

Board of County Commissioners Business Meeting Minutes – APPROVED 05/02/2024 I.A.1

A complete video copy and packet including staff reports of this meeting can be viewed at <https://www.clackamas.us/meetings/bcc/business>.

Thursday, April 25, 2024 – 10:00 AM

In person and via virtual technology (Zoom)

PRESENT: Chair Tootie Smith
Commissioner Ben West
Commissioner Paul Savas
Commissioner Martha Schrader
Commissioner Mark Shull
Resident Commissioner Ann Leenstra (I only)

CALL TO ORDER

Chair Smith recessed the Board of County Commissioners and convened the Housing Authority of Clackamas County Board of Commissioners. Resident Commissioner Ann Leenstra joined the meeting.

I. HOUSING AUTHORITY CONSENT AGENDA

- A. Approval of a Construction Contract with A-1 Quality Construction for Public Housing flooring repair and replacement as needed. Contract value not to exceed \$250,000 over 2 years. Funding is through US Department of Housing and Urban Development Capital Grant Funds. No County General Funds are involved.
- B. Approval of a Construction Contract with Greater Purpose Construction, LLC for Public Housing roof repair and replacement. Total contract value is \$187,550 for 120 days. Funding is through US Department of Housing and Urban Development Capital Grant Funds. No County General Funds are involved.
- C. Approval to Apply for a Resilience Hubs and Networks Grant from the Oregon Department of Human Services to support a Resiliency Hub at the Hillside Park Redevelopment Project. The grant value is up to \$1,000,000. Funding is through the Oregon Department of Human Services. No County General Funds are involved.
- D. Approval to apply for a Multifamily Incentive Package from the Energy Trust of Oregon to promote sustainable building systems at the Hillside Park Redevelopment Project. The grant value is up to \$100,000. Funding is through Energy Trust of Oregon. No County General Funds are involved.
- E. Approval of a Resolution to appoint Christopher Aiosa as the Executive Director of the Housing Authority of Clackamas County. No fiscal impact. No County General Funds are involved.

Chair Smith asked if any commissioner wished to remove any item, no requests were heard.

Commissioner Leenstra: "I move we approve the consent agenda as read." Commissioner West seconded the motion. No further discussion was heard.

Clerk Mayernik called the poll
Commissioner Schrader Aye
Commissioner Shull Aye
Commissioner Savas Aye
Commissioner West Aye
Commissioner Leenstra Aye
Chair Smith Aye; motion passes 6-0.

Chair Smith adjourned the Housing Authority Board and reconvened the Board of County Commissioners. Resident Commissioner Ann Leenstra left the meeting.

II. PUBLIC HEARINGS

- A. Public Hearing on the completion of the Child Care Scholarship Program, as required by the federal Community Development Block Grant Emergency Fund. No fiscal impact. No County General Funds are involved.

Health, Housing, & Human Services Director Rod Cook and Children, Family, & Community Connections Division Director Adam Freer briefed the Board on the program.

Chair Smith opened the meeting for public testimony, none was heard. Chair Smith closed the meeting for public testimony.

III. CONSENT AGENDA

A. Elected Officials

1. Approval of Previous Business Meeting Minutes – BCC
2. *Approval of Grant Agreement from the Oregon Department of Justice for Child Abuse Multidisciplinary Intervention Program Services. Total Grant Award is \$1,146,209 (plus projected carry over from FY 22-23 of \$15,949). Funding is through the State of Oregon. No County General Funds are involved. – District Attorney
3. *Approval of Local Subrecipient Grant Agreement with The Children’s Center of Clackamas County for child abuse referral services. Total value is \$1,116,000 for two years. Funding through the Oregon Department of Justice. No County General Funds are involved. – District Attorney
4. *Approval of a grant request with Oregon Criminal Justice Commission for Oregon Behavioral Health Deflection Program. Grant value is \$475,254.50 for 15 months. Funding through Oregon House Bill 4002. No County General Funds are involved. – District Attorney
5. *Approval of a Resolution approving the submission of the Assessor’s County Assessment Function Funding Assistance Grant Application for FY 2024-2025. Total value is approximately \$1,350,000 for 1 year. Funding through the State of Oregon. No County General Funds are involved. – Assessor

B. *County Counsel

1. Approval of a Real Property Conveyance Agreement with the Oregon Liquor and Cannabis Commission. Acquisition costs are approximately \$50,000. Funding is through budgeted County General Funds.

C. Transportation & Development

1. Approval of Amendment #1 to the Intergovernmental Agreement between the City of Happy Valley and Clackamas County relating to the 172nd Ave. Improvement Project. Total project budget is now \$44,871,873, decreased from \$53,278,800. Funding is through the City/County Transportation System Development Charge Joint District Fund, Cash Acknowledgement Funds, and City of Happy Valley Funds. No County General Funds are involved.

D. Technology Services

1. Approval of a Board Order to issue a Purchase Order for networking equipment for the Replacement County Courthouse through a cooperative contract with CDW Government. Total value is \$203,933.50. Funding is through budgeted County General Funds.
2. Approval to apply for State of Oregon Broadband Deployment Program funds for Clackamas Broadband eXchange expansion. Anticipated grant value not to exceed \$5,000,000. Funding is through the Oregon Broadband Office. No County General Funds are involved.

E. Tourism

1. Approval to respond to a Request for Proposals from Travel Oregon for the Regional Cooperative Tourism Program and Oregon Wine Country License Plate Tourism Promotion Program. Anticipated contract value is \$3,200,000 over 8 years. Funding is through State Transient Lodging Tax revenues. No County General Funds are involved.

F. Health, Housing, & Human Services

1. Approval of a revenue grant agreement from the Oregon Department of Transportation for Operations of the Mt Hood Express. Agreement value is \$300,000 for two years. Funding is federal pass-through funds from the Oregon Department of Transportation. No County General Funds are involved.
2. Approval of a revenue service agreement with Ride Connection for operations of Transportation Reaching People. Agreement value is \$211,717 for two years. Funding is through TriMet General Fund. No County General Funds are involved.
3. Approval of a Revenue Intergovernmental Agreement with the Oregon Health Authority for Choice Model Services. Agreement value is \$1,343,063.50 for 18 months. Funding is through Oregon Health Authority. No County General Funds are involved.
4. Approval of Amendment #1 extending the duration and funding of a contract with Dirgesh LLC, dba Econo Lodge Southeast for On-Call Hotel Rooms for temporary housing and shelter. Amendment value is \$1,085,500 for one year. Contract value increased to \$2,106,000 for two years. Funding is through Metro Supportive Housing Services Measure funds. No County General Funds are involved.

5. Approval of a public improvement contract with ASA Construction for the Clackamas Village Project. The contract value is \$3,211,505.75 for 10 months. Funding is through Metro Supportive Housing Services Measure funds. No County General Funds are involved.

Chair Smith asked if any commissioner wished to remove any item, no requests were heard.

Commissioner West: "I move that we approve the consent agenda as read." Commissioner Schrader seconded the motion. No further discussion was heard.

Clerk Mayernik called the poll
Commissioner Schrader Aye
Commissioner Shull Aye
Commissioner West Aye
Commissioner Savas Aye
Chair Smith Aye; motion passes 5-0.

IV. PUBLIC COMMUNICATION

Chair Smith opened the meeting for public testimony.

Brainard Brauer (Oregon City) – Impact on groundwater from improper sewage disposal

Chair Smith closed the meeting for public testimony.

V. COUNTY ADMINISTRATOR UPDATE

County Administrator Gary Schmidt recognized Health, Housing & Human Services staffer Kirsten Ingersoll for receiving the Lifetime Outstanding Service Award from the Conference of Local Health Officials.

VI. COMMISSIONER COMMUNICATION

Commissioner Shull made comments on the upcoming election, the Metro Policy Advisory Committee, Emergency Medical Technician training, and wildfire preparedness.

Commissioner Savas made comments on the County budget process.

Commissioner Schrader made comments on funding for the Replacement County Courthouse and her work on the National Association of County Economic Mobility Leadership Advisory Council.

Commissioner West made comments on public safety, the proposed deflection program under Oregon House Bill 4002 (2024), and US House Resolution 7411 (2024).

Chair Smith made comments on agrotourism and funding for the Replacement County Courthouse.

Chair Smith adjourned the meeting at 10:57 AM.

April 25, 2024

Re: GROUND WATER PROTECTION IN ALL CASES PER OREGON LAW

Transparency is important:

1. I own and run Redland Gas Station and also own the vacant commercial lot at Fischers Mill Rd and Redland Rd since 2012.
2. I am a life long resident of the Redland communityn
3. Redland Community dates back to the 1800's including its own United States Post Office from at least 1896 to 1908.
4. Redland Store was clearly one of the earliest gas stations on the west coast.
5. Redland Store property clearly discharged gasoline, heating oil and most recently continued to discharge sewage into surrounding environment.
6. Redland Store has been in inheritance probate court since early 2023 and being inherited by a Washington State resident relative of the former owners.
7. Since 2012 my suspicions of environmental damage to Redland Community and certainly my properties by Redland Store has grown and I have increasingly encouraged cooperation. Sequence was verbal mention prior to 2017 when Redland Store began investigation only to drop it, 2020 letter from me to Redland Store ownership with no response, resend letter in early 2023 with no response, filing with probate court with little response, my paying for environmental investigation resulting in discovery of gasoline on my vacant lot resulting in cleanup, identification of sewage coming out of a drain pipe known to come from Redland Store with limited cooperation but no accountability, and my filing civil law suit against Redland Store and respective parties also with no acceptance of responsibility.
8. Continued denial of drain pipe coming from Redland Store and so cleaning and cameras were sent up from my vacant lot to prove were the 6" clay pipe originates, no other sources, and discover 4" pipe inserted inside pointing to directly to sewage source.
9. This gained some level of cooperation and some level of admission of sewage issue in the face of overwhelming evidence yet no action.
10. My attorneys then this year on my behalf filed an injunction with the court to compel Redland Store to stop discharging sewage essentially directly onto my property and then down gradient to other properties. Secondly to compel to stop dumping sewage directly into permanent ground water since what Redland Store calls a cesspool is far deeper than permanent ground water. Third to test bottom of well for petroleum contamination. Fourth to disconnect the drain pipe to my and down gradient properties to cut off further harmful direct environmental discharges.
11. This resulted in some action. Redland Store has received a septic permit to put in a proper septic system minimal with no wash sinks or public restroom. Redland Store has placed a porta poti, pumped some sewage out of cesspool well pit, piping connection likely remains, reportedly removed oil tank from basement of store and continued to argue no responsibility.

I Brainard Brauer coined a phrase the middle of last year that to my knowledge is unique and it goes "complying with insanity is dangerous" and will add most notably to our ability to think.

Here we have an insanity debate namely – Is a cesspool a cesspool anytime sewage is dumped into it regardless of depth. So if a cesspool, do we narrowly use Clackamas County Soils process and narrowly use DEQ soils process?

I am asking this commission, as Clackamas County elected representatives, to bring at least Clackamas County in full compliance with Oregon Law to protect our ground water.

I do not blame Clackamas County soils so ask you do not either in no small part since DEQ is not, in my opinion and by Oregon Law, coordinating with Oregon Water resources when permanent ground water is clearly impacted. The Oregon State water master is guided by present policy, as voiced verbally, to focus on quantity of water and not quality since quality it is considered by policy to be DEQ yet law says otherwise for protection. The research shows that protection on the other hand is specifically defined to be under the state water master by statute and administrative rules. Maybe someone can have the “insane” debate of who should be responsible and if one property or a municipality is worth assigning a public servant to oversee. Ok, so do we need a fee process or fine process to protect our ground water in all cases and follow Oregon Law? Do we only enforcement when the fee or fine process pays for the staffing?

You might be shocked as I am. You might even think we have not done our home work but we have. I learned, as you may be now, that back in the day hand dug drinking water wells were commonplace going down 20 to 60ft. If someone really dug a cesspool and found ground water at 10 to 15ft, would they then pump and continue digging another 15ft to 30ft into this ground water just to create the maximum pollution of ground water. I someone did then it is a violation of law, common sense one would like to think, and by law in all cases must be properly cleaned and decommissioned.

State law, as I read it, required any pit getting to within 4ft of permanent ground water to fall under State Water Resources and not DEQ to protect.

Please immediately bring Clackamas County in compliance in all cases with Oregon Law as defined in statute and administrative rules under Oregon State Water Resources. Oregon State Water Resources does in fact have a process in place for well abandonment which likely should be the same process for any pit impact to permanent ground water. Simply protect our permanent ground water from present and potential future contamination.

I do reflect and mention the obvious that even the Romans knew not to dump sewage into ground water.

Sincerely,

Brainard Brauer
(503) 238-1414
18876 S. Lyons Rd
Oregon City, OR 97045

James C. Brown & Associates, P.C.

Law Offices

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JAMES C. BROWN

Background

- Attorney in private practice: James C. Brown & Associates, P.C. 1995 - present.
- Attorney with Bogle & Gates, 1986 - 1995, Partner 1990 – 1995, head of B&G’s Oregon environmental practice group.
- Environmental Compliance Coordinator: Tektronix, Inc., Corporate Environmental Services, Beaverton, Oregon, 1983 - 1986.
- J.D., Northwestern School of Law of Lewis and Clark College, 1983.
- Public Health Program Specialist, Oregon State Health Division, Office of Environmental and Health Services, Portland, Oregon, 1979 - 1983.
- M.S., Zoology with a Major in Parasitology with emphasis in Microbiology and Chemistry, Brigham Young University, 1976.
- Public Health Inspector, Josephine County Health Department, Environmental Health Services, Grants Pass, Oregon, 1975 - 1979.
- B.S., Zoology, Brigham Young University, 1973.

Practice/Experience

Mr. Brown’s law practice is focused on federal, state and local regulatory matters relating to environmental law and hazardous substances/hazardous waste management and cleanup. His practice also focuses on environmental aspects of “due diligence” investigations as part of real property transactions; and, the use of Prospective Purchaser Agreements to develop/redevelop contaminated properties while obtaining releases from environmental liability for prospective purchasers and/or current owners.

Mr. Brown’s law practice at Bogle & Gates primarily focused on RCRA (hazardous waste compliance) and CERCLA (Superfund or hazardous substances cleanups), Community-Right-to-Know, and business concerns related to environmental issues.

From 1983 to 1986, Mr. Brown was the Environmental Compliance Coordinator for Tektronix, Inc., Beaverton, Oregon, where he was responsible for regulatory compliance for a major electronics company and hazardous waste generator. He had also primary for obtaining a RCRA treatment, storage or disposal (TSD) permit at their facility.

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April 25, 2024

Mr. Brainard Brauer
18876 S Lyons Rd
Oregon City, OR 97045-8610

Re: Legal Status of the Redland Store's Dug Pit

Dear Brainard:

Due to your concerns over the continuing discharges of *Escherichia coli* (*E. coli*), a fecal coliform bacteria and indicator of sewage contamination, coming from the Redland Store's sewage discharge to the Dug Pit, on the Store's property, and from the Dug Pit to your properties; you have asked for our legal opinion as to the correct regulatory characterization of the existing Dug Pit¹ at the Redland Store, Oregon City, Oregon.

In rendering an opinion, it is based upon the following facts:

1. The Dug Pit was originally hand dug/constructed in the early 1900s. Reportedly, it provided drinking water to the Redland Store.
2. The Dug Pit is approximately four (4) feet in diameter.
3. The portion of the Dug Pit closest to the surface of the ground is lined with a four-foot diameter concrete ring, which is approximately four feet in length.
4. Below the concrete ring, the Dug Pit's walls are lined with brick in a stack bond, where the bricks are laid directly on top of one another with the joints aligned and running vertically down the entire wall. Mortar fills the joints between the bricks,

1. In discussing the nature of hand dug pit at the Redland Store, it is referred to herein as a Dug Pit rather than a *Dug Well* or *Cesspool*, in order to focus the discussion on pit's physical features and the contaminants being discharged from the pit to the environment, including the waters of the state. That information is applied to the appropriate regulations to legally characterize the Dug Pit.

see the Photo below.

5. Based upon the Photo, the static water level in the Dug Pit appears to be less than 20 feet below ground surface.
6. The Dug Pit is greater than twenty-three (23) feet deep and intersects the shallow groundwater, which are waters of the state.
7. After approximately 1936, the Redland Store structure was moved from its original location, the structure was enlarged in size and equipped with running water. At about that time, the Dug Pit was converted to an outhouse and continued to serve as such until approximately 1964, At that time the Redland Store added a restroom, and the sewage from the Redland Store began being discharged directly into the Dug Pit.
8. The Dug Pit's waste waters discharge to a drainpipe that runs from the Dug Pit across S Fishers Rd. and discharges onto your Vacant Lot on the east side of S Fishers Rd.
9. In 2023, we retained Maul Foster Alongi, Inc, environmental consultants, on your behalf, to investigate the discharges and to collect soil and water samples from: 1) the Redland Store property, 2) the west side of S Fishers RD right-of-way (ROW) and 3) the Vacant Lot. The samples' analytical results confirmed diesel contamination in the soil at the three properties. *E. coli* was also detected in the water adjacent to the drainpipe in the ROW and the Vacant Lot's catch basin. The *E. coli* concentrations ranged from 121 MPN/100 ml to 1,720 MPN/100ml. The acceptable limit *E. coli* for drinking water is ≤ 1 MPN/ 100 ml and for surface waters used for bathing/swimming it is 4 MPN/100 ml. The detected *E. coli* concentrations confirm fecal contaminated sewage was being discharged from the Redland Store to the Dug Pit, where it contaminated the shallow groundwaters, and from the Dug Pit to the waters of the state.
10. On March 27, 2024, the Redland Store owners hired the American On Site sewage pumping company to pump the Dug Pit. It is unknown if the pumping reached the bottom of the pit; or if they removed all the liquids and/or sewage sediments from

the Dug Pit.

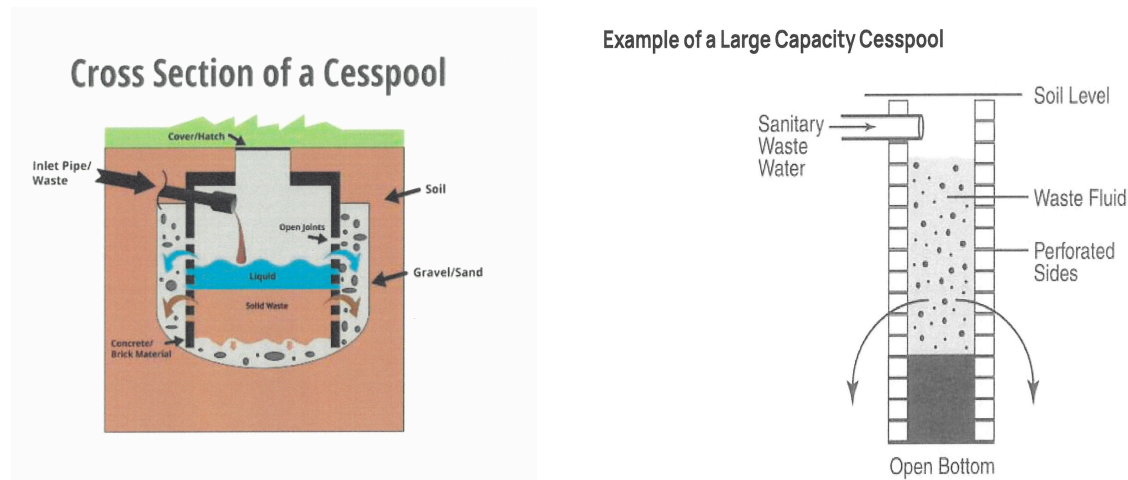
11. On April 10, 2024, two weeks later, another water sample was collected from the Vacant Lot's catch basin. It contained 4.10 MPN/100ml of *E. coli*. Therefore, the March 27th pumping did not remove all the contamination from the Dug Pit.
12. The shallow ground water, in the area, has been measured as having a static water level of 8 feet below ground surface (bgs). This was at the nearby Redwood Dental Clinic's abandoned dug well, 18221 S Redland Rd., located approximately 400 feet east, on the east side of your properties. That dug well was abandoned by filling it with 8 yards of cement.
13. Based upon the Photo below, the static water level in the Dug Pit appears to be less than 20 feet below ground surface.



Photo from the Redland Store's March 27, 2024, pumping of the Redland Store Cesspool. As can be seen, the bricks are stacked vertically on top of one another and the seams between the bricks are filled with mortar. This prevents the Dug Pit's waste waters from flowing from the Dug Pit into the surrounding soils. The Dug Pit's sidewalls lack the voids between the bricks, which are necessary for a cesspool to function properly. By capturing the waste waters within the Dug Pit, rather than allowing the wasted waters to flow

from the pit to be absorbed into the surrounding soils, the Dug Pit functions like a well and not a cesspool.

As you are aware, the Redland Store owners assert the Dug Pit is a cesspool and not a Dug Well. Below are two typical illustrations of a cesspool.



The Dug Pit's interior, in the Photo above neither looks like nor functions like a cesspool.

In determining the proper regulatory classification for the Dug Pit, the rules of both the Oregon Department of Environmental Quality (DEQ) and the Oregon Water Resources Board (WRD) potentially apply.

However, in considering , the abandonment of the Dug Pit, the abandonment must comply with the overriding public policy of the State regarding groundwater and the *waters of the state*². ORS 468B.010(2) directs the Environmental Quality Commission and DEQ actions, it states, "**The water pollution control laws of this state shall be liberally construed for the accomplishment of the purposes set forth in ORS 468B.015.**" (Emphasis added.)

ORS 468B. 015 Policy states: Whereas pollution of the waters of the state constitutes a menace to public health and welfare, creates public nuisances, is harmful to wildlife, fish and

2 ORS 468B.005 Definitions (10) "Water" or "the waters of the state" include lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or **underground waters**, natural or artificial, inland or coastal, **fresh** or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

aquatic life and impairs domestic, agricultural, industrial, recreational and other legitimate beneficial uses of water, and whereas the problem of water pollution in this state is closely related to the problem of water pollution in adjoining states, **it is hereby declared to be the public policy of the state:**

...

(2) To protect, maintain and improve the quality of the waters of the state for public water supplies, for the propagation of wildlife, fish and aquatic life and for domestic, agricultural, industrial, municipal, recreational and other legitimate beneficial uses;

(3) **To provide that no waste be discharged into any waters of this state** without first receiving the necessary treatment or other corrective action to protect the legitimate beneficial uses of such waters;

(4) **To provide for the prevention, abatement and control of new or existing water pollution**; ...

ORS 468B.020³ Prevention of Pollution⁴ declares that *pollution of the waters of the state* is contrary to public policy.

ORS 468B.025⁵ Prohibited Activities states that no person can *pollute any waters of the state*

3 468B.020 Prevention of pollution. (1) **Pollution of any of the waters of the state is declared to be not a reasonable or natural use of such waters and to be contrary to the public policy of the State of Oregon**, as set forth in ORS 468B.015.

4 ORS 468B.005 (5) "Pollution" or "water pollution" means such alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state, **which will or tends to, either by itself or in connection with any other substance, create a public nuisance or which will or tends to render such waters harmful, detrimental or injurious to public health, safety or welfare**, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof.

5 ORS 468B.025 Prohibited activities. (1) Except as provided in ORS 468B.050 or 468B.053, **no person shall:**

(a) **Cause pollution of any waters of the state or place or cause to be placed any wastes in a location where such wastes are likely to escape or be carried into the waters of the state by any means.**

(b) Discharge any wastes into the waters of the state if the discharge reduces the quality of such waters below the water quality standards established by rule for such waters by the Environmental Quality Commission.

and doing so is a public nuisance.

By reference, the Oregon Water Resources Commission adopted the Policy of ORS 468B above, see **ORS 536.220(2)(b)**⁶.

The Redland Store Dug Pit's construction functions like a well and not a cesspool. This is because the Pit's sidewalls are solid, with the space between the vertical bricks filled with mortar. The sidewalls do not allow the waste waters to flow through the sidewalls to be absorbed into the surrounding soils. More importantly, the bottom of the Pit intersects the shallow groundwaters. This is apparent in the Photo above, by the static groundwater that is present in the bottom of the Pit.

OAR 340-071-0335 states that a *Seepage Pit's*⁷ depth, which also **includes a cesspool**, at **(3) Construction requirements** (c) states: "The seepage pit **depth must terminate at least 4 feet above the above the water table.**" The static water within the Redland Store's Dug Pit confirms the Dug Pit violates this rule.

Therefore, the Dug Pit is best classified as a *failing system*, under DEQ's subsurface sewage disposal regulations, OAR 340-071-0100(65)⁸. *Failing Systems* must be decommissioned if the system cannot be repaired, OAR 340-071-0215⁹. Because the Dug Pit does not terminate at

...

(3) Violation of subsection (1) or (2) of this section is a public nuisance.

6 WATER RESOURCES POLICIES AND PROGRAMS

ORS 536.220 Policy on water resources generally; integrated state water resources strategy.

(2) The Legislative Assembly, therefore, finds that: ...

(b) **The state water resources policy shall be consistent with the goal set forth in ORS 468B.155.**

7 OAR 340-071-0100(133), "**Seepage Pit**" means a cesspool that has a treatment facility such as a septic tank ahead of it.

8 OAR 340-071-0100(65), "**Failing System**" means **any system that discharges untreated or incompletely treated sewage or septic tank effluent directly or indirectly onto the ground surface or into public waters or that creates a public health hazard.**

9 **OAR 340-071-0215** Repair of Existing Systems

(6) **System owners must decommission failing systems** under [OAR 340-071-0185 \(Decommissioning of Systems\)](#) if the systems cannot be repaired.

least 4 feet above the water table and it intersects the groundwater, it cannot be repaired.

Although **OAR 340-071-0185(2)**¹⁰ allows a decommissioned cesspool to be abandoned by filling it with reject sand or bar run gravel; this does not protect the groundwater from surface contaminants. This is because filling a cesspool with sand or bar run gravel does not seal off the groundwater from surface. To the contrary, by filling the pit with reject sand or bar run gravel, with its porous nature, those materials create a preferential flow pathway for surface contaminants to contaminate the shallow groundwater.

However, the Water Resources Board's *water supply well* abandonment rules for *Dug Wells*¹¹ or *Hand Dug Wells* do protect the shallow groundwater, which is consistent with state policy to protect the *waters of the state*. Further, **OAR 690-200-0020**¹² sets the minimum standard for the "abandonment of water supply wells" and following its adoption "**no water supply well shall be ... abandoned contrary to the provisions of these rules and regulations...**"

The Redland Store's Dug Pit is an Uncased Well, that is best classified as a *Dug Well* or *Hand Dug Well*, see Ftn.11 below. Further, it is an uncased well that intersects a water-bearing formation and must be abandoned according to **OAR 690-200-0020 (2)**, see Ftn. 13 below, and

10 **OAR 340-071-0185 Decommissioning System ...**

(2) Procedures for decommissioning.

(a) Tanks, cesspools, and seepage pits must be pumped by a licensed sewage disposal service to remove all septage.

(b) Tanks, cesspools, and seepage pits must be filled with reject sand, bar run gravel, or other material approved by the agent, or the container must be removed and properly disposed.

11 **OAR 690-200-0050 Definitions**

(40) "Dug Well" means a well in which the excavation is made by the use of digging equipment such as backhoes, clam shell buckets, or sand buckets. (See Hand dug well). ...

(49) "Hand dug well" means a well in which the excavation is only made by the use of picks, shovels, spades, or other similar hand operated implements. (See Dug Well). ...

12 **OAR 690-200-0020 General Statement About the Standards**

(1) The rules and regulations set forth herein provide the minimum standards for the construction, conversion, alteration, maintenance, and abandonment of water supply wells. After the effective date of adoption of these rules and regulations, no water supply well shall be constructed, altered, converted, or abandoned contrary to the provisions of these rules and regulations without prior approval from the Water Resources Department.

April 25, 2024
Mr. Brainard Brauer
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OAR 690-220-0050¹³, which requires that **water supply well report** be submitted to the Department of Water Resources and completed by a licensed Water Supply Well Constructor¹⁴, see Ftn.14 below.

For the reasons set forth above, in our professional opinion, the Oregon Department of Water Resources regulations are the most appropriate rules and regulations to follow to properly abandon the Redland Store Dig Pit/ Dug Well, which intersects the shallow groundwater. The Water Resources regulations are most consistent with the State's overriding policy to protect the waters of the state. Those regulations isolate the Dug Pit's shallow groundwater from potential surface contaminants, and they seal the Dug Pit from 18 feet below land surface to the surface with a cement grout, concrete or unhydrated bentonite. Thereby providing maximum protection to the waters of the state.

If you have any questions, please contact me.

Sincerely,
/s/ James C. Brown
James C. Brown

13 OAR 690-220-0050 - Abandonment of Uncased Wells

(1) **Uncased portions of water supply wells** to be permanently abandoned **shall be completely filled with cement grout, concrete or unhydrated bentonite**: (See Figure 220-1) (Figure 220-2)

(2) **Uncased portions of water supply wells that penetrate a water-bearing formation may be abandoned with alternating layers of cement grout, concrete or unhydrated bentonite and clean gravel throughout the water-bearing zones** in the following manner:

(a) **In all cases, non water-bearing zones shall be filled with cement grout, concrete or unhydrated bentonite.**

(b) **Clean gravel may only be placed in the water-bearing zones** verified by an original water supply well report or other documentation acceptable to the Department. A vertical column of gravel that exceeds a total length of 50 feet shall only be placed with prior Department approval. **Non water-bearing portions shall be filled with a plug of cement grout, concrete or unhydrated bentonite.** Gravel shall not exceed a maximum of 50% of well depth without prior Department approval. Gravel may be placed in multiple water-bearing zones, not to exceed 50 feet for each zone. **In no case shall gravel be placed above 18 feet below land surface.**

14 **OAR 690-220-0030 Permanent Abandonment** (1) Any water supply well that is to be permanently abandoned shall be completely filled in such a manner that vertical movement of water within the well bore, including vertical movement of water within the annular space surrounding the well casing, is effectively and permanently prevented. If a dry or non-producing water supply well is to be permanently abandoned, it shall be abandoned in accordance with these standards. Unless otherwise stated in these rules, **all permanent water supply well abandonments shall be performed by a licensed Water Supply Well Constructor.**