PUBLIC HEALTH DIVISION
Drinking Water Services
Tina Kotek, Governor

Oregon Health Authority

800 NE Oregon Street, Ste 640
Portland, OR 97232
Phone: (971) 673-0405
Fax: (971) 673-0694
www.healthoregon.org/DWP

December 15, 2023

Barbara Giddings
wildfl0werd0n38@gmail.com
Nantucket Shores
PO BOX 999
Pacific City, OR 97135

Letter sent via e-mail only.

Re: **Nantucket Shores (PWS ID #95088)**
Wells #4, 5, & 6 and Secondary Treatment
Conditional Approval (PR #153-2023)

Dear Ms. Giddings:

On November 27, 2023, our office received a plan review fee of $825 for the review of 3 new wells to serve Nantucket Shores (PWS ID#95088). We received preliminary test results on November 9, 2023, from Brenda Giddings and some maps showing the locations of the wells from Ben Johnson on November 17, 2023.

The wells will be designated as follows in our database under a separate entry point (EP-B). The treatment plant will be designated "WTP-B".

- 2022 Well #4 (SRC-BA) – TILL 53249 - L148794
- 2023 Well #5 (SRC-BB) – TILL 53256 - L148780
- 2023 Well #6 (SRC-BC) – TILL 53259 - L148782

The well logs (driller's reports) were sent to our geologist on November 30, 2023, and he reported back yesterday that all three wells were adequately constructed and appear to be drilled into a confined aquifer. See page 6 of this letter for more information.

In reviewing the wells and water rights in this area, it appears that the water rights transfer application #T12689 amending water right permit #G18131, to allow 3 new points of appropriation is still pending review. The original permit G18131 allows up to 0.29 cfs (130 gpm) from each of up to two wells for "quasi-municipal use" as summarized in the table on the following page. The location of the 3 constructed wells #4, #5, and #6 do not match the water rights transfer map available online at: https://apps.wrd.state.or.us/apps/wr/wrinfo/wr_transfer_centric.aspx?transfer_char=T&transfer_nbr=13978

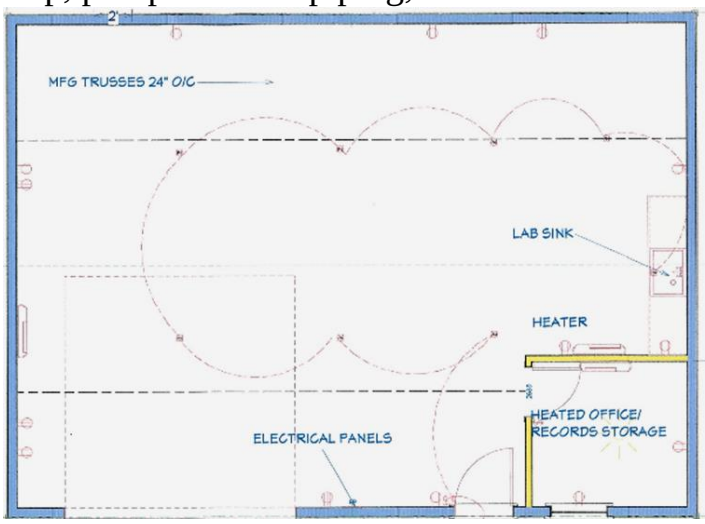
Water Right Permit G18131 w/ 3/30/1995 priority date (Transfer Application T13978)	gpm	Cfs
Water Right (per diversion)	130	0.29
Total Water Right (2 diversions)	260	0.58

Please refer to the maps on page 8 of this letter and reach out to the Nikki Hendricks with the Oregon Water Resources Department to clarify the status and applicability of the water right transfer application T13978 to the constructed wells.

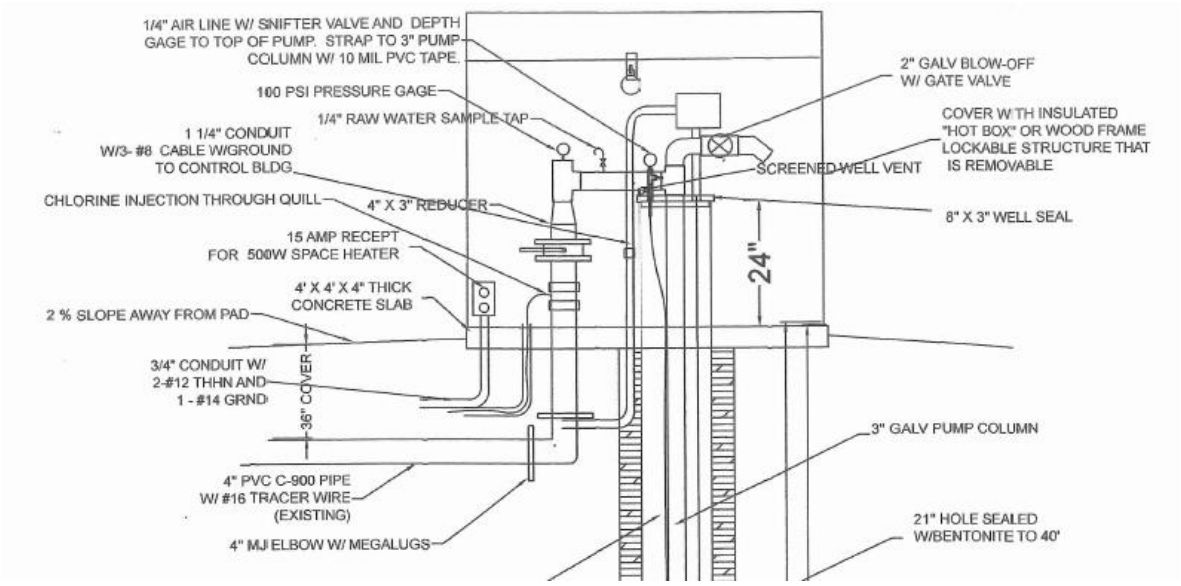
Nikki Hendricks
District 1 Watermaster
4000 Blimp Blvd Ste 400
Tillamook, OR 97141
Office: 503-815-1967
Cell: 503-457-8989
Nikki.M.Hendricks@water.oregon.gov

In order for the wells and treatment system to be approved, the following conditions will need to be met:

1. A set of raw (untreated) water quality data including coliform bacteria, IOCs (including nitrate, nitrite and arsenic), SOCs, VOCs, and radionuclides (gross alpha, radium 226/228 and uranium) are submitted. These are to be taken from each raw water sample tap, which should be located at or near to the wellhead. Your existing lab (Waterlab) should be able to assist you with this sampling.
2. Plans and/or photos are submitted that show the above-ground wellhead structure detail including the raw water sample tap, pump to waste piping, flowmeter (totalizer and/or rate of flow), and a way to measure the water level in each well. Plans/photos of the well house covering each well (if the wells are not equipped with a pitless adapter) showing the concrete slab and drainage.
3. Plans, specifications, and/or photos showing how the wells are connected to the water treatment system (I only have the basic footprint of the treatment building shown at right). Plans should include, the make and model of any pumps, pressure tanks, the purpose of any treatment (e.g., iron removal, etc.) and the make/model of treatment equipment as well as product specifications for any chemicals (e.g.,



chlorine) added to treat the water. Since the existing system is chlorinated at the original treatment plant (WTP-A), chlorine will need to be added for the wells as you cannot introduce unchlorinated water into a chlorinated distribution system. Plans/photos should also show raw water (pre-treatment) and post-treatment sample taps. The graphic below is an example of wellhead plans you may use as a reference.



4. Documentation showing the 100-ft radius of control around each of the wells (e.g., recorded easement, etc.) and absence (via map) or exclusion (via easement) of on-site septic systems and other hazards within 100-ft of each well.
5. Evidence (e.g., a copy of an e-mail) of recent (post 12/15/23) correspondence with Nikki Hendricks regarding the status of the water rights transfer application.

For specific rule requirements regarding wells, see OAR 333-061-0050(2)(a) (https://www.oregon.gov/oha/PH/HealthyEnvironments/DrinkingWater/Rules/Documents/61-0050.pdf#page=1)

Instructions to receive Final Approval:

1. Provide written correspondence or documentation demonstrating how each of the conditions above have been met.
2. Complete and submit the Project Final Approval Request form on-line at the link below: https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/PLANREVIEW/Documents/project-update-form.pdf
3. The form and documentation of conditions having been met may be e-mailed to me at evan.e.hofeld@oha.oregon.gov.
4. A "Final Approval" letter may then be issued by our office to allow the wells and treatment system to be placed into service.

Following the receipt of the Final Approval letter:

1. The new wells and treatment may be placed into service.
2. As a community water system, the following sampling is needed once the wells are placed into service:
    - Complete two 6-month demonstration rounds (e.g., the first round taken between 1/1/24 – 6/30/24 and the second round taken between 7/1/24 – 12/31/24, etc.) of lead and copper tap sampling at 10 sites. This is required due to the installation of the new wells and treatment to ensure no adverse impacts to lead and copper corrosion. Future monitoring will depend upon the results of this demonstration monitoring.
    - At least one more set of radiological samples will need to be taken after the treatment process. Radiological sampling includes gross alpha, radium 226/228, and uranium.
    - Sampling for VOCs, SOCs and IOCs will depend upon the results of the initial raw water sampling.

Until we receive verification that the conditions have been met and final approval has been issued, the wells and treatment facility are not approved for use.

Any correspondence should reference Plan Review #153-2023 and can be emailed to me at evan.e.hofeld@oha.oregon.gov or mailed to:

Attn: Evan Hofeld
OHA-Oregon Drinking Water Program
PO BOX 14450
Portland, OR 97293-0450

Thank you for your cooperation and if you have any questions, please feel free to call me at 971-200-0288.

Sincerely,

Evan Hofeld, Regional Engineer
OHA - Drinking Water Services

cc: Brenda Giddings
brendagiddings@gmail.com
Ben Johnson
bjohnsonco@gmail.com
Jaime Craig, Tillamook Co Environmental Health
jcraig@co.tillamook.or.us
Melissa Jenck, Tillamook Co Community Development
mjenck@co.tillamook.or.us
Nikki Hendricks, Oregon Water Resources Department
Nikki.M.HENDRICKS@water.oregon.gov

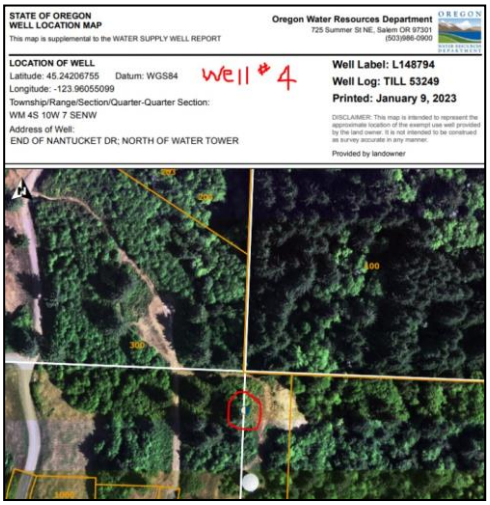
Geologist Well Log Evaluation Results (12/14/2023)

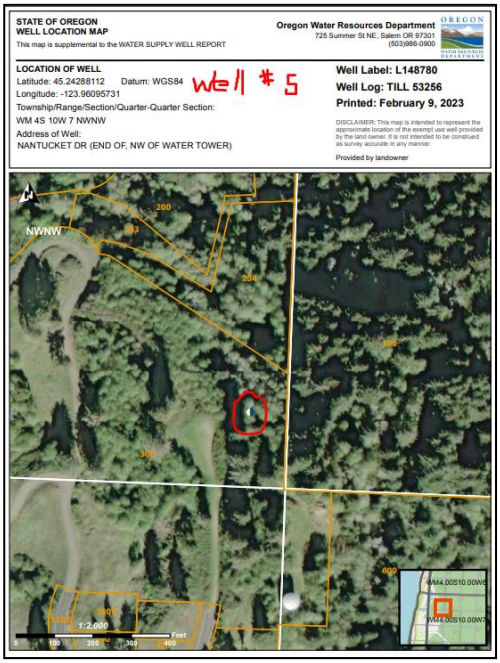
The well logs TILL53249 (Well #4), TILL53256 (Well #5), & TILL53259 (Well #6) were submitted to our geologist, Tom Pattee, on November 30, 2023, who provided the results of his evaluation to me on December 14, 2023. As shown on page 8 of this letter, **Mr. Pattee found that all 3 wells were adequately constructed and sealed** such that impacts from nearby land use practices should be minimal. Although all the wells draw water from a confined aquifer, **the fractured bedrock of the aquifer for Well #4 does make this well more sensitive to nearby land use practices**. Wells #5 and #6 aquifers are less sensitive since they are constructed to draw water from a deep confined sedimentary aquifer.

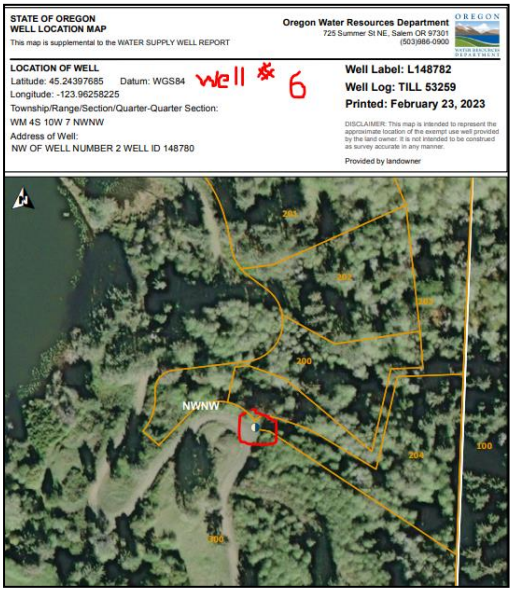
Well ID	Well Evaluation Results
Well 4 - TILL_53249 - L148794 - ca 12-16-22 (closest to reservoir) Exempt Use Map	☒ Well/Spring meets current construction standards. Comments: This well was drilled to a depth of 266 ft and is cased to a depth of 48 ft. The casing seal was constructed to a depth of 47 ft. A screened liner was installed in the well and helps to keep the borehole open. Water can enter the well through the uncased portion of the borehole, below a depth of 48 ft below ground level. Sensitivity Analysis results suggest that well construction does not contribute to the sensitivity of the water supply to nearby land use practices. **Nature of Aquifer Evaluation:** Aquifer Nature: ☒ Confined aquifer ☐ Semi-confined aquifer ☐ Unconfined aquifer Comments: This well was constructed to draw water from a fractured sedimentary bedrock aquifer. The identified fractured bedrock water-bearing zone was encountered at a depth of 54 ft. The water-bearing aquifer materials are directly overlain by 52 ft of unfractured siltstone that appears to act as a confining layer. The static-water level rose 34 ft above the depth at which water was first discovered to a final depth of 20 ft below ground level indicating that water in the aquifer is under pressure. Sensitivity Analysis results suggest that aquifer characteristics at this well location are highly sensitive to local land use practices due to the shallow fractured aquifer condition.
Well 5 - TILL_53256 - L148780 - ca 01-23-23 Exempt Use Map	☒ Well/Spring meets current construction standards. Comments: This well was drilled to a depth of 299 ft and is cased to a depth of 79 ft. The casing seal was constructed to a depth of 77 ft. A screened liner was installed in the well and helps to keep the borehole open. Water can enter the well through the uncased portion of the borehole, below a depth of 79 ft below ground level. Sensitivity Analysis results suggest that well construction does not contribute to the overall sensitivity of the water supply to nearby land use practices. **Nature of Aquifer Evaluation:** Aquifer Nature: ☒ Confined aquifer ☐ Semi-confined aquifer ☐ Unconfined aquifer Comments: This well is constructed to draw water from a deep confined sedimentary bedrock aquifer composed of siltstone with sandstone seams. The identified water-bearing zone was encountered at a depth of 157 ft. The water-bearing bedrock is directly overlain by 127 ft of unfractured siltstone that appears to act as a confining layer. The static water-level in the well rose 51 ft above the depth at which water was discovered to a final depth of 106 ft below ground level indicating that water in the aquifer is under pressure. Sensitivity Analysis results suggest aquifer characteristics at this well location are not highly sensitive to local land use practices.

Well ID	Well Evaluation Results, Continued
Well 6 - TILL_53259 - L148782 - ca 02-01-23 (furthest from res.) Exempt Use Map	☒ Well/Spring meets current construction standards. Comments: This well was drilled to a depth of 249 ft and is cased to a depth of 73 ft. The casing seal was constructed to a depth of 53 ft. A screened liner was installed in the well and helps to keep the borehole open. Water can enter the well through the uncased portion of the borehole, below a depth of 73 ft below ground level. Sensitivity Analysis results suggest that well construction does not contribute to the overall sensitivity of the water supply to nearby land use practices. **Nature of Aquifer Evaluation:** Aquifer Nature: ☒ Confined aquifer ☐ Semi-confined aquifer ☐ Unconfined aquifer Comments: This well is constructed to draw water from a deep confined sedimentary bedrock aquifer composed of siltstone with sandstone layers. The identified water-bearing zone was encountered at a depth of 140 ft. The water-bearing bedrock is directly overlain by 140 ft of unfractured siltstone that appears to act as a confining layer. The static water-level in the well rose 137 ft above the depth at which water was first discovered to a final depth of 3 ft below ground level indicating that water in the aquifer is under pressure. Sensitivity Analysis results suggest aquifer characteristics at this well location are not highly sensitive to local land use practices.

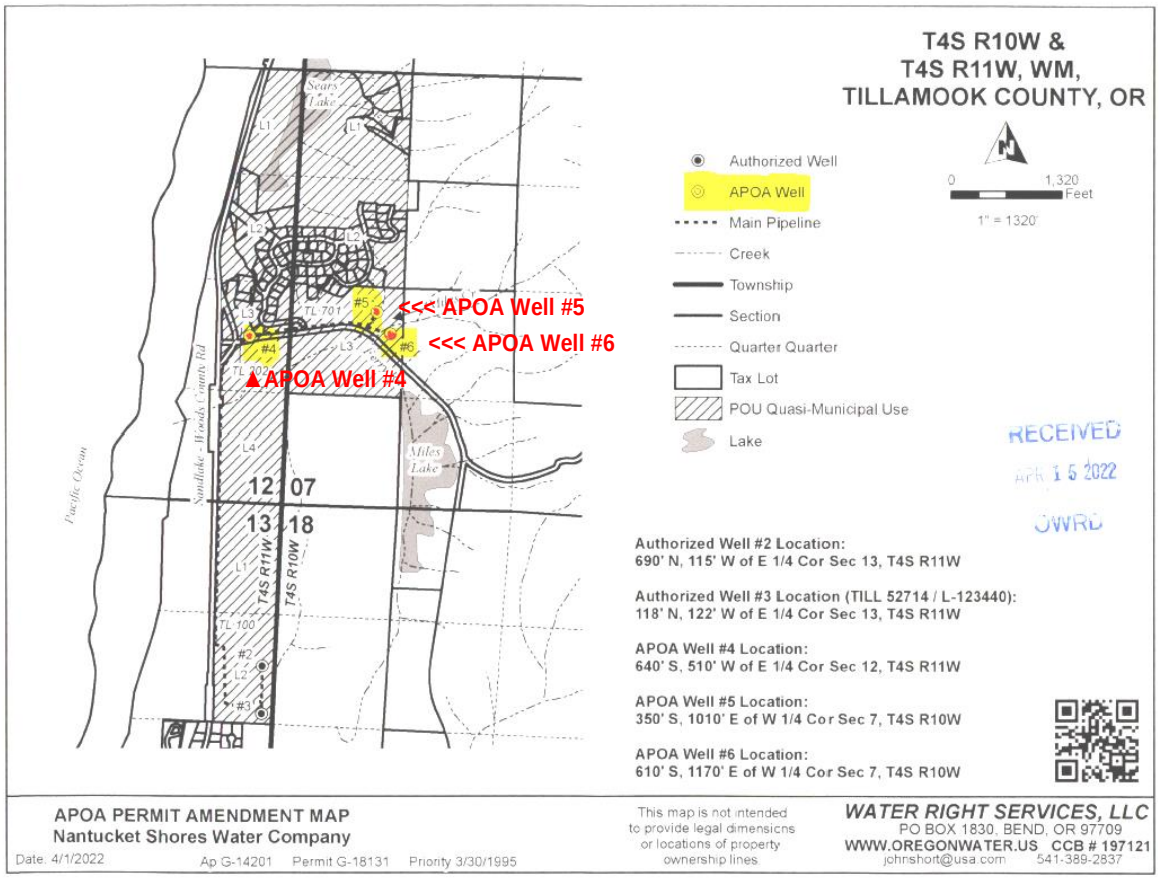
Well ID	Latitude/Longitude	Google Maps
Well 4 - TILL_53249 - L148794 - ca 12-16-22 (closest to reservoir) Exempt Use Map	45.24206755, -123.96055099	Well 4 Map
Well 5 - TILL_53256 - L148780 - ca 01-23-23 Exempt Use Map	45.24288112, -123.96095731	Well 5 Map
Well 6 - TILL_53259 - L148782 - ca 02-01-23 (furthest from res.) Exempt Use Map	45.24397685, -123.96258225	Well 6 Map

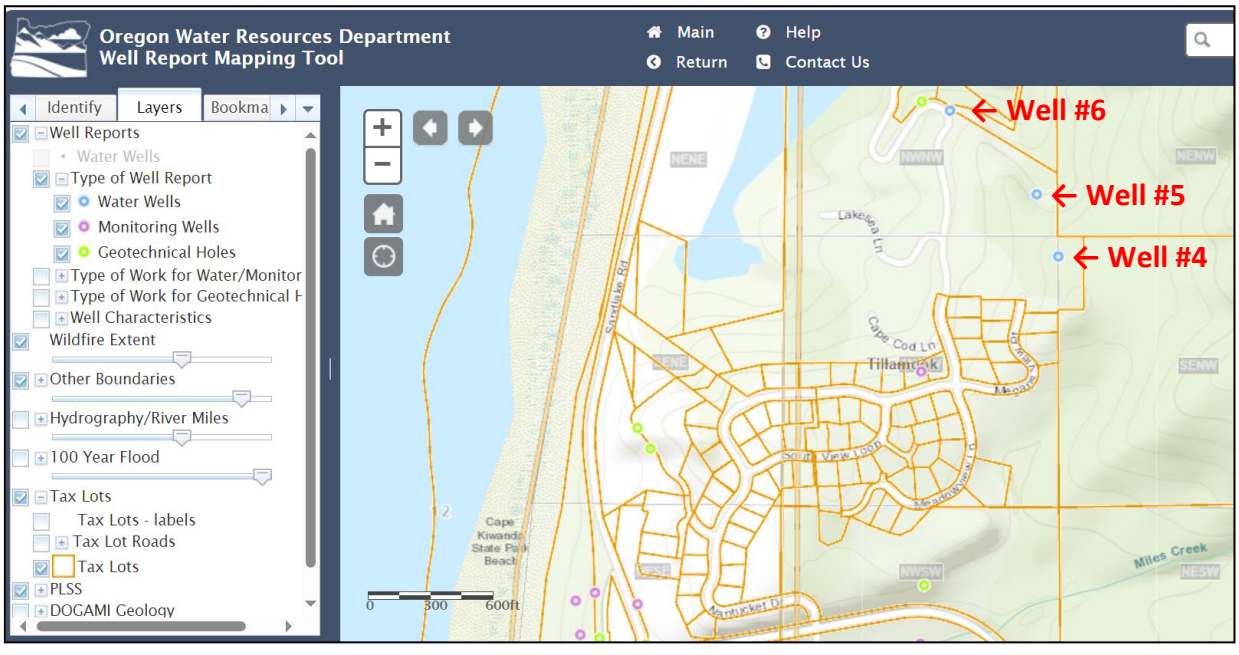






Water Right Transfer Application Map (T13978) vs Map of Constructed Wells





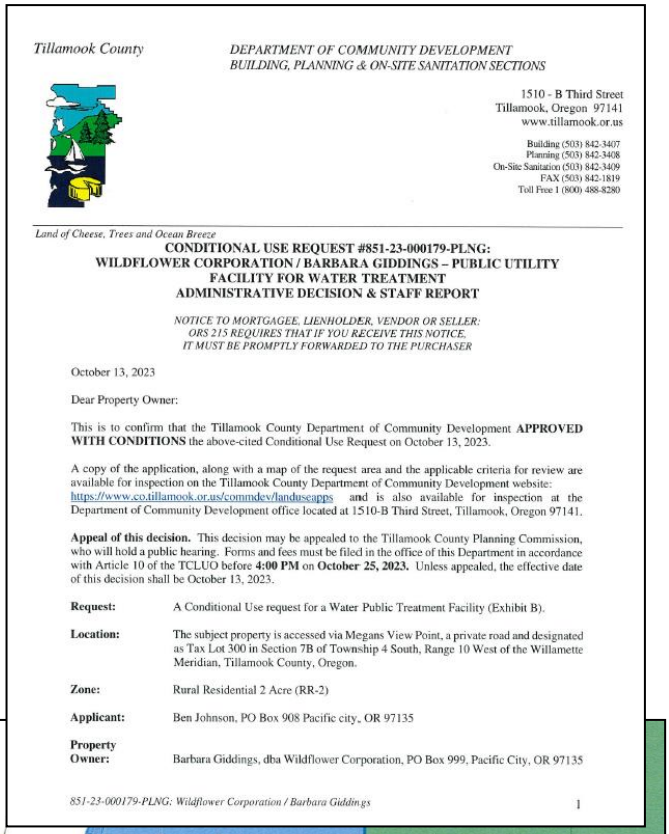
Water Treatment Plant for Wells (WTP-B)

https://www.tillamookcounty.gov/commdev/project/851-23-000179-plng

Request: A Conditional Use request for a Water Public Treatment Facility (Exhibit B).

Location: The subject property is accessed via Megans View Point, a private road and designated as Tax Lot 300 in Section 7B of Township 4 South, Range 10 West of the Willamette Meridian, Tillamook County, Oregon.

Zone: Rural Residential 2 Acre (RR-2)



Tillamook County — *DEPARTMENT OF COMMUNITY DEVELOPMENT*
BUILDING, PLANNING & ON-SITE SANITATION SECTIONS

1510 - B Third Street
Tillamook, Oregon 97141
www.tillamook.or.us

Building (503) 842-3407
Planning (503) 842-3408
On-Site Sanitation (503) 842-3409
FAX (503) 842-1819
Toll Free 1 (800) 488-8280

Land of Cheese, Trees and Ocean Breeze

CONDITIONAL USE REQUEST #851-23-000179-PLNG:
WILDFLOWER CORPORATION / BARBARA GIDDINGS – PUBLIC UTILITY
FACILITY FOR WATER TREATMENT
ADMINISTRATIVE DECISION & STAFF REPORT

NOTICE TO MORTGAGEE, LIENHOLDER, VENDOR OR SELLER:
ORS 215 REQUIRES THAT IF YOU RECEIVE THIS NOTICE,
IT MUST BE PROMPTLY FORWARDED TO THE PURCHASER

October 13, 2023

Dear Property Owner:

This is to confirm that the Tillamook County Department of Community Development **APPROVED WITH CONDITIONS** the above-cited Conditional Use Request on October 13, 2023.

A copy of the application, along with a map of the request area and the applicable criteria for review are available for inspection on the Tillamook County Department of Community Development website: https://www.co.tillamook.or.us/commdev/landuseapps and is also available for inspection at the Department of Community Development office located at 1510-B Third Street, Tillamook, Oregon 97141.

Appeal of this decision. This decision may be appealed to the Tillamook County Planning Commission, who will hold a public hearing. Forms and fees must be filed in the office of this Department in accordance with Article 10 of the TCLUO before **4:00 PM** on **October 25, 2023.** Unless appealed, the effective date of this decision shall be October 13, 2023.

Request: A Conditional Use request for a Water Public Treatment Facility (Exhibit B).

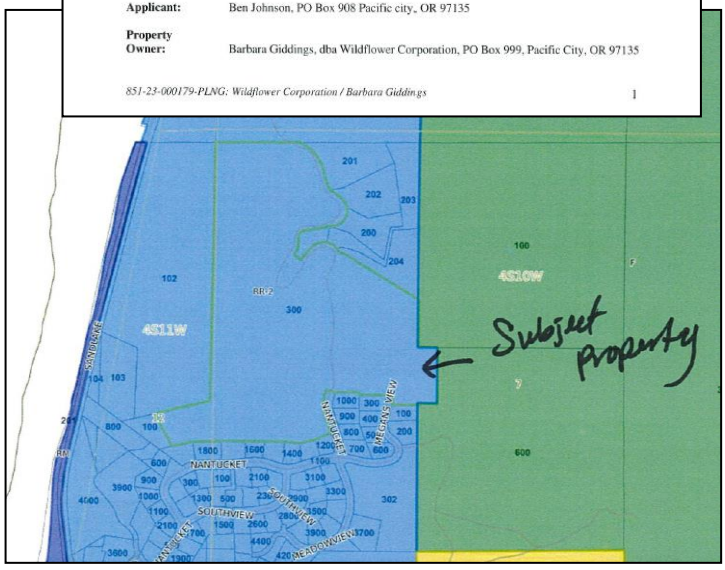
Location: The subject property is accessed via Megans View Point, a private road and designated as Tax Lot 300 in Section 7B of Township 4 South, Range 10 West of the Willamette Meridian, Tillamook County, Oregon.

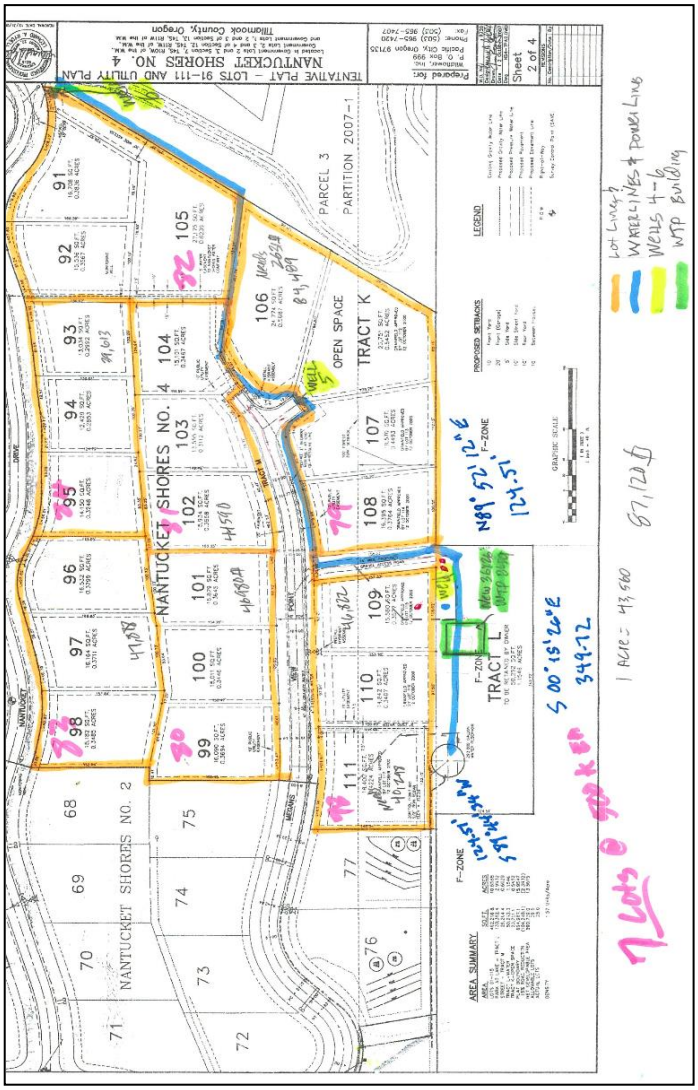
Zone: Rural Residential 2 Acre (RR-2)

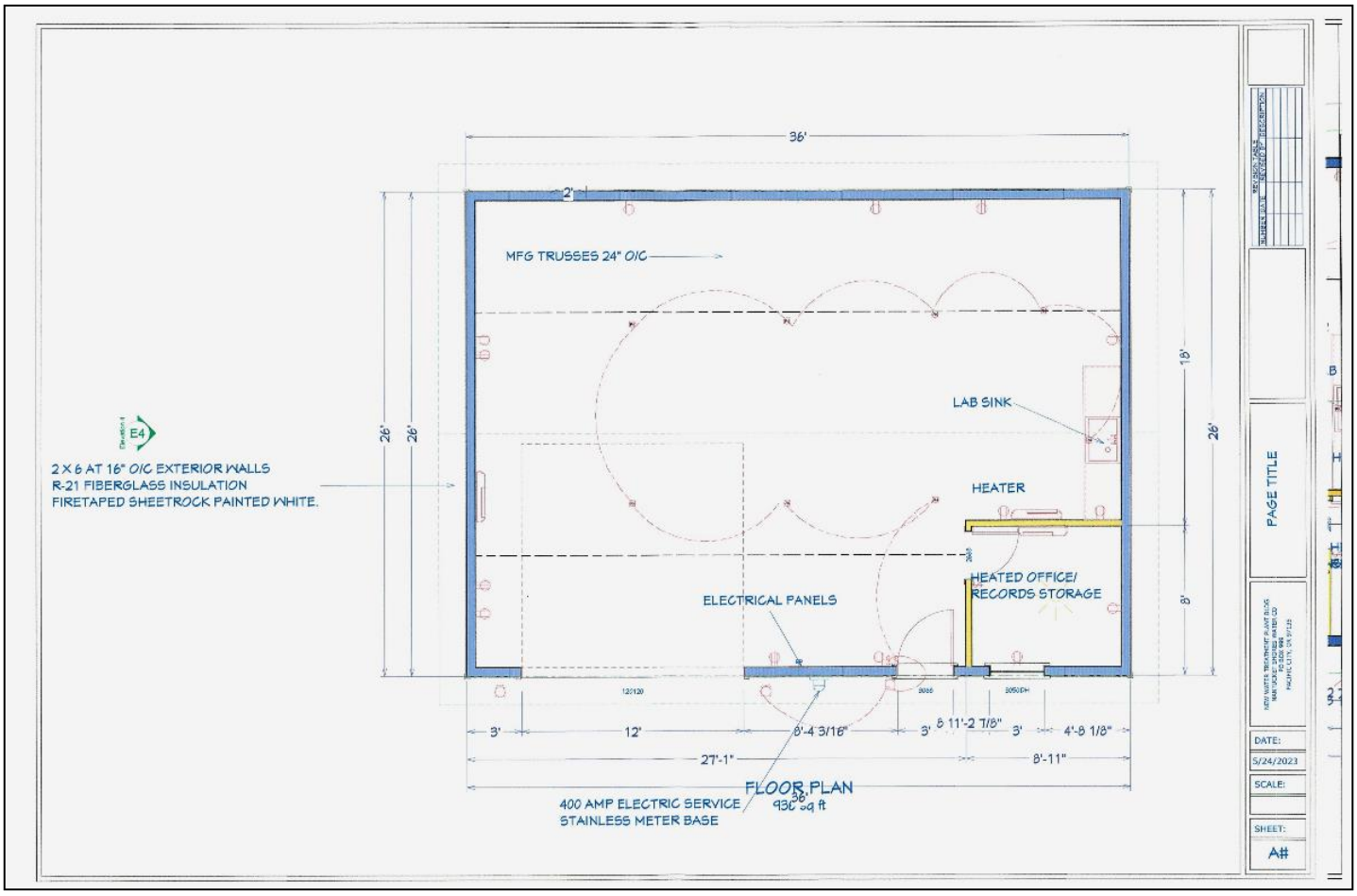
Applicant: Ben Johnson, PO Box 908 Pacific city, OR 97135

Property Owner: Barbara Giddings, dba Wildflower Corporation, PO Box 999, Pacific City, OR 97135

851-23-000179-PLNG; Wildflower Corporation / Barbara Giddings 1






36'
2'
MFG TRUSSES 24" O/C
LAB SINK
HEATER
HEATED OFFICE/
RECORDS STORAGE
ELECTRICAL PANELS
E4
2 X 6 AT 16" O/C EXTERIOR WALLS
R-21 FIBERGLASS INSULATION
FIRETAPED SHEETROCK PAINTED WHITE.
400 AMP ELECTRIC SERVICE
STAINLESS METER BASE
FLOOR PLAN
936 sq ft
26'
26'
18'
8'
3'
12'
8'-4 3/16"
3'
11'-2 7/8"
3'
4'-8 1/8"
27'-1"
8'-11"
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DATE:
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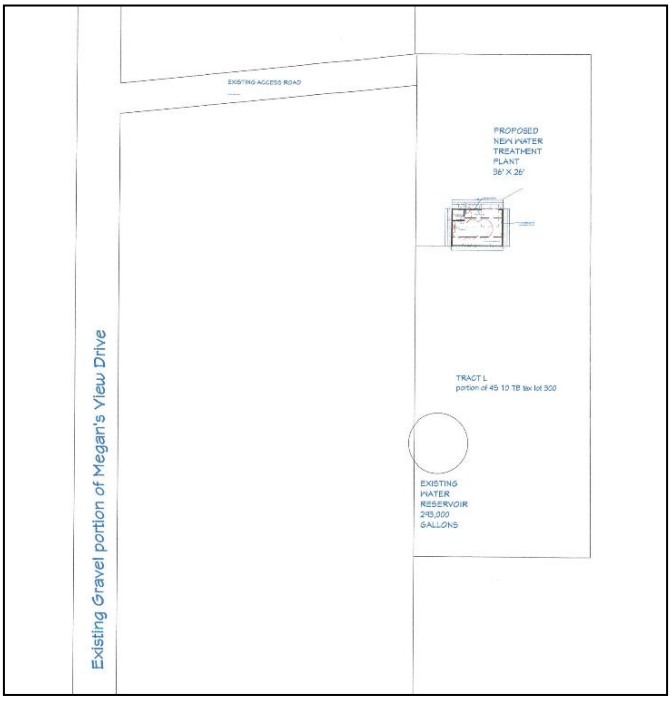
EXISTING ACCESS ROAD
PROPOSED
NEW WATER
TREATMENT
PLANT
36' X 26'
TRACT L
portion of 45 10 TB tax lot 300
EXISTING
WATER
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245,000
GALLONS
Existing Gravel portion of Megan's View Drive