runoff (which is encouraged by Morgan Civil Engineering) will contaminate ground water. This represents a very real long term adverse effect to the District's water quality.

5. This paragraph states that the future development is protected from "reasonably foreseeable ordinary hazards" but excludes major earthquakes. It is generally accepted in the geologic and geophysics community that a large earthquake is overdue for the Oregon and Washington coasts. Thus, a large earthquake can be reasonably expected in the not-too-distant future. The Horning and Morgan reports clearly state that a large earthquake will result in ground movement and landslides in the area of the proposed development. Ground movement and landslides are likely to sever sewage lines, drainage lines and rupture septic tanks. This would release large quantities of contaminated sewage directly to the ground and would contaminate groundwater.

6. This paragraph states that the design will minimize adverse environmental effects resulting from the proposed development. It will not eliminate them.

Page 11, Limitation: It is stated:

> *"The engineering conclusions and recommendations in this engineering portion of the report are based upon the geologic conclusions presented in the geologic report prepared by Mr. Horning".*

The Horning report does not address ground water or environmental contamination issues in any way. Thus, the Morgan report should not address groundwater or environmental issues.

Boeger & Associates, LLC Letter Dated August 8, 2019
Addendum to Geologic Hazard Report: Sanitation Improvements

Page 2, Section 2.0: Sanitary Drainfields, Third Paragraph:

This paragraph states:

> *"Advanced secondary treatment with ultraviolet disinfection will precede all drainfields. This will produce in a very high effluent quality that will result in no measureable degradation to any groundwater sources beneath the drain field systems."*

This statement only refers to biological contamination. There is a glaring omission with respect to other contaminants including but not limited to: pharmaceuticals, household chemicals, metals, hormones, other chemicals (collectively Contaminants of Emerging Concern) that will be drained or flushed. It has been shown that viruses can pass through septic systems unaffected and travel up to a kilometer or more in the subsurface. It can be stated with a high level of certainty that ground water quality will be degraded by discharge of chemicals contained in septic effluent. Considering the proximity, downgradient location and lack of knowledge of groundwater fate and transport in the area of the proposed development, the above statement is unreasonable and unsupported by facts.

Page 2, 3.0 Localized Subsurface Conditions, First Paragraph:

This paragraph states:

> *"It was mentioned in the prior Geo-Hazard reports that the weathered rock layer is considered highly permeable."*

This statement is true; it was mentioned. However, there is no recorded data by Horning Geoscience or by Tillamook County that documents the actual permeability of the soils.

The third paragraph in this section further states:

> *"The loading rate to the soil was developed so that the soil will not have any adverse effect or change. The additional sub-surface flow from these drainfields is very minimal, relatively, to the entire sub-surface flow. There should be little to no perceivable change to groundwater volume and drainage pathways will not be altered."*

Aside from the fact that the first sentence in this paragraph has no meaning, there is no scientific, quantitative or reasonable basis for this paragraph. Subsurface flow in the area of the proposed drain fields is not known. The argument seems to conclude that "micro-dosing" of effluent results in no effect. The statement omits the fact that chemicals are still being introduced to the subsurface and that these chemicals will indeed adversely impact groundwater quality.

Page 3, 5.0 Conclusion

> **(a)**: The conclusion states that there are no anticipated *adverse effects to the groundwater*. This statement refers only to biological contamination. On the contrary, this statement is blatantly untrue. There will be adverse effects on the ground water quality because septic systems are not effective at eliminating chemical contamination or viruses. It is a certainty that metals, pharmaceuticals, hormones, household chemicals and viruses (Contaminants of Emerging

Concern) will be flushed down drains and toilets and that there will be chemical releases to the surface by virtue of development itself.

(b): It is stated that the drain fields are located downslope of structures and dwellings (thus protecting the occupants). This conclusion fails to mention that the drain fields discharge into the groundwater upgradient of a pristine drinking water source. Discharging septic effluent upgradient represents a *hazard to life, public and private property and the natural environment.*

(c): This conclusion states that groundwater ***movements*** should not be affected. In fact the author has no idea what the ground water movements are in the proposed development. The author fails to state that groundwater **quality** will most certainly be degraded.

(e): This paragraph states that the future development is protected from "reasonably foreseeable ordinary hazards" and mentions wind erosion, undercutting, ocean flooding and storm waves (none of which represent a risk for this area anyway). The statement fails to mention the hazard represented by major earthquakes. It is generally accepted in the geologic and geophysics community that a large earthquake is overdue for the Oregon and Washington coasts. Thus, a large earthquake ***can be reasonably expected in the not-too-distant future***. The Horning and Morgan reports clearly state that a large earthquake will result in ground movement and landslides in the area of the proposed development. Ground movement and landslides are likely to sever sewage lines, drainage lines and rupture septic tanks as well as cause other damage. This would release large quantities of contaminated sewage directly to the ground and would contaminate groundwater.

Dale M. Timmons, R.G.
23252 S.E. 54th Place
Issaquah, WA 98029

July 25, 2018

Mr. Richard Felly
General Manager
Neahkahnie Water District
9155 Nehalem Road
Nehalem, OR 97131

Subject: COMMENTS ON PUBLIC WORKSHOP

Dear Mr. Felly:

Pursuant to and consistent with the Consulting Services Agreement executed between the Neahkahnie Water District (District) and me on July 9, 2018 and the attached scope of work, herein are my comments, input, and impressions of the Public Workshop sponsored by the District that took place on July 10, 2018.

I chose not to speak or ask questions at the Workshop in favor of listening and taking notes. While I can be an assertive advocate in these types of events, I was not confident that this behavior is what the District wishes of me at this time.

Summary of Workshop

The Public Workshop took place at the Hoffman Center in Manzanita, Oregon on July 10, 2018. The meeting started at 7:00 PM and lasted until approximately 9:00 PM. At the start of the meeting, there were 38 attendees including District representatives. The topic of the meeting was sharing information for the proposed development: The Summit at Manzanita including a presentation by the Developer.

Bob Long's Presentation:

In general, Mr. Long's presentation was not effective. He spoke over the heads of the audience; his graphics were not readable and the level of detail that was shared was unnecessary. The details are available in the report and can be read by all. It was clear that attendees were confused about surface and ground water capture zones. No cross-section was shown which could have clearly conveyed a better understanding of the subsurface. The report and the presentation focus on septic effluent, septic treatment, and organic constituents contained in sewage. There is nothing addressing

the potential risks associated with other contaminants such as herbicides, pesticides, pharmaceuticals, automobile-related contaminants, etc. Considering the pristine nature of the District's water quality and its proximity to the proposed development, these types of contaminants should represent a fundamental concern, not a secondary concern.

The presentation would have been more effective if it were simplified. For example, instead of attempting to describe the water quality by describing the chemistry and by using numbers and complex charts with print too small to read, a simple statement would have sufficed. He could have just stated "On a scale of one to ten, the District's water is a 9.8. It is excellent." This would have been much more effective, saved a lot of time, and captured the interest of the attendees. The attendees can easily understand condensed statements like these.

Mr. Long is working for and representing the District. As such he should align himself more assertively with the interests of the District and emphasize the interests of the District and the stakeholders. While Mr. Long has a professional obligation to maintain scientific neutrality, he surly could have more strongly represented the interests of the District without sacrificing scientific integrity. Mr. Long's presentation leaves the impression that the summary shared is fact. This is not the case. Very little is known about the subsurface, capture areas, transport mechanisms and water pathways. It is likely that the Developer will attempt to use Mr. Long's report as a basis to demonstrate that development will not affect the Districts' water quality. This should not be allowed to happen.

While Mr. Long did state that the report was the result of a "desktop study" the lack of information or knowledge about the groundwater system was not emphasized enough. Emphasizing this lack of knowledge will be imperative as the developer continues to attempt to demonstrate that their proposed development poses no risk to District's water quality.

Mr. Long mentioned that a spill on highway 101 would not affect the water quality of Spring #3. He stated that a response would be immediate and that if the spill (let's assume gasoline or diesel) were allowed to flow down the natural drainage, groundwater and Spring #3would not be affected (this assumes that there is some way to direct the spill from a catastrophic accident to the desired location). As a career hazardous and radioactive waste remediation professional, having responded to dozens of emergency responses (many involving petroleum hydrocarbons), I can say that this statement is blatantly false.

If a spill of thousands of gallons of fuel were spilled on Highway 101 in the wrong place upgradient of Spring #3, the initial response would be police and/or fire department personnel possessing little or no spill containment equipment or capability. It typically takes hours for meaningful response equipment and personnel to arrive onsite. The fuel would spread down-slope quickly and be readily absorbed into the soil. Because of the steep terrain and dense trees/plant life, access to affected areas and removal of affected soils would be severely complicated if not impossible. The spill would work its

way deeper through the soil column until encountering the ground water. The spill would kill all the plants/trees encountered and leave residual fuel in the soil column which would be re-mobilized with every rainfall. A spill such as this in the wrong place would contaminate Spring #3 for decades and the water would not be usable.

The scenario on Highway 101 is exacerbated by the statement that no left or right-turn lanes will be constructed for the two access roads for the development. While it is understood that the Highway Department may have determined that they are not necessary, perhaps they have not driven over Neahkahnie Mountain on a dark rainy or foggy night. At certain times, visibility in this area can be more than challenging. A lack of adequate turn lanes increases risks for an accident upgradient of Spring #3.

Presentation by Developer

Presentation by Pete Adamson

Mr. Adamson started by saying that he was familiar with the concerns of the community and that he would address these concerns. He also stated that there were homes in the groundwater capture zone already, the implication being that 30 additional homes would be fine and would not pose a risk.

Mr. Adamson described the proposed septic systems as "state of the art" and stated that these systems are "monitored 24 hours per day". Questions from the attendees requesting details on the monitoring system were glossed over. The District and the Stakeholders deserve detailed responses to the following questions:

1. What is the monitoring mechanism?
2. What specific parameter(s) are being monitored and how are they monitored?
3. What constitutes an off-normal or abnormal event or condition of system functionality?
4. What specific condition or conditions will trigger an alarm?
5. How is an off-normal event or condition communicated and to whom?
6. What established procedures are written for remedial action in the event of an off-normal event or abnormal condition?
7. What is the period (minimum and maximum) than can elapse between an alarm being triggered and remedial action being taken?
8. What fail-safe or back-up mechanisms are included in the septic design that assure that an off-normal condition will result in an automated response or notification if the primary alarm is not functional? What is the automated response (if any)?
9. What are the potential risks if an off-normal condition were to remain unaddressed?

10. Can a homeowner bypass or otherwise disable the monitoring or fail-safe systems?
11. What enforcement mechanisms are in place to assure that systems are properly operated and maintained after the developer has departed?

None of these questions were addressed in any way.

Mr. Adamson stated that none of the proposed septic systems were closer than 600 feet from any of the District's springs and that this was not a problem. Mr. Adamson only addressed bacterial effluent. He did not address any concerns regarding chemical, pharmaceutical, hydrocarbon or toxic metal contaminants. He further stated that risks from road drainage would be addressed by appropriate designs that would direct surface water "away from sensitive areas". He did not elaborate on how the design would address severe runoff scenarios.

Presentation by Jerry Marris:

Mr. Marris is the surveyor for the Developer. It is uncertain how his credentials qualify him to address safety, runoff, contamination, or other issues regarding the District's water quality. Mr. Marris stated that geology and hydrology reports would be made available. He further stated that a hydrologist with Farralon and Tom Horning (geologist from Seaside) had developed reports. Farralon employs multiple hydrogeologists so Mr. Marris may have meant that the Farralon "hydrologist" is actually a hydrogeologist. This was not clear. Mr. Horning's available credentials on the Internet do not mention hydrogeology, ground water issues, or contaminant fate and transport mechanisms.

Mr. Marris stated that "test pits" had been excavated and that all of them were "OK" and were the "standard for operations". These terms were not defined. He further stated that the pits were "OK'd by the County". He did not elaborate or provide evidence substantiating this statement or what "OK'd by the County" means.

In one statement, Mr. Adamson stated that the effluent from their septic systems was "drinking water quality". Mr. Marris contradicted this statement by stating that the effluent was "almost drinking water quality" and "good enough to flush". No data was provided regarding effluent water quality other than these qualitative statements. As with Mr. Adamson, Mr. Marris failed to address any potential risk to the District's water from contaminants other than biological constituents of septic effluent.

Mr. Marris mirrored Mr. Adamson's remarks in stating that the proposed septic systems were monitored 24 hours per day and that "flushing is prohibited" if the monitoring system detects an abnormal condition. When asked by an attendee to elaborate, he stated that he could not answer questions on the monitoring system but provided assurances that the proposed systems had been operating for "15 years". He failed to disclose where they were operated, failed to provide references, and failed to provide any effluent data from 15 years of operational history. He further stated that the

"system won't work without electricity". His description of safeguards in times of power outage was that toilets would back up and so nobody would use them. He further stated that all homeowners would be required to have back-up generators to maintain septic operability. He did not describe how homeowners would be monitored or forced to purchase, install, operate, or maintain back-up generators.

The developers: Phil Weber and John Rollins were not present for the meeting. There were several questions about the backgrounds and history of the developers. These were not answered.

Mr. Marris pointed out that two drain fields were located in the "sensitive area" defined by Mr. Long's hydrogeology report. He then stated that these septic systems would be pumped to another location outside of the sensitive area. It may have been unclear, but a pumped system in the sensitive area would not require a drain field. This requires clarification.

Mr. Marris was further pressed regarding the monitoring systems later in the meeting. He was asked general questions about enforcement mechanisms. His response began with "I guess...". He described "typical" monitoring contracts with a 2-year duration. He did not describe who the parties are for such contracts or the specific terms of the contracts. He further noted that bi-laws would be written into the Homeowners Association Covenants, Conditions & Restrictions (CCRs) but did not define what these bi-laws were.

While CCRs may be effective at regulating landscaping and paint color (which are easily viewed and obvious), there really is no enforcement mechanism for these septic systems. Mr. Marris said that *he thought* the electronic monitoring system would be inspected every 6 months. He did not say by whom or at whose expense. His statements demonstrate that he does not know.

Summary

The developer's representatives failed to reveal important information to the stakeholders and to the District. The explanations regarding monitoring of the proposed septic systems was woefully inadequate. The only conclusion that can be taken away from the Developer's presentations is that once the systems are sold and installed, it will be up to the homeowners to properly operate, monitor, maintain and repair, and police these systems. There is no way a home owners association will be able to police these systems. As we all know, most people will forgo septic maintenance or concern as long as the toilets flush and the sinks drain. Beyond that, "out of sight, out of mind". Once the developer has sold the lots, he will be gone. There are no proposed financial safeguards or financial assurances being offered by the developer to address contamination of the District's water supply that is likely to occur in the future from the proposed development.

The potential for contaminating the District's water supply with contaminants other than biological effluent is very real. Homeowners cannot be trusted to keep stored chemicals in secondary spill containment facilities. It will be impossible to prevent homeowners from using fertilizers, herbicides, pesticides or other chemical gardening products. Their automobiles, lawnmowers and other power equipment will leak oil and other fluids like gasoline, diesel, power steering fluid, brake fluid, antifreeze and grease. Pharmaceuticals will exit their septic systems along with everything else that should not be discharged down drains leading to septic systems. The septic system and soil infiltration of effluent will effectively treat only the biological portion of the effluent contaminants. The rest will enter the ground and migrate. There is no way to tell how long it will take for contaminants to begin showing up in the water supply but is virtually guaranteed that they will.

The contamination may or may not ever exceed regulatory drinking water standards. But is that what the stakeholders want? Do they want to allow their drinking water to be tainted at all? Keep in mind that EPA's carcinogenic risk assessment process "is a process to estimate the nature and probability of adverse health effects in humans who may be exposed to chemical in contaminated media" (https://www.epa.gov/risk/human-health-risk-assessment). This process is imperfect, complicated, and is often based on animal studies. In addition, as science improves, new risks are being discovered and allowable exposure levels are continually being revised. Many cancers are caused by chronic exposure to low concentrations of carcinogens and new carcinogens are being discovered every day. What is certified safe by the EPA today may very well not be safe tomorrow.

Right now, the District and its consumers enjoy water quality that is rarely surpassed. There is no tangible benefit to the community by developing land upgradient of the District's water supply and there is no reason to risk the District's water supply by developing the upgradient land. The Developer made a mistake by not conducting due diligence prior to purchasing the property by assuming that the development would have access to sewer service. The Developer's alternative is to assure the District and stakeholders that there is no risk associated with the development without validating the assurances in any way. It is important to remember that the Developer will be long gone when problems arise.

Sincerely,

Dale M. Timmons, R.G.

June 27, 2024

Mary Johnson, City Planner
City of Rockaway Beach
275 S. Highway 101
P.O. Box 5
Rockaway Beach, OR 97136

Re: PUD 24-01, Nedonna Development LLC

Via email: cityplanner@corb.us

Dear Planning Commission,

Oregon Coast Alliance is an Oregon nonprofit corporation whose mission is protection of coastal natural resources and working with coastal communities to enhance livability. We write you today to oppose the changes requested by Nedonna Development LLC for their Nedonna Wave PUD.

Our concern is not with the relatively minor changes proposed in this application: changes in lot configuration or grouping.

Our principal concerns have to do with the larger issues of time lapsed, and the wetlands.

Time Lapse: Rockaway Beach approved this PUD in 2008. Though the city ordinances do not apparently contain a time limit for continuing to develop an approved PUD, state law does, and it supersedes the local ordinance's lack of timeline. ORS 92.040 (3) provides: "A local government may establish a time period during which decisions on land use applications under subsection (2) of this section apply. However, in no event shall the time period exceed 10 years, whether or not a time period is established by the local government."

The implication of this is clear. Rockaway Beach cannot approve these minor modifications to the Nedonna Wave PUD and must require the applicants to file a new application if they wish to develop any parts further of the PUD approved in 2008. For the city to do otherwise flouts state law.

Wetlands: this tract of 2.5 acres has wetlands, which were delineated in a wetland report in about 2007. This expired long ago, as wetland delineations are only valid for five years. The associated joint DSL/Corps permit is also expired, and will have to be renewed before any activity may be undertaken. It is clear from photographs submitted by local residents that the area has extensive problems with flooding in and around McMillan Creek. Further houses near it will only exacerbate its problems and its role in the flooding problems. Wetlands are essential to absorb floodwaters. This provides an additional reason, in addition to state law requirements, for Rockaway Beach to deny this permit and require the applicant to submit a new application if they desire to continue developing this property, so that contemporary problems and needs may be assessed – not those of seventeen years ago.

It is clear from testimony of residents that the local infrastructure to handle excess waters from the rains has either failed, never been built or is poorly designed. The role of wetlands in this saga is not well determined, but it needs to be. This can only be done if the application is denied, so that seventeen year old standards are not being considered by current decision-makers.

Conclusion

There are other serious issues, among which we especially note the City Engineer's comment that as the Nedonna Beach area has but a single fire access road, which means that no more dwelling units are allowed in the area under the Oregon Fire Code, unless all dwelling units have automatic sprinklers. This is also an unalterable state requirement.

This application is far from a request for a minor adjustment of an approved PUD. The approval is so old it falls foul of state law, and must be revoked; the wetland delineation has expired, and likewise the permits granted under it; flooding and standing water have not been dealt with, neither in the original approval, nor in this application; and the Oregon Fire Code bars further dwellings in the area unless a specific requirement has been met, concerning which there has been no discussion or investigation whatsoever.

ORCA recommends the planning commission deny this application for all the reasons stated above.

Please place this testimony in the record for this matter.

Sincerely,

/s/ Cameron La Follette

Cameron La Follette
Executive Director

From: Goldea See
To: City Planner
Subject: The proposed building site in Nedonna Beach
Date: Thursday, June 27, 2024 12:06:51 PM

Let me begin this entry with expressing gratitude for being included even when I can't be present
So thank you, and, about 2 months ago I observed that the source of Nedonnas and Rockaways water , at Jetty Creek, was many feet below normal for that time of the year.
As I really rely on my water needs being met by water coming out of my home faucets and spigots I have concerns with more houses being built until 'WE' can address and solve our present water quantity risks. Again, Thank you Goldea See. [redacted] S. Beacon St.

Nedonna Wave Public Input

Janet Teshima

David and Riley Rockaway

June 27, 2024

1. As a resident of Nedonna Beach I concur with the verbal and written input made by other residents asking to stop or delay this development.
2. Impacts to waterways- Request for clarification as I don't see how McMillan Creek would not be impacted.
    2.1. Excerpt from Appendix E. Nedonna Wave- prepared by HLB/OTAK November 2007. Army core of engineering - joint permit application form (no date stamp)

The proposed impacts are to wetlands. There are no proposed impacts to waterways. The only waterway within the project area is McMillan Creek, and there is no work planned in McMillan Creek. The DSL agreed with the wetland determination that all other features on the site were wetlands.

.ere are three drainages on the project site (figure 5). Two that flow onto the site from the hills to the east and a ditch that flows along the north edge of the entrance road (Riley). The northern creek that flows from the hill east of the slope discharges into the large wetland that covers the site. The south creek that enters the site dissipates in the sand at the base of the hill slope. Neither of these two creeks will be disturbed by the project. The wetland associated with ditch along Riley is 15 to 20 feet wide and has a vegetated bottom. The side slopes of the ditch are covered with Himalayan blackberry (*Rubus discolor* FACU). A portion of this ditch will be culverted to upgrade Riley Street. Riley Street is currently a dirt road and must be widened in order to meet City code.

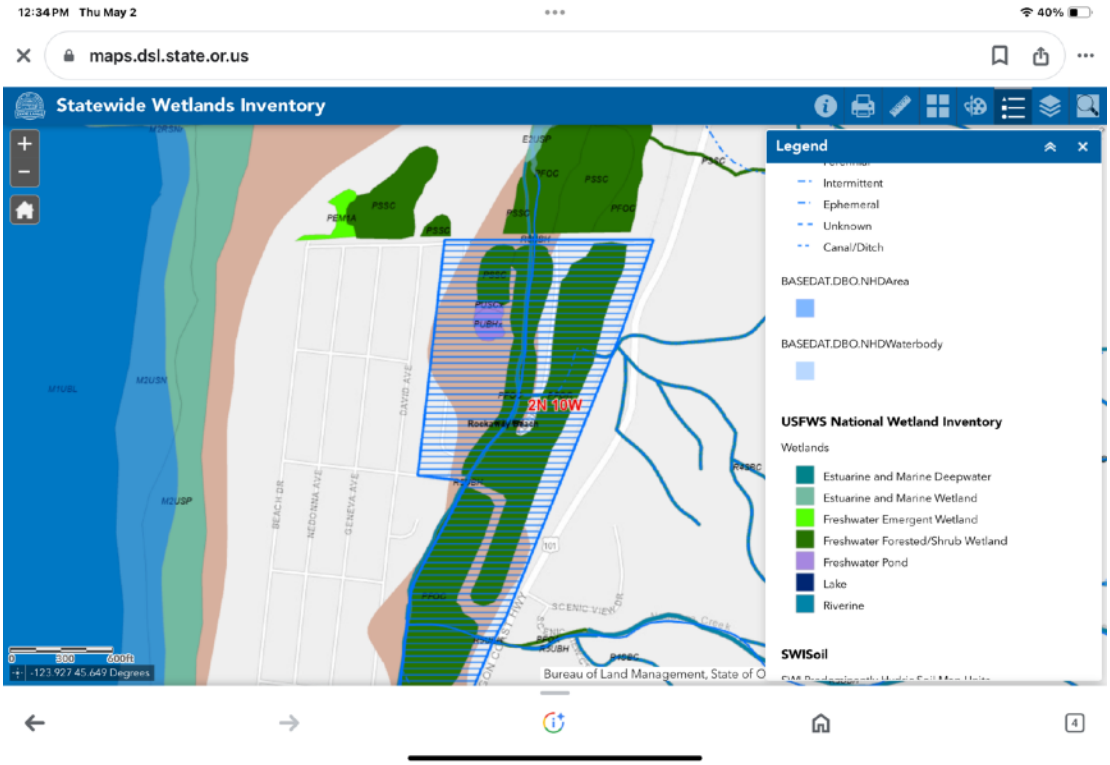
The document states that the wetland associated with the ditch along Riley is 15-20 ft, and a portion of the ditch will be culverted to upgrade Riley St.

- Where is the water coming from the culvert going?
- Is it going to McMillan Creek?
- As stated by other McMillan Creek commonly overflows and the culvert is usually clogged.
- If the wetland is disrupted, the northern and southern creek have less wetland to

McMillan Creek at Riley (NE)

dissipate and the outflow will be to McMillan Creek.

- The creek floods now, it will flood more after the development, it doesn't matter what they do to the culvert, the water has to go somewhere.
- Who is responsible for residential flood damage after development?



State Wetlands map showing McMillan Creek

3. Request for Comment.

   3.1. The attorney for the applicant mentioned that at the meeting on 6/20/24 the it was a "fait accompli" that the property on the south side of Riley owned by Nedonna Estates LLC. Would at some time be developed. No city official addressed this comment. This area is also wetlands.

4. Request for consideration

4.1. As it seems that this development will go forward in some form, I request that the city consider reducing the density requirement for this development

Trees and salal growing along McMillan Creek

so that citizens working with wetland professionals can work with the developer to save critical wetland areas and trees.

5. Request for response: Install speed bumps be installed Riley St prior to the start of any development

5.1. With the development on Kittiwake and increase in short term rentals, we have seen and increase in speeding traffic. I have owned my house since 2003 and know change is inevitable. We now has a mix of pedestrians, cars, trucks, golf carts etc. so it is time to do something about speeding vehicles.

Oregon Shores
Conservation Coalition

To: City of Rockaway Beach Planning Commission

Re: PUD #24-1

Dear President Hassell and members of the Planning Commission

The Oregon Shores Conservation Coalition ("Oregon Shores") opposes approval for Nedonna Beach Development LLC's proposed second phase of a planned unit development first permitted in 2008 (PUD #24-1, 2N1020AB, Tax Lots 10200, 10400, and 10,500). Oregon Shores is a non-profit organization, with members in Rockaway Beach, that works to protect Oregon's coastal environment and employ Oregon's land use planning system to its best possible effect in preserving coastal communities.

This letter is a follow-up to our initial letter sent on June 20th, 2024. Since that time, we have had more time to dig deep into this application and confirm that approval of this proposal would be a clear violation of the statewide planning system and Rockaway Beach's land use regulations. For the reasons outlined below, we urge the Planning Commission to deny this application and require the developer to resubmit a new full plan for the second phase of development.

I. The Original 2008 Approval of the Plan for this Development Has Expired

The original approval for the full 28-lot Nedonna Wave Development on February 11, 2008, conditioned approval on the basis that "the developer shall complete the improvements within one year of tentative plan approval unless an extension is granted by the City to complete improvements."[1] Because the City granted no extension here, the approval for the second phase of this same development has lapsed.

While the applicant had not yet received approval to develop in two phases at the time of initial approval, the City was aware that "the development may be completed in two phases." Accordingly, it is clear that the City expected the applicant to complete improvements for both phases of the development within the year. Regardless, that condition attached to the plan approval for the full development, and when the project was later approved to be developed in two phases, the City made clear that all "conditions of approval [from the earlier approval] continue to apply in their entirety except where amended specifically in these findings of fact

[1] Findings of Fact, Application # SPUD 2007-19, Exhibit A: Findings of Fact, Page 12 (February 11, 2008). Further, In the 2007 project justification for this development, the City stated that "[t]he development of this property will be completed in this calendar year." Likewise, they estimated that construction would be completed by "Spring of 2008." The City setting a schedule was necessary for the need to find under RBZO 10.050 that "the plan can be completed within a reasonable period of time."

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and this modification does not relieve them of the responsibility imposed during these previous public hearing processes." And the City did nothing to alter that condition.

Thus, the City must deny this application and make clear to the applicant that the 16-year old approval is no longer valid.

II. ORS 92.040(2) Requires the Applicant to Resubmit its Initial Application for this Development

As we addressed in our prior comment, even if the City believes this application has not expired, ORS 92.040(3) requires that it be reviewed from the start for compliance with the City's current regulations. ORS 92.040(3) provides that all subsequent stages of subdivision development must be reviewed for compliance with current local regulations when more than 10 years has passed. The Oregon Court of Appeals explained the operation of ORS 92.040: "92.040(2) allows applicants who request approval to develop a subdivision lot to choose to apply to all subsequent construction on the lot the local government laws in effect at the time that the subdivision application was made . . . . *However, the protection provided to developers by subsection (2) may not exceed a period of 10 years*."[2]

Because the applicant here has reapplied for a modification of their initial approval in order to start construction on the property, this is a subsequent phase of construction and the City must determine now whether the development still fully complies with current regulations. This is especially true since by asking to split the development up into two phases, the applicant has effectively reopened the entire project.

If the City does not apply ORS 92.040(3) at this time, granting the approval would be a significant waste of resources because under ORS 92.040(3), the applicant will not be able to get a final plat or building permits for this subdivision without a full review of the current City Code. And, as discussed in the sections below, this development, as proposed, would not be allowed under Rockaway Beach's current regulations.

The City originally agreed with this position and denied the application on these grounds, but evidently the City has changed its interpretation. Despite the City denying the application on this ground, there is no mention of the provision in the Staff Report. The City must explain in writing how it is interpreting ORS 92.040(3) to not apply here so that the public has an opportunity to respond to it.

The Planning Commission must deny the application and make clear to the applicant that they will need to get full approval of the development before moving forward with construction.

III. RBZO 3.080 Prohibits Residential Development in a Special Area Wetlands Zone

Much of the proposed development is in the City's Special Area Wetlands Zone (SA). This Zone is distinct from the City's Wetland Notification Overlay, which only requires notification to state agencies about wetland development. The SA zone is its own base zone, the purpose of which is

[2] *The Athletic Club of Bend, Inc. v. City of Bend,* 239 Ore App 89, 97 (2010).

to “conserve significant freshwater wetlands and the shoreland and aquatic environment of Rockaway Beach’s lakes.” RBZO 3.080(1).

Residential development is not an allowed use within the SA zone. RBZO 3.080(2)-(3). The fact that there is an existing PUD overlay over this property does not change the underlying uses allowed in the SA zone. The PUD overlay only allows the density allowed in the parent zone. RBZO 10.030. Thus, because the SA zone does not allow any residential development, any approval of development in these SA zones would clearly violate the RBZO regardless of the PUD overlay.

The boundaries of the SA zone are fixed, unless “at such time that a development is proposed in the vicinity of an area designated Special Area Wetlands” the City requires a site investigation from “a qualified agent such as a biologist from the U.S. Army Corps of Engineers or the Division of State Lands.” Accordingly, because no such investigation has happened yet, and much of the proposed development, including the new lots that are a part of the modification, are in the SA zone, the City must deny the application.

IV. RBZO 3.142 Requires the Applicant Develop Evacuation Measures and Improvements

RBZO 3.142 provides that: “[e]xcept single family dwellings on existing lots and parcels, all new development, substantial improvements and land divisions in the Tsunami Hazard Overlay Zone shall incorporate evacuation measures and improvements, including necessary vegetation management, which are consistent with and conform to the adopted Tsunami Evacuation Facilities Improvement Plan.”

This project is going to have detrimental impacts on the City’s Tsunami Evacuation plan by both adding more people to and blocking already constrained evacuation routes. In order to “conform to the adopted Tsunami Evacuation Facilities Improvement Plan,” the developer would need to make improvements that make sure the evacuation routes are maintained and that additional capacity is added to them through the creation of new routes .

In the initial hearing, the applicant claimed that such an action was the City’s responsibility. However, RBZO 3.142 makes clear that is not the case, as the improvements developers need to make can include both on-site improvements and off-site improvements, meaning the developers can both improve access on the property they own or provide funding for the City to make off-site improvements in other areas to adjust for the detrimental effect of the development.

Conducting a traffic-impact study is not an “improvement” to evacuation routes, which is what RBZO 3.142 requires. The applicant must make actual improvements to alleviate the detriment this development will impose on existing evacuation routes.

V. RBZO 4.150 Requires the City to Enforce its Riparian Setback for McMillan Creek Pre-Approval

Riparian vegetation within 15 feet of McMillan Creek must be maintained per RBZO 4.150(1)(a). The Staff Report suggests that post-approval, the applicant coordinate with Oregon Department of Fish and Wildlife (ODFW) to develop a plan to mitigate those impacts where compliance is not feasible. However, that is not the standard laid out in RBZO 4.150.

RBZO 4.150(5) provides that "the City may approve the removal of riparian vegetation when vegetation removal and a plan to re-vegetate the riparian area has been approved by [ODFW]." This provision clearly only envisions temporary removal of riparian vegetation within setback areas that can then be "re-vegetate[d]." It clearly does not allow any kind of development within the riparian area, regardless of whether those impacts are mitigated.

The provision is also forward-looking. The applicant must make clear prior to approval what impacts will be in the setback areas and then get a plan for that removal approved by ODFW, so that the Planning Commission can review the plan in deciding on the application. Accordingly, approving the application without even knowing the extent of riparian vegetation removal that will occur is plainly contrary to the RBZO.

The City cannot approve this application until the applicant makes clear whether there will be vegetation removal in the 15-foot setback area and, if so, submits a plan approved by ODFW for how that removal will occur and how the area will be re-vegetated.

Thank you for your consideration of these comments.

Sincerely,

Phillip Johnson, Shoreline and Land Use Manager
Oregon Shores Conservation Coalition
(503) 754-9303

Oregon Shores
Conservation Coalition

To: City of Rockaway Beach Planning Commission

Re: PUD #24-1

Dear President Hassell and members of the Planning Commission

The Oregon Shores Conservation Coalition ("Oregon Shores") opposes approval for Nedonna Beach Development LLC's proposed second phase of a planned unit development first permitted in 2008 (PUD #24-1, 2N1020AB, Tax Lots 10200, 10400, and 10,500). Oregon Shores is a non-profit organization, with members in Rockaway Beach, that works to protect Oregon's coastal environment and employ Oregon's land use planning system to its best possible effect in preserving coastal communities. We are commenting on this matter at the request of our local members.

Oregon Shores requests that the record be left open for any additional evidence, arguments or testimony the participants wish to submit for at least seven days pursuant to ORS 197.797(6). Please also notify us of any further decisions, reports, or notices issued in relation to these concurrent applications. Oregon Shores will provide additional comments as appropriate and allowed within the open record period.

The Rockaway Beach City Council's initial approval of the plan for this subdivision in 2008 is no longer effective. Because the proposed modification is for a Planned Unit Development (PUD) approval that is more than ten years old, the City Council is obligated to reconsider the whole project, applying the land use regulations that are currently in effect. ORS 92.044(2) provides that after the initial application for a subdivision, subsequent phases of the development are only subject to the rules in effect at the time of that application. However, "in no event shall the time period [of that protection] exceed 10 years." Accordingly, ORS 92.044 places a clear bar on local governments acting on a subsequent phase of an initial subdivision application that is more than 10 years old without reviewing the development from the beginning for compliance with the existing code. We are concerned that the proposed development would not be allowable under the current law.

We also do not believe the agenda packet, staff report, or application have all of the necessary information to understand this decision and request that the Planning Department provide those to the public and the Planning Commission prior to the close of the record. The applicant only includes one final order approving the PUD. Notably, the applicant left out the additional approvals originally attached as exhibits to that final order. This includes the final plan approval for this development and later modified plan approval that allowed for the development to be split into two phases.

Sincerely, Phillip Johnson, Shoreline and Land Use Manager

phillip@oregonshores.org • PO Box 5626, Coos Bay, Oregon 97420 • oregonshores.org

June 26th, 2024

To: City of Rockaway Beach
City of Rockaway Beach Planning Committee
City of Rockaway Beach City Planner, Mary Johnson

From: Delta Holderness
[redacted] Song St.
Rockaway Beach, OR 97136
[redacted]

Re: Additional written public comments regarding PUD-24-1

Thank you for taking the time to listen to the residents of Nedonna Beach last Thursday, June 20th, 2024. I would like to provide additional comments concerning the safety of our neighborhood.

First comment:

As I emphasized in my oral testimony last week, the influx of tourists to Nedonna Beach each year poses significant safety risks, especially in the event of a tsunami evacuation. With only one exit available, tourists would likely rush to their cars, creating a bottleneck at our single point of egress.

This singular access point also presents a critical issue regarding fire safety. Each summer, the coastal area has experienced increasingly hot and dry conditions, elevating the risk of fire. The dense trees and underbrush lining Nedonna Beach near Highway 101 exacerbate this risk. Should a fire ignite at our only entrance/exit, it could rapidly spread through the foliage, threatening homes within city limits. The Rockaway Beach Fire Department would face severe challenges in reaching and extinguishing fires within the community if they are first required to combat a fire blocking their access.

Notably, the Oregon Fire Code, Appendix D, Section D107.1, mandates that developments with more than 30 single-family dwellings must have two separate and approved fire apparatus access roads. It is concerning that the City and County has allowed this situation to persist for decades without rectifying it.

To ensure the safety of current residents and structures, it is imperative to halt further housing developments until an additional entrance/exit is established. Although creating a new access point may take years, the potential lives saved will be well worth the effort. Furthermore, addressing this issue proactively would mitigate the risk of legal actions against the city.

Please be aware that the State Fire Marshal has also been contacted regarding these concerns. We are hopeful that this will prompt a more comprehensive review and swift action to address the fire safety risks in Nedonna Beach.

Second comment:

In the approved Nedonna Wave PUD document, available on the City's website, I observed a specific requirement under Article 7 Architectural Design Standards, section 7.2.1. It states, "All houses shall have a minimum of a one-car garage (not a mere carport) which must be attached or incorporated as part of the house."

Upon reviewing the maps within this document, I found that only Lot #4 features a single-car garage. The other developed lots—numbers 1, 2, 20, 21, and 23 (referencing the old numbering system from the document)—do not have garages. Additionally, I did not find any variances for this requirement.

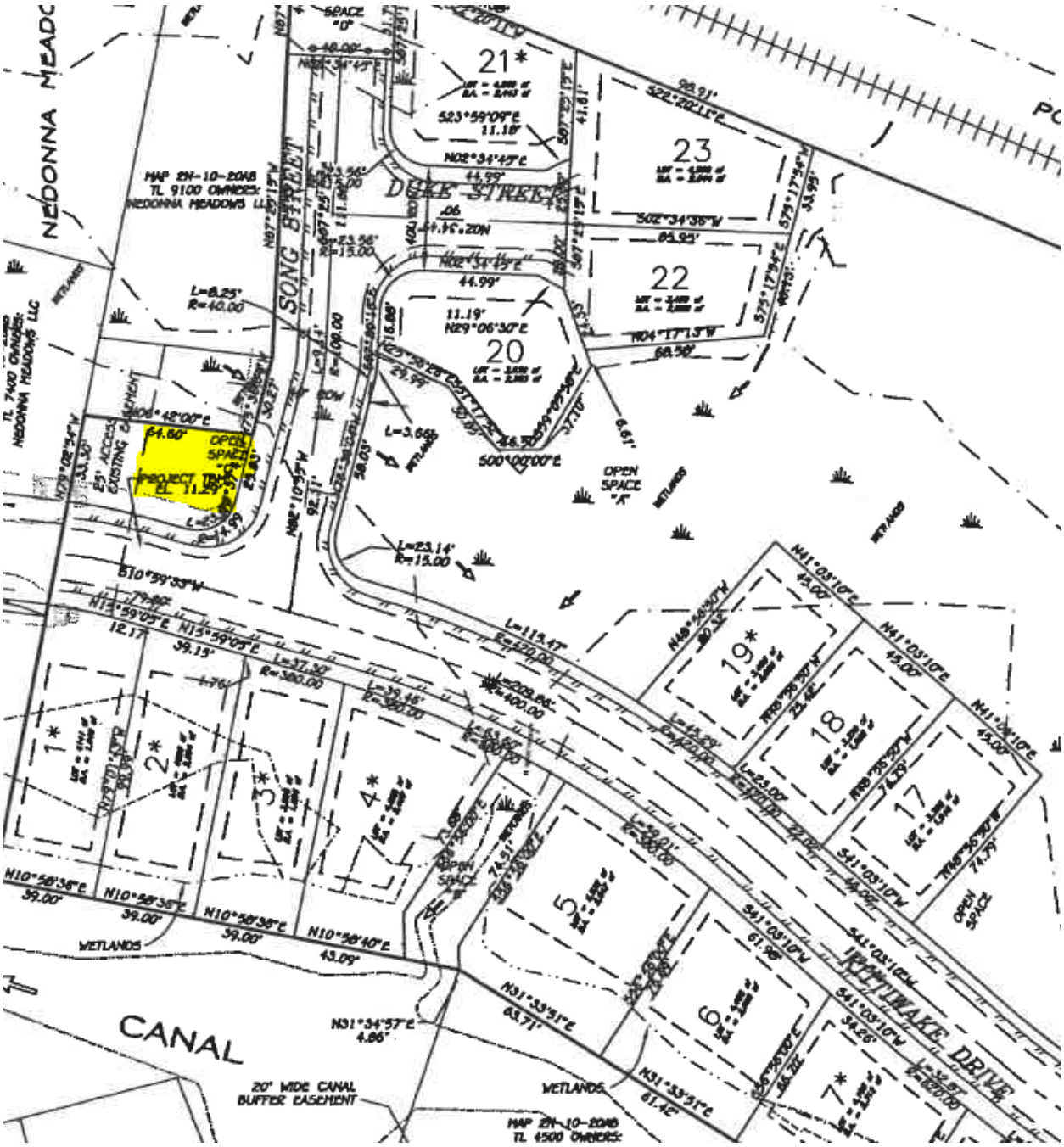
Given the absence of garages in these five houses, it appears that the developer has not adhered to the architectural design standards outlined in the approved planned housing development. This deviation raises serious concerns about compliance with the agreement established with the city. Consequently, the approval of this development should be revoked, and the developer should be required to restart the project in accordance with the current laws.

Third Comment:

Additionally, while reviewing the maps, I observed an "open space" highlighted in yellow (see map below). Interestingly, the developer and her contractor constructed a house on this small parcel of land. I am curious whether there was ever any approval from the City, State, Wetlands experts, or other relevant authorities to build a house in this location, as it is not included in the original PUD. Furthermore, if approval was granted, I would like to note that this house does not have a garage. If approval was not granted for construction in this location, the PUD should be revoked due to a direct violation of the contract established with the City.

Please let me know the outcome of your research regarding this matter.

Thank you for your attention to these issues. I look forward to your response and to learning about any actions you plan to take to address these concerns.


NEDONNA MEADOWS
SONG BIRD WAY
DOVE STREET
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OPEN SPACE "A"
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1*
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3*
4*
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OPEN SPACE
RUTTWAKE DRIVE

From: Gary Corbin
To: City Planner; stephwinches@gmail.com; umazee73@comcast.net; olsonrl@centurylink.net; s.l.johnson2021@gmail.com; billh@billhassell.com; nancy.lanyon@gmail.com; g_and_j@charter.net
Cc: City Planner
Subject: Comments on PUD-24-1
Date: Tuesday, June 25, 2024 11:14:20 AM

June 25th, 2024
To: City of Rockaway Beach
City of Rockaway Beach Planning Commission
City of Rockaway Beach City Planner, Mary Johnson

Re: Additional written public comments regarding PUD-24-1

Thank you for taking the time to listen to the concerns residents of Nedonna Beach last Thursday, June 20th, 2024. I would like to provide additional comments concerning this matter.

First, I would ask you to note that of all the individuals who took the time to present testimony on this matter on June 20, every person who spoke either opposed approving the development or raised serious concerns about the plan—except for three individuals, each of whom stand to gain financially should the project move forward. Every resident of the area spoke against.

Second, the proponents revealed a disingenuous strategy at the meeting that needs to be called out. Once the city planner's recommendation to disapprove the vacation of the Riley Street stub, the developers backpedaled and claimed that they are not asking for a decision on this matter at this time. This, despite the fact that it is one of the four specific modifications they requested in their proposal.

Clearly they want to develop that stub. Seeing how the wind currently blows, they're asking for "no decision" right now and hope to get their camel's nose under the tent to be able to claim later that the city implicitly approved the vacation by not disapproving it in 2024.

However, Riley Street is the gateway to a much-needed evacuation route. Vacating that section would eliminate that route and negatively impact the emergency evacuation and safety situation in Nedonna Beach.

It is imperative that the Planning Commission and City Council do not defer on this question and that the City makes a clear, unequivocal decision to disapprove this request. Failure to act definitively on this matter now will encourage the developer to try to claim this modification is effectively "grandfathered in" by the City's decision not to act now.

Third, the developers are trying to use the same sleight-of-hand tactic here that they did regarding the wetlands in the proposed development area. In that case, they filled in areas that were once wetlands and are now claiming that "circumstances changed." This is their justification for being able to develop the former wetlands areas. Then, upon discovery that the proposed Jackson Street segment is now wetlands, they wave that off with a vague claim to "mitigate." In other words, what they're claiming is: "What were wetlands are no longer, so it's okay to build; what is now wasn't then, so it's still okay to build."

Fourth, as I noted in my testimony on June 20, the impact of developing these wetlands on

wildlife is potentially devastating. Not least is the presence of bald eagles nesting in this area —an endangered species. While it has been noted that the City has requested rulings by the Department of State Lands on wildlife and wetland impacts, the impact on an endangered species requires federal review to ensure the development does not destroy or negatively impact the eagles' habitat. I see nothing in any of the materials provided to citizens thus far that indicates such a review has been requested, much less taken place. It is my understanding that no development may proceed without such a review.

Fifth, the idea that the decisions made in 2008 stand in perpetuity is nonsense. Oregon law (ORS 92.040) and common sense dictate otherwise. This is because, as even the developers noted (with regard to the condition of the wetlands) at the meeting, "circumstances change." Since the ten-year time limit for the original plan has long since expired, the City is empowered to, and charged with, the responsibility to consider this as a new development proposal, divorced from the 2008 decision.

And with that understanding of the law and current circumstances, we urge you to reject and disapprove of the entire development proposal as it currently stands, and as modified, and require the developer to apply anew with a plan that addresses specific development intentions, better suits the community's needs, ensures public safety, and proceeds in good faith and transparency.

Sincerely,

Gary Corbin and Renee Faddis
[redacted] Kittiwake Drive
Rockaway Beach, OR 97136
[redacted]

Gary Corbin
Author, Valorie Dawes Thrillers
Look for my new release, Under the Banner of Valor, coming out May 7!

To: City of Rockaway Beach

City of Rockaway Beach Planning Commission

City of Rockaway Beach City Planner Mary Johnson

JUN25 '24 2:21PM

From: Kathie Raisler

[redacted] White Dove Ave

Rockaway Beach, OR 97136

[redacted]

Subject: Written public comments regarding PUD-24-1

Summary For City Planning Board

Prioritizing Public Safety in Urban Development

Ensuring public safety is paramount for the City and its planning commission, particularly concerning new building projects. Approved in 2008, this project requires a thorough review under updated city regulations and ordinances, such as ORS 92.040, which mandates re-evaluation after ten years.

Public Safety Precedence

Addressing public safety concerns must precede any advancements in new building projects, as highlighted in LUBA No. 2008-064. Notably, the absence of a secondary egress point at Nedonna Beach for 16 years violates ORS 106.1 and D107.1. Enforcement of these regulations by the State Fire Marshall is essential.

Impact on Emergency Services

Increased residential density strains volunteer public safety workers' capacity to respond effectively, Particularly with inadequate emergency access points like the sole entry to Nedonna Beach. This poses significant risks during emergencies, including natural disasters like tsunamis.

Consideration Beyond Density

While the project meets density standards, concerns persist regarding the adequacy of [proposed lot sizes in compliance with current city standards, especially in ensuring sufficient vehicle parking without obstructing streets.

Parking Challenges

Proposed small lot sizes in new developments threaten parking availability on Kittiwake, potentially impeding emergency services.

Changing Environmental Landscape

Since 2008, significant environmental changes have evolved, necessitating updated considerations in new developments, especially concerning stormwater management and flood hazards. (City of Rockaway Beach, Article 13 Section 41)

Impact of Short-Term Rentals (STRs)

The rise in Short-Term Rentals (STRs) has disrupted neighborhood dynamics, increasing traffic and safety hazards, exemplified by recent incidents such as the Riley and Nedonna intersection accident involving a child.

Necessity of Comprehensive Studies

No project should proceed without comprehensive studies and stakeholder assessments to evaluate their full impact. Approving a project based on outdated circumstances from 16 years ago undermines due diligence by the City of Rockaway Beach.

Urgency for Resolution

It's critical to resolve these issues promptly rather than delaying decisions further, ensuring adherence to state and city regulations.

Conclusion

This summary emphasizes the critical need for prioritizing public safety, addressing environmental concerns, and adhering to legal obligations, ensuring responsible urban development in our community.

This structured approach should effectively communicate the main concerns and recommendations to the city planning board, facilitating a focused discussion on the project's implications.

Thank you for your consideration in this matter.

Kathie Raisler

Kathie Raisler

6-24-24