From: Erin Bradley
To: Benton Public Comment
Subject: Oppose LU-24-027
Date: Tuesday, April 22, 2025 7:25:43 AM

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

Erin and Lowell Bradley
38578 Hwy 99W
Oppose Lu-24-027

Benton County Planning Commissioners,

I respectfully request the Benton County Planning Commissioners to deny LU-24-027. This proposed expansion would move the landfill even closer to our property line. We are one of the closest southern neighbors. The buffer land is no longer sufficient due to the growing pile of debris. This proposal seriously interferes with the use of our property. Republic Services is currently in violation of County code 53.12. The last few years we have suffered through noise outside business hours, plastic bags blowing from the landfill, over the trees, onto our property, along with strange plumes of dust like material. Some days the odor is unbearable. The proposed expansion does nothing to align with Benton County's 2040 Thriving Communities Act.

Sincerely,
Erin and Lowell Bradley
38578 Hwy 99W Corvallis, Oregon 97330

From: Erin Bradley
To: Benton Public Comment
Subject: Oppose LU-24-027
Date: Tuesday, April 22, 2025 7:30:02 AM

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

Benton County Planning Commissioners,

July 24th, 2024, at approximately 7:30 pm Republic Services had a fire directly behind their building with the burn off stack. After hearing the Adair Village siren, I turned on the public scanner. To my horror I leaned not only of the fire, but that the fireman could not get in the gate or reach anyone to unlock it. In addition, the fire was right next to the propane storage. I am so grateful for our public responders who extinguished the 1/4-acre fire quickly. If they had not, the unmaintained Republic Services forest that boarders our land would have caught fire. I can throw a stone from my property line onto their forest land. At the time I had 18 head of livestock. I do have 2 livestock trailers but that is not sufficient for an emergency evacuation with NO warning.

May 18th, 2024, two hydraulic lifts caught fire on equipment. Two people driving by called it in. With the amount of methane in the trash pile you would think you would think Republic Services would have staff monitoring 24 hours a day?

There have been many fire alarms due to the burn off stack in the last two years. This made dispatchers question if calls were valid. Our counties resources have been wasted by false alarms. We have lived on edge due to the lack of diligence on Republic Services part. Our property is one of the closest to the proposed expansion. We respectfully request that the Benton County Planning Commissioners Deny LU-24-027

Erin and Lowell Bradley
38578 Hwy 99W Corvallis

From: Erin Bradley
To: Benton Public Comment
Subject: Deny LU-24-027
Date: Wednesday, April 23, 2025 8:45:50 PM

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

Benton County Planning Commissioners,

Our property is just south of the proposed expansion, and we share two land boarders. We have a barn with 13 head of livestock. On an average temperature day, the animals consume or use approximately 200 gallons of water. On hot days it is significantly higher, close to double. This estimate does not include our family of four daily usage. I am very concerned that drainage to these huge excavations could affect our well. This would be in violation of Benton County Code 53.215 (1) as it would place an undue burden on us being an adjacent property owner. I respectfully request you Deny LU-24-027.

Erin and Lowell Bradley
38578 Hwy 99W
Corvallis Oregon 97330

From:	PJ Carter
To:	Benton Public Comment
Cc:	PJ Carter
Subject:	Oppose LU-24-027
Date:	Wednesday, April 23, 2025 3:39:14 PM

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

To the City of Corvallis Planning Commission:

I am sure that others have laid out the arguments against expanding the landfill better than I can. Interference and undue burden seems to be among the specific concerns.

I do want to state my opposition to Coffin Butte Landfill's expansion, per Republic's application LU-24-027.

PJ Carter, aka Paula Jean Carter
5355 Sw Willow Ave
Corvallis, OR 97333

From: Benton Elliott
To: Benton Public Comment
Subject: Public Comment: Coffin Butte
Date: Wednesday, April 23, 2025 5:14:13 PM

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

I join Beyond Toxics and Valley Neighbors for Environmental Quality and Safety in opposition to an expansion of the Coffin Butte Landfill. It is an environmental and financial liability and should be closed when its currently-permitted space is filled. Please say No to this proposal. Thank you.

Benton Elliott

From: Melissa Livingston
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Wednesday, April 23, 2025 8:19:31 PM

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

To the Benton County Planning Commission,

My name is Melissa Livingston, and I am writing to express my **strong opposition** to the proposed expansion of Coffin Butte Landfill.

As a mother of three young boys and a resident of Corvallis for the past ten years, I care deeply about the health, safety, and well-being of my family and my community. My children and I regularly swim and boat on the nearby Willamette River—a treasured public resource that is increasingly threatened by pollution from this landfill. The leachate draining from Coffin Butte is already contaminating our watershed, and with this proposed expansion, that pollution is expected to grow. It must stop. This is not just unacceptable—it is a violation of BCC 53.215(2) and Benton County Comprehensive Plan policies 5.1.2, 5.2.1, and 5.7.4.

Beyond water quality, this expansion poses serious risks to **air quality, climate impacts, and our broader community image.** We are already witnessing increased truck traffic, noise, odor, and fire hazards—problems that will only intensify with a larger landfill. This threatens local wildlife, recreational access, property values, and long-term community well-being. It also puts local housing, future employment opportunities, and the very character of our area at risk.

But what concerns me most is that these risks are not hypothetical. Benton County's own "Talks Trash" final report confirmed that **none** of the "Conditions of Approval" from previous landfill expansions were ever enforced. How can the public be asked to trust that any new conditions will be upheld when the county has a track record of failing to enforce existing ones? Approving this expansion would be a clear violation of BCC 53.215(1) and (2).

This landfill is already incompatible with its surrounding land uses—and this expansion would only make that worse. I urge the Planning Commission to protect the health of our river, our environment, and our community. **Reject this application.**

Sincerely,

Melissa M M Livingston

3619 SE Coral Reef Place

Corvallis, OR. 97333

From: commercial twinfern.net
To: Benton Public Comment
Cc: commercial twinfern.net
Subject: RE: Public Comments on LU-24-027, Coffin Butte Landfill CUP
Date: Wednesday, April 23, 2025 4:39:33 PM

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

Dear Benton County Development Department,

On April 21, 2025 I sent the following e-mail to you with the attached public comments regards the Coffin Butte Landfill, which was supposed to include all public comments received through April 22, 2025. However, I did not receive a confirmation that you received my comments and **did not find the comments in comments portion of the Staff report.**

Can you please confirm that you have received my comments and will include them in the public record?

Thank you very much for taking the time to verify this information.

Warm Regards,
Grant Pease

From: commercial twinfern.net
Sent: Monday, April 21, 2025 12:50 PM
To: publiccomment@bentoncountyor.gov
Cc: commercial twinfern.net <commercial@twinfern.net>
Subject: Public Comments on LU-24-027, Coffin Butte Landfill CUP

Dear Benton County Development Department,

My name is Grant Pease and I live at 3505 NW Marshall Dr., Corvallis, OR 97330. My return e-mail is commercial@twinfern.net.

Please find attached my public comments and testimony with respect to the proposed Coffin Butte Landfill CUP, LU-24-027.

Please confirm receipt of this message and the single pdf attachment for inclusion as Public Testimony for the above application and let me know if you need additional information.

Thank you very much.

With warm regards,
Grant Pease

Grant Pease
3505 NW Marshall Dr.
Corvallis, OR 97330

April 21, 2025

Subject: Deny Conditional Use Permit for Coffin Butte Landfill Expansion, LU-24-027

Dear Benton County Planning Commissioners,

About 30 years ago I interviewed for a job at HP, considering returning to the area where both my father and grandfather attended college. After the interview, I drove out of town to see what the area was like, taking a backcountry route North on Independence Hwy, over to 99W North, then to Airlie Rd and eventually back on Tampico Rd. That spectacular drive cemented my desire to move to Corvallis, and specifically to the Lewisburg area where I now live.

Now, 30 years later I enjoy taking in the natural wonders of our County close to my home. I like to visit EE Wilson Natural Area, an open space area adjacent to Coffin Butte Landfill for bird watching, berry picking, and biking. I, like many Benton County residents, also often bike in the area surrounding the landfill including Tampico Rd, Coffin Butte Rd, Camp Adair Rd, and Independence Hwy.

If the application is approved, and the Coffin Butte Landfill expands, the character of the surrounding areas will change for the worse and it will create a burden to public improvements in the area. Therefore, I strongly urge you to reject the application.

Specifically, the application fails to meet the County development code in at least the following ways:

Proposed CUP would violate BCC 53.215(1) by changing the character of EE Wilson Wildlife Area and Surrounding Areas.

The proposed landfill expansion will negatively impact Benton County citizens' enjoyment of the Open Space zoned area of EE Wilson Area which serves the public with recreational opportunities including archery, shot gun shooting, fishing, bike riding, wildlife viewing, and education as an "outdoor classroom". The expansion will negatively impact the natural character of this Open Space area as the expansion will increase the well documented stench coming from Coffin Butte on some days. It will also degrade the visual character of the EE Wilson resource and increase noise– making a trip to EE Wilson much less attractive. Thus, the expansion would be a clear violation of BCC 53.215(1) because the additional increase in smell, visual blight, and noise from the landfill expansion will seriously interfere with the character of the EE Wilson Wildlife area as it relates to recreational and educational use.

Below, I will focus specifically on the odor issue, though the others are important as well. In essence, Applicant makes the following logical arguments in their Burden of Proof document and subsequent Frist Addendum.

1. There is no existing odor problem.

2. The proposed landfill expansion will increase nuisance odor chemicals by approximately a factor of 2X.

3. Because the 2X odor chemical increase is still below what they believe to be detectable, the expansion will not cause any change of character to the area.

The argument falls apart because there is an ongoing odor problem, and Applicant's own models show that that it will get worse by approximately 2X if this application is approved.

There is an existing odor problem, as anyone who lives, works, or recreates in the area knows. This has been documented, for example, by DEQ and the Coffin Butte Landfill Community Concerns Annual Staff Report, 2023. The fact that Applicant does not replicate the problem through modeling does not prove that there is not a problem.

It's possible that Applicant's odor analysis is faulty for two reasons:

Use of complaint data is not a valid approach to gauging citizen's olfactory experience; the actual experience is likely to be much worse than detected through complaints. There are many reasons why each person who experiences an odor is a nuisance does not complain, including not knowing where or how to complain, believing that complaining would have no impact, and being too busy with other things.

As one example, Applicant states that the following complaint was a "likely" valid complaint:

> "*As I was driving past the Coffin Butte dump on Coffin Butte Road in Benton County, OR on Sunday morning the stench was so strong that I has (sic) to put the car's air on recirculate until I was well north of the dump. It was equally as terrible on my return trip past the dump at about 6:30 PM on 12/29/24 and was smelly even on recirculate well past the Tampico/Soap Creek*" [First Addendum, March 15, 2025, Appendix 1, Pg 5].

This complaint, that Applicant views as "likely" valid, represents the experience of many people -- that is, most everyone driving on 99W near that time -- and yet it is recorded only once. We have no way of knowing how many people smelled the same nuisance odor during that day.

A better way to gauge citizens' experience would be to conduct a scientifically valid survey, including control groups. To my knowledge this has not been done.

In addition, Applicant notes that thermal inversions can be a contributing factor to odor complaints, but that they did not take thermal inversions into account when evaluating odor complaints because they lacked the meteorological data to do so. One reason that Applicant does

not find some odor complaints to be valid may be that they could not take into account thermal inversion impacts.

Therefore, because the complaint sampling does not represent our population's olfactory experience and because thermal inversion meteorological data was not taken into account during modeling of the complaints, Applicant's conclusion that the existing landfill does not have significant odor issues is not supported.

Rather, our community knows and has documented that there is an existing odor problem.

Next, Applicant's modeling shows that the most important chemical odor contributors will increase by approximately a factor of 2X if the expansion is approved. [Page 19 of CBLF 2024 Expansion Application Odor Dispersion Modeling Study.] Applicant focuses on the fact that the absolute value of nuisance chemicals in their model is currently, and will be continue to be, under detectable limits in the proposed expansion [Pg 25 of CBLF 2024 Expansion Application Odor Dispersion Modeling Study]. However, we see from above that their model of the existing issue, at least with respect to residents being able to smell the landfill gases, is very likely incorrect.

The important takeaway from the 2024 CBLF Odor Dispersion Modeling Study is that whatever odor problem exists today will be about twice as bad if the expansion is approved.

The odor problem is already bad and with the expansion would get worse, degrading the character of the area.

Proposed Odor Mitigation Is Not Sufficient

As one proposed mitigation step, applicant proposes Odor Mitigation and Monitoring [OA-10 of Exhibit 21]. There are two problems with the proposed mitigation:

First, Benton County has no way of enforcing the proposed Mitigation and Monitoring. Applicant does not propose any enforcement mechanism and, as Commissioners know, Oregon DEQ has the sole statutory authority to regulate in the area.

Second, the proposed odor mitigation makes very little mention of the monitoring process, or proposed mitigation steps. They propose to make summary monitoring results public annually. As a minimum, if this application is approved with conditions, VLI should be required to (1) to meet a detailed County-mandated monitoring program designed by a mutually agreeable external group with County input, (2) mitigate issues quickly with financial penalties if the mitigation is not successful as shown by subsequent monitoring, and (3) make all monitoring raw data immediately publicly available.

Proposed CUP will likely violate BCC 53.215(1) and BCC 53.215(2) because of the impact to local roads.

As a bike rider, the proposed expansion will have dramatic negative impacts on the character of the area and my use and enjoyment of the surrounding public roads. Because the daily intake of trash is likely to increase, there will be traffic from hauling trash and leachate, smell, and dust on the public roads – even if one stipulates that VLI fulfil their obligations to meet relevant state and federal environmental regulations. These negative impacts are made more certain with the likely elimination of any annual cap on landfill intake tonnage with the approval of this CUP. The number of trucks per day, noise, and smells will go up with daily volume. These changes would be in violation of BCC 53.215 (1) and 53.215 (2), interfering with Benton County bike riders' use and enjoyment of the adjacent roadways and will create a burden on the public improvements and the services available to bike riders in the area.

Conclusion

Like my grandfather and my father, I have enjoyed the country feel of the North Corvallis area in the 30 years since I moved here. I hope that together our community will keep this area as a place for living, recreation, and wildlife.

Because the expansion would violate BCC 53.215(1) and BCC 53.215(2) in several ways, I urge you to reject this Conditional Use Permit to expand operations.

Respectfully,

Grant Pease
3505 NW Marshall Dr.
Corvallis, OR 97330

From: DELAVEGA Marriah
To: *Benton Web BOC; Benton Public Comment
Subject: RE: Benton County Board of Commissioners, Oregon "Public Comment: LU-24-027 CUP Application"
Date: Wednesday, April 23, 2025 11:59:06 AM
Attachments: image001.png

Dear Comm Dev,

Please find the letter below regarding the landfill expansion.

Sincerely,

Marriah De La Vega
Executive Assistant to the Board of Commissioners and County Administrator
D : 541-766-6800 C : 541-368-6985
Email:
marriah.delavega@bentoncountyor.gov
www.Bentoncountyor.gov

From: Benton County Board of Commissioners, Oregon <noreply_wordpress@bentoncountyor.gov>
Sent: Wednesday, April 23, 2025 10:52 AM
To: *Benton Web BOC <bocinfo@bentoncountyor.gov>
Subject: Benton County Board of Commissioners, Oregon "Public Comment: LU-24-027 CUP Application"

From: Ralph G Penunuri <ralartsone@gmail.com>

Subject: Public Comment: LU-24-027 CUP Application

Message Body:

Please reject the Republic Service request for expanding Coffin Butte Landfill.
The basic facts behind the original Coffin Butte landfill contract with Republic Services and proposed expansion are fundamentally unfair, badly skewed and hazardous for Benton County's environment and population.

There is immediate need to thoroughly consider:
– Groundwater and river contamination;
– Improper wetland site;
– Corporate ownership and profit but County responsibility;
– Only 10% of landfill from Benton County;
– Methane and other air pollution health hazards;

– The whole current and proposed situation is in conflict with Benton County Comprehensive Plan “to maintain and improve… air, water and land resources… protect people and property rom natural hazards… vital to the health, welfare and prosperity of Oregon’s citizens.”

There are direct threats and harms to any further landfill expansion. Please seriously take account of the facts and apply the common sense of our governance principles – to thoroughly reject any further Coffin Butte Landfill expansion.

Thank You and All Best Wishes,
Ralph G Penunuri
Corvallis, Oregon
541-760-3069 / ralartsone@gmail.com

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This e-mail was sent from a contact form on Benton County Board of Commissioners, Oregon (https://boc.bentoncountyor.gov)

Submitter's IP Address: 146.75.136.202

From: Caryn Schwindt
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Wednesday, April 23, 2025 6:38:27 AM

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

Please, PLEASE stop the expansion of the landfill. Other counties need to step up and be responsible for their own garbage - somewhere where it won't be directly polluting our water, which is a precious resource! Benton County has more than enough space in our own landfill to last for a long time - we need to stop accepting and mismanaging everyone else's trash too.

We live in Adair and I'm seriously concerned for the air and water pollution impacting my children's long term health. Our children deserve to have clean water and air. It is unfathomable that the landfill is allowed to operate with no enforcement to ensure safe levels of environmental impact, and permitting Republic Services to expand it, while it is actively being mismanaged, just because other countries don't want to take responsibility for their own trash, is even more unfathomable.

Allowing a landfill explanation would be utter negligence by anyone who has the power and responsibility to make Adair a safe and desirable place to live.

Caryn Schwindt
399 NW Calloway Drive
Corvallis, OR 97330

From: Roberta Smith
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Wednesday, April 23, 2025 7:54:05 PM

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

Dear Benton County Planning Commissioners,

My name is Roberta Smith and I live at 118 NW Jackson, #206.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application. This risks the health of local homes in the growing community of Adair Village.

The proposed expansion would **seriously interfere with the character of the surrounding area** and impose **an undue burden on public resources**, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- **Air and water pollution** threaten our local ecosystems and community health
- **Traffic increases** that pose safety risks on nearby roads and pathways
- **Odor and noise issues** that degrade quality of life for residents and visitors
- **Negative impacts on wildlife, recreation, and property values and birds!**
- **Long-term climate and environmental consequences** for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Roberta Smith
Corvallis, OR 97330

From:	Community Development, Benton County, Oregon
To:	Benton Public Comment
Subject:	LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date:	Wednesday, April 23, 2025 7:41:28 PM

Subject of Testimony: Expansion.

Full Name: Laura Long Woerner

Email: lulu.2007@hotmail.com

Street Address: 3200 midvale dr i204

Written Testimony:

My name is Laura. I am a mom of three. I have lived in Corvallis since I went to college in 2010. I have seen subject of the landfill expansion pop up repeatedly.

The people at Corvallis have repeatedly declined this. We have voted to no. The people of Corvallis do not want this and we do not need it.

Please respect the wishes of Corvallis. Not the wishes of some corporate organization that wants to make a buck. We do not need to buy the garbage some other cities. We do not need room for other people's garbage from other cities.
.

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This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 71.236.244.184

From: Maya Abels
To: Benton Public Comment
Subject: LU-24-027
Date: Thursday, April 24, 2025 10:01:53 AM

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

April 19,2025
To: Benton County Planning Commission
Nick Fowler, Chair

This is to express my strong opposition to the expansion of the Coffin Butte Landfill. As a long time resident of Benton County, I have grave concerns about the effect of our air, water and land with this expansion. Please do what is in the best interest of the residents of Benton County and say NO.

As I read through the Benton County Comprehensive plans for our future, I don't see any correlation with the stated objectives and this plan. Specifically I am greatly concerned about the amount of garbage that this landfill already takes in; only seven percent of the total is from Benton County. If the garbage isn't taken here, where will it go? Republic Services owns another land fill across the Columbia River. What makes this land fill a superior choice for more garbage is that it is about 250 feet above the water table and the that 250 feet is mostly clay soil. By the time the toxins and leachates reach the water, they will have been filtered out through the clay and greatly reduced. Unfortunately for our residents, the water table is only slightly above this land fill.

Additionally, by taking in so much other garbage from surrounding areas, the truck traffic on Highway 99 has greatly increased. There are over 265,000 trucks dumping garbage every year; that is a huge number. With that many trucks dumping garbage, there is one truck every minute and a half or 90 seconds! I can't fathom to think about more truck traffic coming to this site.

By the way, I voted for all the County Commissioners when they were on the ballot. I sincerely hope as a constituent, my voice will matter.

Again, I urge you to OPPOSE this expansion.

Sincerely,

Maya Abels
5888 SW Englewood AV
Corvallis, OR 97333

--
Maya Abels
5888 SW Englewood Ave
Corvallis, OR 97333
541-231-4386

maya.abels@gmail.com

From: Maya Abels
To: Benton Public Comment
Subject: LU-24-027
Date: Thursday, April 24, 2025 10:07:32 AM

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

April 19,2025

To: Benton County Planning Commission
Nick Fowler, Chair

This is to express my strong opposition to the expansion of the Coffin Butte Landfill. As a long time resident of Benton County, I have grave concerns about the effect of our air, water and land with this expansion. Please do what is in the best interest of the residents of Benton County and say NO.

Among the many reasons that I oppose this expansion is that the Benton County Commissioners have an abysmal record of following through with asking Republic Services (or their predecessors) to address CONDITIONS. There is absolutely no historical record to show that any conditions previously noted on other expansion efforts were ever addressed. Perhaps it is an issue about time but whatever the reason, if the County were to accept this proposal with conditions, it is very unlikely that the Commissioners would follow through to enforce the conditions.

For this and many other reasons, I strongly urge you to deny this request.

Sincerely,

--
Maya Abels
5888 SW Englewood Ave
Corvallis, OR 97333
541-231-4386
maya.abels@gmail.com

From: Maya Abels
To: Benton Public Comment
Subject: LU-24-027
Date: Thursday, April 24, 2025 10:08:34 AM

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

-April 19,2025

To: Benton County Planning Commission
Nick Fowler, Chair

This is to express my strong opposition to the expansion of the Coffin Butte Landfill. As a long time resident of Benton County, I have grave concerns about the effect of our air, water and land with this expansion. Please do what is in the best interest of the residents of Benton County and say NO.

Toxic chemicals are routinely leached out off the landfill and wind up in the Willamette River. These hazardous pollutants that include mercury, lead, industrial solvents, and "forever chemicals" (PFAs) leach out of the landfill and end up in the Willamette River. In 2021, 31million gallons of leachate were pumped out of Coffin Butte and sent to wastewater treatment plants in Corvallis and Salem, where the leachate passed through treatment plants not equipped to capture PFAs, and then dumped into the Willamette River. Without a credible plan for significantly reducing leachates, a landfill expansion would increase toxic pollution into the Willamette River, putting increased burden on public utilities by further fouling municipal sources of drinking water.

I drink Corvallis water and I recreate on the Willamette River. I can install a better filter in my home to try to capture some of the toxins in the water, but I want to recreate on the River with my dog. I want to kayak and swim and let my dog enjoy the river. Knowing the amount of toxic pollution is frightening and it will be significantly increased if this expansion were to happen. For this and many other reasons, I strongly urge you to deny this request.

Sincerely,

Maya Abels
5888 SW Englewood AV
Corvallis, OR 97333

From: TIM BREWER
To: Benton Public Comment
Subject: Voicing my opposition to landfill expansion
Date: Thursday, April 24, 2025 8:05:21 AM

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

Thank you for hearing our concerns.

My wife and i live about two miles downwind (East) of the Coffin Butte landfill and compost facilities. I have owned my property for over twenty years. Twenty years ago, landfill and composting odors were not an issue for us. But over the last several years, as the landfill grew and the compost facility expanded to include food waste composting, the nasty odors we have experienced at our home have increased tremendously.

The un-godly nasty dump odors Definitely impact the livability of the residential homes in the area. To be very clear, we expect the county commissioners and committee members to be on the side of Benton County residents, over those of a giant for-profit corporation (Republic Services) where is comes to livability issues.

Please deny any further expansion of the landfill, and dont let Benton County become the state's for-profit trash dumping ground.

Timothy Brewer
Amy Rider
7595 nw Springhill Drive

From: Chrystal Young
To: Benton Public Comment
Subject: Conditional Use Permit application LU-24-027
Date: Thursday, April 24, 2025 7:18:57 PM

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

Dear Benton County Planning Commissioners,

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

My name is Chrystal Young and I live at 2108 NE 50th Ave, Portland OR 97213, but I grew up on the property at 38483 Plowshares Road, which my parents purchased in the late 1980s with the promise from the Bunn family that the landfill would never cross Coffin Butte Road.

It was based on that promise that John and Catherine Holdorf built our house and barn with their own hands, tended the property with cattle, at first, and then planted native trees and shrubs to support the wildlife ecosystem and renew that which had been pasture to its original state.

The property is home to historic bunkers from Camp Adair days, a creek that supports a variety of treasured wildlife and unique native species, and, of course, my family home. This home contains our family's memories as well as our financial stability. Without a healthy and safe place to land, my mom and sister, as well as my sister's partner, would be without a home.

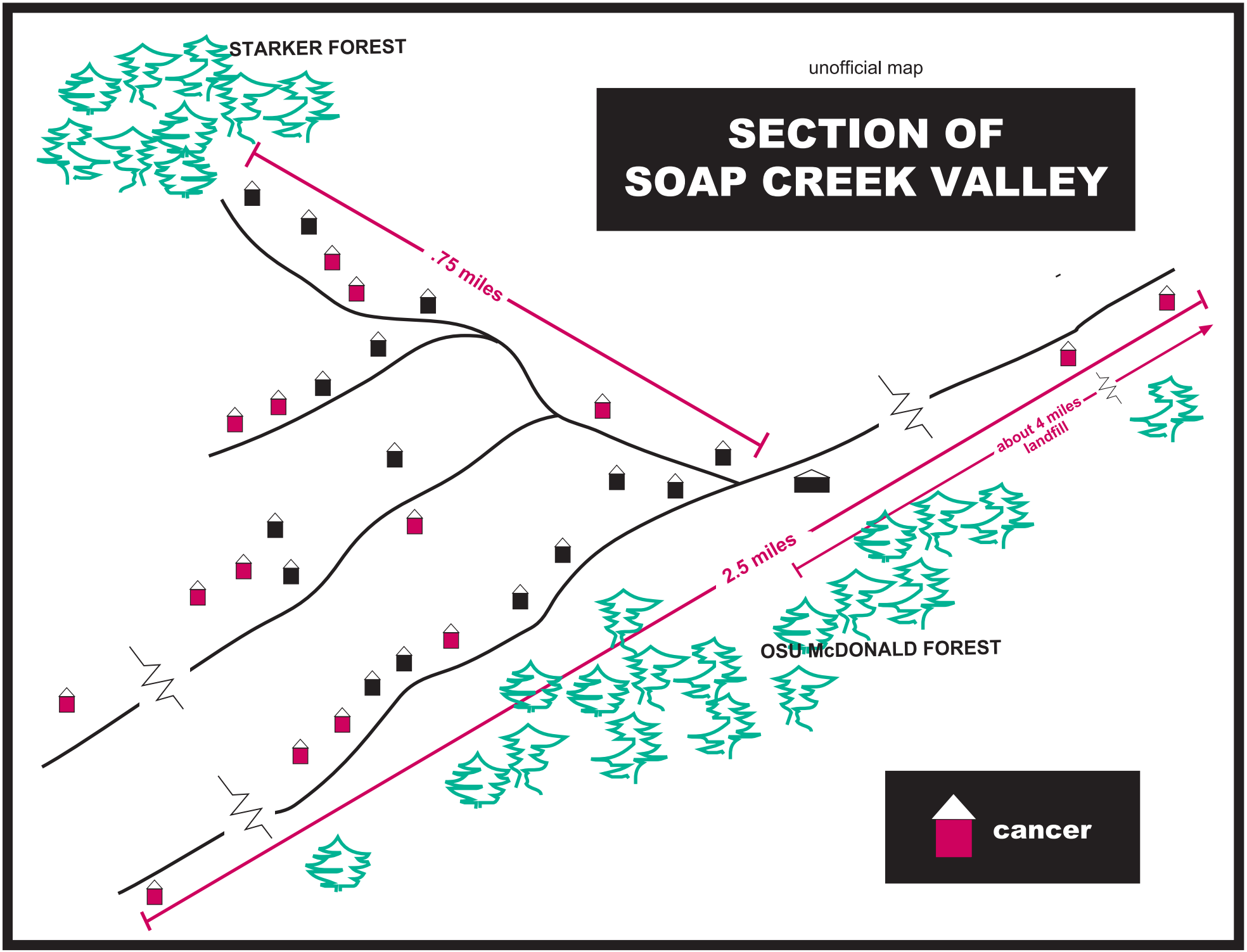
I worry that the expansion of Coffin Butte landfill, which is already bigger than it should be for a county the size of Benton, will destroy my family's home. I worry anbout the groundwater regularly. Already, the smells are more offensive than before. When I bring my children to visit the beautiful land I remember, we drive past the unsightly landfill, triple the eyesore it used to be, and wake up to a rotten egg smell on foggy mornings.

I plead for you to stop the expansion of the landfill and to find money for the county in ways that don't support big business while harming the community. Please stop accepting trash from faraway places—like Portland, where I now live. Does garbage need to go somewhere? Of course. But Coffin Butte landfill is full. Please find somewhere else.

Thank you for your time and consideration,

Chrystal Young

Former landfill-adjacent resident and current educator with Portland Public Schools


STARKER FOREST
unofficial map
SECTION OF
SOAP CREEK VALLEY
.75 miles
about 4 miles
landfill
2.5 miles
OSU McDONALD FOREST
cancer

From: Roxana Kaferly
To: Benton Public Comment
Subject: FW: Oppose/Deny LU-24-027 - resubmit
Date: Thursday, April 24, 2025 4:28:24 PM

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

FROM:
Roxana Kaferly
8811 NE Cori Court
Adair Village, OR. 97330
roxanakaf@gmail.com
Cell: 847-209-8173

I am resubmitting my email submitted on Sunday, April 20, 2025 at 2:50 PM with my testimony attached on Oppose/Deny LU-24-027 because my email and testimony did not appear in the packet.

Dear Benton County Planning Commissioners:

Please accept my attached testimony regarding Coffin Butte Landfill Expansion.
Thank you for this opportunity to submit my testimony.

Roxana Kaferly

From: Roxana Kaferly <roxanakaf@gmail.com>
Date: Sunday, April 20, 2025 at 2:50 PM
To: publiccomment@bentoncountyor.gov <publiccomment@bentoncountyor.gov>
Subject: Oppose/Deny LU-24-027 - resubmit
Roxana Kaferly
8811 NE Cori Court
Adair Village, OR. 97330
roxanakaf@gmail.com
Cell: 847-209-8173

I am resubmitting my email with my testimony on Oppose/Deny LU-24-027 because I checked the prior email and could not open the attachment which said it was corrupted.
Sorry for the inconvenience. Thank you.

Dear Benton County Planning Commissioners:

Please accept my testimony regarding Coffin Butte Landfill Expansion. Thank you for this opportunity to submit my testimony.

Roxana Kaferly
8811 NE Cori Court
Adair Village, OR. 97330
roxanakaf@gmail.com
Cell: 847-209-8173

Testimony of Roxana Kaferly
Strongly Opposing Coffin Butte Landfill Expansion
File Number LU-24-027

I strongly oppose any expansion of the Coffin Butte Landfill and urge the Planning Commission to reject this application.

I came to Adair Village/Corvallis area 3 years ago from a Chicago suburb to retire in this beautiful area. I was drawn to the bountiful nature, Willamette River, open green fields, the ridges of conifers, the forward-thinking conservation and recreational areas as well as the unique and trendy downtown shops and restaurants.

Last year I bought a home in Adair Village which is my biggest investment for retirement. I worry about plummeting property values due to the negative effects of the Coffin Butte Landfill and if I will be able to sell my home once I need to cover the cost of my long-term care.

The mountain of trash dominates the view north of me rather than the scenic natural areas of Adair Village, Corvallis and surrounding cities and counties. Instead, there is the sound of earth moving equipment, the big trucks grinding up the hill, and the clouds of dust and ash floating through the air carrying pollutants created by the Coffin Butte Landfill.

Frequently rotten odors from Coffin Butte Landfill permeate both cities and the entire surrounding areas. It hangs over the areas like a deep dense fog. There is no way to avoid it on some days which forces me to stay inside in violation of BCC 53.215(1).

In violation of BCC 53.215(1) and (2), 25-30 million gallons of leachate liquid from Coffin Butte Landfill per year is dumped into the Corvallis wastewater treatment plant. This means every day 15-20 large tanker trucks go to and from the landfill to the water treatment plant. This leachate from the landfill contains heavy metals - arsenic, lead, mercury, cadmium, etc., pesticides, personal care products, pharmaceuticals, and high concentrations of PFAS (forever chemicals). The Corvallis wastewater treatment plant is not designed for, nor do they have the technology to remove this complex suite of chemical pollutants in the leachate. These chemicals are dumped in the Willamette River and are in the water we drink. This is also in violation of Benton County Comprehensive Plan policy 6.5.5 (*Benton County shall strive for the safe storage, collection, reduction, reuse, recover and appropriate disposal of hazardous waste materials.)*.

The proposed expansion of Coffin Butte Landfill will place an undue burden on public facilities violating BCC 53.215(2). There will be more truck traffic on local roads hauling garbage and more trucks hauling leachate away to locations unspecified. Already I have several small round dents on the front of my car that have come from having heavy Republic Services trucks on the roads in front of me traveling at high speeds with debris falling from their trucks and shooting up rocks from the road.

I am greatly concerned about the risk of wildfires from the Coffin Butte Landfill from the methane release levels and frequent landfill fires being in these moderate wildfire risk lands adjacent to residential homes. There is no one monitoring the flames from methane after 5:00pm. To introduce

Roxana Kaferly, 8811 Cori Ct., Adair Village, OR 97330
roxanakaf@gmail.com 847-209-8173

the accelerant of high methane levels, flames can easily ignite wildfires in this area. In 2022, the EPA documented a massive number of methane leak violations with some measured methane levels higher than their equipment would register – explosive levels in some cases. See attached EPA Report signed 9/19/2022 p. 8 Daniel Heins, Environmental Scientist Air Toxics Enforcement Section of the EPA expressed his concerns "with the areas of tarp that were inflated with and leaking out landfill gas, as detected during the SEM, noting that in addition to compliance concerns with the surface methane standard that such an accumulation of flammable gas creates a potential safety concern." See also attached EPA Report Appendix B: Field Measurement Data pp 12-14 yellow highlighted readings. "F/O" refers to instrument flame out which is a safety feature of the methane detector which has a tiny flame in it which gets snuffed out when it senses the methane concentration is getting high enough that the flame might ignite it. This concentration is called the "lower explosive limit," indicating readings above 5% that have exceeded the TVA measurement range.

Expanding the Coffin Butte Landfill could only exacerbate these issues and create further detrimental damage and risks to the area and the health of the residents living in the surrounding cities and counties. Expanding the Coffin Butte landfill will be detrimental to the statewide goals promoted in the Benton County Comprehensive Plan such as "maintaining and improving the quality of the air, water and land resources of the state," "[v]ibrant, livable communities," "health considerations in all actions," Expansion will also be detrimental to the County's Core Values adopted in its 2040 Thriving Communities Initiative. Any attempt to increase a current harm is a significant and dismaying departure from the County's core value of protecting all its residents. The applicant has not proved by their current operation that the expansion will be any different.

This expansion would be creating a *de facto* "sacrifice zone" in Benton County: a piece of land and the areas around it that the County is allowing to be ruined for the gain of other areas. This is directly contrary to my values and the character and values of Benton County.

In January, EPA Enforcement initiated an action against Coffin Butte Landfill. This action has significant implications: it indicates the EPA has cause to believe the applicant is misrepresenting their environmental compliance. Given the serious nature of this action, I feel the Planning Commission must reject the applicant's Burden of Proof, which relies on the same representations of the applicant's environmental record that the EPA is investigating.

I thank you for the opportunity to submit my testimony and greatly appreciate your great care in deciding these issues.

Roxana Kaferly

Roxana Kaferly, 8811 Cori Ct., Adair Village, OR 97330
roxanakaf@gmail.com 847-209-8173

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 6TH AVENUE
SEATTLE, WASHINGTON 98101

DATE:	See date of Section Chief signature
SUBJECT:	CLEAN AIR ACT INSPECTION REPORT Republic Services Coffin Butte Landfill, Corvallis, OR
FROM:	Daniel Heins, Environmental Scientist Air Toxics Enforcement Section, EPA Region 10
THRU:	Derrick Terada, Acting Section Chief Air Toxics Enforcement Section, EPA Region 10
TO:	File

BASIC INFORMATION

Facility Name: Republic Services Coffin Butte Landfill

Facility Location: 28972 Coffin Butte Road, Corvallis, OR 97330

Date of Inspection: On Site Inspection: June 23, 2022
Virtual Conference: July 11, 2022

EPA Inspector(s):

1. Daniel Heins, Environmental Scientist [a,b]

Other Attendees:

1. Ian MacNab, Environmental Manager – Republic Services [a,c]
2. Phil Caruso, Environmental Specialist – Republic Services [a,b]
3. Brock Kienholz, Operations Manager – Republic Services [c]
4. Nikki Wuestenberg, Operations Support (Nationwide) – Republic Services [a]
5. Melissa Green, Environmental Consultant – Weaver Consultants [a]
6. Yuki Puram, Air Inspector & Permit Engineer – Oregon Department of Environmental Quality [a,b]

[a] Attended virtual conference
[b] Present for all of on-site, including SEM
[c] Present during on site conferences but not during SEM

Contact Email Address: imacnab@republicservices.com

Facility Type: Muncipal solid waste (MSW) landfill

Purpose of Inspection: Surface emissions monitoring (SEM) and evaluating compliance with landfill air rules.

Regulations Central to Inspection: 40 C.F.R. Part 60, Subpart WWW; Oregon State Plan for 40 C.F.R. Part 60, Subpart Cf; 40 C.F.R. Part 63, Subpart AAAA

On Site (6/23) Arrival Time: 09:00
On Site (6/23) Departure Time: 17:50
Virtual Conference (7/11) Start Time: 13:00
Virtual Conference (7/11) End Time: 15:00

Inspection Type:
☐ Unannounced Inspection
☒ Announced Inspection

SITE OVERVIEW

The following information was obtained verbally from Republic Services representatives, including their consultants, during the virtual conference, unless otherwise stated.

Operations Overview:
The Coffin Butte Landfill (the "Landfill") is owned and operated by Republic Services ("Republic"). Republic acquired the Landfill in 2008. Republic representatives were uncertain of exactly how old the Landfill is, stating that they believed it began as a military dump site in the 1940s. Daniel Heins confirmed this via information online from DEQ, which stated that landfilling began in the 1940s in association with Camp Adair. The areas that predate the Resource Conservation and Recovery Act of 1976 (RCRA) have a clay foundation. Some historic waste that predates the 1970s has been re-located from these unlined sections to the post-RCRA lined areas to facilitate construction of future lined cells in those areas.

The Landfill is permitted for 178 acres and has a permitted capacity of 35,514,471 according to the Landfill's 2020 Part 98 Greenhouse Gas Report. The Facility receives approximately 3,500 to 4,500 tons per day of waste. Wastes received include MSW, petroleum contaminated soils, construction and demolition (C&D) waste, C&D material recovery facility (MRF) residuals, and other industrial wastes. Based on current waste acceptance rate, the Landfill has approximately 20 years left under its current permit. Republic has room to expand the site on its property beyond the current permitted footprint.

Final cover on the Landfill is compacted soils with a synthetic membrane, with penetrations booted and plastic welded. Interim cover is at least 24 inches of soils. Much of the interim cover area is covered in tarps or, in areas without work planned for a few years, a thicker layer of EPDM. In both cases, this is with the primarily goal of reducing water infiltration into the

Landfill. Daily cover is 6 inches of soil or approved alternative daily cover (ADC). Republic uses C&D MRF shaker fines, MSW incinerator ash, and tarps as ADC at the Landfill.

Leachate flows by gravity to sumps and is pumped to covered storage ponds. Leachate collected varies by year based on the weather but typically is around 25 to 30 million gallons. Condensate is routed to the leachate system. Leachate is trucked to local publicly owned treatment works (POTWs). No leachate is recirculated, and no liquid wastes are added to the Landfill.

The gas collection and control system (GCCS) contains over 300 landfill gas (LFG) collection points, including horizontal wells, vertical wells, and parts of the leachate system with gas collection. Collected landfill gas partially routed to a separately owned/operated gas to energy plant run by PNGC Power. The energy plant has five Caterpillar gas engines – three 3516s and two 3520s. Excess gas not routed to the energy plant is controlled via flares at the Landfill. The landfill has two open flares, with capacities of 1000 standard cubic feet per minute (scfm) and 2000 scfm. Recently the Landfill has been collecting 2600 scfm for the full site, with 1600 scfm going to the energy plant and 1000 scfm to the flares.

SITE TOUR — JUNE 23, 2022

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☐ Provided Small Business Resource Information Sheet
- ☒ Small Business Resource Information Sheet not provided. Reason: Not a small business
- ☒ Provided CBI warning to facility

Data Collected and Observations:
Daniel Heins arrived on site and met with the site staff for introductions and a brief site orientation/safety briefing at the Landfill's office. During this meeting, Ian MacNab stated that while there was a Method 21 instrument available and that Phil Caruso is their monitoring technician, that he would not take the opportunity to check EPA readings / provide confirmation readings, as a matter of Republic Services corporate policy. Daniel Heins explained that facilities typically prefer to check and confirm EPA readings and he gave advance notice to provide Republic the opportunity to confirm his TVA readings. Ian MacNab re-iterated that as a corporate policy that they would not provide confirmation readings.

After that brief meeting, Daniel Heins began the SEM. Phil Caruso accompanied EPA for the Surface Emission Monitoring (SEM). EPA showed all readings to Phil Caruso for visual confirmation of the readings and instructed him to state if he had any concerns with EPA's monitoring methods at any point. EPA used a ThermoFisher Toxic Vapor Analyzer 2020 (TVA) to perform EPA Reference Method 21 for the SEM.

In the morning (9:50 - 12:45), Daniel Heins conducted the monitoring with the TVA, covering a loop on the western portion of the Landfill. In the afternoon (13:30 - 17:15), he continued monitoring with the TVA, covering a loop on the eastern portion of the Landfill. Over the course of the day, Daniel Heins identified 61 points in exceedance of 500 parts per million (ppm), exhausting his supply of marking flags. Of these, 21 flagged exceedances were above 10,000

ppm. Many flagged exceedances represented clusters of exceedances at multiple points or broad areas of exceedances. Of the flagged exceedances, 26 were at or partially at gas collection wells (including both active and abandoned or decommissioned). Eight exceedances were at leachate cleanouts. Daniel Heins focused monitoring on areas under intermediate cover, though the first six exceedances were in final cover areas. During the afternoon monitoring, Daniel Heins measured multiple exceedances that continued to be above 500 ppm multiple feet in the air, with multiple feet lateral distance from the emission source, indicating substantial landfill gas plumes (flag #26, 46, and 51).

Flag #51 was by a broad area where the tarp was visibly inflated with gas. The tarp was not moving in the wind, it looked to be being pushed out steadily over a wide area towards the top of the south slope on the central area of the landfill, being held down by straps, cover anchors, and sandbags. Neither Daniel Heins nor Phil Caruso could identify any place where the wind could be lifting under the tarps, as the tarp edges were sandbagged and staked down. Daniel Heins measured a concentration of 2% at flag #51 before pulling away to avoid maxing out his instrument. He measured the methane concentration to be 2000 ppm at 3' in the air at this location, indicating a plume of gas coming out from the inflated tarp area. Along the top of this section of tarp, from flag #52 to #54, every post or tarp hole Daniel Heins monitored exceeded the surface methane standard, with readings of up to 7% shown before the instrument maxed out.

Phil Caruso did not dispute any of the readings, though noted that he would not have checked many of the exceedance locations, that he would have spent less time monitoring, or that he would have considered a higher location to be "the ground" when placing his probe 5 to 10 centimeters (cm) above the ground per the SEM regulations.

At an exceedance (flag #1) with a hole in the ground from an animal burrow, Phil Caruso stated that he would have considered the "ground" to be where the ground would have been if an animal didn't dig a hole into it at that location, rather than the ground at the base of the hole, and thus measured from a significantly higher location than Daniel Heins. At an exceedance (flag #2) between overlapped tarp material, with one piece of tarp raised above the other with a gap of air in between, Phil Caruso stated that he would have monitored with his probe above the upper tarp, rather than measuring the 5 to 10 cm from the tarp against the ground.

When Daniel Heins was monitoring a cluster of decommissioned wells with a patch of distressed soil (flag #3), Phil Caruso stated that he would have moved on after not directly getting above 500 ppm within twice his instrument response time even if there was an increase in reading, rather than moving around the penetration points slowly to find maximum reading point and then waiting twice the response time at this maximum reading location.

When Daniel Heins was monitoring at leachate cleanouts, Phil Caruso stated that he does not monitor at these and that they are not fully penetrating the cover. Daniel Heins responded that it was likely that many of these ultimately did penetrate the cover, especially in areas of thinner intermediate cover, and that regardless he recommended checking these as they were proving to be repeated sources of extremely elevated emissions, many over an order of magnitude above the surface methane standard. Phil Caruso stated that he was not required to monitor these. Daniel Heins and Phil Caruso had a similar discussion at the valve box dug into the cover with a reading

of 4% methane (flag #37), with Phil Caruso stating that this was not a penetration and thus he did not have to monitor this.

When Daniel Heins was monitoring at a horizontal penetration of the cover associated with a well (flag #16), Phil Caruso stated that he would not have monitored this as a penetration.

Phil Caruso stated that he would not have monitored the Cell 5 leachate riser that Daniel Heins measured multiple exceedances at, as it was outside of the waste mass.

Photos and/or Videos: were taken during the inspection. See Appendix A.
Field Measurements: were taken during this inspection. See Appendix B.

INSPECTION CONFERENCE — JULY 11, 2022

☒ Provided U.S. EPA point of contact to the facility
☒ Provided CBI warning to facility

Staff Interview:
The Landfill is subject to the Oregon State Plan implementing the Part 60 Subpart Cf Emission Guidelines, having previously been subject to Part 60 Subpart WWW. The Landfill is also subject to Part 63, Subpart AAAA, and has opted-in to demonstrating compliance with the Oregon State Plan through the Subpart AAAA requirements where allowed.

Republic stated that they were unsure if they were excluding non-degradable waste from their maximum gas generation rate calculations in their Design Plan or any other gas modeling runs they have done to size their GCCS. Republic stated that as the operations personnel were not present, they were unable to speak to what types of industrial wastes are received in any further detail. The Landfill does not accept refrigerants. The Landfill receives asbestos. It packages asbestos waste and deposits it in a dedicated asbestos mono-fill that is the only area excluded from the GCCS.

Leachate system components are connected for LFG collection on a case-by-case basis per recommendations of the engineer(s) involved in designing the GCCS.

Republic is aware of a one-off test of the sulfur content of the LFG requested by DEQ and stated that it read at non-detectable levels.

The Landfill has an alternative monitoring plan (AMP) approved by DEQ dating to when the Landfill operated under Subpart WWW. The AMP has allowances for positive pressure, temperatures above 145 degrees Fahrenheit, and elevated oxygen readings. No wells currently are above 145 degrees Fahrenheit. Republic does make use of the positive pressure allowances for wells with high oxygen levels.

Republic stated that they do not consistently check water levels in wells but has done so in the past. All new (at least since 10 years ago) wells are constructed with dewatering pumps, as a best

practice for a landfill in a wet climate. Republic does not typically add pumps to old wells. As wells are typically constructed with steel casings at the Landfill, redrills are rarely needed.

The Landfill has gas migration probes placed outside the area without synthetic liner but has typically seen readings at gas non-detect levels.

For cover integrity monitoring, Republic stated that they look for holes and cracks in the soils and wind damage on the tarps, but that there was no set answer for what degree of tarp damage would necessitate repair.

For surface emissions monitoring, Republic only excludes active filling areas and other areas with active heavy equipment as "dangerous." When Daniel Heins noted that the drawn paths in the submitted SEM reports went straight through the drawn "dangerous areas," Republic stated that the paths on the maps are general and do not reflect the actual walked paths. Republic monitors penetration points during its serpentine path. Phil Caruso stated that in addition to penetrations, he would go off the serpentine path if he saw distressed vegetation or cracks in the cover, and that those were the only examples of places where visual observations indicate elevated concentrations of landfill gas that he considered. Republic was unable to speak to the what the historic SEM exceedance rate had been in past surveys.

Daniel Heins asked if the GCCS was operational on the day of the SEM inspection or if there was anything different from standard operations that could have impacted the results of the monitoring. Republic stated that nothing was operating differently than normal, with all wells in operation and collection running. Republic did note that construction above exceedance flags #48 through 58 would have impacted the cover in the construction area.

Daniel Heins asked if Republic viewed the inflated tarps as a concern or something to acted on. Republic disputed that the tarps were inflated with landfill gas, claiming that the wind has blown them up. Daniel Heins noted the extremely elevated methane concentrations detected by the inflated tarps and that the tarps appeared to be in a static inflated state without any steady wind or apparent way for the wind to lift the tarps.

Republic noted that construction of additional gas collection on the top of the Landfill is in progress and will be completed this summer.

Requested documents:
The following documents were requested and supplied ahead of the inspection:

- Two most recent semi-annual NSPS reports
- Results of any cover integrity reports and quarterly SEM monitoring events that have been occurred since the most recent semi-annual
- GCCS map
- Map of cover by type in place (final vs intermediate vs daily cover)

The following documents were requested during the conference and confirmed via subsequent email:

- Constructed acres and acreages by cover type
- Past 5 years of flare monitoring data
- Flare/blower design specs and any performance tests on file for it
- Past year of migration probe data and a map of the probe locations
- Current GCCS Design Plan, along with any versions that have been active in the past 5 years and them most recent LandGEM run used for GCCS sizing (if not in the Design Plan)
- A map of the GCCS showing extent of any horizontal collectors if these are utilized to demonstrate a sufficient density of gas collection
- Landfill cell map and year of first waste placement for each cell
- 2021 Part 98 Greenhouse Gas Report
- Annual waste deposited tonnages by type from 2016 to present
    - Include a list of the primary sources of industrial wastes and a description for any special wastes listed
    - Outline of what wastes (if any) are classified as non-degradable for LandGEM maximum expected gas generation (Design Plan) along with the basis for this classification
    - Outline of what wastes are classified as "inert" for Part 98 reporting along with the basis for this classification
- Rest of the past 5 years of Annual/Semi-Annual Reports
    - Include all NSPS/NESHAP/EG reports, SSM reports, and air permit reports as applicable
    - If the full SEM reports are not included in the above, please include those for the past 5 years
    - Include the most recent SEM reports, or at least as much of it as has been completed by the end of July, even if they are not a part of any final semi-annual
- Any versions of the SSM plan that have been in place in the past 5 years
- Past 5 years of wellhead parameter monitoring
- Past 5 years of gas flow to the energy plant
- Any H2S or sulfur gas testing results from the past 5 years, or most recent if not within the past 5 years
- Map of wells being added this summer since the inspection
- The Alternative Monitoring Plan and approval letter
- Identification of which wells have dewatering pumps
- General description of final cover construction

Concerns:

Daniel Heins expressed potential concerns with Republic's SEM/Method 21 procedures. Despite Republic having seen no more than 6 exceedances in the recent SEM reports supplied ahead of the inspection that included penetration monitoring, including reports with 0 exceedances, he identified 61 points in exceedance of 500 ppm, including 21 points above 10,000 ppm, with 26 exceedances at gas collection wells that Republic should have specifically been monitoring on a quarterly basis since the Oregon State Plan became effective in November 2020.

Daniel Heins expressed concerns with the areas of tarp that were inflated with and leaking out landfill gas, as detected during the SEM, noting that in additions to compliance concerns with the surface methane standard that such an accumulation of flammable gas creates a potential safety concern.

DIGITAL SIGNATURES

DANIEL HEINS
Digitally signed by DANIEL HEINS
Date: 2022.09.19 14:26:56 -07'00'

Daniel Heins, Report Author

DERRICK TERADA
Digitally signed by DERRICK TERADA
Date: 2022.09.19 14:51:00 -07'00'

Derrick Terada, Acting Section Chief

APPENDICES AND ATTACHMENTS

Appendix A: Digital Image Log
Appendix B: Field Measurement

APPENDIX A: DIGITAL IMAGE LOG

Inspector Name: Daniel Heins
Archival Record Location: US EPA SharePoint

2022-06-23 Images

Image #	File Name	Time (PDT)	Flag #	Description
1	20220623_100838.jpg	10:08:38	1	Animal burrow by cleanout
2	20220623_101327.jpg	10:13:27	2	Overlapping tarps
3	20220623_101816.jpg	10:18:16	3	Discolored soil/distressed vegetation by INE9, multiple decommissioned wells
4	20220623_102219.jpg	10:22:19	3	Discolored soil/distressed vegetation by INE9, multiple decommissioned wells
5	20220623_102231.jpg	10:22:31	3	Discolored soil/distressed vegetation by INE9, multiple decommissioned wells
6	20220623_102717.jpg	10:27:17	4	Cleanout
7	20220623_103235.jpg	10:32:35	5	Decommissioned well and surrounding wells by RE8 manifold
8	20220623_103515.jpg	10:35:15	5	Decommissioned well and surrounding wells by RE8 manifold
9	20220623_104050.jpg	10:40:50	6	Decommissioned PVC well (W9?)
10	20220623_105243.jpg	10:52:43	7	Hole in liner
11	20220623_110338.jpg	11:03:38	8	cleanout with gap in liner
12	20220623_111123.jpg	11:11:23	9	Unmarked well with gap in liner and gap between well and dirt, plus nearby holes
13	20220623_111129.jpg	11:11:29	9	Close up on gap on liner and in dirt
14	20220623_111216.jpg	11:12:16	9	Hole in liner near unmarked well
15	20220623_111452.jpg	11:14:52	10	Liner tear and adjacent hole
16	20220623_112408.jpg	11:24:08	11	3V91 Manifold, both at tarp edge and at multiple penetrations
17	20220623_113216.jpg	11:32:16	12	Hole in liner
18	20220623_113733.jpg	11:37:33	13	3V92 wells with tarp gap
19	20220623_114521.jpg	11:45:21	14	3B0V0351 bad liner seal at base
20	20220623_115250.jpg	11:52:50	15	Decommissioned well with tarp tear/gap
21	20220623_115912.jpg	11:59:12	16	3H94 where horizontal intersects tarp
22	20220623_120314.jpg	12:03:14	16	3H94 penetration cluster
23	20220623_120746.jpg	12:07:46	17	Cleanout by unknown well out of liner
24	20220623_121307.jpg	12:13:07	18	Liner that had been pulled back from unknown well by chopped off pipe segment on ground
25	20220623_122009.jpg	12:20:09	19	Unknown well at liner seam

2022-06-23 Images, continued

Image #	File Name	Time (PDT)	Flag #	Description
26	20220623_122332.jpg	12:23:32	20	Riser with bad liner seal
27	20220623_123220.jpg	12:32:20	21	Well 3COV3 with liner gap
28	20220623_140422.jpg	14:04:22	22	Cell 5 leachate riser complex
29	20220623_140538.jpg	14:05:38	22	Cell 5 leachate riser complex
30	20220623_140921.jpg	14:09:21	22	Cell 5 leachate riser complex - pipe connector
31	20220623_140924.jpg	14:09:24	22	Cell 5 leachate riser complex - pipe connector
32	20220623_140927.jpg	14:09:27	22	Cell 5 leachate riser complex
33	20220623_141045.jpg	14:10:45	22	Cell 5 leachate riser complex
34	20220623_142020.jpg	14:20:20	23	Well 5V40 in liner
35	20220623_143317.jpg	14:33:17	24	Tarp anchor
36	20220623_143735.jpg	14:37:35	25	Tarp anchor
37	20220623_144405.jpg	14:44:05	26	4B55 well cluster
38	20220623_144407.jpg	14:44:07	26	Mystery pipe with improvised cap with folded plastic wrap
39	20220623_144923.jpg	14:49:23	27	2V114 at base in dirt
40	20220623_145332.jpg	14:53:32	28	Hole near edge of liner, and in neighboring hole
41	20220623_145705.jpg	14:57:05	29	Tarp edge
42	20220623_150256.jpg	15:02:56	30	Tarp hole and neighboring holes
43	20220623_150616.jpg	15:06:16	31	Hole at tarp anchor
44	20220623_150954.jpg	15:09:54	32	Abandoned well
45	20220623_150957.jpg	15:09:57	32	Liner hole near abandoned well
46	20220623_151520.jpg	15:15:20	33	4V53 - well surrounded by sandbags in lined area
47	20220623_151822.jpg	15:18:22	34	Anchor and nearby liner hole
48	20220623_154015.jpg	15:40:15	35	Cleanout coming out of dirt
49	20220623_154916.jpg	15:49:16	36	Vertical cleanout in dirt
50	20220623_155053.jpg	15:50:53	37	Circular valve box
51	20220623_155522.jpg	15:55:22	38	Hole in liner
52	20220623_160008.jpg	16:00:08	39	Cleanout / hole in liner
53	20220623_160336.jpg	16:03:36	40	Tarp hole and neighboring holes
54	20220623_160711.jpg	16:07:11	41	PH2101, 2H101 - whole cluster of wells (some tarp gaps)
55	20220623_160900.jpg	16:09:00	41	PH2101, 2H101 - whole cluster of wells (some tarp gaps)
56	20220623_161111.jpg	16:11:11	42	3AV68 and nearby hole in liner
57	20220623_161551.jpg	16:15:51	43	2V100 well in tarp area
58	20220623_161847.jpg	16:18:47	44	3V73 well in tarp gap
59	20220623_162101.jpg	16:21:01	45	Tarp stake
60	20220623_162525.jpg	16:25:25	46	Hole in tarp
61	20220623_162743.jpg	16:27:43	47	Tarp edge
62	20220623_163203.jpg	16:32:03	49	tarp edge
63	20220623_163313.jpg	16:33:13	50	2H86 cluster in tarp
64	20220623_163646.jpg	16:36:45	51	Series of tarp tears near inflated tarp area
65	20220623_163710.jpg	16:37:10	-	Tarped slope showing buildup of gas inflating tarps over slope
66	20220623_163718.jpg	16:37:18	-	Tarped slope showing buildup of gas inflating tarps over slope

2022-06-23 Images, continued

Image #	File Name	Time (PDT)	Flag #	Description
67	20220623_163934.jpg	16:39:34	52	Tarp stake
68	20220623_164213.jpg	16:42:13	53	Tarp stake in area of continuously elevated readings
69	20220623_164217.jpg	16:42:17	-	Tarped slope showing buildup of gas inflating tarps over slope
70	20220623_164219.jpg	16:42:19	-	Tarped slope showing buildup of gas inflating tarps over slope
71	20220623_164221.jpg	16:42:21	-	Tarped slope showing buildup of gas inflating tarps over slope
72	20220623_164521.jpg	16:45:21	54	Tarp stake in area of continuously elevated readings
73	20220623_164718.jpg	16:47:18	55	Tarp edge, inflated tarps visible
74	20220623_164914.jpg	16:49:14	56	Broad area of dirt/waste uphill of tarp area
75	20220623_164917.jpg	16:49:17	56	Broad area of dirt/waste uphill of tarp area
76	20220623_165102.jpg	16:51:02	57	2H94 well cluster - all
77	20220623_165319.jpg	16:53:19	58	Tarp edge
78	20220623_165637.jpg	16:56:37	59	3V89 well cluster in dirt
81	20220623_170040.jpg	17:00:40	60	2V113 - well with some tarp wrapped in dirt area
82	20220623_170947.jpg	17:09:47	61	Valve with well at haul road above cell 5

APPENDIX B: FIELD MEASUREMENT DATA

Measured Exceedances

Flag #	Reading	Description	Latitude	Longitude
1	1%	Animal burrow by cleanout	44.69737457	-123.2356198
2	1000 F/O	Overlapping tarps	44.69745665	-123.2357082
3	1000	Discolored soil/distressed vegetation by INE9, multiple exceedances including multiple decommissioned wells	44.69766687	-123.2360485
4	2000	Cleanout	44.69775127	-123.2362152
5	1%	Decommissioned well and surrounding wells by RE8 manifold	44.69786105	-123.236267
6	700	Decommissioned PVC well (W9?)	44.69782839	-123.2365858
7	1500	Hole in liner	44.69865701	-123.2365257
8	1.20%	cleanout with gap in liner	44.69790548	-123.2358232
9	1.20%	Unmarked well with gap in liner weld and gap between well and dirt, plus nearby holes	44.69829911	-123.2354937
10	2.70%	Liner tear and adjacent hole	44.69842096	-123.23558
11	3700	3V91 Manifold, both at tarp edge and at multiple penetrations	44.69885999	-123.2350488
12	2.20%	Hole in liner	44.69830399	-123.2350079
13	5000	3V92 wells with tarp gap	44.69837287	-123.2347328
14	1200	3B0V0351 bad liner seal at base	44.69822886	-123.2340741
15	1200	Decommissioned well with tarp tear/gap	44.69836899	-123.2337448
16	9000	3H94 where horizontal intersects tarp, and multiple penetrations in cluster	44.698248	-123.2334448
17	4700	Cleanout by unknown well out of liner	44.69812972	-123.2337702
18	5500	Liner that had been pulled back from unknown well by chopped off pipe segment on ground	44.69811411	-123.2338379
19	2000	Unknown well at liner seam	44.69804442	-123.2344811
20	8000	Riser with bad liner seal	44.69804447	-123.2345951
21	1220	Well 3COV3 with liner gap	44.69784857	-123.2333245
22	2400	Cell 5 leachate riser complex - multiple risers and at pipe connection	44.70181118	-123.2257475
23	800	Well 5V40 in liner	44.70167582	-123.2273125
24	3000	Tarp anchor	44.70101596	-123.2273626
25	600	Tarp anchor	44.70114084	-123.2274474
26	1%	4B55 at base of cluster as well as top of mystery pipe with improvised cap with folded plastic wrap	44.70115072	-123.2275846
27	4000	2V114 at base in dirt	44.70111214	-123.2278246
28	1% F/O, 3%	Hole near edge of liner, and in neighboring hole	44.70103128	-123.2276965
29	4500	Tarp edge	44.70082423	-123.2275253
30	1%	Tarp hole and neighboring holes	44.70072043	-123.2273274
31	1500	Hole at tarp anchor	44.70068672	-123.227044

Measured Exceedances

Flag #	Reading	Description	Latitude	Longitude
32	3200	At abandoned well and nearby hole in liner	44.70068362	-123.2267606
33	1200	4V53 - well surrounded by sandbags in lined area	44.70057706	-123.2263945
34	1100	Anchor and nearby liner hole	44.7005098	-123.2261782
35	1%	Cleanout coming out of dirt	44.69962827	-123.2287076
36	1200	Vertical cleanout in dirt	44.69926032	-123.2301237
37	4%	Circular valve box	44.69922726	-123.2302603
38	1500	Hole in liner	44.69923732	-123.2303614
39	1200	Cleanout / hole in liner	44.69906809	-123.2308424
40	1600	Tarp hole and neighboring holes	44.69912191	-123.2309496
41	1%	PH2101, 2H101 - whole cluster of wells (some tarp gaps)	44.69926451	-123.230824
42	2%	3AV68 and nearby hole in liner	44.69929347	-123.2310994
43	3% F/O	2V100 well in tarp area	44.69920828	-123.2314229
44	1200	3V73 well in tarp gap	44.69913826	-123.2316593
45	2%	Tarp stake	44.6990841	-123.2318812
46	2%	Hole in tarp	44.69927783	-123.2319267
47	2500	Tarp edge	44.69937083	-123.2319
48	6000	3V74 - whole well cluster	44.69942123	-123.2320147
49	5000	tarp edge	44.69944725	-123.2316747
50	7000	2H86 cluster in tarp	44.69950461	-123.2315035
51	2%	Series of tarp tears near inflated tarp area	44.69964525	-123.2311715
52	2000	Tarp stake	44.69970317	-123.2309795
53	2%	Tarp stake (and every tarp stake between 52 and 53)	44.69985738	-123.2307325
54	7%	Tarp stake (and every tarp stake between 53 and 54)	44.69994174	-123.2304609
55	3%	Tarp edge	44.70001207	-123.2302193
56	800	Broad area of dirt/waste uphill of tarp area	44.70011566	-123.2300539
57	8000	2H94 well cluster - all	44.7001631	-123.2301332
58	2000	Tarp edge	44.70021131	-123.2296507
59	4000	3V89 well cluster in dirt	44.7005688	-123.2284677
60	4000	2V113 - well with some tarp wrapped in dirt area	44.70062987	-123.2276513
61	800	Valve with well at haul road above cell 5	44.70159276	-123.2253808

All readings are given as methane parts per million, except for readings above 10,000 ppm which are given as percent methane. "F/O" refers to instrument flame out, indicating readings above 5% that have exceeded the TVA measurement range.

Calibration and Instrument Information

Daniel Heins used a ThermoFisher Toxic Vapor Analyzer 2020 (TVA2020), designated as TVA A95732. The EPA TVA2020 response time is approximately 4.5 seconds.

	Calibration gas ppm	A95732 ppm
9:15 calibration check	500	500
13:30 drift check	500	464
17:50 drift check	500	462

EPA calibration gases

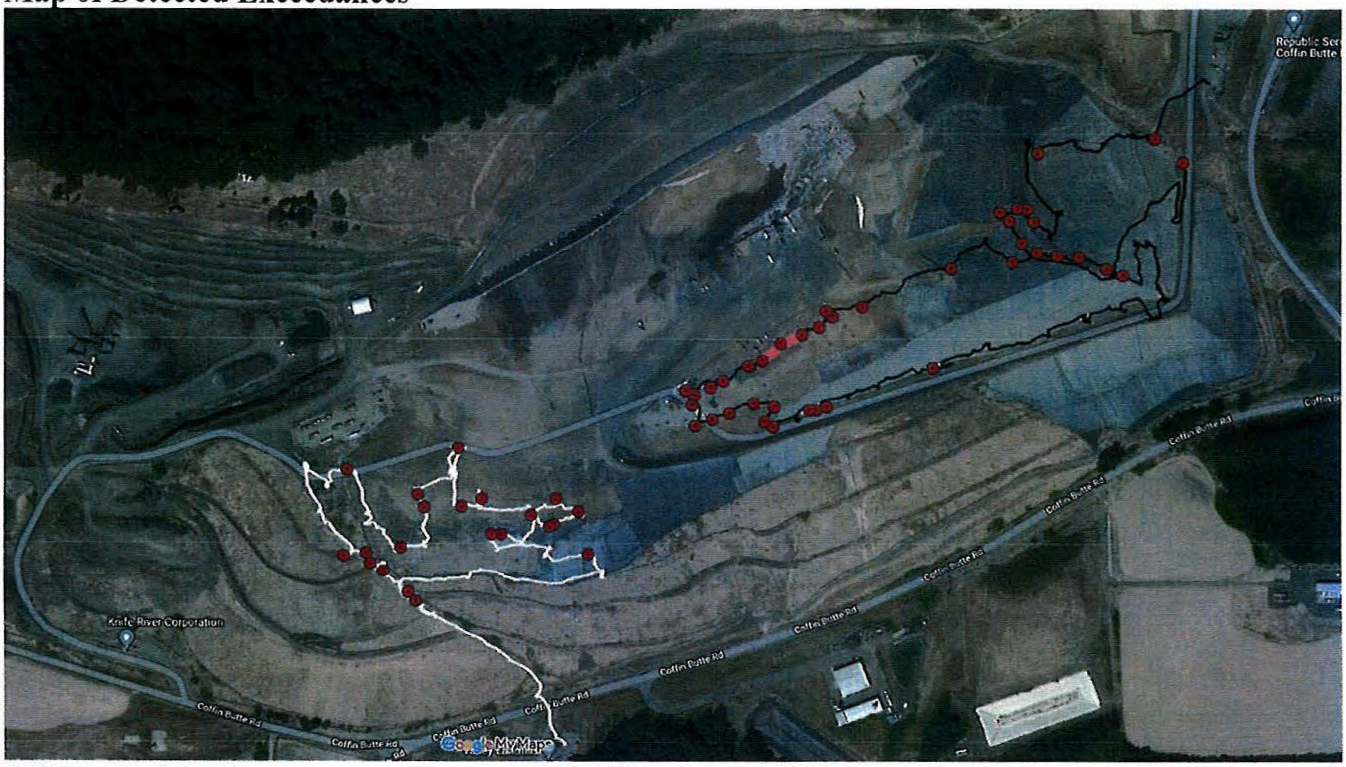
Composition	Lot #	Expiration
Air zero grade THC <1 ppm	DBJ-1-24	March 2023
Methane in air 500 ppm	1-167-64	June 2024

Background readings:

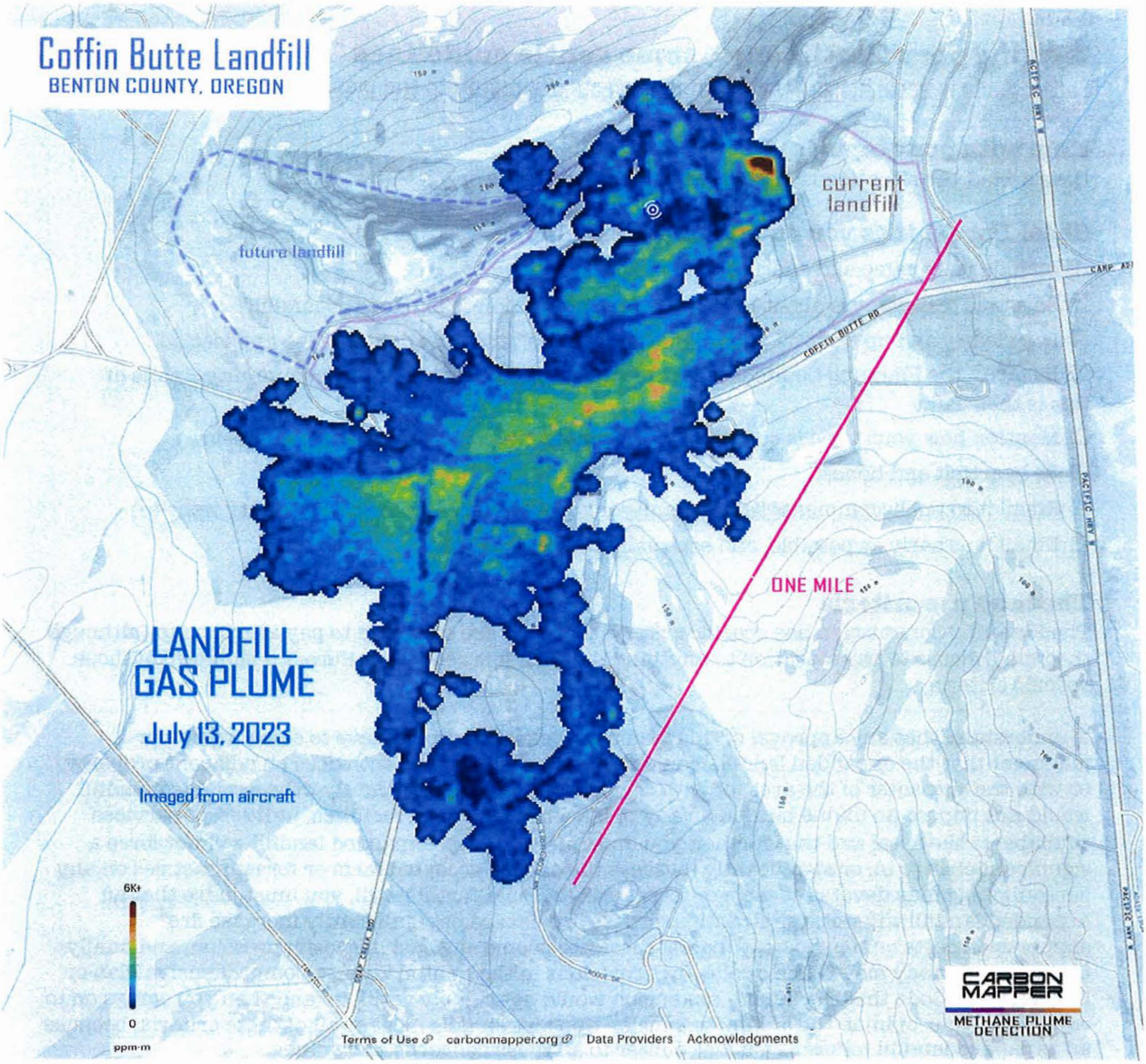
Upwind: 0 ppm

Downwind: 3 ppm

Map of Detected Exceedances



SEM exceedance locations plotted over Google Maps satellite imagery. Approximate monitoring paths included, derived from GPS data. Morning path shown in white, afternoon in black. Line of continuous exceedance at every tarp hole between flags 52 and 54 is highlighted in red.



Source: carbonmapper.org

From: Wendy Krislen-Adams
To: Benton Public Comment
Subject: RESUBMISSION OF COMMENTS SENT 4-21-25
Date: Thursday, April 24, 2025 3:35:07 PM

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

The letter below was submitted on April 21, 2025 at 3:16PM. I did not receive a confirmation so I assume it has not been included in the public comments.

April 19, 2025

Benton County Planning Commission:

Ref: Oppose LU-24-027

My husband bought our home off Tampico Road close to 50 years ago. I joined him a few years later. Over those years, we have seen the little Corvallis dump turn into a major commercial landfill, serving not just Corvallis or Oregon, but multi states.

In addition to the noise, the smell, the garbage, the litter, and the constant truck traffic, we are deeply concerned about the environmental impact this huge operation has on the area, specifically the quality of the air and groundwater. We are concerned about the safety of the our well which we rely on for drinking, cooking and watering our garden. We are concerned about the ongoing methane leaks and the effect it has on the air we breathe.

For many years I have complained endlessly about the unusual, fine particles of dust that permeates our home. A few years ago, we were stunned to learn that coffin Butte has been spreading incinerator ash as ground cover for many years. I fear what other things we might learn about Coffin Butte Landfill.

I am convinced all these things are factors contributing to my recent diagnosis of lymphocytic lymphoma and the lasting effects it will have on my health and treatment. My husband and I are saddened by the degradation of our lovely neighborhood area and fear for the long-term health of our family and neighbors.

We are adamantly opposed to the expansion of Coffin Butte Landfill and hope the entire operation can be closed in the not-too-distant future. We hope the county will devote its efforts towards seeking alternative methods of eliminating waste and join us in the opposition of the expansion.

Sincerely, Wendy Krislen-Adams
38077 Tenax Pl
Corvallis, OR 97330

From:	Carol McClelland Fields
To:	SHEPHERD Gabe; WYSE Nancy; MALONE Patrick; MCENENY Rachel
Cc:	*Benton Web PIO; SCHUETZ Petra; Benton Public Comment; Tracy Loew; Ella Hutcherson; Penny Rosenberg; KLCC News Editor
Subject:	County Communications Error: Yet Another Instance of a Persistent Issue Regarding Public Input
Date:	Thursday, April 24, 2025 4:16:26 PM
Attachments:	Screen Shot 2025-04-24 at 1.47.37 AM.png Screen Shot 2025-04-24 at 11.59.10 AM.png

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

Dear County Commissioners and Administrator:

I think you're aware by now that a major communications error has happened at the County, regarding people's submission of written testimony about the landfill expansion application.

The problem is that the County's News Release says this:

> Other report components include recommendations and comments from agency referral partners and the public.

This sets an expectation that the public testimonies are in the report components, i.e. in the BC3_Compiled Public Comments Part 1 document.

Plus of course the County is legally obligated to pass on the testimonies received to the Planning Commission, and this is apparently the document they were conveyed in.

But when people go to that document and they see what's on the cover page, which is this:

LU-24-027 Staff Report to Benton County Planning Commission

Benton County Exhibit 3 (BC3)
Compiled Written Public Comments through April 22, 2025

It is pretty clear to people that **their testimonies *should* be in there, but they are not.**

Let's just take a moment to fully visualize what has just happened: Community members are engaging with County government due to civic feeling: they want to make their community better, and County government has given them an opportunity to do so, and they have acted upon that opportunity. They have prepared something and submitted it, which took some time and effort (in many cases, a lot of time and a lot of effort) and took some courage as well, to be public and go on record. Some are in organizations, and they have worked within their organization to draft a letter, deliberate upon it, and send it. And County government has reciprocated with a massive show of disrespect for all that effort. Their work has apparently been lost, and the County won't even acknowledge that it has lost it. Instead, the County has shifted the burden of finding out what has happened back onto the community member or community organization.

Given that this is NOT the first time public comments and testimony by experts, residents, and volunteers have been blocked, silenced, limited, unpublished, lost, disparaged, misrepresented, and dismissed, it is

crucial to shine a light on this ongoing pattern.

Question: What is at the core of this persistent County behavior?

As an Industrial/Organizational Psychologist, I wonder what is at the heart of this repeating pattern. Can it be traced to:

Ineptness
Sloppiness
Lack of care
Too few employees
Lack of training

Blatant obfuscation
Strategically cherry picking some and hiding others

Overwhelming quantity of comments/testimonies
System issues

Management influencing the outcome
Influenced by outside forces

Institutional devaluation of public participation by organizational culture ("they are not our client")
Institutional suppression of public participation by defunding/lack of resources/inattention by management ("that's not important in itself, it's just a box we have to check off on the list")
Institutional suppression of diverse/contrary points of view ("these are not good people")

As I considered these options, an axiom in my field came to my mind: ***How you do anything is how you do everything.***

Question: How Does This Persistent Pattern Show Up In Everything the County Does?

If the County treats the people of Benton County and their testimony with such disregard - whatever the reason - how well is the County handling the other elements of the landfill expansion application? How has this persistent issue affected your agreements with Republic Services, your hiring of consultants, your managing of consultants, your Staff Report, your direction to ENRAC and the Planning Commission? How has your persistent issue impacted public input and participation on other county projects?

The County's Comprehensive Plan "is the official policy guide for decisions about growth, development, services, and resource management in Benton County." Its first and second Goals are these, which are taken straight from Oregon State law:

Goal 1 **Citizen Involvement:** To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.

Goal 2 **Land Use Planning:** To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions.

The County's official policy therefore should be to encourage people to get involved and to respect their efforts to *"assure an adequate factual base"* by sharing their own research, experiences, expertise, knowledge, and points of view.

Given the County's values, vision, and guiding principles, this ongoing pattern, this "persistent issue," is appalling and infuriating.

I don’t think that a belated “Part 2” of all the many testimonies that have been excluded is a sufficient remedy for this error.

At a minimum there has to be a public County acknowledgment of this breach of trust. Individual communications to all the parties affected needs to include an apology and explanation of what failed. Again, this situation falls into my area of professional expertise. I would advise a client to do nothing less to begin the process of rebuilding trust with local residents and topic matter experts.

Carol McClelland Fields, PhD, BCC
Industrial/Organizational Psychologist
Business Mentor/Change Catalyst
541 243 3675

Benton County Resident

From:	Community Development, Benton County, Oregon
To:	Benton Public Comment
Subject:	LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date:	Friday, April 25, 2025 11:42:05 AM

Subject of Testimony: landfill expansion

Full Name: David K. Mellinger

Email: dmell3.14159@gmail.com

Street Address: 3798 NW Jameson Dr.

Written Testimony:

Please do not approve the landfill expansion. An enlarged landfill will continue to release toxic substances into our groundwater for *thousands* of years. These will come from batteries, electronics, paint, and many other things that will gradually leach toxins. The landfill liner will last at most decades but will eventually begin to leak, and then we'll have a MUCH bigger problem than we have now. Please do not put this problem on our children, grandchildren, and other descendants.

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 76.144.18.202

From: Susan Nevin
To: Benton Public Comment
Subject: LU-24-027 Oppose/Deny
Date: Thursday, April 24, 2025 12:07:46 PM

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

I am strongly in opposition to an expansion of Coffin Butte landfill. The leachate is damaging to the river, the methane is damaging to the air (and us), the odor is offensive to those living in the vicinity, the land is needed for housing, and an expansion of the landfill is not in harmony with Corvallis's overall mission of providing a healthful place to live.
Thank you,

Susan Nevin
2935 NW 13th St.
Corvallis, Oregon 97330

From:	Community Development, Benton County, Oregon
To:	Benton Public Comment
Subject:	LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date:	Thursday, April 24, 2025 9:12:30 AM

Subject of Testimony: LU-24-027 Coffin Butte

Full Name: susan w nevin

Email: nevinsusan@gmail.com

Street Address: 2935 nw 13th st corvallis 97330

Written Testimony:

1) the expansion would be contrary to Benton County's own "Thriving Communities" values
I strongly OPPOSE the approval of LU-24-027 expanding the Coffin Butte Landfill. I have been
a Benton County resident for the past 18 years. I moved here because its stated values closely aligned with my own…the values of environmental quality, vibrant and livable community, a diverse robust economy, and health and equity for all. These values are stated in the Benton County 2040 Thriving Communities Initiative. I expect my county commissioners and staff to respect those values which are held by the vast majority of Benton County residents. Expanding
the dump would be detrimental to all those values that I hold dear and that drew me to purchase a
home in southwest Corvallis. All these values strike a deep chord with many Corvallis residents.
Therefore, expanding the dump violates BCC 53.215(1) by interfering with the character of the
area by running counter to my values.
2) the expansion would be contrary to Benton County's "Thriving Communities" values
I strongly OPPOSE the approval of LU-24-027 expanding the Coffin Butte Landfill. Expanding
the Coffin Butte dump is a violation of Benton County Code 53.215 (1). The character of this area
embodies the values stated in the Thriving Communities Initiative. The dump in its present state
is already violating these values, and any expansion would both extend and increase this violation. We can, and should, certainly stop its expansion.
3) the expansion would be contrary to Benton County's urgent need for housing
I strongly OPPOSE the approval of LU-24-027 expanding the Coffin Butte Landfill. The Coffin
Butte dump interferes with the character of the area BCC 53.215(1) and imposes an undue burden
on public improvements in the area BCC 53.215(2). Corvallis has an extremely tight housing market.

--
This is a notification that a contact form was submitted on your website (Community

Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 71.193.247.70

From: Carol
To: Benton Public Comment
Subject: Coffin Butte expansion
Date: Friday, April 25, 2025 8:58:36 AM

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

My name is Carol Searls. I live in Iowa City, Iowa however I frequently travel to Benton County as my son, James Searls, lives adjacent to Coffin Butte at 38538 Hwy 99W, Corvallis. My son has lived in your community for the past 14 years, most recently at his current residence for 9 years. He has worked very hard to establish a home safe for his son and himself. His small business Smile Farm is just getting started at this location.
Your proposed expansion (LU-24-027) will create a number of concerns for this area and its residents. Already there is the air quality concern for area residents as well as smell from the already existing landfill. As I understand it there is also a concern about run off from the expansion. My son lives south of the existing facility and expanding it would cause some concerns for water quality for his family, his animals and growing applications. His neighbors run a wonderful therapy animal business and I have concerns for them as well. I believe that all Oregon residents enjoy the wildlife surrounding your beautiful state and this expansion would endanger their habitat, Forcing them to move, as well as litter encroaching in their wildlife home. There is always a concern for possible fire with a facility like this and expanding will make that much more viable. My son moved out to Oregon to enjoy all the amenities of your state, and this is threatening his neighbors and his own homestead, the home he has worked hard to establish and the livelihood he enjoys. My husband and I visit frequently and look forward to enjoying our visits. My husband's health concerns will make visiting more difficult if this expansion goes through. I already worry about my son and his son. I know that many families will be impacted by your decision to expand. Please consider all. Thank you for your time.

Sincerely,
Carol Searls
4248 Lloyd Ave SE
Iowa City, Iowa 52240

Sent from my iPad

From: James Searls
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Thursday, April 24, 2025 10:08:52 PM

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

My name is James Searls.

I own Smile Farm LLC (www.smilefarm.us) which is located at 38538 Hwy 99W, Corvallis, OR, 97330. My land is south and adjacent to the proposed Coffin Butte Landfill expansion. Ground zero.

I strongly oppose the expansion of the dump. Please do not approve the application LU-24-027 to expand the Coffin Butte Landfill. I have concerns about how this will negatively impact my property and farm.

It is our goal to provide perennial and annual crops for our community each year from our land- as well as provide farm services throughout the valley. Our motto is- “We grow smiles one plant at a time.” It makes us feel good to grow specialty crops, give eggs, donate fruits and veggies and regenerate healthy soil and ecosystems. An expansion of the landfill could harm our soil and air quality making it harder to produce crops.

It is hard to smile at our farm sometimes when noxious odors from the Coffin Butte Landfill infiltrate our property. These odors/gases already cause problems and they are out of control. An expansion of the landfill will bring the piles of garbage (future dump cells) physically closer to my farm which will create a bigger odor problem.

Decline the proposal to expand the dump. Help save Smile Farm.

Thank you for your time and consideration.

Best,

James Searls

319 331 9885

james@smilefarm.us

From: James Searls
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Thursday, April 24, 2025 10:12:28 PM

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

Dear Benton County Planning Commissioners,

My name is James Searls.
I live at 38538 Hwy 99W, Corvallis, OR, 97330. This is directly south of the Coffin Butte Landfill. I live here with my son, Burton.

We have a giant farm dog, Leroy, who helps protect our chickens. The chickens and Leroy roam the grounds of our property regularly drinking water from puddles, seasonal streams and water from our well. My son and I drink from the well too.

I am concerned about the hydrological impacts related to the proposed expansion of the Coffin Butte Landfill. How will this affect the quality of our future water? How will this impact our soil? We need reliable, safe water and soil to sustain our home, our farm, our animals and loved ones.

An expansion of the landfill- moving closer to and upstream from my property will threaten my water resources and could contaminate our soil.

Please decline the application LU-24-027 to expand the landfill. I strongly object to this proposal as it threatens our livelihood for the future.

Thank you for your time and consideration.

Sincerely,
James Searls

From: James Searls
To: Benton Public Comment
Subject: Oppose/deny application LU-24-027
Date: Thursday, April 24, 2025 10:25:19 PM

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

Dear Benton County Planning Commissioners,

My name is James Searls and my son's name is Burton. We live next door to the Coffin Butte Landfill at 38538 Hwy 99W, Corvallis, OR, 97330. We are located to the south of the proposed expansion site.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- Air and water pollution threaten our local ecosystems and community health
- Traffic increases that pose safety risks on nearby roads and pathways
- Odor and noise issues that degrade quality of life for residents and visitors
- Negative impacts on wildlife, recreation, and property values
- Long-term climate and environmental consequences for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,

James Searls

3193319885

James@smilefarm.us

From: James Searls
To: Benton Public Comment
Subject: Oppose/deny LU-24-027
Date: Thursday, April 24, 2025 10:38:37 PM

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

Dear Benton County Commissioners

My name is James Searls. I own one of the south neighboring properties of the Coffin Butte Landfill. 38538 Hwy 99W, Corvallis, Oregon, 97330 is the address.

I strongly oppose the expansion of the landfill. Application LU-24-027 should be declined.

I believe an expansion will negatively impact the value of my property, farm and home. An expansion will bring more traffic and machinery closer to my home and family. The dump is already a nuisance for us. We can already smell the horrible odors that bleed out Coffin Butte Landfill. We already hear big machinery and trucks operating during quiet hours of the night/morning. We already have daily litter along Highway 99. I am concerned that an expansion will exacerbate these problems.

I also worry that our wonderful (million dollar) views of Mt Hood, Mt Jefferson, Three-fingered Jack will be tainted by the mountain of trash. Currently, we cannot see the landfill from our home. Sometimes I go out on our deck to enjoy the views and our land only to be hit with a noxious odor caused by the landfill. It is disgusting and worrisome and ruins the moment. The odors cause me to go back inside. IT ISN'T FAIR.

Growing the landfill will allow Republic Services to operate for more years which will prolong our struggles. It will trash the value of our property for more years to come.

Again, I oppose the proposal to expand the landfill. Please deny application LU-24-027.

Thanks for your time and consideration.

Sincerely,

James Searls

3193319885

james@smilefarm.us

Corvallis, OR, 97330

From: James Searls
To: Benton Public Comment
Subject: Deny/oppose LU-24-027
Date: Thursday, April 24, 2025 10:50:58 PM

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Dear Benton County Planning Commissioners,

My name is James Searls. My son and I live at 38538 Hwy 99W, Corvallis, Oregon, 97330.

I am concerned about the proposal to expand the landfill. Specifically, how it will change habitat for Oregon's creatures and wildlife. The fauna that grazes upon our property are wonderful. Natures food chain is fully present here ranging from insects and birds, to elk and mountain lions. This is one of the main reasons I bought this property. I love watching and living among the wildlife here. Expanding the landfill will threaten our property and the surrounding wildlife.

Please do not approve the application LU-24-027 to expand the Coffin Butte Landfill. Help preserve the habitat for our wildlife. I oppose the proposal.

Thank you for your time and attention.

Sincerely,

James Searls

3193319885

james@smilefarm.us

Corvallis, OR, 97330

Albany Area Chamber of Commerce

Benton County Community Development
4500 SW Research Way
Corvallis, OR 97333-1139

publiccomment@bentoncountyor.gov

RE: LU-24-027, Republic Services' CUP Application

On behalf of the Albany Area Chamber of Commerce, I am writing to express our strong support for Coffin Butte Landfill and the proposed expansion that is currently under consideration.

Businesses and residents throughout Linn County, including Albany, depend on Coffin Butte for the safe, efficient, and cost-effective disposal of solid waste. As one of Coffin Butte's largest customer bases, Linn County relies on the facility to manage over 130,000 tons of waste annually. Its continued operation is essential to our region's economic health and stability.

Denying the proposed expansion would result in Coffin Butte reaching capacity much sooner, ultimately leading to its closure. The consequences of such a decision would be far-reaching. Transporting waste 200 or more miles away would dramatically increase disposal costs, placing a disproportionate burden on small businesses, limiting economic growth, and negatively affecting household budgets throughout the region.

Coffin Butte is not just a critical infrastructure asset, Republic Services, which operates the site, is also a responsible employer and community partner. The landfill contributes approximately $8.5 million annually in statewide economic impact and employs nearly 100 individuals. Republic Services has consistently demonstrated a commitment to the well-being of the communities it serves. A prime example of this is the $250,000 grant that made possible the Mid-Willamette Valley YMCA's first adaptive playground in Albany—an investment that speaks to their ongoing community engagement.

Furthermore, we appreciate that Republic Services has listened to community feedback and made substantial revisions to its conditional use permit (CUP) application. The revised plan now includes a shorter, six-year extension—down from the originally proposed twelve—and no longer includes the closure of Coffin Butte Road. These changes demonstrate a good-faith effort to balance operational needs with community concerns.

The Albany Area Chamber of Commerce urges thoughtful and informed consideration of this proposal. Coffin Butte Landfill is a vital resource—not only for Linn and Benton Counties—but for the economic strength and environmental responsibility of our entire region.

Sincerely,

Janet Steele

Janet Steele
President/CEO
Albany Area Chamber of Commerce

Spark growth.

435 1st Ave. W
PO Box 548
Albany, OR 97321

541.926.1517
albanychamber.com

From: Janet Steele
To: Benton Public Comment
Subject: Letter of Support for LU-24-027, Republic Services CUP Application
Date: Thursday, April 24, 2025 12:03:28 PM

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Attached is the Albany Area Chamber's letter of support for Republic Services CUP Application

Please let me know if you need anything else.

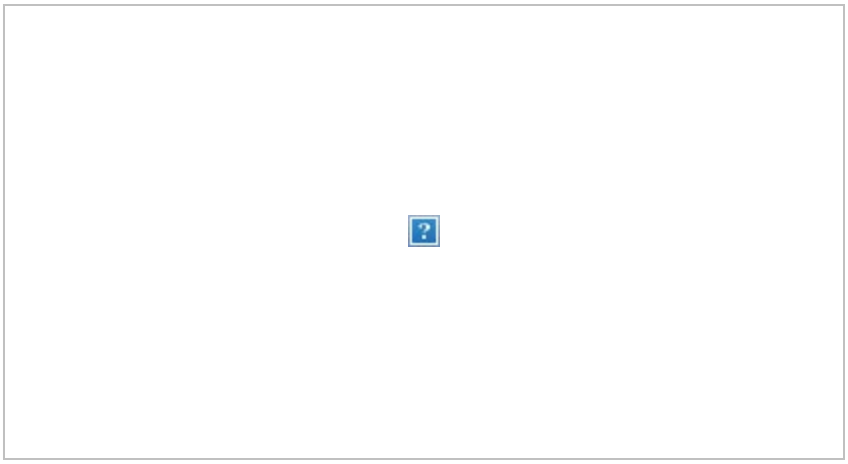
Thank you,

Janet Steele,
President

The Albany Area Chamber of Commerce - Serving as ***Your Business and Community Advocate since 1904.***

Catalysts for Growth, Building Connections / Convening Leaders, Championing Community

435 1st Ave. W
Albany OR 97321
541.926.1517
www.albanychamber.com
jsteele@albanychamber.com



From: Community Development, Benton County, Oregon
To: Benton Public Comment
Subject: LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date: Thursday, April 24, 2025 6:49:39 AM

Subject of Testimony: Coffin Butte expansion

Full Name: Harold Dean Underwood

Email: dean@barakelvineyards.com

Street Address: 8756 NW Springhill Dr, Albany OR @97321

Written Testimony:

I oppose the expansion of the Coffin Butte landfill.
My family purchased our farm land near the sight in the early 1970's. Until about 5 or 6 years ago we rarely noticed the landfill. In recent years the horrible smell at our farm from the dump has become a regular occurrence being an issue at least a few times a month and occasionally weekly. I am concerned that expansion will make this issue even worse and may if continued, inhibit my ability to raise high quality wine grapes in the area effecting my ability to earn a living.
I have also witnessed the terrible damage on Springhill drive's road surface from the traffic accessing the dump. Until the last resurface recently the road was decimated with potholes and became difficult if not dangerous to travel on.
At night the lights and noise from the landfill have become a distraction at times. It is lit up at night and the beeping from equipment running after hours can be heard from our place.
Water quality is a major concern for me as well as my drinking water and irrigation water is only about a mile from the landfill.
Property land values will be negatively impacted if expansion is allowed to take place which will likely negate any financial benefit Benton county receives from the dump.
I think it's time to plan to shut the landfill down rather than expand it.

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This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 98.142.47.8

From:	Tracy Wikander
To:	Benton Public Comment
Subject:	Coffin Butte Landfill Expansion testimony
Date:	Thursday, April 24, 2025 9:24:47 AM

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Dear Benton County Planning Commission,

I am completely against the expansion of the Coffin Butte Landfill. It is my understanding that the reason for the expansion is to bring other Counties garbage to our landfill here in Corvallis. This should not happen and it is morally wrong to have the neighbors and our environment suffer for this expansion. The noise, smell and environmental impact would be substantial and is wrong. Stop this expansion and let other Counties find their own land and smelly place for their own garbage…NOT OURS!

Tracy Wikander, MA, MFT
Embracing Self, Embracing Others, Embracing Life

Confidential Health Information Enclosed: This message is intended for the use for the person or entity to which it is addressed and may contain information that is privileged and confidential, the disclosure of which is governed by applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this information is STRICTLY PROHIBITED. If you have received this message by error, please notify the sender immediately and destroy this email and all its attachments. Thank you.

From:	Kimberly Bales
To:	Benton Public Comment
Subject:	Oppose/deny LU-24-027
Date:	Friday, April 25, 2025 6:02:14 PM

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

My brother, James Searls, has a farm adjacent to Coffin Butte landfill at 38538 HWY 99W in Corvallis, and I strongly oppose any expansion. I live in Iowa and regularly visit Smile Farm to help my hardworking amazing brother and nephew to harvest and enjoy his beautiful property. This expansion would hurt his small business and I fear the health and safety of his family and my family who frequently visit. This expansion would bring so many more concerns of Fire hazards, horrible odor, climate impact, air quality and pollution, water quality, noise disrupting wildlife and more! Next door to Smile Farm is an amazing equestrian therapy business who I fear would also be very impacted by all of these concerns.
Oregon is such a beautiful state that my brother has made a home for 14 years, 9 of which in his current home and farm. A place we love to visit and explore!
Please deny this expansion or any expansion to protect the small amazing business like my brother and his son who have worked very hard to create a fabulous community in this town. He has made a loving home where he gets to do what he loves and enjoy the wildlife and gorgeous views with his son and their animals.

Thank you for your consideration!

Kimberly Bales
4226 Lloyd Ave SE
Iowa City, IA 52240

From:	Community Development, Benton County, Oregon
To:	Benton Public Comment
Subject:	LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date:	Saturday, April 26, 2025 1:50:30 PM

Subject of Testimony: Expansion of Coffin Butte Landfill

Full Name: Mark Boedigheimer

Email: Mark.boedigheimer@gmail.com

Street Address: 3033 NW Snowberry Pl

Written Testimony:

Dear Commissioners and Planning Committee:
I oppose expansion of the Coffin Butte Landfill for a variety of reasons but principally for the environmental legacy and potential horrific financial burden it will likely have on future generations of Benton County residents. Once the landfill is full and the profits Republic Service (or other operator/owner) realizes from accepting garbage/trash from across Oregon has dried up, it seems quit probable Republic Service will distance itself legally and business wise from the enviro legacy and cost burdens. I ask, what protection does Benton County have against this forever legacy?
The landfill liners will fail. For instance, spontaneous combustion within landfill cells will prematurely compromise the cell liners, this is well known, resulting in difficult to mitigate gas and leachate leakage.
I see no logical reason for Benton County to amass the burden, and legacy issues, of trash from across Oregon. Yes it might be polite and politically correct for us in Benton County to accept trash from neighboring communities/counties (e.g Linn, Polk, Lincoln), but beyond that geography we should preserve the life span of Coffin Butte landfill for Benton County residents for as long as possible. Let other population centers of Oregon initiate the citing their own dump and stop pooping in Benton County. Amen.
Oh by the way, what about the constant eye sore of fugitive trash that collects along road sides leading to Coffin Butte? Who's policing that problem? Are we not the least bit embarrassed? And, how about the livability associated with the constant line of contract trash haulers (semi-trucks) bring trash from Marion County and other norther population centers through Monmouth, etc. ?

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This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 76.144.24.90

From:	Pam
To:	Benton Public Comment
Subject:	Please deny LU-24-027
Date:	Saturday, April 26, 2025 2:27:55 PM

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Dear Benton County Planning Commissioners,
My name is Pamela Burnor.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

I am especially concerned about the increase in trucks from other counties hauling trash to the proposed site and leachate being trucked out to locations unknown. The future costs to the county for clean up are another great unknown. We cannot expect that our government will help enforce any health and safety guidelines. Anything goes with our current administration.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- Air and water pollution threaten our local ecosystems and community health
- Traffic increases that pose safety risks on nearby roads and pathways
- Odor and noise issues that degrade quality of life for residents and visitors
- Negative impacts on wildlife, recreation, and property values
- Long-term climate and environmental consequences for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Regards,

Pamela Burnor

Corvallis, OR 97330

From: Dennis DeMeo
To: Benton Public Comment
Subject: oppose/deny LU-24-027
Date: Saturday, April 26, 2025 12:38:01 PM

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To the Planning Commission:

This testimony is about LU-24-027, the application to expand the landfill. I oppose this application and urge denial of the application.
The proposal seriously interferes with the character of the area.
re: Benton County Code 53.215 (1)

Often, here in the northern city limits of Corvallis, I step out of my house and the smell is extremely strong. When there are particles in the air I am hesitant to walk the dog. Humans and wildlife closer to the landfill must be even more seriously affected.
The landfill is already an eyesore that seriously interferes with the character of the area. We are lucky to be in such a beautiful area and expansion is counter to the Benton County Comprehensive Plan that includes maintaining and improving the quality of the air, water, and land resources of the state. Expansion will deteriorate all three.

Thank you.

Dennis M. DeMeo
2858 NW Monterey Place
Corvallis, OR. 97330

From: Bob Larkin
To: Benton Public Comment
Subject: Oppose LU-24-027
Date: Saturday, April 26, 2025 5:18:08 PM

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Dear Benton County Planning Commissioners,

My name is Robert Larkin and I live at 29124 Tampico Rd., Corvallis OR

I am writing because I am totally opposed to Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. The Planning Commission's denial of this application is a huge element in keeping Benton County livable.

I'm sure that you are already very aware that approval of this application would have major impacts on water pollution, air pollution, odor, noise, recreation, livability, traffic and more. In addition, you must be aware that this violates B.C. code 53.215(1) and 53.215(2) as it seriously interferes with the character of the surrounding area. So I will skip right to what I see and feel:

Coffin Butte is already a gigantic pile of Unknown Pollution and Health Hazard.

Nobody could know what is under this mess. Membranes are a token effort to contain the soup. Nobody seems to be sure where it is going either as liquid, solid or gas. Just go there. Look at the pile and imagine the forces sending this gigantic pile of chemicals to "who knows where!" I KNOW WE CAN DO BETTER!

You must reject LU-24-027. The future of Benton County health is in your hands.

Very truly yours,
Robert Larkin
Corvallis, OR

From: R Lesko
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Saturday, April 26, 2025 2:04:10 PM

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

Dear Benton County Planning Commissioners

My name is Ross Lesko, I live at 1488 Roundup drive in Eugene.

I am writing to strongly oppose the proposed expansion of Coffin Butte landfill. I lived in Adair during 2023, and moved away because of the constant fog of methane blowing off of Coffin Butte. This onerous ecological burden is clearly out of alignment with Benton County's 2040 Thriving Communities Initiative, and its emphasis on equity and health. The expansion of Coffin Butte, and corresponding increase in climate change gases, noxious odors, and toxic leachate in drinking water and the Willamette River, is the wrong direction for Benton County.

Please oppose/deny LU-24-027.

Sincerely

Ross Lesko
1488 Roundup drive
Eugene OR 97401

From: Eliza Murphy
To: Benton Public Comment
Subject: DENY: LU-24-027
Date: Saturday, April 26, 2025 12:36:02 PM

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Eliza Murphy
31610 Glenfiddich Way
Eugene, OR 97405
m.eliza.murphy@gmail.com

April 25, 2025

To: Benton County Planning Commision
Re: LU-24-027, Coffin Butte Landfill Expansion Conditional Use Permit Application

I am writing to urge you to oppose Republic Services request to expand Coffin Butte Landfill. I am a registered nurse with expertise in environmental health, specifically the health impacts of climate change and plastics pollution.

Landfills are the third largest source of methane, a potent greenhouse gas contributing to climate change.

Landfills serve as a significant pathway for PFAS, "forever chemicals", to enter the air. So far, PFAS have escaped regulation, despite robust scientific studies that link these chemicals to cancer, birth defects, liver disease, fertility problems, changes in immune systems, and other health problems.

The bloated behemoth rising out of bucolic Soap Creek Valley spews explosive levels of methane gas, leaches a cocktail of synthetic chemicals and heavy metals, belches noxious odors that curtail outdoor activities and lures wildlife

to its exposed guts littered with macro and microplastics scientifically proven to cause harm is a DUMP.

A dump filled with unknown waste, including unspecified industrial waste. Coffin Butte is a dump that operates without sufficient oversight about what gets emptied onto its open face. Republic Services is not required to conduct audits or inspections for vehicle contents to ensure hazardous substances and prohibited materials don't get buried there, making it easy for people to dump anything there – like the bodies of murdered women exhumed from the dump.

Nothing about this disgusting eyesore, nor the trash-spiked roads Republic Service garbage trucks use to get quickly to the dump, fits into the *character of the area*.

Denying the expansion will help preserve the pastoral *character of the area*.

Republic Services is not a good neighbor. It has a history of operating without consideration of the rules and regulations developed to protect human health and the environment. It operates with flagrant disregard of its existing permits, like its failure to completely cover a day's trash.

During an unannounced 2022 EPA inspection to monitor surface methane emissions from the dump, the inspector shortened his inspection because he ran out of flags used to mark the exceedances. Of the 41 places where methane exceeded the legal limit of 500 parts-per-million, 21 spots were leaking methane over 10,000 ppm – enough to cause an explosion!

In the EPA inspector's written report, he noted eight exceedances at the leachate cleanouts. When asked about them, the Republic Services employee accompanying the inspector responded it is "not required" to monitor at those

sites.

Republic Services consistently does only the bare minimum, or only what is legally required by state and federal permits. But, evidence proves the company buries data, underreports its findings, and cheats on how it measures surface methane emissions by exploiting regulatory loopholes.

Approving this CUP request will remove the current daily cap on the volume of trash Republic Services accepts at Coffin Butte.

Once that cap goes away, the dump will accept unlimited amounts of garbage hauled to the site from outside of Benton County. Adding more trash from afar to an additional area of this rural valley will multiply the environmental damages and further compromise public health. And all of the liability will be foisted on Benton County and its residents. Its toxic legacy will be passed on for generations, a legacy that will come at great expense.

More garbage equals higher methane levels,, more leachate, more traffic, higher fire risk, more air, soil and water pollution – all of which adds up to an unacceptable loss of quality of life for area residents, and diminished property values.

A local winery already lost a potential buyer due to touring the place on a "dump day"-- one of those days when the odor from the dump is wretched enough to force people indoors.

.

Republic Services continually behaves like a most unwelcome neighbor – dishonest, cavalier, sloppy, and it treats people, especially its engineers and

operators, as if we're disposable.

What evidence does the county have that Republic Services would comply with environmental regulations in the expansion area? Although tasked with addressing the CUP, I ask each of you to ask yourselves if Republic Services is trustworthy.

It's crucial to put the expansion request into a broader context. The ongoing gutting of federal environmental regulations, firing of federal workers, halting of scientific research, and the removal of language pertaining to climate change, emissions, social justice, etc. from federal databases, restructuring of federal agencies assigned to regulate greenhouse gases and pollutants and protect public health and the environment might prove beneficial Republic Services, the second largest waste management company in the US.

Considering the current federal trend toward deregulation, if Republic Services obtains permission to expand, there's no guarantee that greenhouse gas emissions or pollution will be regulated at levels capable of *supporting* life, let alone *sustain* it.

When Benton County residents made their values known in the county's published Comprehensive Plan, they made it clear people here value the "beauty and life-sustaining qualities" of the place they call home. They value its rural character. And they value "clean air, water and healthy natural systems and recognize their importance in sustaining the quality of life that residents value for themselves, their children and grandchildren."
Coffin Butte is a blight on the landscape. It harbors substances known to be hazardous to humans and wildlife – substances that don't stay put, substances

that migrate into the air, soil, water, the food supply, our bloodstream, brains, breasts, testicles, fallopian tubes, placentas, amniotic fluid, our offspring. Substances causing irreparable damage to the web of life.

Dirty clouds of toxic incinerator ash used to (partially) cover a day's trash blow off the open face of the dump are not life-sustaining. That dust contains deadly dioxins and other known contaminants.

Bubbles of methane gas inflate the plastic tarps, seeps out tears in the synthetic membrane, and escapes through all sorts of portals where excessive amounts of this potent greenhouse gas enters the atmosphere, contributing to global warming. The climate emergency is a threat to life as we know it. It is not life-sustaining for local inhabitants, nor for inhabitants worldwide.

Organic matter rotting in the wet, dark of the dump mixes with heavy metals, and tens of thousands of synthetic chemicals to form toxic leachate. Tanker trucks haul the contaminated liquid to waste water treatment facilities in Corvallis and Salem, neither of which was engineered to filter out or treat known carcinogens, endocrine disrpuptors and neurotoxins like PFAS, BPA, phthalates, flame retardants, and microplastics.

Instead, these "emerging pollutants" get digorged directly into the Willamette River, a source of drinking water for downstream communities. A river home to treasured wildlife. A river where people recreate. A river that acts as a conveyor belt carrying plastic particles and a cocktail of synthetic chemicals out to the Pacific Ocean.

I strongly urge Benton County Planning Commissioners to carefully review the Benton County Environment and Natural Resources Advisory Committee's

vote to recommend the **denial** of the Conditional Use Permit requested by Republic Services to expand Coffin Butte Landfill released on April 16, 2025. ENRAC includes an abundance of facts to support its recommendation.

ENRAC voted 5-1 to deny Republic Service's CUP application.

I ask you to consider if expanding the dump will reflect or disregard the values of Benton County residents.

Does a massive dump that pollutes the air, water and soil fit with the prized *character of the area*?

I offer testimony based on scientific research, medical expertise, hours of interviews and public presentations, documentation of roadside litter, observations of the surrounding area, and visits to the summit of what remains of the actual butte to see the monster of a dump from a bird's eye view.

I can say for certain there is nothing about the plastic-wrapped mound of garbage, the flares from twin towers, the hobbled fences, the tube emptying leachate from hidden ponds into a tanker truck that fits the character of the lovely valley stretching south along the verdant forest blanketing Tampico Ridge.

I urge you to deny Republic Services request to expand the landfill. Thank you.

--

Eliza Murphy
m.eliza.murphy@gmail.com

From: Kathleen Rochester
To: Benton Public Comment
Subject: Please deny LU-24-027
Date: Saturday, April 26, 2025 6:09:16 AM

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

Dear Benton County Planning Commissioners,

My name is Kathleen Rochester of 1480 NW Meadowgreen Place, Corvallis OR 97330.

I am writing because I strongly oppose expansion of Coffin Butte Landfill. Therefore, I urge the Planning Commission to deny Republic Services' Conditional Use Permit application LU-24-027. I do not live within the area directly affected by the odor, noise and recreation issues, but I am nonetheless concerned by any irreversible change to the character of my community. This expansion will seriously interfere with the character of the surrounding area in violation of Benton County Code 53.215 (1) and (2).

This expansion will also impose an undue burden on public resources far into the future, also violating Benton County code.

However, more than my concern for the Code violations, I'm disappointed that by pursuing this expansion, the County is ignoring its own *2040 Thriving Communities Initiative*. I just thought this community was better than that; that our county leadership would try to truly represent our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management, as expressed in the 2040 Initiative.

This expansion would instead produce more leachate, polluting the river, more unhealthful odor, interfere with wildlife passage and grazing and have long term climate consequences as a result of increased methane.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,

Kathleen Rochester

Corvallis, Oregon 97330

From:	Community Development, Benton County, Oregon
To:	Benton Public Comment
Subject:	LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date:	Saturday, April 26, 2025 1:11:32 PM

Subject of Testimony: Coffin Butte Expansion Proposal

Full Name: Craig Wilkinson

Email: barbcraig7778@gmail.com

Street Address: 2736 NW Skyline Dr. Corvallis, OR 97330

Written Testimony:

Please deny the proposal to expand the landfill. Corvallis needs to be responsible for our own waste but not trash from all over the state. Western Oregon is a poor location for a landfill because of its rainfall. The smell and methane are already out of control. Republic Services has not been a responsible steward of the existing landfill and we certainly can not count on the EPA in the current climate. We need you as our local leaders to make the right choice.

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 73.67.174.249

From: Lynda Capel
To: Benton Public Comment
Subject: "Oppose/Deny LU-24-027"
Date: Sunday, April 27, 2025 3:40:58 PM

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

"Oppose/Deny LU-24-207"
I strongly oppose all future expansion of the Coffin Butte landfill.
Every time I see the Coffin Butte gash in the hillside, my heart sinks. It can be seen for miles. It seems to grow exponentially. All attempts at camouflage seem to have stopped. It's in your face. It doesn't belong here. People are trying to live and raise their families here. This used to be a clean and beautiful, rural area. The air was fresh. Wildlife was everywhere. No more.
Now, roadways are littered with trash blowing out of uncovered trucks speeding to the landfill damaging the Independence Hwy and 99W as they go. They seem to be In a hurry to race to another county, pick up another load of trash, and rush back to Benton County and the landfill. I feel I'm watching a bizarre game of "he who dumps the most loads, wins", violating BCC 55.215(2)
We used to be able to enjoy working in our yard during the spring and summer. In 2013, a putrid odor began to drift in. But not often and only briefly. Sadly, this situation has gotten much worse as the years have progressed. Now, the stench generated by the landfill can drop in, any time, year round, un-announced, and ruin your day. Now, the air frequently stinks forcing us to come in the house and close the windows. This odor is so strong, it actually forces its way in to the house with us, violating BCC 53.215(1)
Air that smells this awful can't possibly be healthy or regulated by any kind of proper monitoring procedure. What is in the air now that makes it smell so toxic? What kind of health issues is this chemical mix responsible for? What affect does it have on the climate? What is the solution to the leachate situation?
I believe the lack of control over the above issues violates the Core Values of the Benton County Thriving Communities initiatives.
A good quality of life for everyone should be possible in the Willamette Valley. Please, don't allow further expansion of the Coffin Butte landfill now or ever.
Sincerely,
Lynda Capel
5064 Scenic Dr. NW
Albany, Oregon 97321

From: Grant Carlin
To: Benton Public Comment
Subject: Landfill testimony "Oppose"
Date: Sunday, April 27, 2025 10:39:28 PM
Attachments: Testimony against landfill expansion April "25.docx

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Virus-free.www.avast.com

Email to: publiccomment@bentoncountyor.gov.

Benton County Planning Commission Testimony

Regarding Application 3 LU-24-027

"Oppose LU-24-027

4/27/2025

My name is Grant Carlin; my address is 38581 Soap Creek Rd. Corvallis, OR 97330. I am writing in opposition to Republic Services' proposed Coffin Butte landfill expansion.

Noise Pollution:

My wife and I live nearly adjacent to and just west of Republic's proposed cell site's location south of Coffin Butte Rd. We and our neighbors, will be directly and adversely impacted if Republic Services' application to expand is approved.

I will address the issues most concerning us ranging from personally experienced and periodically on-going, to those likely to arise given Republic's history with it landfill neighbor nationally.

NOISE LEVELS:

In its the initial CUP, Republic's hired sound consultant cavalierly dismissed our concerns stating that even though the new cell would be a half mile closer, "Noise emissions for the on-site operations are unlikely to increase…" That is total hogwash, to put it politely. Facts prove otherwise. On several days since the initial application was withdrawn, Republic has engaged in operations directly east of their current office location, in the area of the proposed expansion. These operations have included placing and later removing a huge pile of fill dirt that was stored there as excavations were being done on top of Coffin Butte. Among the equipment used were countless trucks clanging doors, braking loudly and sounding horns, loud pile drivers and large front-end loaders with back-up horns that can be heard for two miles. When Republic has been operating temporarily in this proposed expansion site it is so noisy that my dogs are too frightened to go outside. When I called Republic to inquire what was going on, the site manager politely apologized

for the racket and said it would be done in a few more days. This is a direct refutation of the company's hired sound consultant's preposterous claim.

I ask each of the Commissioners, would you be satisfied living under those circumstances on a daily basis for many years to come? If Republic's application is approved, that is what you will be asking my family and our neighbors to do. Not only would it create an untenable situation for us, but it would also render our property worthless, as no one in their right mind would want to live where we do under a constant 5:30 AM to 6PM loud din.

GROUNDWATER POLLUTION:

Groundwater pollution is another issue: Republic Has a long history of groundwater pollution violations; in May of 2021 it agreed to a nearly ½ million dollar stipulated settlement with the San Francisco Regional Water Board of California for civil liability claims including possible water pollution from leakage at the bottom of its landfill in Richland, CA; instead of reporting within the mandatory 5 days, Republic took 145 days. The Board also noted that Republic had prior violations at its OX Mtn. landfill within the previous five years.

Recently, "On Monday, April 2, 2025 a court ruled in Lower Susquehanna Riverkeeper Association's favor that Republic Services' Modern Landfill violated the federal Clean Water Act 419 times from July 2019 through April 2023. The landfill, located in York County, PA, generates approximately 200,000 gallons per day of leachate wastewater. The landfill is subject to a permit under the Clean Water Act that authorizes pollutants to be discharged into Kreutz Creek, a tributary of the Susquehanna River. Those discharges must strictly adhere to the pollution limitations of the permit, however, and the court found Republic Services violated those terms, subjecting it to strict liability under federal law."https://www.publicjustice.net/republic-services-modern-landfill-clean-water-act-violations/

At Coffin Butte's proposed cell, even if best practices are followed, there is no guarantee that ground water won't be polluted, or that timely reporting will be done.

Once neighborhood well water is polluted, the only recourses left neighbors are litigation and then relocation.

POSSIBILITY OF RADIOACTIVE WASTE BEING BROUGHT TO THE SITE:

There is no guarantee of what Republic Services would like to bring into its expanded site if its application is approved. A good example of this is a site owned by Republic Services in Wayne County, Michigan. It was set to receive radioactive waste from New York in the fall of 2024, before towns sued the company, seeking to halt the disposal plan. https://www.wastedive.com/news/wayne-disposal-hazardous-waste-lawsuit-michigan-republic-services/728268/

Some projects, even with the most stringent of imposed conditions, are just not conducive to acceptable outcomes. I believe that this proposed landfill expansion is one such project. In summary, all of the above will dramatically and adversely impact the character of the entire area as well as devalue our property and that of our neighbors. Area residents will pay dearly for many years into the future, just so Republic can squeeze out only a few more years of profit. Legally, approval of this permit will thus be in direct violation of Benton County's Ordinance 53.215 Section 1.

Accordingly, I urge the Commission to do what's right for the public, not what's good for Republic's bottom line, … and thus deny the Conditional Use Permit.

Grant Carlin

541-745-3968

From: Beeara Edmonds
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Sunday, April 27, 2025 9:01:20 PM

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To whom it concerns,

I'm sorry to learn that we're once again having to speak up about this issue. Republic Services doesn't give up trying to weasel their way into greater abuse of our locale.

From all that I've learned, allowing application LU-24-027 would be a big mistake for our county. It would place undue burden on public resources. I'm concernted about an increase of air and water pollution that would occur with this expansion. As well, there would be negative impacts on wildlife.

This expansion doesn't align with goals the county has already set for a thriving community. Please don't buckle under the pressure of capital gains. We need to start thinking outside the box and not business as usual, solutions such as waste reduction, recycling and circular economy solutions.

My understanding is that this expansion goes beyond the needs of this immediate community and that if it were to happen, Republic would be shipping in waste from other locales. How can this be good for our community? It can't!

Please, deny this application and tell them to stop trying!
Beeara Edmonds
S. Corvallis resident

From: Adam Holdorf
To: Benton Public Comment
Subject: Please oppose/Deny LU-24-027
Date: Sunday, April 27, 2025 4:50:36 PM

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Dear Benton County Planning Commissioners,

I am writing in opposition to Conditional Use Permit application LU-24-027, to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

My sister, her partner, and my stepmother reside on tax lot 10419B001500 and share a property line with Republic Services. This lot has been our family's home since 1989. Our well is within 1,000 feet of the crest of Tampico Ridge.

In denying the initial Conditional Use Application a few years ago, members of the Planning Commission expressed the need for a comprehensive solid waste management strategy. Such an approach would balance the case for this landfill's expansion with a consideration of alternatives.

Evidently, no such action has taken place. Benton County, with just 2 percent of the population of Oregon, takes the waste of 20 percent of all state residents. My family, our neighbors, and other residents of Benton County bear a disproportionate burden for the state's failure to justly plan for solid waste disposal.

We pay in the stronger-than-ever smell of the landfill on the frequent—more frequent than ever—mornings when its nuisance gases seep through the still air.

We pay in fear: What should we do if our well water is already contaminated? How would we know?

And within a few years, we will face a morbid reckoning as a mountain of trash overtakes the highest point of Coffin Butte.

Humans—innately vigilant for threat and opportunity—have always looked to the horizon. Shortsighted planning by county officials will soon mean that for miles around, for tens of thousands of county residents, a new

landmark will mar our vision. North of Coffin Butte Road, when the sky bends toward the earth it will touch only garbage.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2).

My family has lived on this land for more than 35 years, with a hope to continue our stewardship, and with an understanding that the landfill's owners would continue to use its buffer property to the south of Coffin Butte as just that: a buffer. We have lived uneasily in the shadow of our neighbor, watching its operations grow, but we have determined to live and made meaningful investments in our property. My family has the same right as every one of your constituents to breathe clean air and drink clean water at the place we call home.

Sincerely,

Adam Holdorf
2434 SW Holden St., Apt A
Seattle WA 98106-3487

From:	Community Development, Benton County, Oregon
To:	Benton Public Comment
Subject:	LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date:	Sunday, April 27, 2025 7:49:38 AM

Subject of Testimony: Stop Coffin Butte Landfill expansion

Full Name: Lenore Shisler

Email: leshisler@gmail.com

Street Address: 436 NW 35th St., Corvallis OR

Written Testimony:

It is NOT in the interest of our community to expand the Coffin Butte landfill. "Growing" the landfill is the exact opposite of what we should be considering. Reducing waste and shrinking the need for a massive landfill is where effort and dollars must be directed.

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 76.144.11.144

From: Kath Schonau
To: Benton Public Comment
Subject: Deny LU 24-027
Date: Sunday, April 27, 2025 8:22:18 PM

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Dear Benton County,
Please accept this email as my strong request that you refuse to expand Coffin Butte. I am afraid of the public safety concerns to my family, especially chemicals leaching into the earth and water and gases into our air. Corvallis is know for clean air and healthy living. Please continue to keep it that way.
Thank you,
Kath Schonau
Don Taylor
541-801-7055
4119 NW Tamarack Dr, Corvallis, OR 97330

From: Liz Baker
To: Benton Public Comment
Subject: Oppose LU-24-02
Date: Monday, April 28, 2025 12:15:11 PM

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Dear Benton County Planning Commissioners,

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would **seriously interfere with the character of the surrounding area** and impose **an undue burden on public resources**, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- **Air and water pollution** threaten our local ecosystems and community health
- **Traffic increases** that pose safety risks on nearby roads and pathways
- **Odor and noise issues** that degrade quality of life for residents and visitors
- **Negative impacts on wildlife, recreation, and property values**
- **Long-term climate and environmental consequences** for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities! I am appalled to know that only 7% of the garbage disposed here comes from Benton County. Republic Services is getting RICH at Benton County's citizens expense.

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Elizabeth Baker
Corvallis, OR 97330

From: Duane Jager
To: Benton Public Comment
Subject: Opposed to proposed Coffin Butte expansion
Date: Monday, April 28, 2025 10:52:12 AM

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

My name is Duane Jager, and my wife Heather and I live at 4485 SW Airport Ave, Corvallis, OR 97333. I'm writing in opposition to Republic Services' proposed Coffin Butte landfill expansion plan.

Here are some of the reasons we most oppose this expansion.

1. **Out-of-County Waste**
Much of the waste received at Coffin Butte is from **outside** Benton County. We understand that in 2020 less than 12% of the waste was from Benton County. Because of this, what is the necessity of expanding the landfill for our local needs?

2. **Health Hazards**
Strong chemical odors and dust containing harmful substances have been reported. Also, there is risk of groundwater contamination affecting well water in the area.
There have been methane leaks with some readings exceeding 100,000 ppm. Legal limit is 500 ppm. This certainly creates a fire risk as well as affecting the air quality.

3. **Emergency Access Concerns**
The proposed expansion would eliminate Coffin Butte Road, a critical emergency route.

4. **Quality of Life**
Nearby residents experience bad air days which limit activities they can do outside on their property and create potential health concerns.

5. **Property Values**
There are concerns that the value of nearby property could be negatively impacted making it difficult to sell property and attract new residents.

In conclusion, we see very little positive value to the residents of Benton County and many negative reasons for not allowing this expansion of Coffin Butte. Therefore, we urge the Commission to do what is right for the residents of our beautiful Benton County and deny the Conditional Use Permit.

Sincerely,

Duane and Heather Jager
541-760-2783
4485 SW Airport Ave, Corvallis, OR 97333

From: David Lowry
To: Benton Public Comment
Subject: Coffin Butte Landfill expansion
Date: Monday, April 28, 2025 7:13:27 AM

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Dear Sirs:

I am opposed to the expansion of the landfill. The current landfill is a burden on the local environment. The leachate from the structure pollutes the groundwater upon which many residential and area farmers rely. The trash comes from a far-ranging area and includes many toxic items, in spite of recycling efforts, like batteries, fluorescent light bulbs, petroleum products from containers and numerous other harmful products that flow by gravity and reach the underlying strata. These will continue to flow from the area for countless years, resulting in polluted groundwater for many Benton County citizens. It should not be a burden on our county for disposal of the refuse from far-flung areas of the state. Not only do we have to bear the burden of the landfill itself, a visit th the areas outside the site reveals large amounts of trash strewn about our roads as the trucks approach the site from all directions.

While the current revenue is enticing, the long-term costs of this facility will continue to cost the residents of Benton County long into the future. Let's not shift the long-term cost of the landfill on our future residents but close the existing facility as scheduled and relocate the landfill to an area that can benefit from the latest technologies.

Again, I strongly urge opposition to the expansion.

Sincerely yours,

David P. Lowry
3105 NW Roosevelt DR
Corvallis, OR 97330

From: Kellie N
To: Benton Public Comment
Subject: Please DO NOT expand Coffin Butte
Date: Monday, April 28, 2025 11:03:07 AM

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Dear Benton County Planning Commissioners,

My name is Kellie Neet and I live at 2255 NW Brownly Heights Drive.

I am writing because I STRONGLY oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application!

The proposed expansion would **seriously interfere with the character of the surrounding area** and impose **an undue burden on public resources**, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- Air and water pollution - threaten our local ecosystems and community health
- Odor and noise issues - that degrade quality of life for residents and visitors
- Negative impacts - on wildlife, recreation, and property values
- **Long-term environmental and health consequences - for future generations!**

WE ARE NOT A GARBAGE DUMP FOR PEOPLE FROM OTHER PARTS OF THE STATE.

You KNOW that this would have serious environmental and health effects on our children, grandchildren, and great-grandchildren. There is just no question about that - the only question is, how bad. It is not worth that risk.

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Kellie Neet, 2255 NW Brownly Heights Drive, Corvallis OR, 97330

From: Cheryl McLean
To: Benton Public Comment
Cc: clint@clintbrownartist.com
Subject: Landfill expansion
Date: Monday, April 28, 2025 10:53:56 AM

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Dear Benton County Planning Commissioners,

My name is Cheryl McLean, and my husband, Clint Brown, and I live at 2150 NW Jackson Creek Road, near Crescent Valley High School.

We are writing because we adamantly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. We urge the Planning Commission to deny this application for so many important reasons.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, which is already in violation of Benton County Code 53.215 (1) and (2).

Specifically, this expansion raises major concerns about:

- Air and water pollution that threaten our local ecosystems and community health
- Traffic increases that pose safety risks on nearby roads and pathways
- Odor and noise issues that degrade quality of life for residents and visitors
- Negative impacts on wildlife, recreation, and property values
- Long-term climate and environmental consequences for future generations

The proposed expansion does **nothing** to align with Benton County's 2040 Thriving Communities Initiative. In fact, this expansion **undermines** our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,

Cheryl McLean and Clint Brown, Corvallis, Oregon

From: ryan.wilson1768@gmail.com
To: Benton Public Comment
Cc: angela.krueger.94@gmail.com
Subject: Oppose/Deny LU-24-027
Date: Monday, April 28, 2025 9:26:00 AM

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Hello,

Ryan Wilson 28903 Tampico Road Corvallis Oregon 97330
Hello, I am writing to testify against the expansion of coffin butte landfill.

Aside from the obvious reason to stop the landfill expansion such as private companies unfairly profiting off of the local resources of the area, pollutions contaminates and the fact that Benton County should not be the primary dumping ground for all of Oregon. My primary concern is for the safety of farming in the area. Due to our proximity to the landfill where we grass a herd of cattle for local food production, we have been finding a staggering increase of air blown trash coming from the dump. We get styrofoam, plastic bags, and metallic chip bag that become air born from the landfill and litter the pastures we use to raise livestock. This poses a significant risk to the animals. If a cow or calf were to eat a plastic bag or styrofoam this would certainly mean their death. With an expansion to the landfill it can only be expected to intake more trash that will lead to more airborne plastics reaching susceptible animals, both wildlife and nearby associated livestock. We feel it is imperative that Republic Services is responsible for the care the material they take into the landfill and should use methods to prevent airborne debris from leaving their site.

Some of these trash finds can be found under Pastur teaur story
https://www.instagram.com/stories/highlights/17938813898405124/

Ryan Wilson, LEED Green Assoc.
OSU Alumni - CEM, MBA
Cell:5037793488
Email: ryan.wilson1768@gmail.com

From: Mark Yeager
To: Benton Public Comment
Subject: Inadequate Traffic Impact Analysis - LU-24-027
Date: Monday, April 28, 2025 7:48:55 AM

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I am submitting the attached letter in opposition to the proposed development to expand Coffin Butte Landfill.

Sincerely

Mark Yeager

April 28, 2025

Chair Fowler and Members of the Commission

Subject: LU-24-027; Inadequate Traffic Impact Analysis (TIA)

After reading the staff report for this proposed development, including the April 17, 2025, letter from Kellar Engineering, and the April 9, 2025, memo from Benton County Public Works to Benton County Community Development, I am compelled to reiterate that the information and analysis presented in the February 26, 2024, Transight Consulting TIA is not adequate to allow for a reasonable evaluation of the impact of the proposed landfill expansion on the transportation system.

The primary deficiencies are discussed in detail in a letter submitted to you on April 21,2025, and include:

- Site trip generation and system performance analysis is limited to use of the site's 2023 driveway movement volumes and does not consider the impact of rerouted internal trip generation.
- The TIA lacks an evaluation of whether there are any "in process" developments or changes to the County road or State highway system that could impact the study area.
- The method used by the TIA to estimate future site trip generation **inaccurately assumed that the proposed site expansion would not result in the potential for any increase in site trips beyond what could have otherwise occurred at the existing facility**.
- The analysis did not include the impact of **removal of the annual tonnage cap** on trip generation.
- The TIA's analysis of needed transportation system improvements is insufficient due to its being based solely on (underestimated) 2023 volumes.
- The analysis did not include the impact of **removal and transport of 3.5 million cubic yards** of material from the excavation for the new development.

In the absence of a revised TIA that accurately describes the proposed development's impact on the transportation system, we recommend denial of this application.

Respectfully submitted,

Mark Yeager, PE

PO Box 1290, Albany, OR 97321

From: Darena Yee
To: Benton Public Comment
Cc: Darena Yee
Subject: Oppose/Deny LU-24-027
Date: Monday, April 28, 2025 12:16:32 PM

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

Dear Benton County Planning Commissioners,

I am writing to strongly oppose Republic Services' Conditional use Permit application LU-24-027 to expand the Coffin Butte Landfill. Please deny this application.

I moved with my family to Corvallis 6 years ago, falling in love with the abundance of nature all around us. Probably like you, I felt so lucky to be living among the generations-old trees and watch the rushing flow of the Willamette River. We found a sweet little park in Philomath where little kids would watch for tadpoles along a bank of the river while older people floated in their innertubes. Our dog would leap in the river dodging the little kids while fetching a stick. I thought I must've done something really good in a past life to have lucked into living in such a treasured spot on our planet.

But just in the few years I've lived here, there is such a profound difference in our experience living here. It literally stinks here on most mornings these days! It doesn't matter the season or if the sun is shining -- the air stinks to the point of our staying inside closing all the windows. Then on my drive to Monmouth for weekly dog obedience classes I saw exactly what was causing the stench. I could smell the Coffin Butte landfill miles before I'd pass it on 99. The landfill scale seemed much larger than what our community would fill so I looked into how we in Benton County could all help limit the amount of our own garbage. Hah, it wouldn't have made much of a difference because I then found out that our county has accepted garbage from outside our own county, even as far as from a county in Washington. Whhhhat???? And now Republic wants to expand and add further toxic plumes to the Benton County environment?

The amount of poisonous plumes and toxic leaching of our river and soil is increasing every day. The stench, once periodic, is now a weekly occurrence. The stench is a nagging warning to be heeded. Even our wineries are affected in that when Emerson was about to close on the sale of their winery, the buyer that day smelled the landfill stench. The buyers backed out of the sale. How many other property sales need to be adversely affected by the stench and other hidden poisonous implications of the landfill before we do something about it?

In January, the EPA Enforcement initiated an action against Coffin Butte Landfill. This is significant because of the possible implications of danger to our quality of living. Republic has not met their Burden Of Proof on how the dangers the landfill is causing to our environment. The expansion would be a gateway to continued expansions and their ability to ignore subpoenas. Please, Planning Commissioners, be the change you want to see in the healthy future of all the families, human and wildlife alike, and deny LU-24-027.

Thank you.

Darena Yee

2858 NW Monterey Pl
Corvallis, Or 97330

From:	Community Development, Benton County, Oregon
To:	Benton Public Comment
Subject:	LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date:	Monday, April 28, 2025 9:58:53 PM

Subject of Testimony: coffin butte landfill expansion

Full Name: Carolyn Choquette

Email: choquette@casco.net

Street Address: 24930 Grange Hall rd Philomath OR 97370

Written Testimony:

I oppose the plan to expand the landfill at Coffin Butte.

The data shows present monitoring and capture of methane is woefully mismanaged, often exceeding regulations.
I strongly feel that leachate monitoring is grossly inadequate. It does not address monitoring for PCB, Pharmaceutical pollution, and the recently rediscovered past radioactive contamination. Additional tests should be added to well/groundwater monitoring and not just a few times a year. To ignore this will gravely endanger our our county's present and future health. We cannot continue to lethally dirty our nest.
Republic and Benton County now allow multiple municipalities the use of Coffin Butte. All this out-of-county garbage is quickly diminishing the lifetime of our landfill, thus accelerating its early demise. This will move County decisions for replacement forward,giving the country less time to thoughtfully plan and budget for future alternative solutions.
The 30% out-of-county waste contributions to Coffin Butte also exacerbates the pollution problem in other ways. Tailpipe CO2 additions due to long distance transport on top of alarming methane,leachate, smell and increasing traffic and litter problems further compounds the damage to our counties health and well-being and environment.
Given these undeniable facts,it becomes clear that the country should HALT THE EXPANSION OF THE CB LANDFILL. DEVELOP MORE STRINGENT TESTING AND MONITORING. END OUT-OF-COUNTY USE/ACCESS. AGGRESSIVELY PURSUE A REGIONAL/STATE SOLUTION TO THE GROWING PROBLEM OF MANAGING OUR SOLID/LEACHATE WASTE.

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 149.137.181.23

From: Kenneth Edwardsson
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Monday, April 28, 2025 2:46:20 PM

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Benton County Planning Commission

Benton County Community Development
<!--[if !supportLineBreakNewLine]-->
<!--[endif]-->

We assert that any approval of Application LU-24-027 would directly violate Benton County Code criteria that are outlined in the attached Edwardsson Testimony PDF document.

We further assert that such a decision would violate or otherwise evade County Comprehensive Plan policies.

Ken & Sarah Edwardsson
28840 Daystar Drive and 28903 Tampico Road
Corvallis, OR 97330

Date: April 28, 2025

Reference: LU-24-027, Coffin Butte Landfill Conditional Use Permit Application

To: Benton County Planning Commission
Benton County Community Development
4500 SW Research Way
Corvallis, OR 97333-1139

We appreciate the opportunity to comment on the future of the Coffin Butte Landfill, a county planning decision of great concern to us as a directly adjacent parcel to the parcels of this Conditional Use Permit application.

Situation:
Since 2017, my wife and I have worked in conjunction with the Natural Resource Conservation Service and have made a significant investment (over $150,000) to conserve and improve the rare oak woodland and savanna habitats found on our parcel. Oak habitat conservation is a key objective for both state and federal agencies as well as local environmental organizations. These rare and historically important oak habitats currently represent just 1% of their original (pre-settlement) area. There are several key species of note that exist in our oak habitat, one is Kincaid's lupine which is a critical element in supporting E.E. Wilson's management efforts to establish this imperiled plant species and its efforts to foster the Fender's blue butterfly populations in this area. Our parcel is also a key migration corridor for Roosevelt elk moving between Soap Creek and E.E. Wilson Wildlife Refuge. Additionally, our land has been a working farm continuously since the establishment of the Donation Land Claims (DLC) act of 1850, there after recorded as the George W. Roberts Donation Land Claim.

The landfill is completely visible to our north from the house and is both a land scar and eyesore. Daily noise from the sound of machinery and truck backup alarms significantly disrupt the tranquility of our natural surroundings. Lastly, we have significant concern for our air quality from both the foul odors and from the health consequences of high discharges of methane leaking from the site. Increasing the size of this adjacent nuisance is not consistent with Benton County's development plan.

We oppose any further expansion of the Coffin Butte Landfill and urge the Planning Commission to reject this application. We believe the Planning Commission will find that the Applicant, Republic Services, does not provide evidence to conclude that conditional use permit issuance would not violate County Development Code criteria and Comprehensive Plan policies. Further, based on its current performance, Republic Services cannot be expected to demonstrate that it can assure the County of its future compliance with any conditions that the county might issue.

We assert that any approval of Application LU-24-027 would directly violate Benton County Code criteria that are subsequently outlined. We further assert that such a decision would violate or otherwise evade County Comprehensive Plan policies.

Significant Conflict #1 with the Benton County Development Plan
Development Code Chapter 53: Conditional Uses; Administrative Procedures, General Review

BCC 53.215 (1): The proposed use does not seriously interfere with uses on adjacent property, with the character of the area, or with the purpose of the zone;
BCC 53.215(2): The proposed use does not impose an undue burden on any public improvements, facilities, utilities, or services available to the area;

The proposed use does seriously interfere with our adjacent private property. Current landfill operations significantly alter and disrupt the ecological, visual, and rural character of both the zoned area and all other surrounding zoned uses, and thereby greatly exceeds the purpose of the zone. The landfill is dominantly surrounded by EFU, Forest Conservation, Wildlife Conservation, and Rural Residential properties, and it has been clearly established that the current landfill use already imposes an undue burden on public rights-of-way, transportation routes, esthetic and scenic values, and nearby recreational opportunities at state facilities, along with greatly increased traffic, incidental refuse, incompatible noise, noxious odor, combustible vapor, and contaminated air, soil and water. Such grievous current offenses cannot justify its furtherance or any proposed increase in its size or use.

Significant Conflict #2 with the Benton County Development Plan
Benton County Comprehensive Plan Goal 5 Overview: Natural Resources, Scenic & Historic Areas, Open Spaces.
Relevant Policies
5.4.2 *Benton County shall promote private land stewardship of farm and forest lands, respect private property rights, and work with non-profit groups and others to maintain a comprehensive system of connected open spaces that will protect the most valued natural, scenic, and recreational areas of the county.*
5.9.4 *In making land use decisions, Benton County shall protect identified sensitive wildlife habitat types and wildlife corridors from adverse impacts.*
5.9.5 *Benton County shall notify the Oregon Department of Fish and Wildlife (ODFW) early in the review process and collaborate with that agency regarding zone and plan amendments, conditional use permits, and subdivision and series partition applications in areas that include habitat types identified by ODFW as Habitat Conservation Priorities: in-stream habitat, native prairie grasslands, oak woodlands and savannas, riparian floodplains and wetlands.*

We are not aware of any discussions between Benton County and ODFW, or any other state or federal agency to identify and protect sensitive plant and wildlife habitats on adjacent parcels to the current landfill site. We are concerned that any continued expansion of landfill operations southward will disrupt these sensitive habitats found on our land, but also other parcels along Tampico Ridge. We have no evidence of discussions that consider the impact a landfill expansion would have on our conservation parcel of oak woodlands and savannas or any other parcels in proximity to the current site.

Relevant Policies

5.8.2 *Benton County shall require developers to provide sufficient information to enable Benton County to evaluate whether a proposed use could adversely affect the sustainability of aquifer production when reviewing land use applications.*

6.1.2 *In cooperation with appropriate agencies, Benton County shall manage its air, water and land resources to insure their protection, conservation, restoration, or enhancement.*

6.5.7 *Benton County shall maintain a committee that advises the Board of Commissioners on solid waste and disposal site issues.*

6.5.8 *Benton County shall assure safe, accessible, and environmentally sound disposal of solid waste at the Coffin Butte Regional Sanitary Landfill.*

By policy, Benton County is required ("shall") manage its air, water and land resources to insure their protection or conservation. Approval of Application LU-24-027 will create the following conflicts #3, #4, #5, and #6 with the Benton County Development Plan policies.

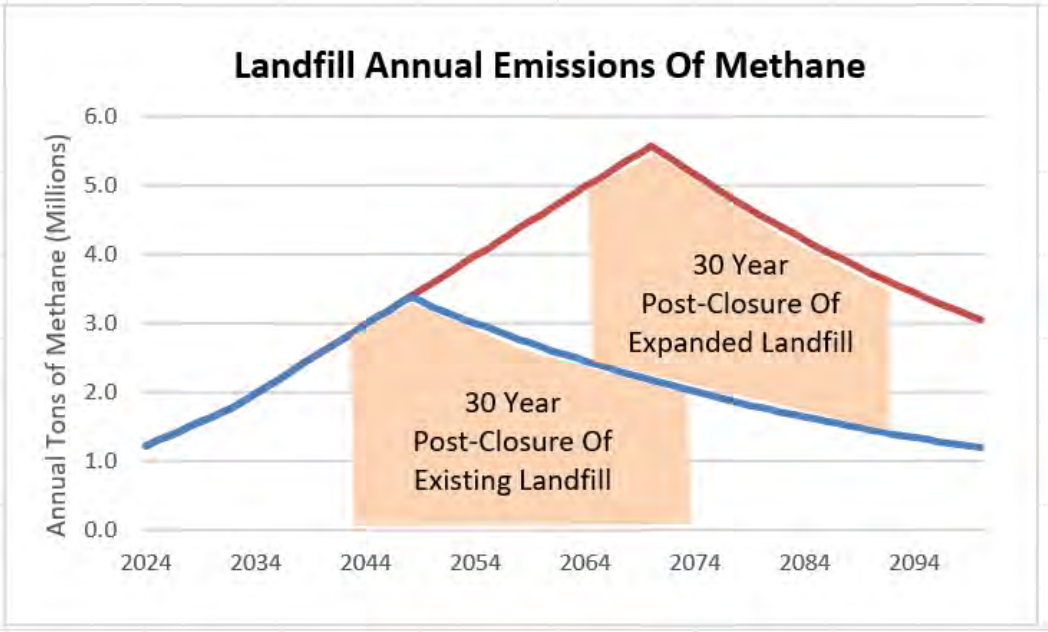
Conflict #3: Landfill Impact on Air Quality – Today and long into the future

Based on information sourced from the current landfill operations, annual methane emissions exceeded 1.2 million tons in 2024. The gas collection wells used to collect methane from the existing cells collected about 70% of this volume, directing half for conversion into electricity, and the other half being flared into the atmosphere. The remaining volume of 30% represents fugitive emissions into the atmosphere as documented by Carbon Mapper. These fugitive emissions are under study by the EPA and Oregon DEQ as these are very high levels and greatly exceed the regulatory standards for lawful landfill operation. Republic has not demonstrated the capability to collect and contain these emissions, as prior inspections have documented. As trash continues to be added to the current landfill area through a future closure, methane emissions will continue to rise until well after the landfill is closed. Since the current capacity for onsite gas to electricity and flaring also has a fixed capacity, without further upgrades to that equipment, future emissions will continue to be a major issue.

Conflict #4: with the Benton County Development Plan:

Benton County Has No Reserve Fund Against the Future Liability and Cost for Methane:

The landfill operator is required to complete a DEQ mandated Post Closure Report every four years. Looking at the numbers provided in this report, it suggests that the by the end of the landfill post-closure term of 30 years, that the landfill emissions of methane and leachate will be minimal. This implies that when the landfill is returned to Benton County it will have no related ongoing costs. One of the key assumptions imbedded in this report is that the closure process will decrease the leachate and methane production quantities dramatically by the end of the 30 Year post-closure period. Looking at comparative data from other landfills, it would suggest that the management of leachate and methane will continue to represent a significant cost for the residents of Benton County after the post-closure period. The post-closure report also shows methane production decreasing from closure Year 1 quickly through Year 10 (down to 70% of Year 1), then declining to 60% of Year 1 by Year 30. The assumption is that the landfill cap liner will help reduce methane production rapidly, however the process that enables the production of methane is a non-oxygen environment and that is not created immediately after closure. Instead, it keeps building after closure, and rises from Year 1 through Year 10, after which it begins a slow stable decline into the future. Methane emissions for the existing landfill will be roughly twice as large as current day emissions at the end of the post-closure period. If landfill operations are expanded this could increase to three times current day emissions at the end of an expansion based post-closure period.



Given these findings, it is very likely that much greater quantities of methane will be generated post-closure than are currently represented in the current landfills post-closure report. Therefore, methane emissions from the landfill will still be an important management issue long after the end of the Year 30 of the post-closure period. Benton County does not have on staff any expertise or capability to manage the collection and processing of these emissions, as such the county will need to hire external expertise or contract services to perform this function. This fact alone means that Benton County should have in place a contingency fund to cover future post-closure management costs and the potential for landfill environmental liability. A reserve fund was established early on for the landfill operator Valley Landfills to handle any unforeseen or unexpected environmental issues, but no equivalent mechanism was established to protect Benton County once the landfill closure period is completed. The existence of a reserve fund for the county is also necessary to protect against a situation where should Valley Landfills declare bankruptcy due to an excessively difficult or costly environmental issue, the burden could shift to Benton County for resolution or ongoing management. These costs mentioned are significant for the planned closure of the current landfill. Benton County should establish an annual reserve amount in the range of $1.5-2 million dollars annually for each remaining year that the current landfill remains in operation. This reserve is a necessary safeguard for county taxpayers to protect them from the environmental risks and the associated financial repercussions.

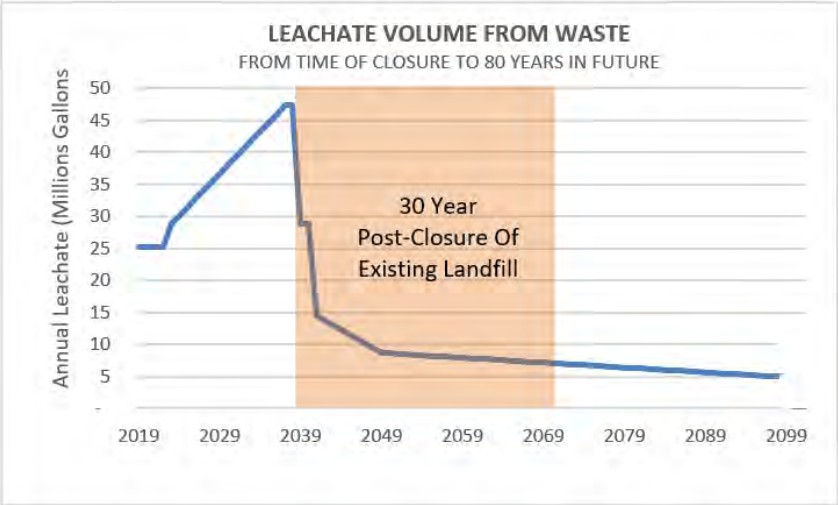
Given the potential liability of the existing landfill, moving to approve any new expansion of landfill operations will only serve to magnify the amount of methane that the landfill will produce annually and in total, and it would also create an even larger methane management problem for the future residents of Benton County. For this reason, we oppose any expansion of the existing landfill operations.

Conflict #5: Existing Landfills Impact on Water Quality – Today and long into the future

In the case of leachate, it has great potential to have major environmental impacts related to groundwater and surface waters. It is well documented that Republic Landfill sends about 30 million gallons of leachate to Salem and Corvallis water treatment plants (WTP)for disposal. These facilities do not have the

required technologies to remove the standard components of leachates. As such, it passes through these facilities into the Willamette River retaining much of its original toxic impact. Down river from these WTPs, there are multiple cities that source the Willamette River for drinking water – both people and aquatic species that are dependent on the river should not be exposed to this waste product in any form.

Our property, and that of many surrounding parcels depend on well water as our primary source of drinking water. Additionally, spring water from Tampico Ridge is also the sole source for livestock watering in support of our farming activities. Despite historical ground and surface water contamination on record, and knowing that there is a fractured basalt system underlying the landfill site, contamination of our aquifer remains a significant risk to our livelihood, and to the value of our property. Benton County has not provided an assessment of the risk or mitigation plan to prevent a future aquifer contamination. Information and analysis conducted on the aquifer to date has been insufficient , on that basis we are strongly against a landfill expansion.



Existing leachate annual volumes are already high and will continue to rise in direct relation to the amount of waste being added to the landfill. Once the existing landfill reaches closure circa 2040, leachate will have almost doubled, and will continue to be produced for future decades. Although decomposition will change the nature of the leachate chemistry, its toxic nature persists. Many investigations report concentrations of ammonia-nitrogen in the range of 500 to 2000 mg/l, and no decreasing trend in concentration with time. Ammonia is released from the waste mainly by decomposition of proteins. The only mechanism by which the ammonia concentration can decrease during refuse decomposition is leaching because there is no mechanism for its degradation under late stage (methogenic) conditions. (Robinson, 1995; Burton and Watson-Craik, 1998). Leachate toxicity to aquatic species is well documented. For this reason, several researchers have identified ammonia as the most significant component of leachate for the long term. Many county residents find the current landfill odors unpleasant, but future ammonia dominated leachate will be much more offensive and difficult to mitigate.

Lastly, risk calculations indicated that municipal solid waste landfill leachates may present as great a cancer risk as those from co-disposal and industrial solid waste landfills.

Conflict #6: Benton County Has No Reserve Fund Against the Future Liability and Cost for Leachate:
The leachate production is a function of moisture produced by the decomposing garbage and the annual rainfall the site receives. Being that the landfill site exists in a coastal moisture regime, the leachate the landfill produces will drop more slowly after closure, as the methane extraction wells are likely to allow additional moisture to enter under the closing liner. The existing post closure report assumes very little leachate at the end of the post closure period, but this is not consistent with other similar landfills for both leachate and methane projections.

Furthermore, in assessing the long-term stability of a landfill, the possibility that the integrity of the landfill cover will decrease must be considered. Should the cover integrity deteriorate, the quantity of leachate could actually increase long after landfill closure.

Significant Conflict #7 with the Benton County Leadership Policies and Practices
Operational Agreements of the Board of Commissioners, County Administrator, and Counsel
Policy 2.5. County Counsel Communication
The County Counsel is responsible for ensuring the Board is informed and supported in all legal matters. The desire of the Board is to delegate the legal representation to the County Counsel while recognizing the quality of County government depends upon the partnership and team concept between the Board, County Administrator, County Counsel, and County staff.
2.5.1. Accordingly, the County Counsel will:
a. Inform and seek the guidance of the Board on all significant legal issues that may expose the County to detrimental liability;

The Benton County government team has not done enough independent homework to understand the impact of current landfill operations and the future consequences of the post-closure landfill on the residents of Benton County. A wealth of study exists about working landfills and ones that have been decommissioned that provide insight into this complex topic.

The existing landfill currently represents a significant liability for all county taxpayers from both potential environmental risks to human health, and the economic impact of a significant negative environmental event. Both risks have significant financial implications for Benton County. For this reason, we strongly oppose any further expansion to operations of the landfill.

We appreciate the opportunity to share our observations with you.

Ken and Sarah Edwardsson
28840 Daystar Drive and 28903 Tampico Road
Corvallis, OR 97330

From: Victoria Fridley
To: Benton Public Comment
Subject: Subject: Oppose/Deny LU-24-027
Date: Monday, April 28, 2025 5:00:01 PM

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

Dear Benton County Planning Commissioners:

Corvallis is a community that has drawn people to it for several reasons, but key among them is our commitment to preserving the beauty and health of our environment and our concern about uncontrolled growth. The people who live in the area around the Coffin Butte Landfill are our neighbors who face the degradation of their land and water. They want to remain in their homes, but even if they decide to move, they will not be able to sell their land at its true value—who will want to buy land where the wells are contaminated or dried up. Peavy Arboretum, a treasured sanctuary in our community, is also not far from this proposed expansion. This expansion is not being proposed to serve Benton County, but to serve the company's continued desire to provide landfill services to 27 counties in Oregon and even waste from Washington. We strongly oppose the expansion of the Coffin Butte Landfill. For more information about the proposed expansion, please see coffinbuttefacts.org

Victoria Fridley
Cheryl Johnson
Corvallis, OR 97330

From: Barbara Grant
To: Benton Public Comment
Subject: LU-24-027
Date: Monday, April 28, 2025 10:06:05 PM

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

To: Benton County Planning Commission
From: Barbara Grant, 420 NW 35th St., Corvallis
Re: Opposition to Coffin Butte Landfill expansion

I am writing to vehemently oppose the conditional use application to expand the Coffin Butte Landfill. The application clearly does not meet 53.215 Criteria because no evidence is or can be provided to assure that the proposed use will not seriously interfere with uses on adjacent property, with the character of the area, or with the purpose of the zone. The stench and air quality, already poor due to the current size of the landfill, will undoubtedly become worse if the landfill enlarges. The methane and toxins emitted restrict local residents from recreating outdoors, present a hardship to farmers trying to hire workers, contaminate land, water, and air, and reduce property value. Who would want to buy property in this beautiful part of the Valley when the air quality is so unhealthy and bound to worsen if the landfill is allowed to expand? Driving by the landfill from the north access road to Corvallis, Highway 99W, is not only an eyesore and certainly not welcoming to visitors to the City, but also is clogged with trucks going to and from the dump, causing undue wear and tear on the (taxpayer funded!) roads, thus presenting an undue burden.

I have lived in Corvallis for 41 years, enjoyed its quality of life, and take pride in knowing Benton County has a Comprehensive Plan to preserve the quality of life and responsible land use in the future. The County's Plan and codes should be used to guide the Planning Commission in their decisions. It is quite clear that the application to expand the Coffin Butte Landfill violates numerous goals of the Comprehensive Plan. When I learned that 90% of the contents of Coffin Butte Landfill is trucked in from other counties, I was appalled. No wonder that landfill has become enormous, creating an environmental and financial liability to our County.

I urge the Planning Commission to vote according to its own criteria for conditional use authorization and acknowledge the inadequacy of this application to meet these wise and necessary criteria. Please protect Benton County by voting NO on this application.

From: Community Development, Benton County, Oregon
To: Benton Public Comment
Subject: LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date: Monday, April 28, 2025 4:57:28 PM

Subject of Testimony: Bloody Carcases Delivered to Landfill

Full Name: Joan Hagar

Email: sharpbelgians@gmail.com

Street Address: 37112 NW Moss Rock Dr, Corvallis 97330

Written Testimony:

I strongly oppose the landfill expansion because of the impact the operation has on those of us who regularly travel on Hwy 99. We are all familiar with the accumulation of litter along the shoulder, the plastic draped in the trees and the frequent need to dodge materials flying out of uncovered loads. And then there are the special trips down Hwy 99 like the following:

On March 26th, 2025 around noon, my friend and I were traveling south on Hwy 99W, from Hwy 22 Junction to our home on Moss Rock Rd. Between Rickreall and Monmouth, I began noticing deposits on the road that looked like road-killed animals, ranging between the size of a rat to as large as a rabbit. These occurred every 50 – 200 yds on the road, with a trail of wet drips in between. At the stoplight in Monmouth, we caught up to a lorry-type truck (bigger than a pickup) that was leaking fluid from the covered cargo bed. As we proceeded south on Hwy 99W behind this truck, we witnessed splats of gore and a trail of blood escaping from the cargo. When the truck picked up speed south of Monmouth, a pink mist of blood began spraying out the back and covering our windshield. At this point, we pulled over to the side of the road to get out of the gorey discharge. After a couple of cars passed us, we continued south on Hwy 99W and could still see the truck leaking discharge ahead of us. My friend called 911 to report it. The truck turned on Coffin Butte Rd. and we were right behind it as it turned into the landfill. We had to wash chunks of gore and bloody spray off the front of our vehicle when we got home.

I've never once seen VLI or Republic staff doing litter patrol on the highway. The trucking companies clearly aren't taking responsibility for their mess. It falls on Benton Co work crews and volunteers to clean up after these corporations. Enough is enough. Stop the landfill expansion now!

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This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 209.107.192.95

From: Willow Holdorf
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Monday, April 28, 2025 8:15:48 PM

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

Dear Benton County Planning Commissioners,

My name is Willow Holdorf and my family home is 38483 Plowshares Road, Corvallis, Oregon 97330. I live at 865 Pacific St., Apt. 1, Brooklyn NY 11238.

I am extremely worried about how an expansion of the landfill would affect the neighborhood of my family home and do not understand why anyone would want more trucks driving from far away along highway 99 - affecting traffic and with a high carbon footprint. I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

As many have said, the proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- Air and water pollution threaten our local ecosystems and community health
- Traffic increases that pose safety risks on nearby roads and pathways
- Odor and noise issues that degrade quality of life for residents and visitors
- Negative impacts on wildlife, recreation, and property values
- Long-term climate and environmental consequences for future generations
- The proposed expansion does nothing to align with Benton County's 2040 Thriving Communities Initiative. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Willow Holdorf
Corvallis, Oregon 97330 and Brooklyn, New York 11238

From: Victoria Fridley
To: Benton Public Comment
Subject: Subject: Oppose/Deny LU-24-027
Date: Monday, April 28, 2025 5:00:01 PM

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

Dear Benton County Planning Commissioners:

Corvallis is a community that has drawn people to it for several reasons, but key among them is our commitment to preserving the beauty and health of our environment and our concern about uncontrolled growth. The people who live in the area around the Coffin Butte Landfill are our neighbors who face the degradation of their land and water. They want to remain in their homes, but even if they decide to move, they will not be able to sell their land at its true value—who will want to buy land where the wells are contaminated or dried up. Peavy Arboretum, a treasured sanctuary in our community, is also not far from this proposed expansion. This expansion is not being proposed to serve Benton County, but to serve the company's continued desire to provide landfill services to 27 counties in Oregon and even waste from Washington. We strongly oppose the expansion of the Coffin Butte Landfill. For more information about the proposed expansion, please see coffinbuttefacts.org

Victoria Fridley
Cheryl Johnson
Corvallis, OR 97330

From: Judith Kenner
To: Benton Public Comment
Subject: Deny LU-24-02
Date: Monday, April 28, 2025 5:58:28 PM

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Dear Benton County Planning Commissioners,

My name is Judith Kenner and I live at 1725 NW Garryanna St, Corvallis, OR 97330.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would **seriously interfere with the character of the surrounding area** and impose **an undue burden on public resources**, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- **Air and water pollution** threaten our local ecosystems and community health
- **Traffic increases** that pose safety risks on nearby roads and pathways
- **Odor and noise issues** that degrade quality of life for residents and visitors
- **Negative impacts on wildlife, recreation, and property values**
- **Long-term climate and environmental consequences** for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Judith Kenner

Corvallis, OR 97330

From:	DELAVEGA Marriah
To:	Benton Public Comment
Subject:	FW: Benton County Board of Commissioners, Oregon "Coffin Butte expansion" Planning Commission Application LU-24-027
Date:	Monday, April 28, 2025 1:21:18 PM
Attachments:	image001.png

Please see below.

Marriah De La Vega
Executive Assistant to the Board of Commissioners and County Administrator
D : 541-766-6800 C : 541-368-6985
Email:
marriah.delavega@bentoncountyor.gov
www.Bentoncountyor.gov

From: Benton County Board of Commissioners, Oregon <noreply_wordpress@bentoncountyor.gov>
Sent: Monday, April 28, 2025 1:14 PM
To: *Benton Web BOC <bocinfo@bentoncountyor.gov>
Subject: Benton County Board of Commissioners, Oregon "Coffin Butte expansion"

From: Ella May Wulff <ewulff@peak.org>

Subject: Coffin Butte expansion

Message Body:

Please add my name to those of the many other Benton County residents who oppose any expansion of the Coffin Butte landfill. I was appalled to learn that little Benton County is the repository for waste from about 20 percent of Oregon residents. This is definitely NOT beneficial to the county, no matter how much Republic Services pays the county for the privilege of contaminating our air and water. Nearby residents are already suffering from the noxious smells coming out of the present landfill, and all of us in future will undoubtedly have to pay for increased medical expenses, water treatment, etc. as landfill leachate makes its way through groundwater to wells and the river.

It is not in the interest of any county resident to expand the landfill. Its size should be permanently capped, and any future contracts between Benton County and the landfill managers should specify that only waste generated in Benton and the immediately adjacent counties is allowed in the Coffin Butte landfill.

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This e-mail was sent from a contact form on Benton County Board of Commissioners, Oregon (https://boc.bentoncountyor.gov)

Submitter's IP Address: 149.137.172.152

From: Mark Yeager
To: Benton Public Comment
Subject: Inadequate Traffic Impact Analysis - LU-24-027
Date: Monday, April 28, 2025 7:48:55 AM

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

I am submitting the attached letter in opposition to the proposed development to expand Coffin Butte Landfill.

Sincerely

Mark Yeager

April 28, 2025

Chair Fowler and Members of the Commission

Subject: LU-24-027; Inadequate Traffic Impact Analysis (TIA)

After reading the staff report for this proposed development, including the April 17, 2025, letter from Kellar Engineering, and the April 9, 2025, memo from Benton County Public Works to Benton County Community Development, I am compelled to reiterate that the information and analysis presented in the February 26, 2024, Transight Consulting TIA is not adequate to allow for a reasonable evaluation of the impact of the proposed landfill expansion on the transportation system.

The primary deficiencies are discussed in detail in a letter submitted to you on April 21,2025, and include:

- Site trip generation and system performance analysis is limited to use of the site's 2023 driveway movement volumes and does not consider the impact of rerouted internal trip generation.
- The TIA lacks an evaluation of whether there are any "in process" developments or changes to the County road or State highway system that could impact the study area.
- The method used by the TIA to estimate future site trip generation **inaccurately assumed that the proposed site expansion would not result in the potential for any increase in site trips beyond what could have otherwise occurred at the existing facility**.
- The analysis did not include the impact of **removal of the annual tonnage cap** on trip generation.
- The TIA's analysis of needed transportation system improvements is insufficient due to its being based solely on (underestimated) 2023 volumes.
- The analysis did not include the impact of **removal and transport of 3.5 million cubic yards** of material from the excavation for the new development.

In the absence of a revised TIA that accurately describes the proposed development's impact on the transportation system, we recommend denial of this application.

Respectfully submitted,

Mark Yeager, PE

PO Box 1290, Albany, OR 97321

From: Darena Yee
To: Benton Public Comment
Cc: Darena Yee
Subject: Oppose/Deny LU-24-027
Date: Monday, April 28, 2025 12:16:32 PM

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

Dear Benton County Planning Commissioners,

I am writing to strongly oppose Republic Services' Conditional use Permit application LU-24-027 to expand the Coffin Butte Landfill. Please deny this application.

I moved with my family to Corvallis 6 years ago, falling in love with the abundance of nature all around us. Probably like you, I felt so lucky to be living among the generations-old trees and watch the rushing flow of the Willamette River. We found a sweet little park in Philomath where little kids would watch for tadpoles along a bank of the river while older people floated in their innertubes. Our dog would leap in the river dodging the little kids while fetching a stick. I thought I must've done something really good in a past life to have lucked into living in such a treasured spot on our planet.

But just in the few years I've lived here, there is such a profound difference in our experience living here. It literally stinks here on most mornings these days! It doesn't matter the season or if the sun is shining -- the air stinks to the point of our staying inside closing all the windows. Then on my drive to Monmouth for weekly dog obedience classes I saw exactly what was causing the stench. I could smell the Coffin Butte landfill miles before I'd pass it on 99. The landfill scale seemed much larger than what our community would fill so I looked into how we in Benton County could all help limit the amount of our own garbage. Hah, it wouldn't have made much of a difference because I then found out that our county has accepted garbage from outside our own county, even as far as from a county in Washington. Whhhhat???? And now Republic wants to expand and add further toxic plumes to the Benton County environment?

The amount of poisonous plumes and toxic leaching of our river and soil is increasing every day. The stench, once periodic, is now a weekly occurrence. The stench is a nagging warning to be heeded. Even our wineries are affected in that when Emerson was about to close on the sale of their winery, the buyer that day smelled the landfill stench. The buyers backed out of the sale. How many other property sales need to be adversely affected by the stench and other hidden poisonous implications of the landfill before we do something about it?

In January, the EPA Enforcement initiated an action against Coffin Butte Landfill. This is significant because of the possible implications of danger to our quality of living. Republic has not met their Burden Of Proof on how the dangers the landfill is causing to our environment. The expansion would be a gateway to continued expansions and their ability to ignore subpoenas. Please, Planning Commissioners, be the change you want to see in the healthy future of all the families, human and wildlife alike, and deny LU-24-027.

Thank you.

Darena Yee

2858 NW Monterey Pl
Corvallis, Or 97330

From: Liz Baker
To: Benton Public Comment
Subject: Oppose LU-24-02
Date: Monday, April 28, 2025 12:15:11 PM

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Dear Benton County Planning Commissioners,

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would **seriously interfere with the character of the surrounding area** and impose **an undue burden on public resources**, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- **Air and water pollution** threaten our local ecosystems and community health
- **Traffic increases** that pose safety risks on nearby roads and pathways
- **Odor and noise issues** that degrade quality of life for residents and visitors
- **Negative impacts on wildlife, recreation, and property values**
- **Long-term climate and environmental consequences** for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities! I am appalled to know that only 7% of the garbage disposed here comes from Benton County. Republic Services is getting RICH at Benton County's citizens expense.

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Elizabeth Baker
Corvallis, OR 97330

From: Erin Bradley
To: Benton Public Comment
Subject: Deny LU-24-027
Date: Tuesday, April 29, 2025 3:24:31 PM

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Benton County Planning Commissioners,

I respectfully request you deny LU-24-027.
This proposal would not only affect the use and enjoyment of our land but possibly render it useless. I am very worried the dewatering may cause huge issues with our well. The blasting would stress our animals and cause health issues with them. We have many 4H animals and some are also therapy animals that serve the disabled in the community.

Lowell and Erin Bradley
38578 Hwy 99w
Corvallis Oregon 97330

We reserve the right to future testimony.

From: A.
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Tuesday, April 29, 2025 8:46:44 PM

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Dear Benton County Planning Commissioners,

My name is Ashley Brown, and I live at 8102 Daphne Court, Adair Village, Oregon 97330.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

I am a lifelong resident of Corvallis, and within the last year have resided in Adair Village. I love this area because of the diverse wildlife surrounding the area. The growth in the Adair Village town has significantly grown in population over the last few years, and is not slowing down. Please take this in account when denying the expansion proposal - THE PEOPLE. THE RESIDENTS. Our day to day lives are already impacted by the landfill; the odor, the truck traffic on the highway, the litter on the roads coming off the trucks traveling to/from the landfill, the hazard to the wildlife - the character impact is already negative for the surrounding area and its residents.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- Air and water pollution threaten our local ecosystems and community health
- Traffic increases that pose safety risks on nearby roads and pathways
- Odor and noise issues that degrade quality of life for residents and visitors
- Negative impacts on wildlife, recreation, and property values
- Long-term climate and environmental consequences for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Ashley Brown - 8102 Daphne Court, Adair Village, Oregon 97330

From:	Community Development, Benton County, Oregon
To:	Benton Public Comment
Subject:	LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date:	Monday, April 28, 2025 9:58:53 PM

Subject of Testimony: coffin butte landfill expansion

Full Name: Carolyn Choquette

Email: choquette@casco.net

Street Address: 24930 Grange Hall rd Philomath OR 97370

Written Testimony:

I oppose the plan to expand the landfill at Coffin Butte.

The data shows present monitoring and capture of methane is woefully mismanaged, often exceeding regulations.
I strongly feel that leachate monitoring is grossly inadequate. It does not address monitoring for PCB, Pharmaceutical pollution, and the recently rediscovered past radioactive contamination. Additional tests should be added to well/groundwater monitoring and not just a few times a year. To ignore this will gravely endanger our our county's present and future health. We cannot continue to lethally dirty our nest.
Republic and Benton County now allow multiple municipalities the use of Coffin Butte. All this out-of-county garbage is quickly diminishing the lifetime of our landfill, thus accelerating its early demise. This will move County decisions for replacement forward,giving the country less time to thoughtfully plan and budget for future alternative solutions.
The 30% out-of-county waste contributions to Coffin Butte also exacerbates the pollution problem in other ways. Tailpipe CO2 additions due to long distance transport on top of alarming methane,leachate, smell and increasing traffic and litter problems further compounds the damage to our counties health and well-being and environment.
Given these undeniable facts,it becomes clear that the country should HALT THE EXPANSION OF THE CB LANDFILL. DEVELOP MORE STRINGENT TESTING AND MONITORING. END OUT-OF-COUNTY USE/ACCESS. AGGRESSIVELY PURSUE A REGIONAL/STATE SOLUTION TO THE GROWING PROBLEM OF MANAGING OUR SOLID/LEACHATE WASTE.

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 149.137.181.23

From: Zack Dahl
To: Benton Public Comment
Subject: Coffin Butte Landfill Proponent
Date: Wednesday, April 30, 2025 3:15:50 PM

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To Whom It May Concern:

Oregon's landfills are renowned for their advanced waste handling methods, serving as a crucial component of our waste management system. These facilities are meticulously designed to safeguard the environment by securely containing waste and capturing the offsets generated during decomposition. This collaborative approach ensures that everyone involved contributes to the responsible disposal of non-recyclable items, benefiting Oregonians as a whole.

However, the United States faces a critical shortage of outlets for recycling, reuse, and waste reduction. Consequently, landfills play a vital role in securely storing discarded waste items.

It is disheartening to observe the societal mindset that has allowed us to adopt a "not in my backyard" attitude. This attitude has led to the unfortunate practice of shipping waste over long distances to remote "rural" sites for disposal. This practice merely shifts waste from one location in Oregon to another, resulting in the same offsets as a landfill situated in Benton County. Is this truly an acceptable solution?

Benton County's climate goals demand a comprehensive approach to waste management. Considering the significant amount of CO2 produced during the transportation of this material to Eastern Oregon, it is crucial to assess whether this action truly aligns with Benton County's climate objectives. Instead of merely shifting offsets from one county to another, we must ensure that our actions truly benefit all Oregonians.

The closure of a landfill raises concerns about the potential need for the approval of transfer stations to handle bulked-up discarded waste. These facilities continue to pose challenges such as noise, odor, bird issues, and emissions, resulting in the same negative complaints that have plagued landfills in the past. Therefore, we must carefully consider the long-term implications of our decisions and ensure that we are taking the most effective steps to address waste management concerns.

Benton County's ongoing expansion of housing projects inevitably leads to an increase in waste generation. This raises the question of where this additional waste will be disposed of. It is essential to strike a balance between accommodating growth and maintaining sustainable waste management practices.

If the landfill isn't located where it currently is and is closed, all the waste it accepts will now have to be transported through Portland. This will undoubtedly add to the already congested freeways, resulting in increased emissions from trucks dealing with stop-and-go traffic.

For most companies that use the landfill, they can send multiple loads of waste daily. When these companies are forced to ship waste to regional landfills on I-84, multiple trucks will be required to transport the waste. These regional companies will now need three trucks to haul what one truck currently hauls daily, and all these trucks will still travel through Benton County.

This process and issue are likely to attract negative attention, so why do 135-300 opponents potentially have the power to influence over 500,000 solid waste and recycling ratepayers? These ratepayers will pay significantly higher fees to ship their waste over long distances, which will result in increased emissions that negatively impact our environment.

There are several other scenarios that could lead to more environmental impacts if the landfill doesn't exist. Remember, shifting waste from one community to another doesn't truly improve environmental consequences; it

merely exacerbates them.

This is a difficult decision, but it's crucial to make the hard choice that may not be popular with a few individuals versus a choice that affects 500,000 Oregonians. When that choice is made, remember that you have the opportunity to shape the future of an environmentally sound landfill.

I urge you all to support the landfill's continued operation. Listen to the opponents' concerns, and then work along with regulatory agencies, staff and Republic Services, so you all can create an even more advanced and state-of-the-art landfill that can handle waste until new markets emerge to help us reduce the amount of waste we place in landfills.

Sincerely,

Zack Dahl
President
Dahl Disposal Service Inc.

From: Lisa Edwards
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Tuesday, April 29, 2025 10:37:30 PM

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Dear Benton County Planning Commissioners,

My name is Lisa Riella Edwards] and I live at 2250 NW Estaview Circle in Corvalis, Oregon.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- Air and water pollution threaten our local ecosystems and community health
- Traffic increases that pose safety risks on nearby roads and pathways
- Odor and noise issues that degrade quality of life for residents and visitors
- Negative impacts on wildlife, recreation, and property values
- Long-term climate and environmental consequences for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,

Lisa Riella Edwards
Corvallis, OR 97330

From:	Community Development, Benton County, Oregon
To:	Benton Public Comment
Subject:	LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date:	Tuesday, April 29, 2025 1:57:07 PM

Subject of Testimony: Reject Expansion Proposal from Bad Actor Applicant

Full Name: Paris Edwards

Email: toeheeltoe@gmail.com

Street Address: 1525 NW 29th St. Corvallis, OR 97330

Written Testimony:

Expansion of the Coffin Butte landfill carries large financial, human health and environmental risk. Most of what I can share will have been repeated by the more than 5,000 other public comments submitted on this topic, but I will summarize for leadership in a way that is very clear:

Benefits of expansion:
Approximately six additional years of waste disposal (that's about 6.6 million tons of additional waste)
Low to no changes in waste disposal costs to the public
Private profit

Costs of expansion:
Allowing an entity that fails to control methane emissions to expand operation and likely profit. These leaks are a local fire risk (cost to City/County), a local health risk, a state and global emissions problem.

Continued and increased (more waste= more pollution) air and water pollution at unknown levels into the future. This puts public health and the environment at risk. The "honor system" of compliance is not working at Coffin Butte and the company has no incentive to self limit damages.

Opportunity loss to use this land and encourage investment in improved waste management technology. If Lane County can do it, so can Benton County. We should support alternative permittees with a better waste model.

There is much much more to say but the rational decision is clear. It does not make any sense to permit a company to expand its current practice when that company has a history of noncompliance with basic safety standards. You will have been reminded by nearly all public comments that on one day, from one EPA visit 21 testing locations found and reported methane emissions more than 20 times the highest allowable limit. The prospective permittee is in no way a trusted or reliable land use steward. Waste disposal is a necessity. Yes we need waste disposal but not from this bad actor operator. Let Lane County's investment in state of the art facilities be a model that exists just next door!

--
This is a notification that a contact form was submitted on your website (Community

Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 50.39.193.207

From: Kenneth Edwardsson
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Monday, April 28, 2025 2:46:20 PM

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Benton County Planning Commission

Benton County Community Development
<!--[if !supportLineBreakNewLine]-->
<!--[endif]-->

We assert that any approval of Application LU-24-027 would directly violate Benton County Code criteria that are outlined in the attached Edwardsson Testimony PDF document.

We further assert that such a decision would violate or otherwise evade County Comprehensive Plan policies.

Ken & Sarah Edwardsson
28840 Daystar Drive and 28903 Tampico Road
Corvallis, OR 97330

Date: April 28, 2025

Reference: LU-24-027, Coffin Butte Landfill Conditional Use Permit Application

To: Benton County Planning Commission
Benton County Community Development
4500 SW Research Way
Corvallis, OR 97333-1139

We appreciate the opportunity to comment on the future of the Coffin Butte Landfill, a county planning decision of great concern to us as a directly adjacent parcel to the parcels of this Conditional Use Permit application.

Situation:
Since 2017, my wife and I have worked in conjunction with the Natural Resource Conservation Service and have made a significant investment (over $150,000) to conserve and improve the rare oak woodland and savanna habitats found on our parcel. Oak habitat conservation is a key objective for both state and federal agencies as well as local environmental organizations. These rare and historically important oak habitats currently represent just 1% of their original (pre-settlement) area. There are several key species of note that exist in our oak habitat, one is Kincaid's lupine which is a critical element in supporting E.E. Wilson's management efforts to establish this imperiled plant species and its efforts to foster the Fender's blue butterfly populations in this area. Our parcel is also a key migration corridor for Roosevelt elk moving between Soap Creek and E.E. Wilson Wildlife Refuge. Additionally, our land has been a working farm continuously since the establishment of the Donation Land Claims (DLC) act of 1850, there after recorded as the George W. Roberts Donation Land Claim.

The landfill is completely visible to our north from the house and is both a land scar and eyesore. Daily noise from the sound of machinery and truck backup alarms significantly disrupt the tranquility of our natural surroundings. Lastly, we have significant concern for our air quality from both the foul odors and from the health consequences of high discharges of methane leaking from the site. Increasing the size of this adjacent nuisance is not consistent with Benton County's development plan.

We oppose any further expansion of the Coffin Butte Landfill and urge the Planning Commission to reject this application. We believe the Planning Commission will find that the Applicant, Republic Services, does not provide evidence to conclude that conditional use permit issuance would not violate County Development Code criteria and Comprehensive Plan policies. Further, based on its current performance, Republic Services cannot be expected to demonstrate that it can assure the County of its future compliance with any conditions that the county might issue.

We assert that any approval of Application LU-24-027 would directly violate Benton County Code criteria that are subsequently outlined. We further assert that such a decision would violate or otherwise evade County Comprehensive Plan policies.

Significant Conflict #1 with the Benton County Development Plan
Development Code Chapter 53: Conditional Uses; Administrative Procedures, General Review

BCC 53.215 (1): The proposed use does not seriously interfere with uses on adjacent property, with the character of the area, or with the purpose of the zone;
BCC 53.215(2): The proposed use does not impose an undue burden on any public improvements, facilities, utilities, or services available to the area;

The proposed use does seriously interfere with our adjacent private property. Current landfill operations significantly alter and disrupt the ecological, visual, and rural character of both the zoned area and all other surrounding zoned uses, and thereby greatly exceeds the purpose of the zone. The landfill is dominantly surrounded by EFU, Forest Conservation, Wildlife Conservation, and Rural Residential properties, and it has been clearly established that the current landfill use already imposes an undue burden on public rights-of-way, transportation routes, esthetic and scenic values, and nearby recreational opportunities at state facilities, along with greatly increased traffic, incidental refuse, incompatible noise, noxious odor, combustible vapor, and contaminated air, soil and water. Such grievous current offenses cannot justify its furtherance or any proposed increase in its size or use.

Significant Conflict #2 with the Benton County Development Plan
Benton County Comprehensive Plan Goal 5 Overview: Natural Resources, Scenic & Historic Areas, Open Spaces.
Relevant Policies
5.4.2 *Benton County shall promote private land stewardship of farm and forest lands, respect private property rights, and work with non-profit groups and others to maintain a comprehensive system of connected open spaces that will protect the most valued natural, scenic, and recreational areas of the county.*
5.9.4 *In making land use decisions, Benton County shall protect identified sensitive wildlife habitat types and wildlife corridors from adverse impacts.*
5.9.5 *Benton County shall notify the Oregon Department of Fish and Wildlife (ODFW) early in the review process and collaborate with that agency regarding zone and plan amendments, conditional use permits, and subdivision and series partition applications in areas that include habitat types identified by ODFW as Habitat Conservation Priorities: in-stream habitat, native prairie grasslands, oak woodlands and savannas, riparian floodplains and wetlands.*

We are not aware of any discussions between Benton County and ODFW, or any other state or federal agency to identify and protect sensitive plant and wildlife habitats on adjacent parcels to the current landfill site. We are concerned that any continued expansion of landfill operations southward will disrupt these sensitive habitats found on our land, but also other parcels along Tampico Ridge. We have no evidence of discussions that consider the impact a landfill expansion would have on our conservation parcel of oak woodlands and savannas or any other parcels in proximity to the current site.

Relevant Policies

5.8.2 *Benton County shall require developers to provide sufficient information to enable Benton County to evaluate whether a proposed use could adversely affect the sustainability of aquifer production when reviewing land use applications.*

6.1.2 *In cooperation with appropriate agencies, Benton County shall manage its air, water and land resources to insure their protection, conservation, restoration, or enhancement.*

6.5.7 *Benton County shall maintain a committee that advises the Board of Commissioners on solid waste and disposal site issues.*

6.5.8 *Benton County shall assure safe, accessible, and environmentally sound disposal of solid waste at the Coffin Butte Regional Sanitary Landfill.*

By policy, Benton County is required ("shall") manage its air, water and land resources to insure their protection or conservation. Approval of Application LU-24-027 will create the following conflicts #3, #4, #5, and #6 with the Benton County Development Plan policies.

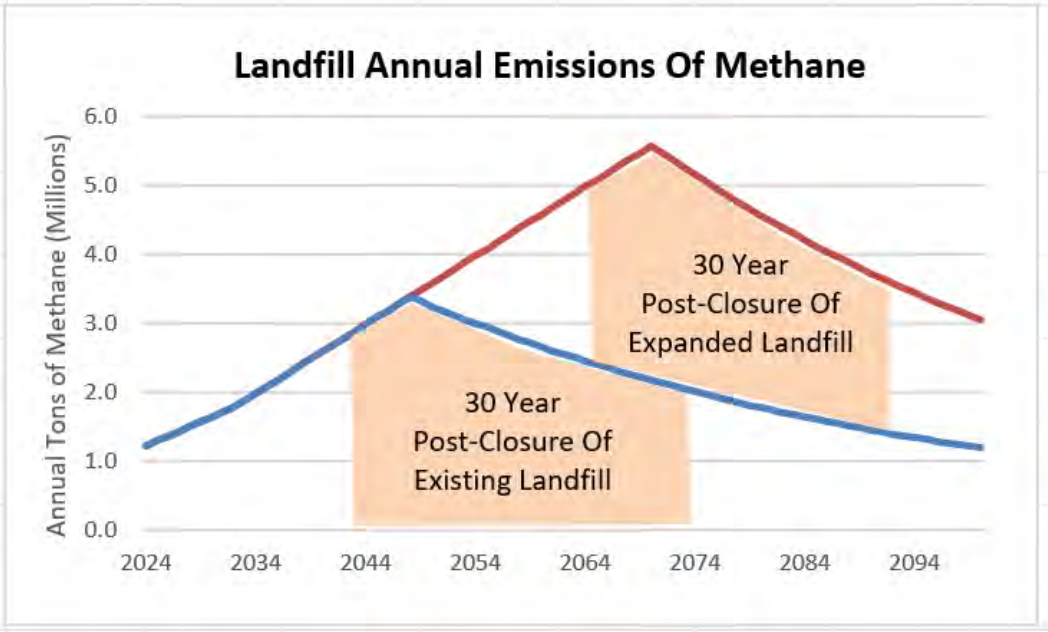
Conflict #3: Landfill Impact on Air Quality – Today and long into the future

Based on information sourced from the current landfill operations, annual methane emissions exceeded 1.2 million tons in 2024. The gas collection wells used to collect methane from the existing cells collected about 70% of this volume, directing half for conversion into electricity, and the other half being flared into the atmosphere. The remaining volume of 30% represents fugitive emissions into the atmosphere as documented by Carbon Mapper. These fugitive emissions are under study by the EPA and Oregon DEQ as these are very high levels and greatly exceed the regulatory standards for lawful landfill operation. Republic has not demonstrated the capability to collect and contain these emissions, as prior inspections have documented. As trash continues to be added to the current landfill area through a future closure, methane emissions will continue to rise until well after the landfill is closed. Since the current capacity for onsite gas to electricity and flaring also has a fixed capacity, without further upgrades to that equipment, future emissions will continue to be a major issue.

Conflict #4: with the Benton County Development Plan:

Benton County Has No Reserve Fund Against the Future Liability and Cost for Methane:

The landfill operator is required to complete a DEQ mandated Post Closure Report every four years. Looking at the numbers provided in this report, it suggests that the by the end of the landfill post-closure term of 30 years, that the landfill emissions of methane and leachate will be minimal. This implies that when the landfill is returned to Benton County it will have no related ongoing costs. One of the key assumptions imbedded in this report is that the closure process will decrease the leachate and methane production quantities dramatically by the end of the 30 Year post-closure period. Looking at comparative data from other landfills, it would suggest that the management of leachate and methane will continue to represent a significant cost for the residents of Benton County after the post-closure period. The post-closure report also shows methane production decreasing from closure Year 1 quickly through Year 10 (down to 70% of Year 1), then declining to 60% of Year 1 by Year 30. The assumption is that the landfill cap liner will help reduce methane production rapidly, however the process that enables the production of methane is a non-oxygen environment and that is not created immediately after closure. Instead, it keeps building after closure, and rises from Year 1 through Year 10, after which it begins a slow stable decline into the future. Methane emissions for the existing landfill will be roughly twice as large as current day emissions at the end of the post-closure period. If landfill operations are expanded this could increase to three times current day emissions at the end of an expansion based post-closure period.



Given these findings, it is very likely that much greater quantities of methane will be generated post-closure than are currently represented in the current landfills post-closure report. Therefore, methane emissions from the landfill will still be an important management issue long after the end of the Year 30 of the post-closure period. Benton County does not have on staff any expertise or capability to manage the collection and processing of these emissions, as such the county will need to hire external expertise or contract services to perform this function. This fact alone means that Benton County should have in place a contingency fund to cover future post-closure management costs and the potential for landfill environmental liability. A reserve fund was established early on for the landfill operator Valley Landfills to handle any unforeseen or unexpected environmental issues, but no equivalent mechanism was established to protect Benton County once the landfill closure period is completed. The existence of a reserve fund for the county is also necessary to protect against a situation where should Valley Landfills declare bankruptcy due to an excessively difficult or costly environmental issue, the burden could shift to Benton County for resolution or ongoing management. These costs mentioned are significant for the planned closure of the current landfill. Benton County should establish an annual reserve amount in the range of $1.5-2 million dollars annually for each remaining year that the current landfill remains in operation. This reserve is a necessary safeguard for county taxpayers to protect them from the environmental risks and the associated financial repercussions.

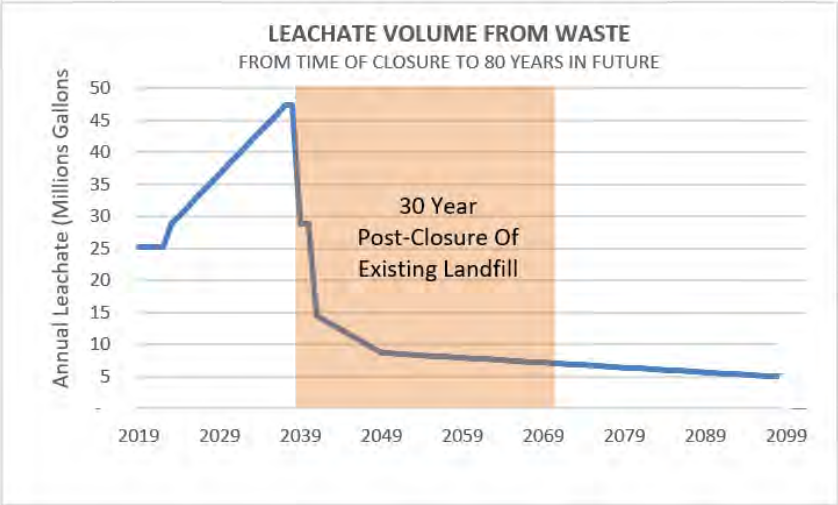
Given the potential liability of the existing landfill, moving to approve any new expansion of landfill operations will only serve to magnify the amount of methane that the landfill will produce annually and in total, and it would also create an even larger methane management problem for the future residents of Benton County. For this reason, we oppose any expansion of the existing landfill operations.

Conflict #5: Existing Landfills Impact on Water Quality – Today and long into the future

In the case of leachate, it has great potential to have major environmental impacts related to groundwater and surface waters. It is well documented that Republic Landfill sends about 30 million gallons of leachate to Salem and Corvallis water treatment plants (WTP)for disposal. These facilities do not have the

required technologies to remove the standard components of leachates. As such, it passes through these facilities into the Willamette River retaining much of its original toxic impact. Down river from these WTPs, there are multiple cities that source the Willamette River for drinking water – both people and aquatic species that are dependent on the river should not be exposed to this waste product in any form.

Our property, and that of many surrounding parcels depend on well water as our primary source of drinking water. Additionally, spring water from Tampico Ridge is also the sole source for livestock watering in support of our farming activities. Despite historical ground and surface water contamination on record, and knowing that there is a fractured basalt system underlying the landfill site, contamination of our aquifer remains a significant risk to our livelihood, and to the value of our property. Benton County has not provided an assessment of the risk or mitigation plan to prevent a future aquifer contamination. Information and analysis conducted on the aquifer to date has been insufficient , on that basis we are strongly against a landfill expansion.



Existing leachate annual volumes are already high and will continue to rise in direct relation to the amount of waste being added to the landfill. Once the existing landfill reaches closure circa 2040, leachate will have almost doubled, and will continue to be produced for future decades. Although decomposition will change the nature of the leachate chemistry, its toxic nature persists. Many investigations report concentrations of ammonia-nitrogen in the range of 500 to 2000 mg/l, and no decreasing trend in concentration with time. Ammonia is released from the waste mainly by decomposition of proteins. The only mechanism by which the ammonia concentration can decrease during refuse decomposition is leaching because there is no mechanism for its degradation under late stage (methogenic) conditions. (Robinson, 1995; Burton and Watson-Craik, 1998). Leachate toxicity to aquatic species is well documented. For this reason, several researchers have identified ammonia as the most significant component of leachate for the long term. Many county residents find the current landfill odors unpleasant, but future ammonia dominated leachate will be much more offensive and difficult to mitigate.

Lastly, risk calculations indicated that municipal solid waste landfill leachates may present as great a cancer risk as those from co-disposal and industrial solid waste landfills.

Conflict #6: Benton County Has No Reserve Fund Against the Future Liability and Cost for Leachate:
The leachate production is a function of moisture produced by the decomposing garbage and the annual rainfall the site receives. Being that the landfill site exists in a coastal moisture regime, the leachate the landfill produces will drop more slowly after closure, as the methane extraction wells are likely to allow additional moisture to enter under the closing liner. The existing post closure report assumes very little leachate at the end of the post closure period, but this is not consistent with other similar landfills for both leachate and methane projections.

Furthermore, in assessing the long-term stability of a landfill, the possibility that the integrity of the landfill cover will decrease must be considered. Should the cover integrity deteriorate, the quantity of leachate could actually increase long after landfill closure.

Significant Conflict #7 with the Benton County Leadership Policies and Practices
Operational Agreements of the Board of Commissioners, County Administrator, and Counsel
Policy 2.5. County Counsel Communication
The County Counsel is responsible for ensuring the Board is informed and supported in all legal matters. The desire of the Board is to delegate the legal representation to the County Counsel while recognizing the quality of County government depends upon the partnership and team concept between the Board, County Administrator, County Counsel, and County staff.
2.5.1. Accordingly, the County Counsel will:
a. Inform and seek the guidance of the Board on all significant legal issues that may expose the County to detrimental liability;

The Benton County government team has not done enough independent homework to understand the impact of current landfill operations and the future consequences of the post-closure landfill on the residents of Benton County. A wealth of study exists about working landfills and ones that have been decommissioned that provide insight into this complex topic.

The existing landfill currently represents a significant liability for all county taxpayers from both potential environmental risks to human health, and the economic impact of a significant negative environmental event. Both risks have significant financial implications for Benton County. For this reason, we strongly oppose any further expansion to operations of the landfill.

We appreciate the opportunity to share our observations with you.

Ken and Sarah Edwardsson
28840 Daystar Drive and 28903 Tampico Road
Corvallis, OR 97330

From: Egnahs
To: Benton Public Comment
Subject: Deny LU-24-027
Date: Tuesday, April 29, 2025 7:50:53 PM

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

Re-sending with correct landfill ref code
Sent from my iPhone

> On Apr 29, 2025, at 6:58 PM, Egnahs <egnahs@gmail.com> wrote:
>
> Hi,
> I hope my comment isn't too late. I have written comments before this year and participated in the 2023 survey. My current chief concerns are:
> 1) passing a liability to future generations
> 2) odor. Three times since Jan 2025, the odor from the landfill vigorously reached me while driving on Lewisburg Grainger Rd, and twice near the Highland Walnut intersection. And related, an out of town guest smelled the awful odor and said she would never move here because of it.
> 3) traffic. Really dangerous having a steady stream of trucks on 99, and also trucks turning on Independence off 20, and also on Lewisburg Grainger.
> Thank you,
> Hillary Egna
> Egnahs@gmail.com
>
>
>
>
> Sent from my iPhone

From: Peter Eilers
To: Benton Public Comment
Subject: Landfill expansion
Date: Tuesday, April 29, 2025 7:52:52 AM

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Please no more trash and trash trucks on Highway 99. There is no responsible plan for cleanup of wayward debris. A gazillion trucks go by my house each day, but this cushion will stay put until I pick it up and fill my trash bin with it…at my expense. We also regularly have bits of miscreant paper from the neighbor on recycling days.
This is one of the less toxic reasons not to approve landfill expansion.
Kay Eilers

Sent from my iPhone

From: Ken Eklund
To: Benton Public Comment
Subject: I oppose LU24027: its Burden of Proof underreports landfill gas emissions
Date: Monday, April 28, 2025 10:58:55 PM

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Benton County Planning Commissioners
c/o Planning Division 4500 SW Research Way, Corvallis, OR 97333
April 28, 2025

RE: Please Deny LU-24-027, Conditional Use Permit Application Regarding Landfill Expansion

Dear Chair Fowler and Members of the Benton County Planning Commission:

Thank you again for the opportunity to comment on the Conditional Use Permit (CUP) application submitted by Valley Landfills Inc.

One of the key concerns about any landfill expansion is the amount of additional landfill gas it would generate – whether "additional" means an increase in a yearly total (likely, because the landfill's volume cap would be lifted) or in duration (six more years of emissions), or both. Landfill gas emissions are a three-headed monster, the three heads being odor impacts, methane (source of massive climate damage) impacts, and toxics such as benzene and PFAS polluting areas and accumulating in the environment.

In the past, it's been difficult to measure landfill gas emissions accurately, but today new remote sensing technologies give us a much clearer picture of how well a landfill's gas collection system is doing. Those technologies have been applied to Coffin Butte Landfill, and they indicate that the landfill's operations do not do a good job at all. We can see this visually, in plumes of landfill gas drifting from the landfill into neighborhoods and spreading out for miles; we can see this also, in plumes that have very high leakage rates; we can see this also, in overflights that detect up to four major leaks all spewing at the same time; and we see that Coffin Butte Landfill *persistently* leaks landfill gas in large volumes. The remote sensing results are supported by EPA ground inspections which likewise discover multiple high-volume leaks of landfill gas and pervasive odor.

This disconnect – between the landfill's self-assessment of its gas collection efficiency, and independent surveys – cast doubt upon the accuracy of the air quality assertions in the applicant's Burden of Proof. Its odor, methane and toxics studies all use the self-assessed data as their backbone, and so the independent surveys cast doubt on the veracity of the applicant's studies. In addition, the applicant's self-assessed data is now being audited by the EPA, probably due to disconnects between what the data asserts about landfill operations and what the EPA inspectors observed at the landfill itself. From any angle, there are huge questions overshadowing the applicant's air quality assertions – enough, I feel, for the Planning Commission to deny the expansion application and feel good about doing it.

To enable you Planning Commissioners to better understand the new remote sensing technology, I've prepared the attached Explainer about Carbon Mapper, the science nonprofit that's been surveying Coffin Butte Landfill, in association with the EPA. It uses accessible language and has pretty pictures, so I hope you will give it a look.

Respectfully,

Ken Eklund

Ken Eklund, writerguy

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Creator of
World Without Oil
Ed Zed Omega
FutureCoast
and other storymaking games

CARBON MAPPER AND LANDFILL GAS

AERIAL METHANE GAS DETECTION AT COFFIN BUTTE LANDFILL

- An Explainer -

#methaneplumes • #CarbonMapper • #explainer

Takeaways from this document:

Carbon Mapper is an important independent resource for assessing the landfill gas emissions at Coffin Butte Landfill.

Carbon Mapper uses airborne and satellite sensors to plot and quantify plumes of landfill gas originating at the landfill and flowing into adjoining areas.

Every time Carbon Mapper has observed Coffin Butte Landfill, there have been at least one plume of landfill gas being emitted at EPA super-emission levels.

The Carbon Mapper data indicates that Republic's self-estimations of its "fugitive" landfill gas are much too low. Republic uses its estimations to model the impacts of landfill gas in its odor, greenhouse gas, and toxics emissions reports, and to self-assess its compliance in these areas.

Carbon Mapper's plume imaging and quantifications support public reports of intrusive landfill odor miles from Coffin Butte.

An Oregon Senate Bill, SB726, proposes requiring landfill owners to use advanced emissions detection technology (such as Carbon Mapper's) to more quickly detect and remediate large point source leaks, and better protect humans and the environment.

The Planning Commission concern is actual impacts of a proposed land use, not on compliance with regulation. The applicant's Burden of Proof fails to address the true emissions of its landfill gas leaks, and so the application should be denied.

What's happening?

Carbon Mapper, a climate science nonprofit, has been observing Coffin Butte Landfill since July 13, 2023. Using its advanced methane detection technology, it has gathered data about landfill gas being emitted by the landfill.

What kind of data is being collected?

This data focuses on point-source emissions at super-polluting levels (above 100 kilograms of methane released an hour). Carbon Mapper processes its data to:

- pinpoint the origin points of leaks;
- produce images of the plumes caused by the leaks;
- characterize the persistence of leaks at the facility;
- if possible, quantify how large a leak is (its emissions rate) when observed;
- if possible, quantify a characteristic overall emissions rate for the facility – its Source Emissions Rate.

Why is Carbon Mapper collecting this data?

Because point-source, super-emitting leaks are the "low-hanging fruit" of climate damage reduction. Leaks such as these create most of the climate damage, yet once identified, are easily found and can be quickly remediated by facility operators. Carbon Mapper is focused on using data to facilitate climate action.

How reliable is this data?

Carbon Mapper only publishes results above an appropriate confidence threshold. Emissions rate quantifications typically have a "confidence window" as well, expressed as a "+/-" range from a given number that is the midpoint of the range. The scientists at Carbon Mapper are continually refining their process; it's been very successful in California at gaining emissions reductions.

How did Carbon Mapper collect this data?

To date Carbon Mapper surveyed Coffin Butte Landfill eight times – six times by aircraft during an intensive 10-day period in July 2023, and twice by satellite, in September 2024 and March 2025. These surveys revealed five different origin point clusters, yielded 18 unique plume images, a Persistence Rating of 100% for the landfill ("there were always super-emissions present") and an overall Source Emissions Rate of 1.6 metric tons of methane per hour for Coffin Butte Landfill, plus or minus 0.6 metric ton per hour.

How do I convert this methane emissions data to landfill gas?

Carbon Mapper focuses on methane, because methane is a very harmful greenhouse gas: a metric ton of methane leaked into the atmosphere will do as much damage as 86 tons of carbon dioxide, over a 20-year period. At Coffin Butte Landfill, 53% of the landfill gas is methane; the rest is carbon dioxide and a wide range of other chemical gases, some of them toxic and odorific. To (roughly) convert the Carbon Mapper methane emissions to landfill gas emissions, multiply by 1.9. To get the landfill's Source Emissions Rate for landfill gas (as opposed to just methane), for example, take the methane rate of 1.6 metric tons x 1.9 = 3.0 metric tons of landfill gas per hour, based on Carbon Mapper's current quantifications for Coffin Butte Landfill.

What cautions apply to this data?

The main caution is irregular monitoring. Carbon Mapper observed Coffin Butte Landfill intensively in July 2023, as part of a nationwide survey of landfills; they have made two additional observations since then. With relatively few data points, we can say it's likely, but not definitive, that the landfill has been super-emitting at an average rate of 3 metric tons of landfill gas per hour throughout that entire period. Three reasons that support that estimation:

1. The Carbon Mapper observations are supported by EPA inspections of the landfill, which have also always found multiple high-volume leaks, and by hundreds of widespread community reports of landfill odor over the years, some of them from locations many miles from the landfill, which would suggest large plumes of landfill gas often being released.
2. Carbon Mapper has observed hundreds of landfills, some of them regularly, and they note in their findings that super-emitting leaks at landfills often go unremediated for months or years.
3. The plume origin points are in areas not monitored by the landfill operator.

How does Coffin Butte Landfill compare to other landfills, according to this data? Is Coffin Butte exceptional?

Yes. Other Oregon landfills such as Columbia Ridge and Short Mountain do not have persistent methane plumes at all. As part of its national survey, Carbon Mapper looked at super-emitting landfills as a group, and on average a super-emitting landfill was releasing 0.9 metric tons of methane per hour (was a super-emitter nine times over). At 1.6 metric tons per hour of methane, Coffin Butte

Landfill is well above that average, and is a super-emitter 16 times over. You can find out more at carbonmapper.org.

Enough discussion – I would like to see some plumes and data.

Certainly. Go to the bottom of page 5!

Does the Carbon Mapper data represent all the landfill gas that is leaking from Coffin Butte Landfill?

No. Carbon Mapper publishes data on point-source emissions from large leaks. It doesn't include point-source emissions from small leaks, or diffuse or area leaks. Republic has estimated their operational methane emissions rate to be about 1.07 metric tons each hour, and it's clear that some of that is small-scale or diffuse leakage that's in addition to what Carbon Mapper is detecting, but it's unclear at this time how much. If a lot of Republic's estimated methane emissions are from myriad small-scale leaks, then the landfill's total methane emissions rate may approach 2.6 metric tons per hour, which would be a landfill gas emissions rate of roughly 5 metric tons per hour.

How is Carbon Mapper's data relevant to the landfill's application to expand?

The landfill last tried to expand in 2021, and at that time, the Benton County Planning Commission cited concerns about methane as a reason to deny the application. The Planning Commission could not make a finding that expanding the landfill would not significantly impact the area, the character of the area, the burden of services to the area, etc. because of signs that the landfill had large emissions of landfill gas and the effects of those emissions were not known.

The situation today is much the same – except that now it's readily apparent that the landfill has oversize emissions of landfill gas. We can look at an image of a plume of landfill gas that is over a mile long, or of one estimated to be emitting over 10 metric tons of landfill gas every hour, for example. There are more questions now then there were in 2021 about the effects of these landfill gas emissions at these large volumes. There is evidence now that PFAS, the "forever chemicals," leave landfills in aerosolized form, i.e. as part of landfill gas, for example, and accumulate in the surrounding environment.

Republic Services says in its application that Oregon DEQ regulates environmental matters; this is irrelevant, however, because denying a land use application is not a regulatory action. Republic Services also asserts in its application that it is (or will be) in compliance with state and federal regulations, but that is irrelevant also. The Planning Commission has discretionary power to approve the application based on its findings that the proposed land use will not significantly impact other land uses, the character of the area, public facilities and

services, etc. The Commission's focus is on actual impacts, not on compliance/ non-compliance, and if actual impacts cannot be known or are not shown, the applicant has failed their Burden of Proof and the application should be denied.

1. CARBON MAPPER FINDINGS AT COFFIN BUTTE LANDFILL, JULY 2023: A WALKTHROUGH

Carbon Mapper included Coffin Butte Landfill, outside Corvallis in Oregon, as a target landfill in its nationwide survey of U.S. landfills in 2023, performed in partnership with the EPA. Coffin Butte Landfill may have been chosen because it was found to be out of compliance by an EPA inspection the year before, and that inspection in turn had been triggered by many community complaints in 2021.

Carbon Mapper flew over Coffin Butte Landfill on three separate days in July 2023 – July 13, 18 and 22. It overflew the landfill twice on each day, about two hours apart, for a total of six overflights.

Observations from these overflights showed there were four origin points all emitting high levels of methane at the same time. Super-emitting plumes of landfill gas were detected on the first overflight, throughout the survey period, and still present when the survey ended.

Five graphics follow:

1. POINT SOURCE MAP: THE FIVE ORIGIN POINT GROUPS. Carbon Mapper imaged 18 plumes, each with a specific origin point; these origin points fell into groups as shown in Figure 1.
2. REPRESENTATIVE PLUME, ORIGIN POINT GROUP A: Plume 1, 1.4 metric tons CH4 per hour. This image shows methane still at super-emission levels over a mile away from the landfill.
3. REPRESENTATIVE PLUME, ORIGIN POINT GROUP B: Plume 11, 1.4 metric tons CH4 per hour.
4. REPRESENTATIVE PLUME, ORIGIN POINT GROUP C: Plume 10, 5.3 metric tons CH4 per hour.
5. REPRESENTATIVE PLUME, ORIGIN POINT GROUP D: Plume 13, not yet quantified.

Figure 1

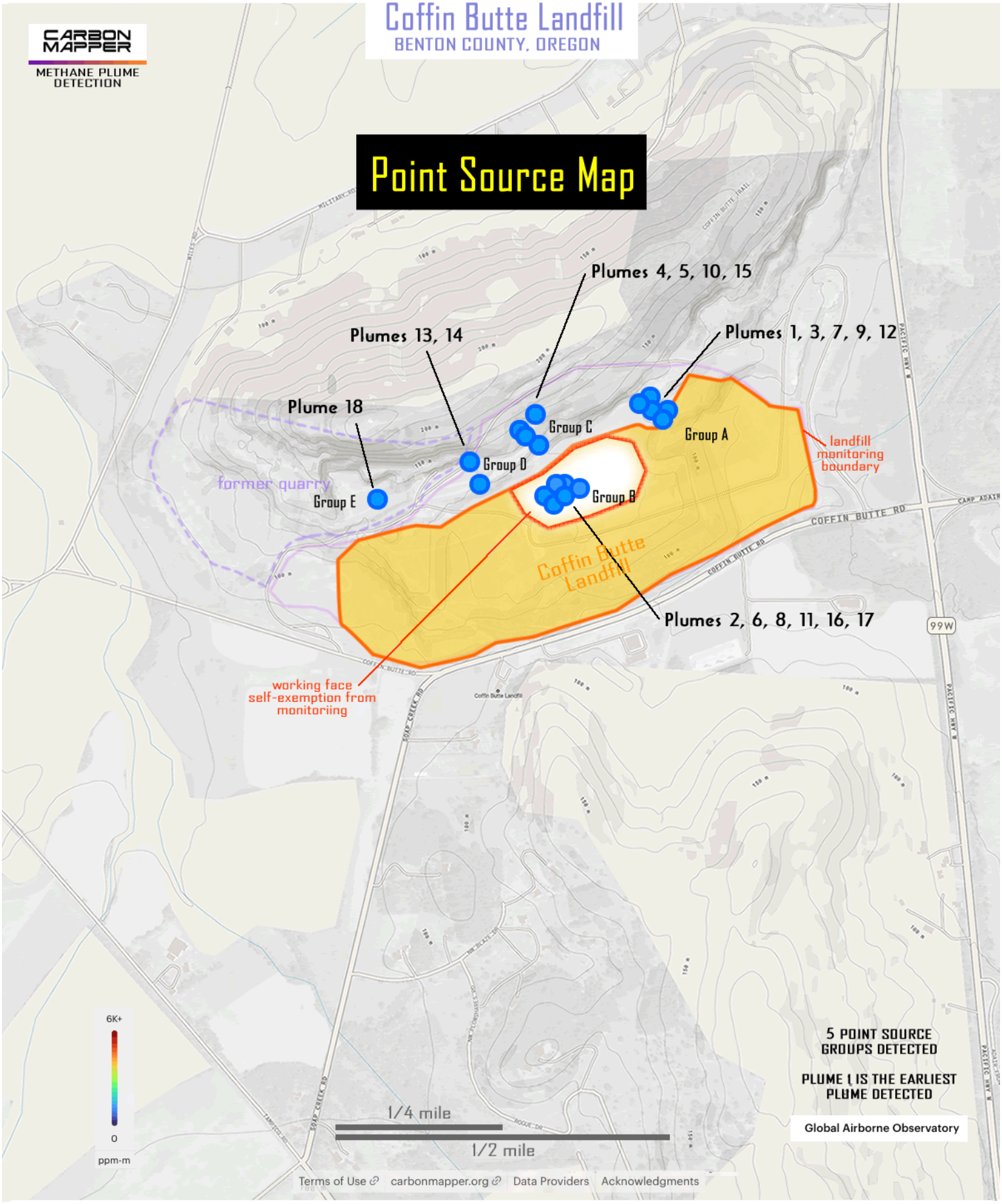

Coffin Butte Landfill
BENTON COUNTY, OREGON
CARBON MAPPER
METHANE PLUME DETECTION
Point Source Map
Plumes 4, 5, 10, 15
Plumes 13, 14
Plumes 1, 3, 7, 9, 12
Plume 18
Group C
Group A
Group D
Group E
Group B
landfill monitoring boundary
former quarry
COFFIN BUTTE RD
Coffin Butte Landfill
Plumes 2, 6, 8, 11, 16, 17
99W
working face self-exemption from monitoriing
6K+
0
ppm-m
1/4 mile
1/2 mile
5 POINT SOURCE GROUPS DETECTED
PLUME 1 IS THE EARLIEST PLUME DETECTED
Global Airborne Observatory
Terms of Use
carbonmapper.org
Data Providers
Acknowledgments

Figure 2

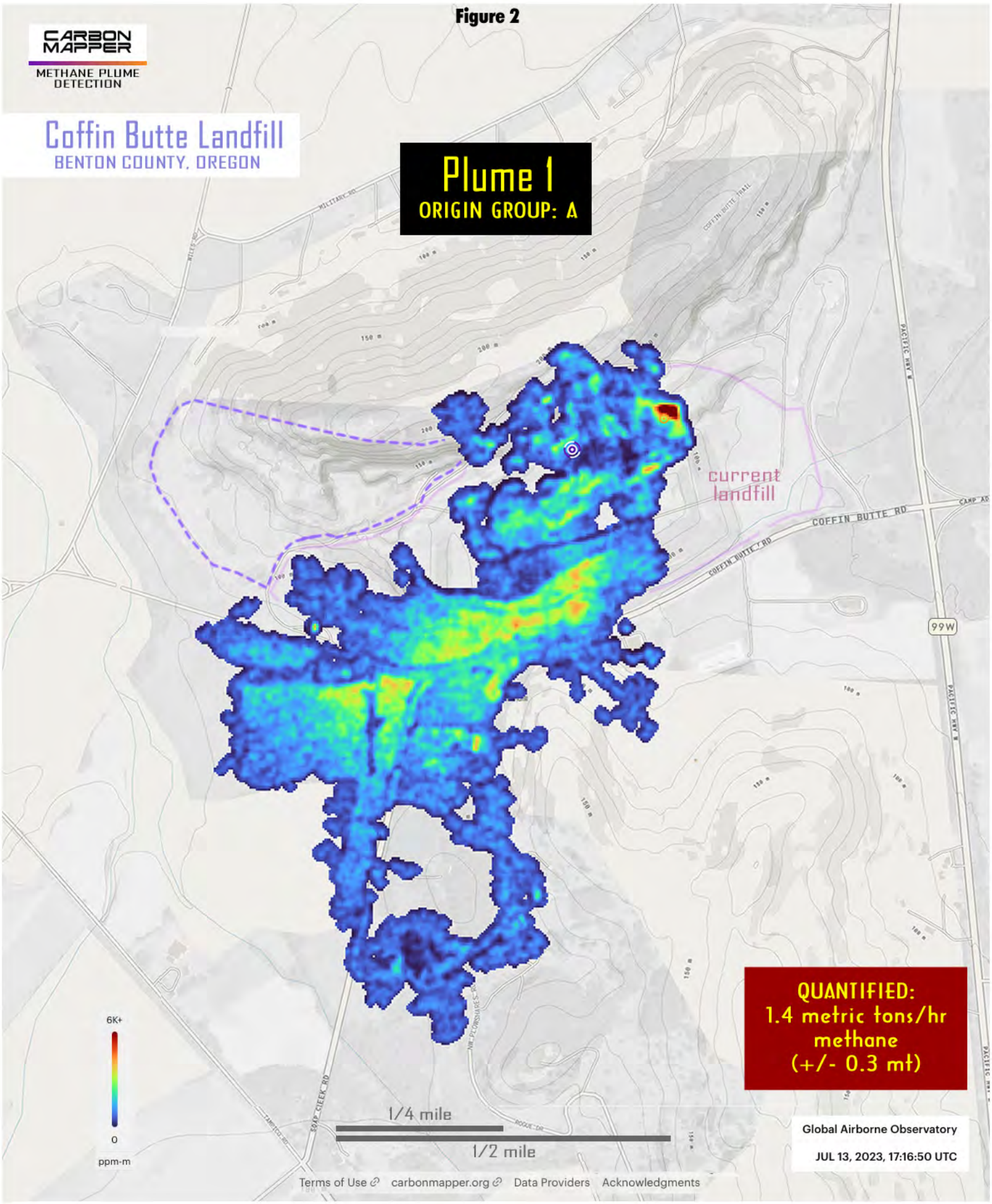

CARBON MAPPER
METHANE PLUME DETECTION
Coffin Butte Landfill
BENTON COUNTY, OREGON
Plume 1
ORIGIN GROUP: A
current landfill
COFFIN BUTTE RD
99W
QUANTIFIED:
1.4 metric tons/hr
methane
(+/- 0.3 mt)
6K+
0
ppm-m
1/4 mile
1/2 mile
Global Airborne Observatory
JUL 13, 2023, 17:16:50 UTC
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Data Providers
Acknowledgments

Figure 3

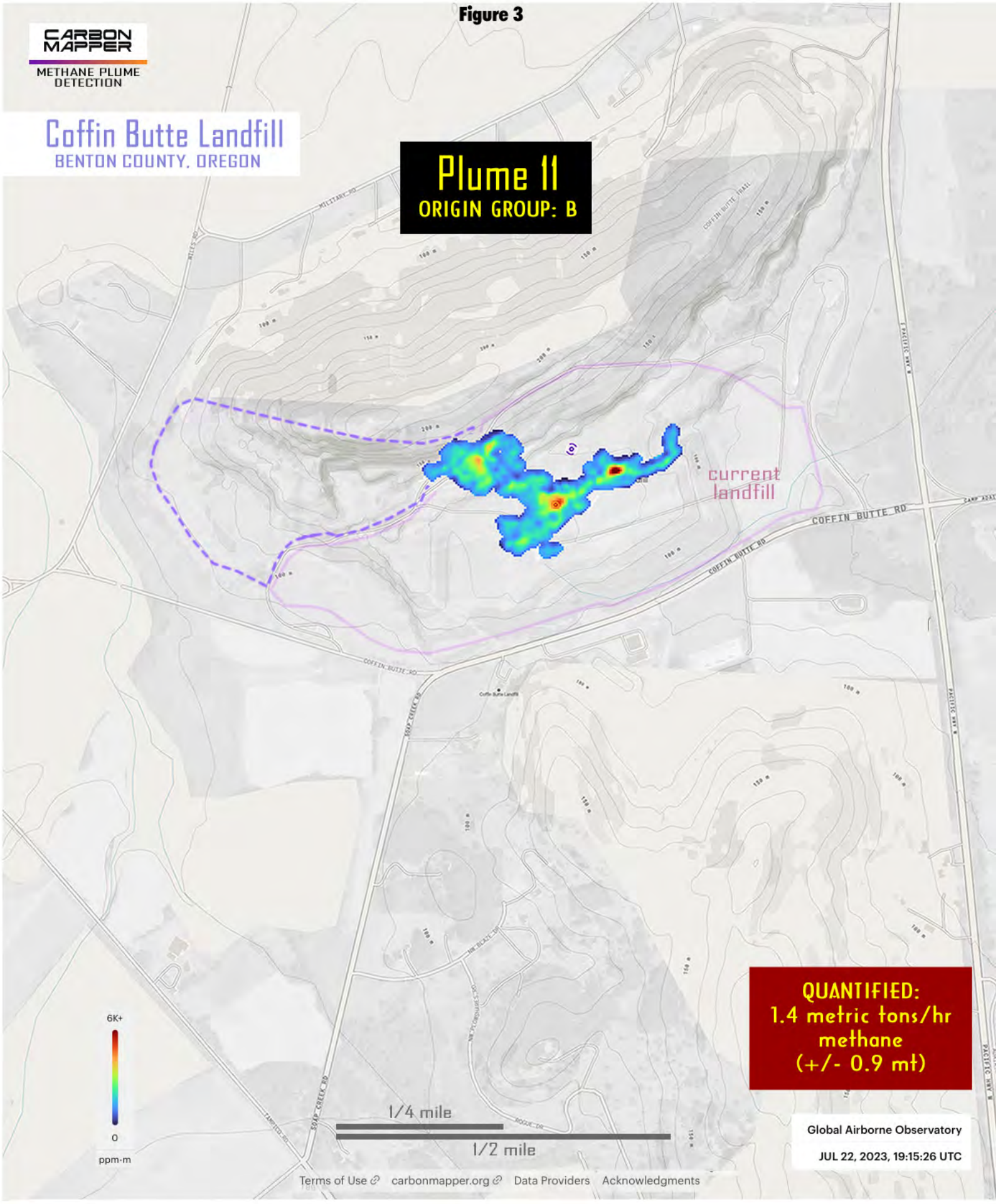

CARBON MAPPER
METHANE PLUME DETECTION
Coffin Butte Landfill
BENTON COUNTY, OREGON
Plume 11
ORIGIN GROUP: B
current landfill
COFFIN BUTTE RD
6K+
0
ppm-m
1/4 mile
1/2 mile
QUANTIFIED:
1.4 metric tons/hr
methane
(+/- 0.9 mt)
Global Airborne Observatory
JUL 22, 2023, 19:15:26 UTC
Terms of Use
carbonmapper.org
Data Providers
Acknowledgments

Figure 4

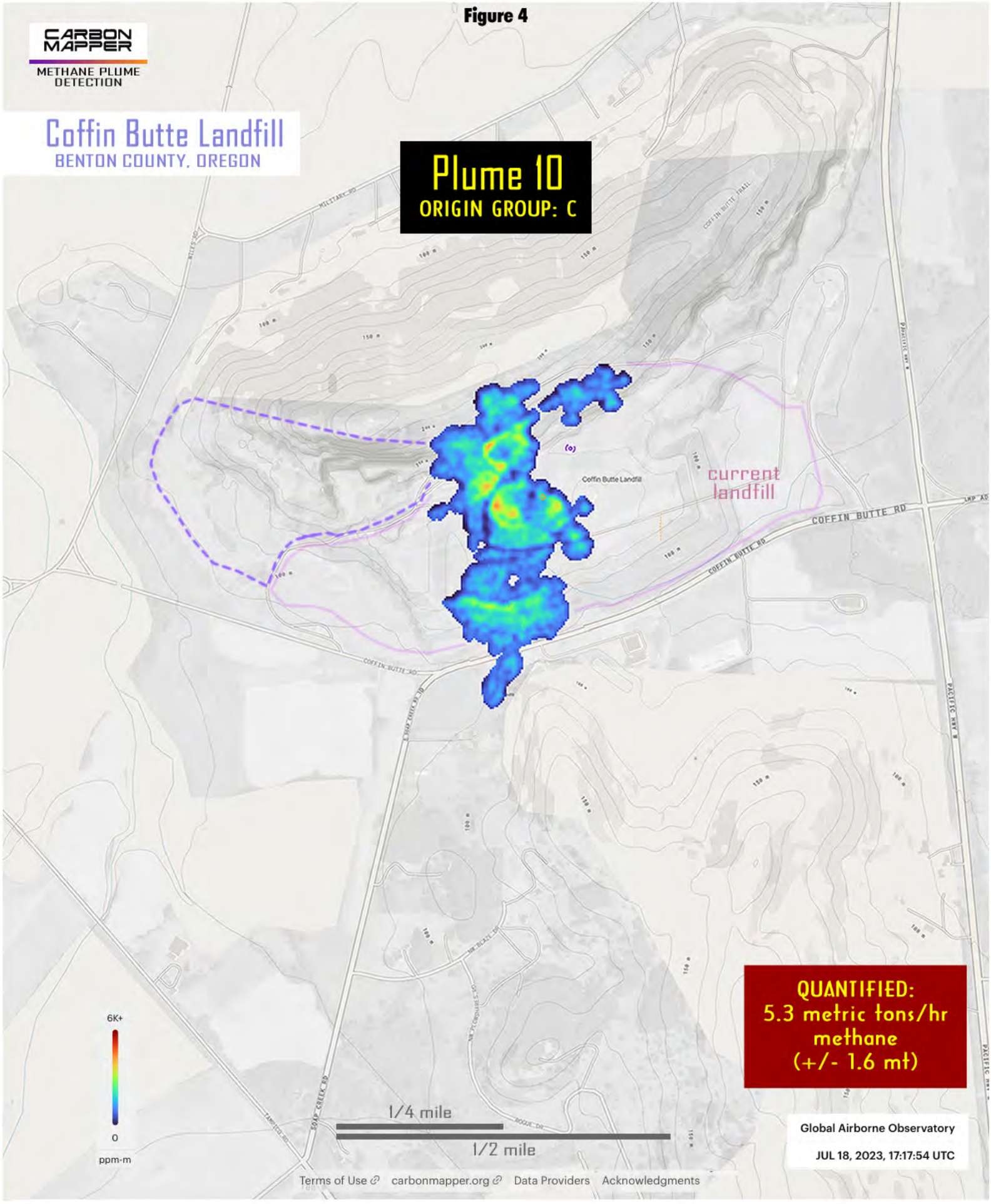
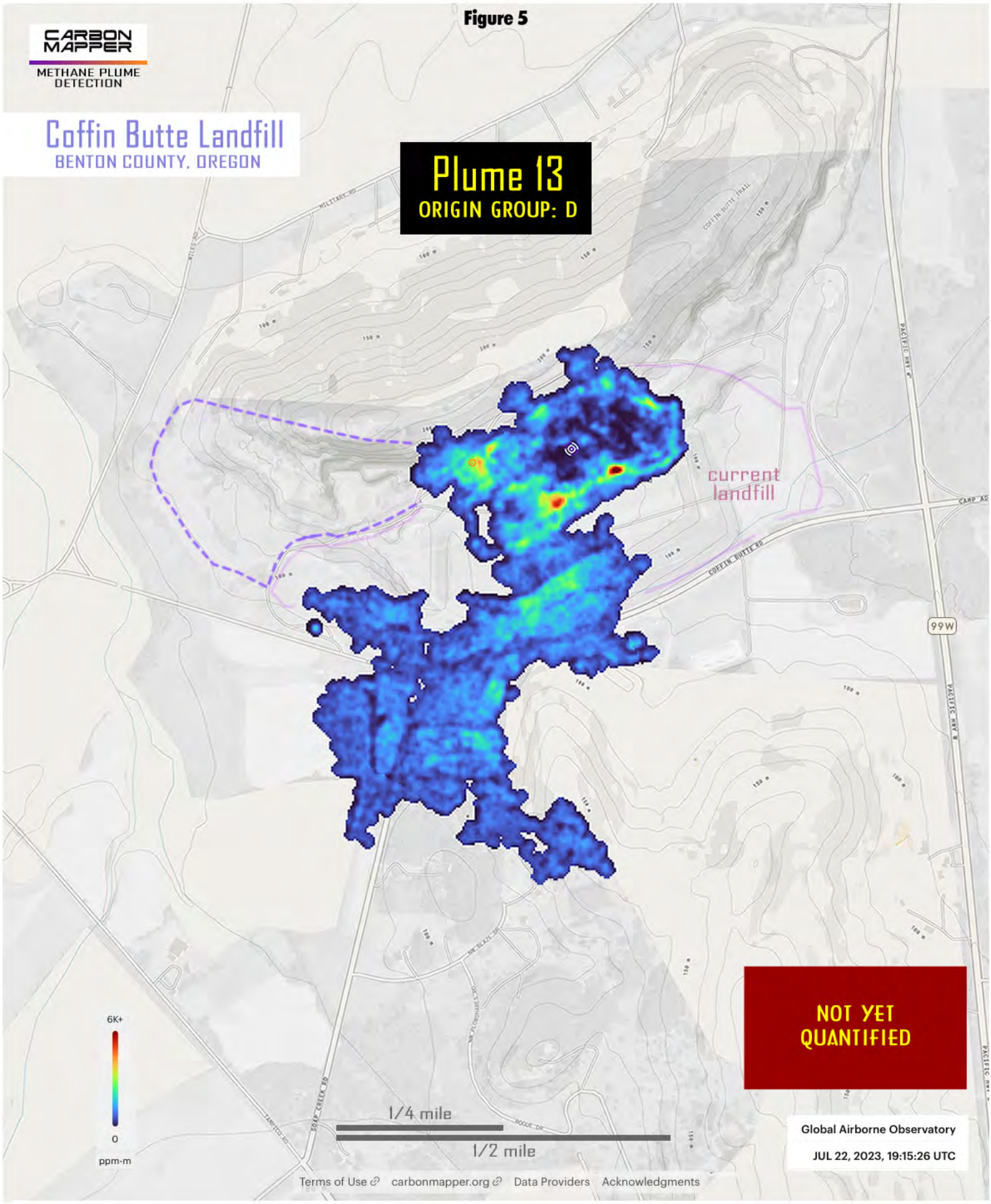

CARBON MAPPER
METHANE PLUME DETECTION
Coffin Butte Landfill
BENTON COUNTY, OREGON
Plume 10
ORIGIN GROUP: C
current landfill
COFFIN BUTTE RD
6K+
0
ppm-m
1/4 mile
1/2 mile
QUANTIFIED:
5.3 metric tons/hr
methane
(+/- 1.6 mt)
Global Airborne Observatory
JUL 18, 2023, 17:17:54 UTC
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Acknowledgments

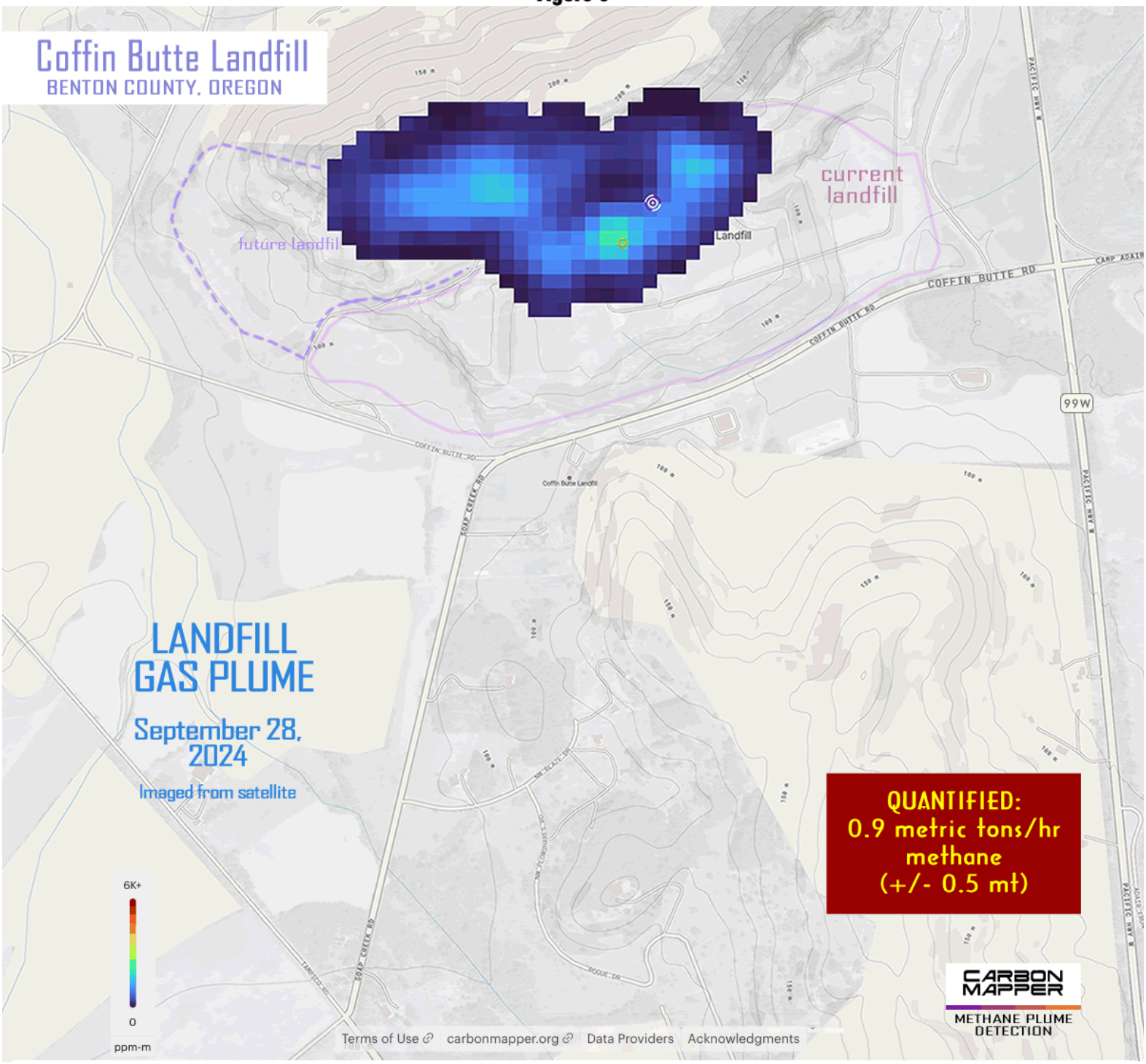
Figure 5


CARBON MAPPER
METHANE PLUME DETECTION
Coffin Butte Landfill
BENTON COUNTY, OREGON
Plume 13
ORIGIN GROUP: D
current landfill
99W
NOT YET QUANTIFIED
6K+
0
ppm-m
1/4 mile
1/2 mile
Global Airborne Observatory
JUL 22, 2023, 19:15:26 UTC
Terms of Use
carbonmapper.org
Data Providers
Acknowledgments

2. CARBON MAPPER FINDING AT COFFIN BUTTE LANDFILL, SEPTEMBER 2024: SATELLITE SURVEY, SOURCE EMISSION RATE

Fourteen months later, Carbon Mapper surveyed Coffin Butte Landfill again, this time by satellite (see Figure 6). The origin point for this plume is Group B, the same origin area as five other plumes previously. Taking all observations into account, Carbon Mapper now updates the Source Emission Rate for Coffin Butte Landfill to be 1.6 metric tons of methane an hour, plus or minus 0.6 metric tons, which is roughly 3 metric tons of landfill gas an hour, plus or minus 1.1 metric tons.

Figure 6

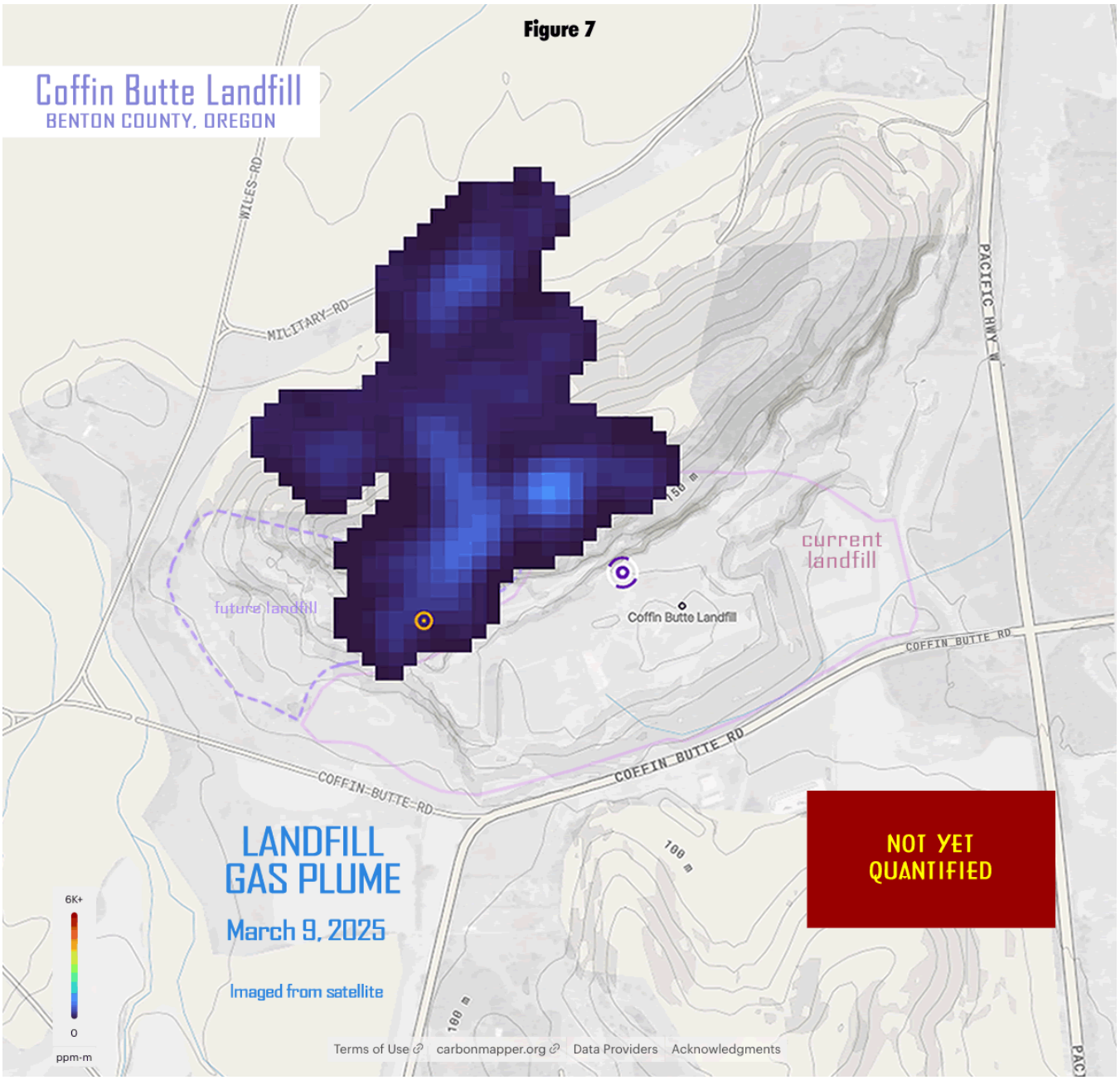


3. CARBON MAPPER FINDING AT COFFIN BUTTE LANDFILL, MARCH 2025: SATELLITE SURVEY, SOURCE GROUP E

Carbon Mapper surveyed Coffin Butte Landfill again by satellite last month. As in all previous surveys, a super-emitting methane plume was detected, Plume 18 (see Figure 7). The origin point for this plume is in a new area, Group E. Carbon Mapper hasn't yet released the quantification for this plume, so the landfill's Source Emission Rate remains unchanged at roughly 3 metric tons of landfill gas an hour (plus or minus 1.1 metric tons) and its Persistence Rating remains at 100%.

In July Carbon Mapper will have been observing Coffin Butte Landfill for two years; they will be on their way to acquiring a more in-depth profile of the landfill's emissions over time.

Figure 7



4. CARBON MAPPER, SB 726 AND THE FUTURE OF COFFIN BUTTE LANDFILL

Beginning about 8 years ago, Carbon Mapper was part of a strong action program against climate polluters in California; Carbon Mapper worked hand in hand with the California Air Resources Board (CARB) to identify the major sources of greenhouse gas emissions in the state and secure action to remediate their pollution. Last month, Carbon Mapper announced a new program with CARB to detect and curtail California's greenhouse gas emissions, leveraging Carbon Mapper's partnership with the Planet Labs PBC network of observation platforms on satellites. Observation by satellite enables much more frequent monitoring, as satellites pass over a landfill several times a day. By precisely attributing emissions to a specific facility and tracking them over time, Carbon Mapper's data supports direct mitigation action on the ground – either by voluntary or enforcement action.

Oregon is taking the first step to follow California, with the introduction of Senate Bill 726 in state government. SB 726 calls on the Environmental Quality Commission to require landfills such as Coffin Butte Landfill to use advanced methane detection technology such as satellite monitoring, airflight monitoring, drones or remote direct monitoring technology to yield emission rates and locations of their point sources for methane emissions.

So one day, possibly as early as next year, the people of Oregon may also begin to have frequent independent monitoring of landfill gas emissions, and begin to get a picture of each landfill's impact on air quality and the global climate. But right now, we have no such picture. Especially for Coffin Butte Landfill, which has:

- an ongoing EPA investigation into its landfill gas emissions. The EPA issued a "Section 114 Information Request" for the landfill's records of environmental compliance in January; these requests are effectively subpoenas and are the first step in EPA environmental enforcement;
- no current Title V Air Quality Permit. DEQ took up the landfill's application for a new permit late last year, after sitting on it for many years, but that process stalled when the landfill's application was found to be incomplete;
- received two Enforcement Alerts from the EPA, sent out widely to landfills warning them about infractions of monitoring and reporting regulations seen at landfills during recent EPA inspections;
- lost the institutional knowledge to respond. The landfill's Environmental Manager, Ian Macnab, resigned last fall, shortly after the landfill received the EPA Enforcement Alerts in September.

Again, the Commission's focus is on actual impacts, and if actual impacts cannot be known, or have not been proved to be insignificant, the applicant has failed their Burden of Proof and the application should be denied.

NOTES

Carbon Mapper is a 501c3 nonprofit focused on using remote sensing technology to pinpoint and quantify methane and CO2 emissions of individual facilities, to enable science-based decision-making and direct mitigation. carbonmapper.org

Since 2016 Carbon Mapper has done surveys to identify point sources of greenhouse gas emissions, including those at landfills, especially in California. And these facility-level surveys have gotten results. “Airborne surveys of methane plumes spewing from landfills, power plants and oil fields in California have led to palpable reductions in leaks of the potent greenhouse gas,” the state's air regulator and a non-profit group said (link). “The results of the study are a sign that one of the first in a growing number of efforts to deploy space-age technology to locate big sources of methane, an odorless colorless gas, is succeeding.”

The direct measurements done by Carbon Mapper have also been instrumental in refocusing climate action on landfills as a priority, because they have shown that the EPA’s greenhouse gas reporting system was significantly underestimating these emissions (link), and that landfills are a bigger contributor to global climate change than was previously thought (link). Surveys in California showed that a relatively small number of landfills had an outsized impact: “The largest methane emitters in California are a subset of landfills, which exhibit persistent anomalous activity.” (link)

According to the EPA, “super emitters” are sources that spew at least 100 kilograms of methane per hour. So Coffin Butte Landfill is a super emitter 16 times over. A super super emitter, if you will.

March 21, 2025: The non-profit organization Carbon Mapper and its partner Planet Labs PBC announce they will help the State of California leverage remote sensing technology to reduce methane emissions and tackle climate change. “Studies by Carbon Mapper and other research teams consistently show that high-emission events occurring at a subset of facilities in the energy, waste, and agriculture sectors contribute disproportionately to regional emissions. By precisely attributing those emissions to specific facilities or infrastructure and tracking them over time, Carbon Mapper's data can support direct mitigation action on the ground.” (link)

This document prepared by Ken Eklund, using Carbon Mapper and other data sources. I am past Chair of the Disposal Site Advisory Committee of Benton County, and a resident of North Benton County. I live approximately 5 miles from Coffin Butte Landfill. All errors are mine. Email: futureeverything@writerguy.com

– version: April 27, 2025 –

Coffin Butte Landfill and the Future of Benton County

Intro – 3 min
Presenter: Debbie Palmer

Good morning Commissioners,

Thank you for allowing us this opportunity to speak to you today. We greatly appreciate it.



Let's start with "who are we"? …and "why" are we?

[turn ON sharing for slide 1]
We are: Valley Neighbors for Environmental Quality and Safety, but generally go by our acronym, pronounced "vee-necks". And our website is **www.coffinbuttefacts.org**.

We are a community group composed of neighbors from all over Benton, Polk and Linn Counties, who have multiple concerns about Coffin Butte Landfill – and oppose any expansion – but you already know that. So that's not why we're here today. We're here because we want to demonstrate we're on the same page with you when it comes to caring about the future of Benton County – both environmentally and fiscally. [turn OFF slide 1, advance to Slide 2]

Here are a few words that summarize what we, as a group, try to embody:

We are **Skeptical** (and aware)

We are **Undaunted**

We are **Action-focused**

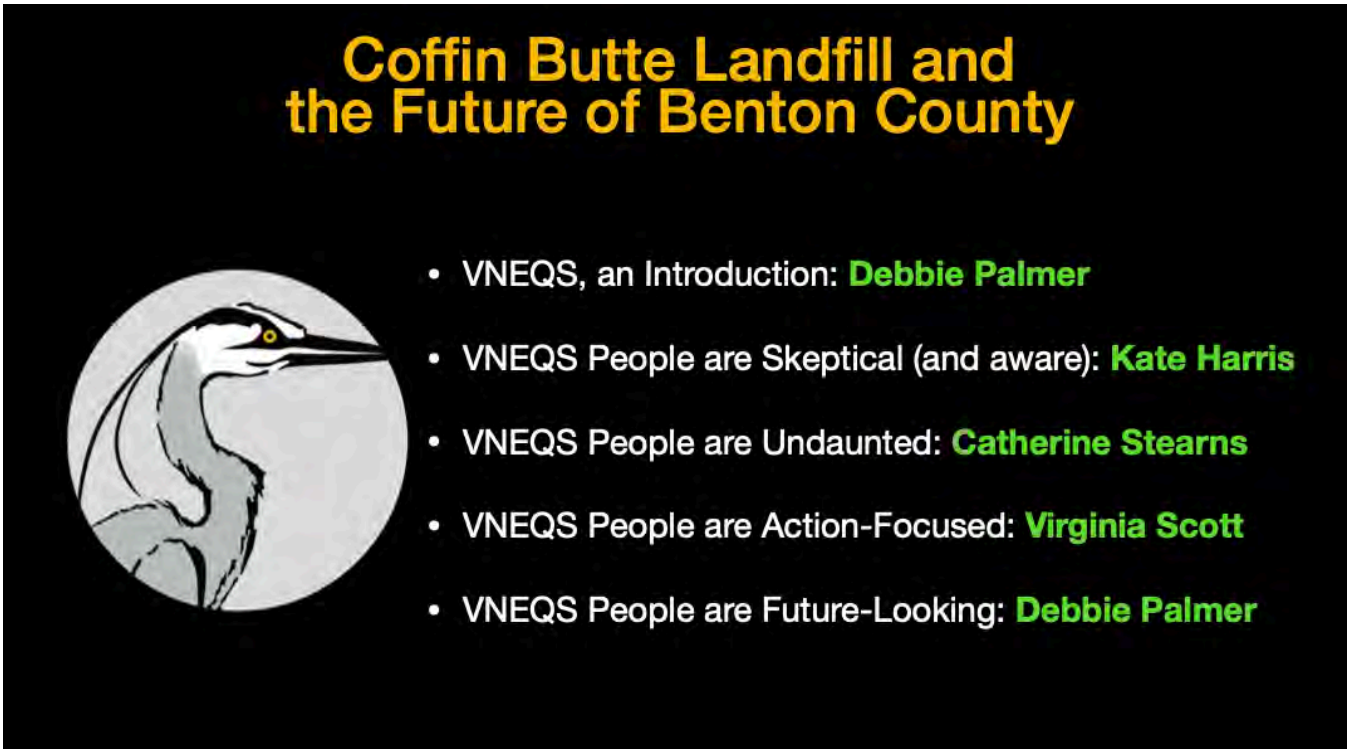
And we are **Future-looking**

These words also represent what we feel up to now has been lacking in Benton County Government, especially in relation to the landfill.

Our hope is that this can change in the near future.

A thing you may not have considered is that we can be a Resource for you. But we'll talk more about that later.

One thing about VNEQS, one defining characteristic, is: we do the work, individually and collectively. We're not just skeptical; we find out what the truth is. We fact-check things. We're undaunted; we speak up, like this presentation here to you right now. We take action, such as contacting the EPA and the Oregon Department of Environmental Quality, and our representatives and the press, to share what we've found and to get action, such as the EPA's



ongoing investigation of the landfill. And above all, we look at the future when asking questions, speaking up and taking action… we want to be making a better future for this county and the people in it.

[turn ON sharing slide 2]
My name is Debbie Palmer, and together with co-presenters Kate Harris, Catherine Stearns and Virginia Scott, we hope to give you a more in-depth look at the Coffin Butte Landfill and

the Future of Benton County from the perspective of the community outside these walls. This includes achievable actions you should take.

Kate will talk about landfill fires and smelly dump days;

Catherine will talk about enforcement of the tonnage cap;

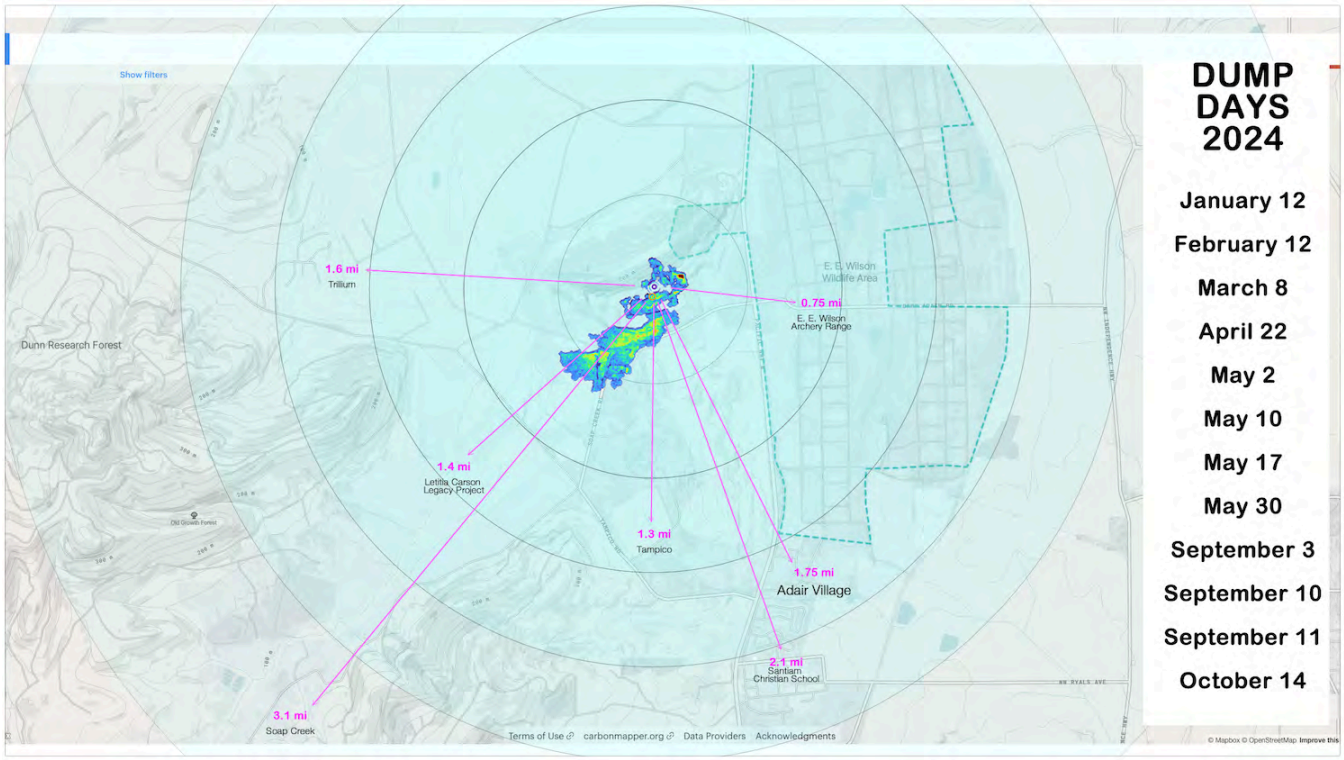
Virginia will cover the very real and immediate issue of climate damage from the landfill's methane emissions;

And I will close with a look towards the future, showing alternatives other counties are doing and innovative solutions from other parts of the world. [turn OFF sharing slide 2, advance to slide 3]

With that, I turn it over to Kate…

VNEQS people are Skeptical (and aware) – 8 mins
Presenter: Kate Harris

Good morning, Commissioners. I'd like to bring up two issues with you, and three items that we'd like you to take action on.

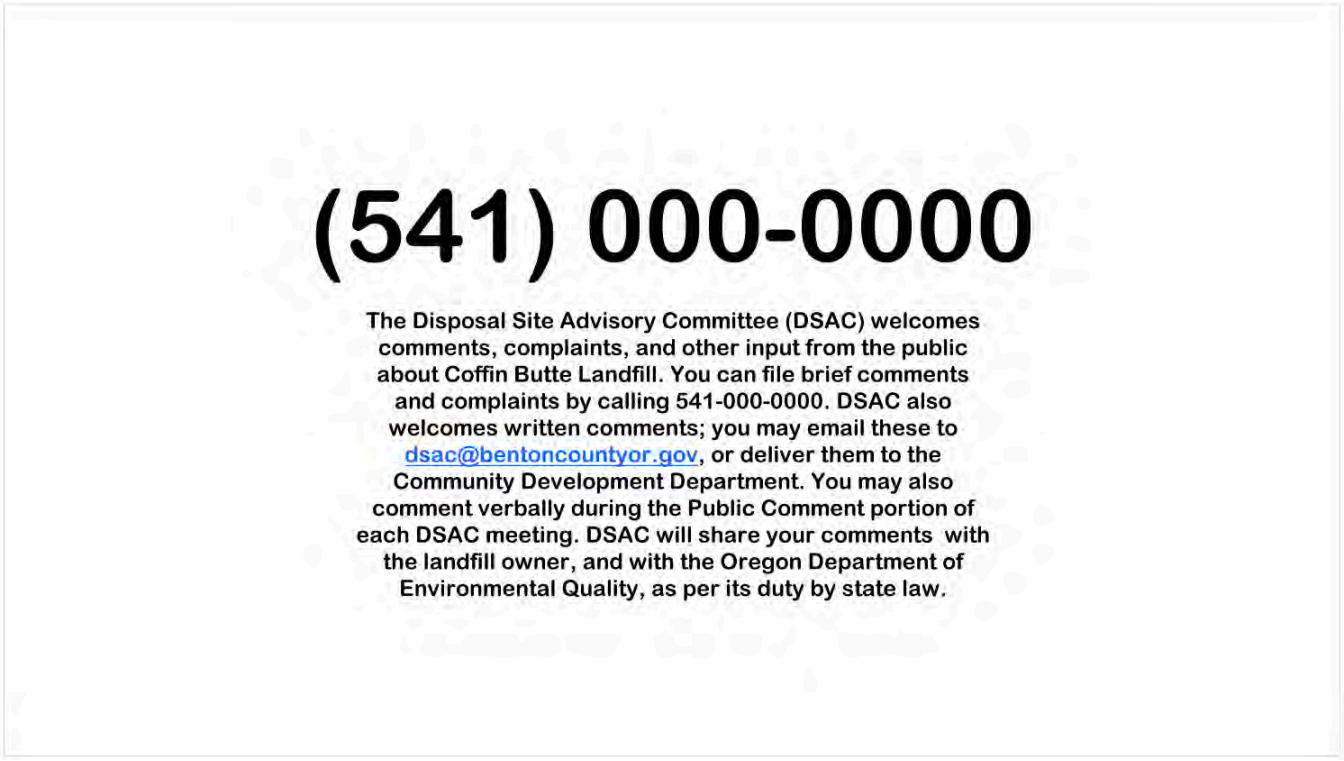


[turn ON sharing slide 3]
The first issue is odor from the landfill. It's been a fact of life for many years now, even from miles away. We all experience "dump days" during which you can smell the gases coming off of the landfill. For years now we've had Republic, and the County, assure us that there wasn't much gas leaking out of the landfill. But now the detection technology is catching up to what the boots on the ground have known for years – that the air pollution at the landfill is out of compliance. [turn OFF sharing slide 3, advance to slide 4]

Its methane emission levels are being investigated by the EPA, and I now understand that Coffin Butte Landfill exceeded its threshold for non-methane organic compound emissions (NMOCs) for this past monitoring year, ending in August. Again, no surprise to the neighborhood. NMOCs are the smelly – and toxic – stuff in landfill gas. One of our biggest concerns is that nobody can seem to tell us what is actually in that smelly cloud.

The action item here is to establish a hotline that Benton County residents can call when they smell the landfill, or have other concerns about Coffin Butte operations.

[turn ON sharing slide 4]
This hotline can be maintained by your Disposal Site Advisory Committee – it fits right in with their state-mandated responsibility to listen to the community about their concerns and to collect those concerns for the Oregon DEQ. As things stand, the County has actually backslid



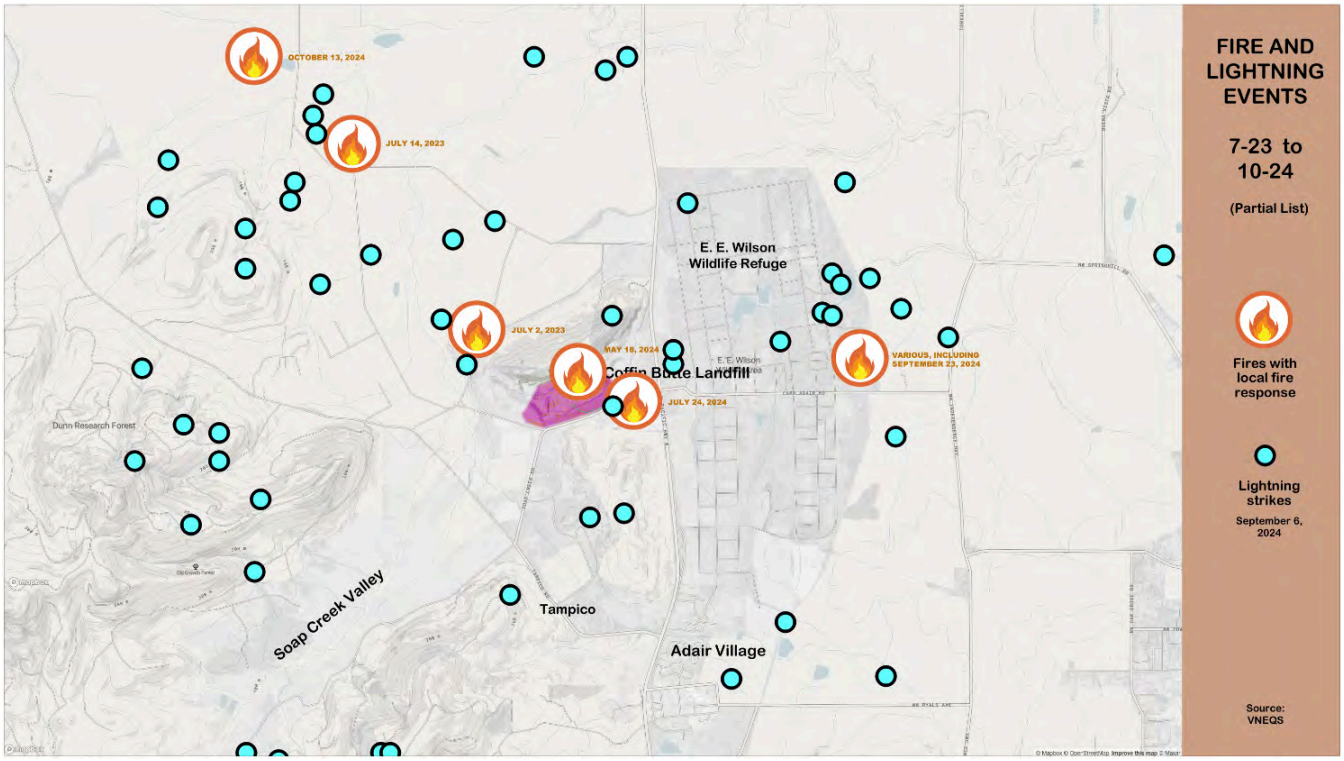
on this responsibility: there used to be a phone number on DSAC's web page that residents could call with concerns, but staff removed it about a year ago. I understand DSAC has called for it to be reinstated, but to date that hasn't happened. [turn OFF sharing slide 4, advance to slide 5]

To recap the first action item: please reinstate a landfill concerns hotline, from which one call can inform Republic, the County and Oregon DEQ of "dump days" and other environmental impacts of the landfill.

The second issue includes fire, fire safety and fire prevention.

[turn ON sharing slide 5]
There have been three potentially catastrophic fires in the past 5 months, during what has been the worst fire season on record for Oregon, two at the landfill and one at the PRC. These are in addition to the three grass fires that have occurred within the last 15 months, just west of & within 1.5 miles of the landfill, in very high risk locations due to the prevailing winds, and Multiple lightning strikes (as depicted by the blue dots on the slide), which occurred on & near the landfill during our recent September 6th lightning storm, which caused numerous serious fires within Benton County.

In May, a large black plume was called in by a motorist on Hwy 99, requiring emergency response by Adair and Corvallis fire departments with mutual aid response from Albany and Polk counties. The large hydraulic tippers at the top of the open face, including the hydraulic lines were actively burning, several hours after the landfill had closed. We understand, from testimony at a recent DSAC meeting from a Republic employee, that trash had been burning in that location earlier that day, which was thought to be extinguished. The same testified that when they do "hot" work, such as welding, they are required to leave a watcher on site for several hours after operations are complete, but they do not have a similar policy for when they have known burning trash. At closing time, everybody goes home. This is the same scenario from September 23rd, when there was a known fire at the PRC. At closing time, everyone went home without leaving a watcher. Several hours later, a passerby on Camp Adair Road called in



a large plume of smoke, which again required local fire response. An additional passerby called in another plume of smoke at the same location the following Sunday morning. (Mon 9/23 - 7:45pm & Sun 9/29, 945am) [turn OFF sharing slide 5, advance to slide 6]

In July there was a fire presumably caused by the open methane flares in the field south of the landfill. This mirrored a fire in the same location, several years prior, which was discussed by a Republic-contracted engineer in the fire risk report attached to their most recent expansion application. No significant changes were made to the site to prevent another similar fire & no monitoring system had been implemented.

In all 3 of these cases, there were known flames present the same day, and yet all three locations were left unattended with no monitoring system in place.

We come to you today to discuss Republic's Landfill Operations Plan, Section 8.1 which states:

"In case of fire, the following actions are to be taken:
1) The landfill operations manager and site supervisor are notified.
2) An assessment is made as to where the landfill can expose and douse the fire using site equipment, or whether fire department help is needed.
3) If it is decided that help is needed, the fire department is contacted.
4) Appropriate actions are taken to divert traffic and customers away from firefighting activities.
5) The DEQ is notified of the event."

In a recent interview with KLCC, Republic stated: "We have robust monitoring and emergency management systems in place to protect employees, the community and the environment in the event of a fire… That system worked as designed."

In all 3 of these recent fires, that “robust monitoring system” has been local motorists spotting smoke, and the “robust emergency management system” has been local fire response, due to all 3 fires were reported after working hours.

Our first action item regarding fire: Since Republic has stated in recent meetings that they are unable to facilitate after-hours monitoring capability, which could be electronic or staffed, it is imperative that we recognize that Benton County residents at large are the landfill fire watch outside of working hours, which amounts to approximately 68% of the year. In light of this, we urge you to require, in the interests of public safety, that Republic issue monthly notices informing the public of their responsibility, and instructing them what to watch out for and what to do. Proper training is key to effective emergency response.

The second action item is, to request that Republic Services begin to complete post-incident reports of all fire events at the landfill, both during and after working hours. In recent meetings, Republic leadership has not been able to provide how many fires happen each year, but if they are indeed notifying DEQ after each incident per their Operations Plan, this data should be available.

In other high-risk industries, such as aviation, military operations, and hospital-based care, it is now expected that the organization produce post-incident safety reports with 24 hours of the event. These are essential to determine what happened and how to prevent future occurrences, as a critical piece to risk management. Per Safety Talk Ideas.com : "An incident report is a document that records details about an unexpected event that occurs within an organization. This could be an accident, injury, security breach, or any other type of incident that deviates from normal operations and leads to loss of production, assets, or reputation. An incident report form or letter typically includes information about what happened, when and where it occurred, who was involved, and any actions taken in response to the incident. It’s used to document the facts, facilitate an investigation, and develop strategies to prevent similar incidents in the future."

What we have come to understand, is that Republic apparently has no such system in place, which is frankly unacceptable in 2024, particularly from a company who continues to impress on us their heart for sustainability and being a good neighbor.

To recap these action items: a landfill concerns hotline; monthly public notices about watching for fire in and around the landfill; and post-incident reports for all fire events, shared with the County and with DSAC. Thank you.

– And let me just add, these are just two issues out of many, of Republic being an irresponsible neighbor. None of these issues are new. Republic has been unwilling to listen, unwilling to comply with regulations, and unwilling to think proactively, consistently through time. We have come to view any representation they make with skepticism. We requested the County also become be very discerning when considering any statements, plans, or promises made by Republic.

Thank you again. I will now turn it over to Catherine Stearns.

VNEQS people are Undaunted (by big money, or by government) – 5 mins
Presenter: Catherine Stearns

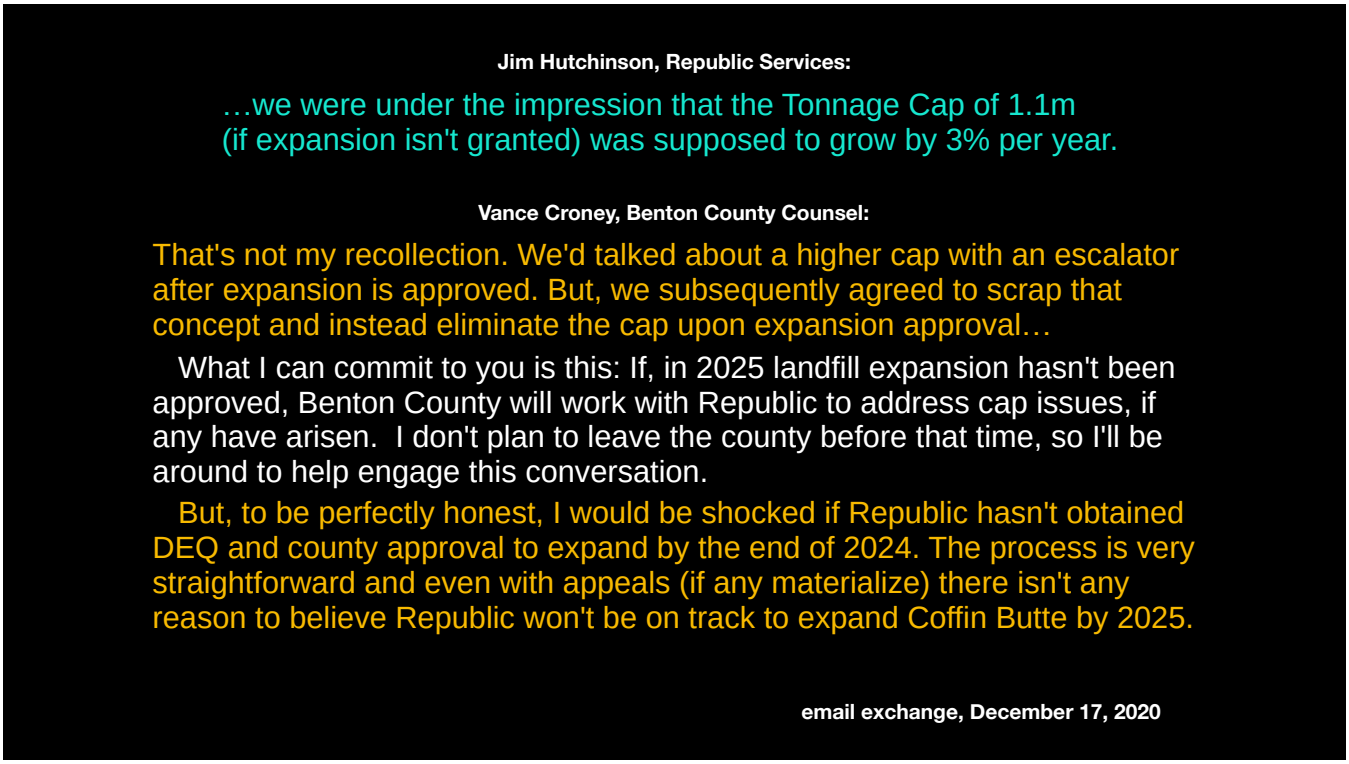
Let's talk about the tonnage cap for the landfill – the limit that Benton County currently imposes on the amount of garbage that the landfill takes in every year. That limit is 1.1 million tons per year. I think I speak for almost everyone in the County when I say that it's important that Benton County enforce that cap. So I'm asking you, Commissioners, to come out with a clear statement assuring the people of the County that their government stands with them on this. I would hope that statement includes identifying the tripwire that triggers that enforcement, a clear statement of what the penalty for exceeding the cap is, and a rationale as to how that penalty will deter Republic Services from exceeding the cap.

I bring this up because nothing like that happened back in 2017, when the people of Yamhill County successfully prevented Riverbend Landfill from expanding, and so the waste that used to go to their regional landfill started coming to Coffin Butte Landfill. That caused Republic Services to go over the intake limit that was in effect at that time. And what happened then was – nothing. What was supposed to happen did not happen. Instead, Benton County signed a Memorandum of Understanding saying, "OK, fine." And the amount of trash coming into Coffin Butte Landfill effectively doubled.

But mostly I bring this up because the waste incinerator in Marion County is closing down in December, so now 100,000 more tons of municipal waste is going to start coming to Coffin Butte Landfill from Salem. Which, as things stand, will push the landfill over its cap. I speak for a lot of people when I ask for a clear statement that County Government's action on this is not going to be, "OK, fine."

And that it's not going to be some token surcharge that Republic will just happily pay.

[[turn ON sharing slide 6]
It may be necessary to hire someone from outside to face off with Republic Services over this. Commissioners, here's an email that you may not have seen before: this is an email exchange



between Jim Hutchinson of Republic Services and your County Counsel, Vance Croney. This is in 2020, and for context, the 2020 Franchise Agreement is all but signed. Jim says Republic has realized they left something out of the Agreement that they meant to include: a provision to raise the cap a little bit every year. Oh well, too late now, Republic!

Except that's not what Vance Croney says. He says, "Don't worry, that hard cap won't matter, because I can't imagine that you won't get your expansion, and when you get the expansion, the cap goes away." Which is indeed a provision in the Franchise Agreement that he negotiated. If Republic expands into the parcel south of Coffin Butte Road, the cap is lifted. Entirely removed.

Vance also says, "But, if by chance you don't get the expansion by 2025, I should still be here at the County, and I can help us come to some arrangement." I'm paraphrasing here, his actual words are on the screen.

So Vance may not be the best choice to enforce the cap, is what I'm saying. I'm not sure his heart would be in it.

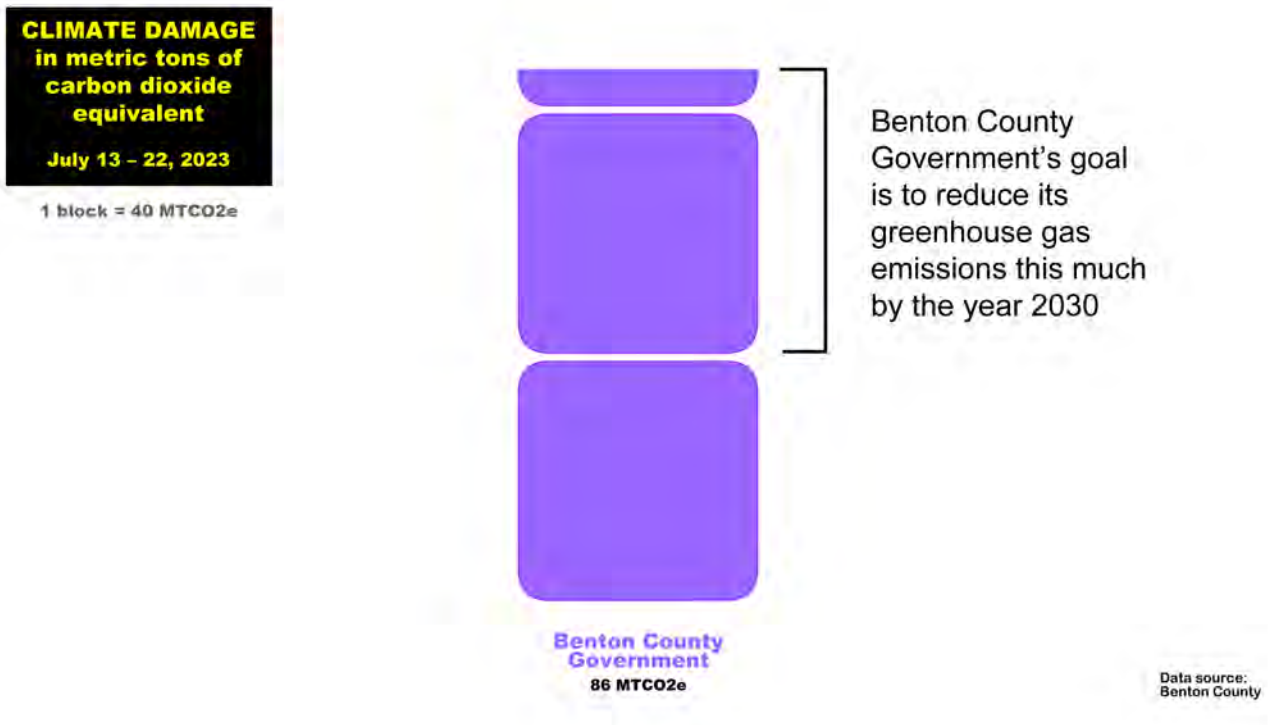
And maybe that outside legal counsel can also renegotiate the Franchise Agreement, and remove the provision that lifts the cap if there's an expansion. Because we need that cap to protect the life of the existing landfill. [turn OFF sharing slide 6, advance to slide 7]

I think what the people of Benton County fear the most is that this cycle will just repeat again and again and again. That the people in some other county or state or country say, "hey, that's dirty, we don't want it here" and close their polluting trash facility, and so that trash and pollution comes to Benton County instead. People in Benton County are afraid that their government, due to the revenues it makes or maybe its hapless negotiating or just fear of confronting Republic, has just rolled over on this already and we're already on our way to becoming Western Oregon's garbage pail. That 20 years from now, we're going to be the ones left holding the bag, and the bag will have 50 million tons of garbage in it.

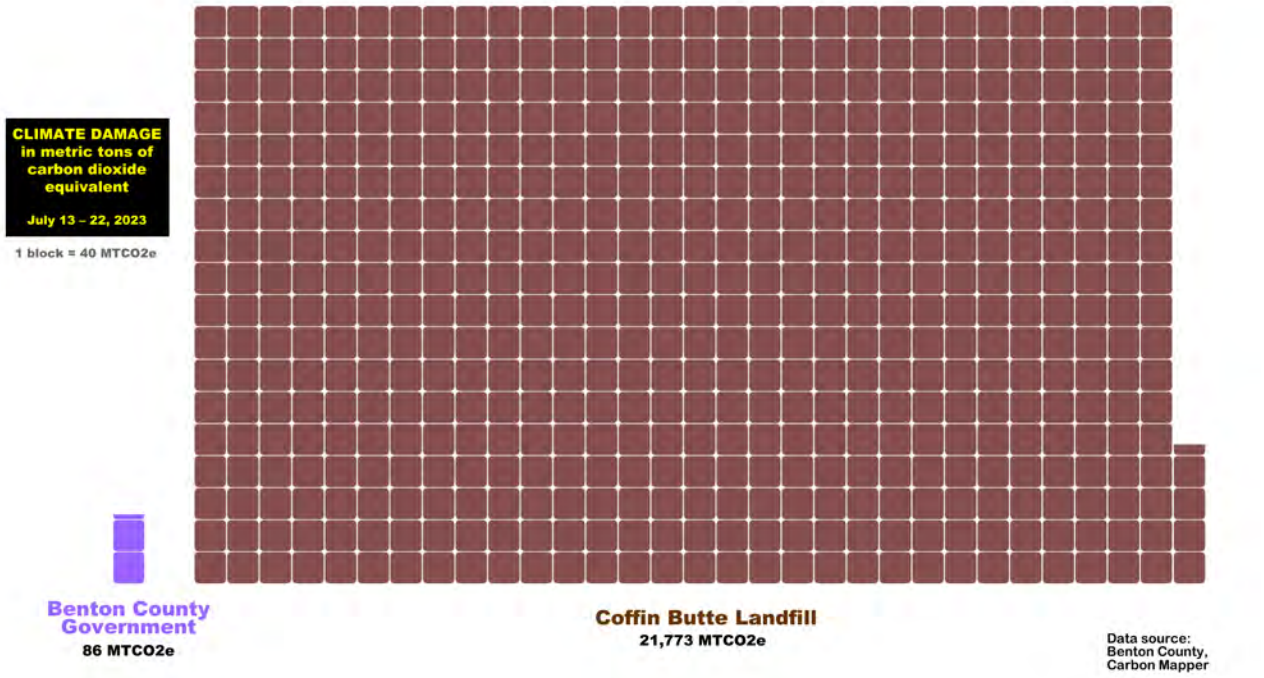
VNEQS is people Action-focused (especially on climate change) – 3 mins
Presenter: Virginia Scott

The people of Benton County are concerned about the impacts of climate change, not just for us and the nature around us, but for people and ecosystems everywhere. And I know that you, Commissioners, have expressed your concern as well, and taken action on it.

[turn ON sharing slide 7]
I want to show you a graph, in two parts. This first part shows you how much greenhouse gas pollution Benton County government is causing: last year, your operations released about 86 metric tons of carbon dioxide every nine days. And you're taking action about that: the bracket on the right shows how much you've pledged to cut those emissions by the year 2030. Basically you've pledged to cut them in half. Which is great, everyone should do their part.



[NEXT SLIDE to slide 8]
The second part of the graph compares the County's climate damage to the damage caused by Coffin Butte Landfill during the same nine-day period. Carbon Mapper flew over the landfill and quantified one of its methane leaks. They classified it as "persistent" – meaning it was leaking like this when they first looked at it and it was still leaking like this when they stopped their survey.



Again, everyone should do their part. But if you are serious about climate action, you can no longer ignore the elephant in the room. You can start by charging your County staff to develop graphs like this. Knowledge unlocks effective action.

You have an advisory committee dedicated to studying Coffin Butte Landfill and its impacts. You could charge them to study the environmental impacts of the landfill, to give you the information you need to take leadership on this issue. [turn OFF sharing slide 8, advance to slide 9]

For a lot of people, in this County and elsewhere, this is a moral issue – the defining moral issue of our time. In February the American Academy of Pediatrics recommended that doctors "Incorporate climate change counseling into clinical practice. Assess climate risks and recommend climate solutions when screening for and addressing social determinants of health" for children. They're saying that climate anxiety has become as foundational a mental health problem as housing. One cause of this climate anxiety in children – and adults – is seeing leaders who only give this moral issue lip service, or who claim their hands are tied by existing laws and protocols when it's time for leadership to move beyond those laws and protocols.

VNEQS people are Future-looking

[presenter: Debbie Palmer]
3.5 mins – 19 mins total

Hello again!
Some more questions for you, Commissioners:

What sort of future is the landfill creating for the County?



Why do Benton County government's endorsed values all seem to disappear when it's time to talk about the landfill?

As Kiko Denzer mentioned in his letter to you – included in your packet – here are what other counties are doing:

In **Yamhill County**, the people opposed expansion of their regional landfill all the way to the Land Use Board of Appeals, and won. They let the landfill fill up but then had to sue in order to get it to close. They won that too. Meanwhile, they adopted the goal of Zero Waste and are actively taking aggressive steps to reduce their trash generation.

Lane County has announced plans to build and operate the most advanced integrated reuse and recycling facility in the nation.

Polk County is looking into building a waste transfer station, so as to break their dependence on Coffin Butte Landfill.

And **Portland Metro Area** decided many years ago that sending trash to landfills in the Willamette Valley went against their stated values of protecting the environment. They did their homework, established that the Valley was an irrevocably bad place to have a landfill, and basically took a moral stand against increasing landfilling in the Valley. They transitioned away from doing that, in accordance with their values.

In other parts of the world truly innovative actions have already been taken. Take **Copenhill** in Denmark, for example. The world's cleanest waste-to-energy power plant is not an ugly monstrosity; instead it is an architectural wonder, a manmade mountain that is destination with a ski slope, hiking trails, climbing wall and the best views of Copenhagen, whose only hint at the technology beneath are some stacks that emit steam. We provided a link to a short video about this remarkable place in your packet.

We're not suggesting Benton County try to build something like this. The idea is simply to open your eyes and your minds to the kinds of things that can be accomplished when you seek out future-oriented solutions instead of basing your decisions on how things were done in the past.

In the EU, where land is at a premium, they effectively no longer landfill municipal waste. They have figured out alternatives; we can too. A nonprofit up in Seattle, Institute for Energy Resource Management, would love the opportunity to arrange a tour for regional and state representatives of solutions like Copenhill, give you all a chance to meet with innovators in this arena.

Talk to us, don't tune us out; we are here for you – as I said in the beginning, think of us as a resource. You spend so much money on consultants when there is all this brainpower right here in Benton County and nearby. We can help you find it; we delve, we can help you find other resources you would never have found through your usual channels.

Benton County's future is eventually one without a landfill. We can transition to a post-landfill future on our terms or we can do nothing until it all collapses. Benton County government is currently firmly on the second path, and indeed the collapse may already be starting to happen. We in VNEQS believe we should be on the first path, and the time to start down it is now. In accordance with your stated values. Walk the talk. Let us help.

[turn ON sharing for slide 8; turn OFF once Q&A begins]

From: Benton Elliott
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Tuesday, April 29, 2025 4:44:52 PM

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

Dear Benton County Planning Commissioners,

My name is Benton Elliott and I live at 1601 Olive St, Eugene, OR 97401.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- Air and water pollution threaten our local ecosystems and community health
- Traffic increases that pose safety risks on nearby roads and pathways
- Odor and noise issues that degrade quality of life for residents and visitors
- Negative impacts on wildlife, recreation, and property values
- Long-term climate and environmental consequences for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,

Benton Elliott

From: Barb Fick
To: Benton Public Comment
Subject: LU-24-027
Date: Monday, April 28, 2025 4:14:39 PM

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

April 28, 2025

Chair Nicholas Fowler and Planning Commission Members

RE: Testimony in Opposition to LU-24-027

Via: publiccomment@bentoncountyor,gov

My name is Barbara Fick, and I live at 28984 Blaze Drive, Corvallis, 97330. I also own property at 28964 Blaze Drive, Corvallis, 97330.

My home is the closest residential property to the proposed landfill expansion, located due south of the expansion property.

I have several concerns about the proposed development and its direct effect upon my property. The impacts that affect myability to use and manage my properties include noise, odor, groundwater contamination and dewatering, blowing trash, and property values.

Moving the landfill to the south side of Coffin Butte Road will bring the entire operation more than 2,000 feet closer to my home and will now be within 800 feet of where I live.

The **current operation on the north side of Coffin Butte Road seriously interferes with the use of my property** due to never-ending odor intrusions, constant noise from trucks and diesel engines, banging metal doors when trash trucks dump, backup alarms, flying paper and plastic, lights at night, fireworks used to deter scavenger birds, to name a few. The massive increase in the volume of trash coming to the existing dump in the last 8 years has been overwhelming. And if this expansion is approved, the annual trash tonnage limit will be removed thereby opening the door to yet more trash coming in every day. **Moving the proposed operation 2,000 feet closer to my home will exacerbate these impacts**!

Noise from the operation regularly begins at 4 a.m. in the summer and often continues until 8 or 9 pm six days a week. It is impossible to take advantage of my landscaped property during the best time of the year due to the noise and constant odors. And I understand that they now want to begin operations 7 days a week. Truly no peace from the constant noise. **The proposed expansion will seriously interfere with the uses on my property**.

The odors from the existing facility seriously interfere with the use of my property. When the odors occur, you must stay indoors and close your windows. We know

the landfill is leaking large amounts of methane, but with the methane come lots of other toxic landfill gases that are likely endangering our health. **Being essentially right next door to my house, the proposed expansion will seriously interfere with my use of my property**.

Groundwater contamination of my domestic drinking water well is a constant concern. All landfills leak leachate and other pollutants into the groundwater. Two landfill cells on the north side of Coffin Butte Road are unlined and were closed in the 1970s. The landfill operators are capturing 2 million gallons of leachate from those cells every year, but this is no estimate of how much pollution is going into the groundwater that is the source of my drinking water.

And while the new landfill will have a liner, those liners will eventually leak after being punctured by millions of pounds of trash that are compacted on top of the liner system. My drinking water supply is under further threat by the location of the new landfill.

The proposed excavation of 3.5 million cubic yards of material just to the north of my property to create the hole to put trash into threatens to disrupt the groundwater system and potentially dewater my well. This massive excavation will create a low spot in the vicinity of my property and may impact the availability of water from my well. If my well is impacted by the excavation, it will seriously interfere with the use of my property. The applicant and the County have done nothing to evaluate the threat from this proposed excavation.

When I bought my property in 1994, the amount trash coming to the dump was about 200,000 tons per year. Today, there are over 1 million tons of trash being dumped into this landfill and the impacts from this massive industrial operation will undoubtedly affect my ability to sell my property in the future.

Given all the documented impacts of landfill operations, the proposed expansion will seriously interfere with the use of my property in violation of BCC 53.215(1), and therefore I urge the Planning Commission to deny this application for a conditional use permit.

Respectfully submitted,

Barbara Fick

Sent from my iPhone

From: Ian Finn
To: Benton Public Comment
Cc: Mark Yeager; Barb Fick
Subject: Testimony in Opposition to LU-24-027
Date: Tuesday, April 29, 2025 12:46:34 PM

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

Chair Nicholas Fowler and Planning Commission Members

RE: Testimony in Opposition to LU-24-027

Via: publiccomment@bentoncountyor,gov

My name is Ian Finn, and I was born, raised, and now live at 28984 Blaze Drive, Corvallis, 97330.
My home is the closest residential property to the proposed landfill expansion, located due south of the expansion property.
I have several concerns about the proposed development and its direct effect upon my property. The impacts that affect my ability to use and manage my properties include noise, odor, groundwater contamination and dewatering, blowing trash, fires, and property values.
Moving the landfill to the south side of Coffin Butte Road will bring the entire operation more than 2,000 feet closer to my home and will now be within 800 feet of where I live.
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The odors from the existing facility seriously interfere with the use of my property. When the odors occur, you must stay indoors and close your windows. We know the landfill is leaking large amounts of methane, but with the methane come lots of other toxic landfill gases that are likely endangering our health. **Being essentially right next door to my house, the proposed expansion will seriously interfere with my use of my property**.
Groundwater contamination of my domestic drinking water well is a constant concern. All landfills leak leachate and other pollutants into the groundwater. Two landfill cells on the north side of Coffin Butte Road are unlined and were closed in the 1970s. The landfill operators are capturing 2 million gallons of leachate from those cells every year, but this is no estimate of how much pollution is going into the groundwater that is the source of my drinking water.
And while the new landfill will have a liner, those liners will eventually leak after being punctured by millions of pounds of trash that are compacted on top of the liner system. My drinking water supply is under further threat by the location of the new landfill.
The proposed excavation of 3.5 million cubic yards of material just to the north of my property to create the hole to put trash into threatens to disrupt the groundwater system and potentially dewater my well. This massive excavation will create a low spot in the vicinity of my property and may impact the availability of water from my well. If my well is impacted by the excavation, it will seriously interfere with the use of my property. The applicant and the County have done nothing to evaluate the threat from this proposed excavation.
When I was born in 1994, the amount trash coming to the dump was about 200,000 tons per year. Today, there are over 1 million tons of trash being dumped into this landfill from around the state and neighboring states, and the impacts from this massive industrial operation will undoubtedly affect my ability to sell my property in the future.
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Respectfully submitted,

Barbara Fick

Ian Finn

ianfinn40@gmail.com
541-231-1132
Mechanical Engineering
Oregon State University

From: Ian Finn
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Cc: Mark Yeager; Barb Fick
Subject: Testimony in Opposition to LU-24-027
Date: Tuesday, April 29, 2025 12:46:34 PM

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Respectfully submitted,

Barbara Fick

Ian Finn

ianfinn40@gmail.com
541-231-1132
Mechanical Engineering
Oregon State University

From: Egnarts
To: Benton Public Comment
Subject: Say no to Coffin Butte expansion
Date: Tuesday, April 29, 2025 9:20:07 PM

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

Say No to the Coffin Butte Expansion – Don't Let Benton County Pay Twice

The current landfill expansion plan sells Benton County short.

The cost of County staff time, resources, and community volunteer input already being spent on this proposal is significant. That burden should fall on Republic, not Benton County taxpayers.

And let's be honest: a few million dollars a year from Republic is **not** adequate compensation for turning Benton County into Oregon's regional dump.

If Republic attempts to pressure the County with rate hikes or pullout threats, the response should be firm. Call their bluff. Explore legal action—including damages from past incidents like the 1999 fire. Benton County holds leverage and must use it, not capitulate.

Above all, the County must insist on **binding, enforceable financial protections** against the many long-term liabilities this landfill brings: environmental degradation, infrastructure damage from heavy trucks, fire and seismic risks, odor, noise, declining property values, groundwater contamination, and public health impacts. A few million a year will not cover a major disaster—or even a ruined wedding event caused by landfill stench.

And when things go wrong—as they inevitably will—companies often declare bankruptcy to dodge responsibility. If Benton County doesn't lock in detailed enforceable agreements now, we will be left paying those bills in the future. Our families, our neighbors, and our children will bear the burden long after the payments from Republic to the County have stopped.

Republic must be assessed **now** in additional upfront payments for the full costs of fire prevention, contamination cleanup, disaster recovery, and infrastructure repairs. Like paying it forward.

Do not approve this expansion based on vague assurances or short-term payments. Benton County deserves real protection, real accountability, and real foresight.

Please put Benton County residents first. Say no.

Thank you.

Marty Fitzpatrick & Hillary Egna & family

2275 NW Russell Pl

Corvallis 97330

From: Victoria Fridley
To: Benton Public Comment
Subject: Subject: Oppose/Deny LU-24-027
Date: Monday, April 28, 2025 5:00:01 PM

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

Dear Benton County Planning Commissioners:

Corvallis is a community that has drawn people to it for several reasons, but key among them is our commitment to preserving the beauty and health of our environment and our concern about uncontrolled growth. The people who live in the area around the Coffin Butte Landfill are our neighbors who face the degradation of their land and water. They want to remain in their homes, but even if they decide to move, they will not be able to sell their land at its true value—who will want to buy land where the wells are contaminated or dried up. Peavy Arboretum, a treasured sanctuary in our community, is also not far from this proposed expansion. This expansion is not being proposed to serve Benton County, but to serve the company's continued desire to provide landfill services to 27 counties in Oregon and even waste from Washington. We strongly oppose the expansion of the Coffin Butte Landfill. For more information about the proposed expansion, please see coffinbuttefacts.org

Victoria Fridley
Cheryl Johnson
Corvallis, OR 97330

From: Andres Garcia
To: Benton Public Comment
Subject: Oppose Landfill Expansion - Application LU-24-027
Date: Tuesday, April 29, 2025 12:52:51 PM

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To Honorable Members of the Benton County Planning Commission,

I strongly oppose the proposed expansion of the Coffin Butte landfill (LU-24-027). My family lives at 3215 NW Crest Dr in Corvallis and we enjoy spending free time in recreation areas near the landfill, including EE Wilson, Peavy Arboretum, the Benton County Aerodrome, and Adair Park. I believe this expansion will significantly harm our quality of life and the broader community, failing to meet Benton County Code 53.215 and contradicting the values of the 2040 Thriving Communities Initiative.

This expansion negatively impacts our community by:

***Increasing traffic and noise:** More trucks will disrupt the peace and rural character of the area.
***Threatening air quality:** Expanded operations will likely worsen odors and air pollution, impacting our health and outdoor enjoyment. Mitigation is unlikely to fully resolve these issues.
***Diminishing property values:** The landfill's growth will deter buyers and devalue surrounding properties.
***Destroying rural character:** This industrial expansion clashes with the agricultural and residential nature of Benton County, a character your plan aims to protect.

Furthermore, the expansion places an undue burden on public resources:

***Risking water resources**: A larger landfill increases the potential for leaks and contamination, requiring costly public remediation.
***Degrading road infrastructure:** Increased heavy truck traffic will accelerate road damage, demanding more taxpayer money for repairs.
***Straining emergency services:** More truck traffic elevates accident risks, diverting emergency resources.

This proposal fundamentally opposes the 2040 Thriving Communities Initiative's core values:

***Environmental Stewardship:** Landfill expansion is unsustainable and environmentally risky. It contradicts the initiative's goal of protecting and enhancing our natural resources for future generations.
***Community Well-being:** Negative impacts on air, noise, traffic, and property values undermine residents' quality of life.
***Sustainable Economic Vitality:** Long-term environmental and quality-of-life issues may outweigh any short-term economic benefits.

Mitigation measures are insufficient to address these significant negative impacts. Therefore, I urge the Planning Commission to reject permit application LU-24-027. Prioritizing residents'

well-being and our community's character is paramount.

Sincerely,
Andres Garcia
Corvallis, OR 97330

From: Joel Geier
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027: Arsenic issues
Date: Tuesday, April 29, 2025 4:48:15 PM

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Dear Community Development Department staff:

I'm attaching my fourth set of comments for the Planning Commission. Please include these comments in the information packet for their deliberations.

Thank you,
Joel Geier
North Benton County resident

Joel Geier ● 38566 Hwy 99W ● Corvallis, Oregon 97330-9320

Benton County Planning Commissioners c/o Planning Division
4500 SW Research Way, Corvallis, OR 97333

April 29, 2025

RE: LU-24-027 Conditional Use Permit Application Regarding Landfill Expansion: Arsenic

Dear Chair Fowler and Members of the Benton County Planning Commission:

Thank you again for the opportunity to comment on the Conditional Use Permit (CUP) application submitted by Valley Landfills Inc., which proposes to start what amounts to a new landfill on the north end of Tampico Ridge, south of Coffin Butte Road.

This is my fourth in a series of comments, and focuses on the **anomalously high and fluctuating levels of arsenic** that have been found in groundwater monitoring wells around the east side of the existing landfill, ever since 1994 when the applicant first began to test for arsenic in this area.

Five monitoring wells in this part of the landfill site have frequently exceeded 15 micrograms per liter, which is 50% in excess of the US EPA's maximum contaminant level (MCL) for drinking water.

These arsenic levels on the landfill site are higher than have been found in any other well, anywhere within the applicant's 90 square mile Analysis Area. Yet remarkably the applicant asks you, in Exhibit 29 of their application, to believe that these are "natural" arsenic levels for the area.

"Why are is the applicant raising this issue as part of this application?" you might well ask. Exhibit 29 pertains to the existing landfill north of Coffin Butte Road, rather than the proposed new landfill to the south.

But regardless of their reasons, this exhibit does serve as a useful example of how the applicant handles legitimate environmental concerns that have been raised by local residents.

Rather than installing new monitoring wells to gain a better understanding of the issue, the applicant instead has tried to "argue the problem away."

As I detail in an annex to this statement, the applicant's arguments are shaky at best. The fact that they have included this dubious memo as part of their application casts doubt on the entire application, and **gives you further grounds to deny**.

Yours sincerely,



Joel E. Geier, Ph.D.

Annex 1
Comments on Arsenic Memo and Addendum

The applicant has raised the arsenic issue in a memorandum included as Exhibit 29 of their Burden of Proof statement, supplemented by an addendum on January 15, 2025. My comments here highlight the following problems with these documents:

1. Arsenic levels observed at the Coffin Butte Landfill site are highly unusual
2. Aggregation of data from wide regions is misleading
3. Claims of "steady" readings are questionable
4. Choice of baseline is questionable

These are elaborated in sequence below.

1. Arsenic levels observed at the Coffin Butte Landfill site are highly unusual for the western mid-Willamette Valley

The applicant asserts:

> *"There is no data to suggest that the existing arsenic levels are anything other than what is naturally occurring in the soil, or that leachate is impacting the environment or public health."*

This statement has two parts. The second part cannot be evaluated because neither the applicant nor Oregon DEQ nor Benton County have tested for potential impacts of leachate on the environment, anywhere outside of the site boundary. This despite that two of the compliance boundary wells (MW-26 and MW-27) have registered arsenic concentrations above the US EPA's maximum contaminant level (MCL) regularly for the past 14 years (Figure 1).

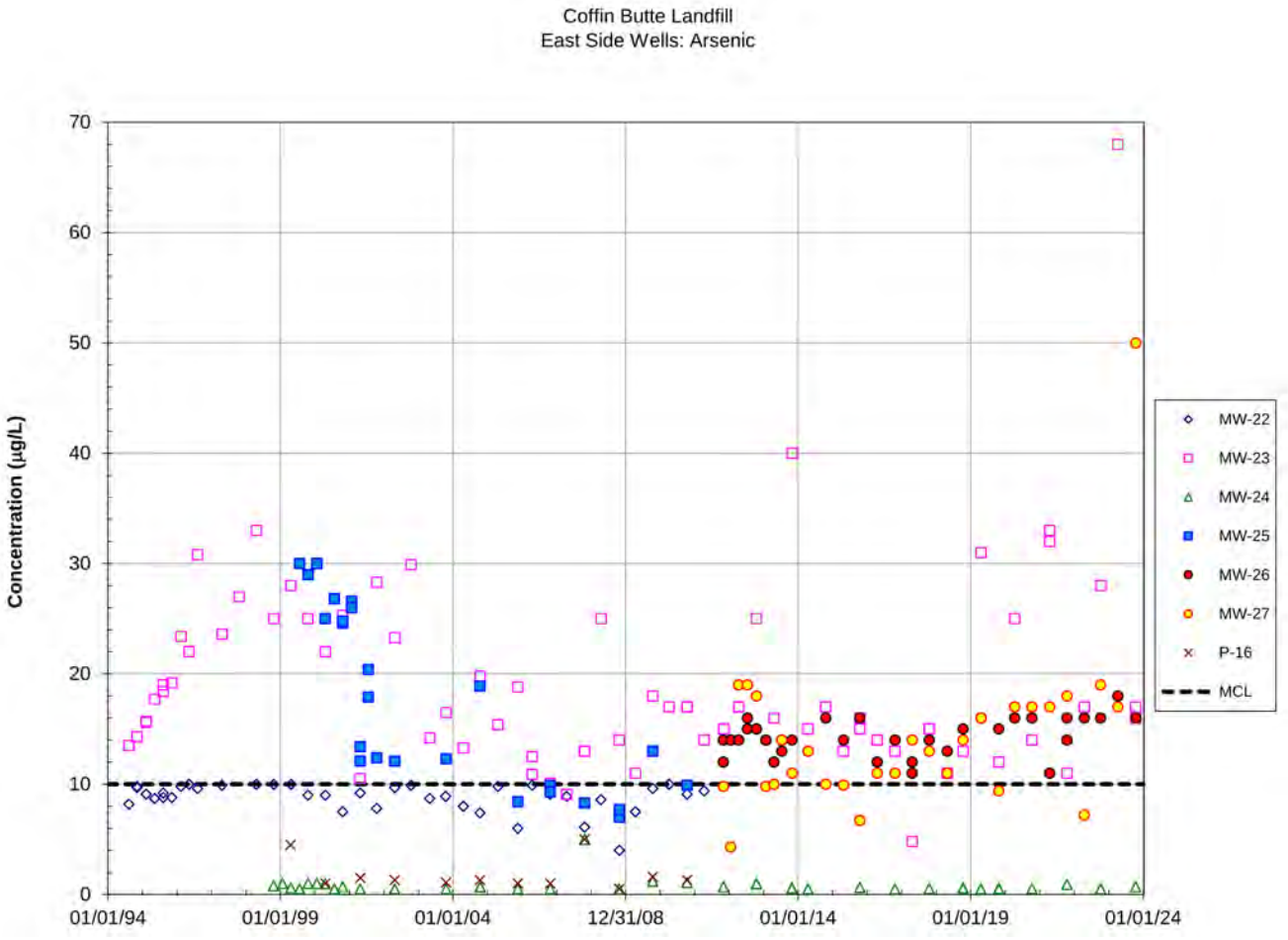


Figure 1. Arsenic concentrations in wells on the east side of Coffin Butte Landfill (from p. 245 of the 2023 Annual Environmental Monitoring Report submitted to Oregon DEQ).

Regarding the first part of the statement, the applicant has not developed any data regarding what arsenic levels are "naturally occurring" in the area of concern, since nearly all of their measurements in that area come from after a known leachate seepage incident (to be discussed in more detail below).

However a regional study data by US Geological Survey scientists, published in 1999,[1] shows clearly that the values observed at Coffin Butte are highly unusual for northwestern Benton County and adjoining areas of Polk County (see Figure 2).

1 Hinkle and Pollette, 1999, Arsenic in Ground Water of the Willamette Valley, US Geological Survey Water Resources Investigations Report 98-4205.

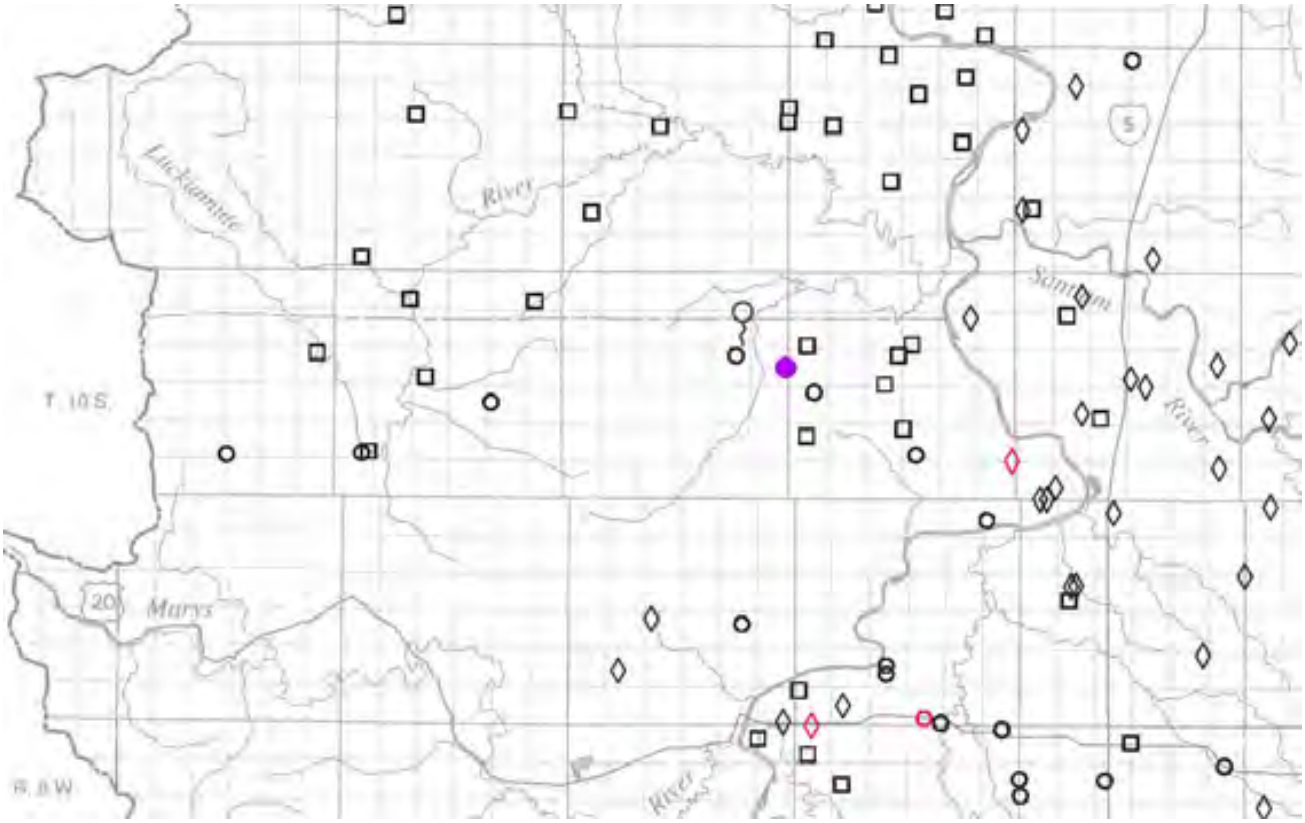


Figure 2. Detail of Plate 1 from Hinkle and Pollette (1999) showing arsenic concentrations in wells in the western mid-Willamette Valley region. The purple dot has been added for reference to show the location of Coffin Butte Landfill (not sampled by Hinkle and Pollette). Black symbols are wells and springs for which the measured arsenic concentration was 10 micrograms per liter or less. Red symbols show wells where arsenic concentrations were in the range 11 to 50 micrograms per liter. No wells in this area were found to have arsenic concentrations above 50 micrograms per liter. The square grid shows section lines (typically 1 mile on a side) for scale.

Values higher than the US EPA's maximum contaminant level (MCL) of 10 micrograms per liter are rare (just 3 wells out of more than 80 in the area of this detail, none of them within the applicant's Analysis Area). None of the wells evaluated by Hinkle and Pollette (1999) were found to have arsenic concentrations above 50 micrograms per liter. In contrast, arsenic concentrations in two wells at the Coffin Butte Landfill site have recently risen to 50 micrograms per liter and 68 micrograms per liter, respectively.[2]

Additional data aggregated by census tracts by the Oregon Health Authority (Table 1) indicate that just 1 of 146 wells in any census tract within 25 miles of Coffin Butte landfill

2 2023 Annual Environmental Monitoring Report for Coffin Butte Landfill

which registered an arsenic concentration higher than the MCL, and that well only had a concentration of 14 micrograms per liter. The average arsenic concentration over this sample is only 0.37 µg/L.

So clearly naturally elevated arsenic is extremely uncommon anywhere in the vicinity of Coffin Butte Landfill. Applicant has presented no data to support their suggestion that the observed arsenic levels are naturally occurring in the soil.

On the contrary, both in the Burden of Proof and in this memo, the applicant acknowledges that when these high levels were first noticed in MW-23 in 1994, the cause was found to be seepage of leachate from the south side of the landfill.

While the Burden of Proof suggests that this seepage event only happened in 1994, from statements in past AEMRs it appears that the applicant does not know exactly when the seepage began or how long it went on before it was detected fortuitously by sampling of MW-23. A more reasonable and parsimonious interpretation is that if seepage happened once and resulted in high arsenic levels, it could happen again and may even be ongoing.

Table 1. Arsenic levels in domestic wells as aggregated by the Oregon Health Authority for census tracts in Benton and Polk counties.

Census Tract	County	Geology (see key)	Approx. mean distance from Coffin Butte (miles)	Maximum distance from Coffin Butte (miles)	Number of samples N	Mean concentration (µg/L)	Maximum concentration (µg/L)	Number of tests over 10 ppb
41003010100	Benton	Tt, Qs	5	9	5	0.58	2.9	0
41003000500	Benton	Tcs, Qs	5	8	18	0.17	2	0
41053020302	Polk	Qs, Teo	6	12	3	0.73	2.2	0
41003000600	Benton	Qs	7	9	16	0	0	0
41003000400	Benton	Tcs, Qs	8	9	2	0	0	0
41003000900	Benton	Tcs	9	10	12	0	0	0
41003010900	Benton	Tcs, Qs	11	14	19	0.05	1	0
41003000202	Benton	Qs	12	13	13	0.15	1	0
41003000100	Benton	Qs	12	14	3	1.33	2	0
41003010200	Benton	Tt, Tcs, Qs	13	21	11	1.66	**14**	1
41053020303	Polk	Qs	13	14	1	0	0	0
41003010800	Benton	Tcs	13	14	3	0	0	0
41053020204	Polk	Teo	14	17	3	0	0	0
41053020202	Polk	Qs, Teo	16	13	1	0	0	0
41053020400	Polk	Tcs, Teo, Tmi	21	37	2	0	0	0
41053005300	Polk	Tmb, Teo, Qs	21	28	6	0	0	0
41053020500	Polk	Teo, Qs	22	23	1	0	0	0
41003010400	Benton	Qs, Tt, Tmi	23	32	27	0.78	7	0
Total	**Polk/Benton**		**<25**	**<35**	**146**	**0.37**	**14**	**1**

Key to abbreviations for geological formations, in order from oldest to youngest:
Tcs: Siletz River Volcanics (Paleocene to Eocene basaltic and related rocks of the Siletzia terrane).
Tt: Tyee Formation (Eocene marine sandstones/shale sequence, provenance possibly the Idaho Batholith)
Teo: Yamhill/Nestucca formations (Eocene to Oligocene marine volcanic-rich sedimentary and volcanic rocks)
Tmb: Columbia River Basalts (Middle Miocene basalts and minor tuffaceous sedimentary rocks)
Tmi: Mafic intrusions (Miocene mafic intrusions on Coast Range peaks including Marys Peak)
Qs: Quaternary sediments (late Pleistocene flood deposits and minor younger sediments on Willamette Valley floor)

2. Aggregation of data from wide regions is misleading

The 2/15/24 memorandum states:

> *In the Portland Basin, the background concentration is 8.8 milligrams per kilogram; in the Cascade Range it is 19 milligrams per kilogram; and in the South Willamette Valley (where Coffin Butte is located) it is 18 milligrams per kilogram.*

The units are surely incorrect, as 18 milligrams per kilogram of water (i.e., per liter) equates to 18,000 micrograms per liter, or nearly 2000 times the US EPA's maximum contaminant limit (MCL) for drinking water.

Even if the units were fixed, mention of concentrations in the Portland Basin and Cascade Range is meaningless for this application. The local geology in the area of the landfill (Siletz River Volcanics) differs from the geology that prevails in either of those regions.

Citing an average value over the Southern Willamette Valley is deceptive. It is well-known that the southernmost part of the Willamette Valley, from Eugene (Spencer Butte area) south to Creswell and Cottage Grove, is an area where high arsenic in water wells is a common problem. From Plate 1 in Hinkle and Pollette (1999), it can readily be seen that close to half of wells south of State Hwy 126 exceed the MCL, and many exceed 50 micrograms per liter. This situation has led to drinking water advisories for those areas. However from Fern Ridge Reservoir north, arsenic problems are rare.

3. Claims of "steady" readings are questionable

The Burden of Proof states that, after high levels of arsenic were detected in 1994 and were attributed to a seepage problem:

> *VLI took various and appropriate corrective measures to correct the issue. Readings taken from compliance wells installed in 2011 have been stable with averages consistent with the background concentrations of arsenic in the Willamette Valley.*

These steady readings indicate that there have been no leachate releases or impacts on groundwater.

From Figure 1 it can be seen that, after a few years of decline following measures to address the seepage problem, arsenic levels in MW-23 (see Figure 3 for well locations) have continued to fluctuate over a wide range, spiking several times to levels above 30 micrograms per liter.

The compliance boundary wells (MW-26 and MW-27) have exceeded the US EPA's MCL for arsenic in most measurements since they were installed. Most arsenic measurements in both of these compliance-boundary wells are also higher than in any wells not on the landfill site, within the Analysis Area chosen by the applicant.

From 2014 to 2019, only two or three of the 10 arsenic measurements were above 15 micrograms per liter in these two wells. Since then, all but three measurements have been above that threshold. In late 2023, the arsenic concentration in MW-27 spiked up to 50 micrograms per liter. That doesn't meet any common definition of "stable." Note that this measurement predated the 2/15/2024 memorandum included in the application.

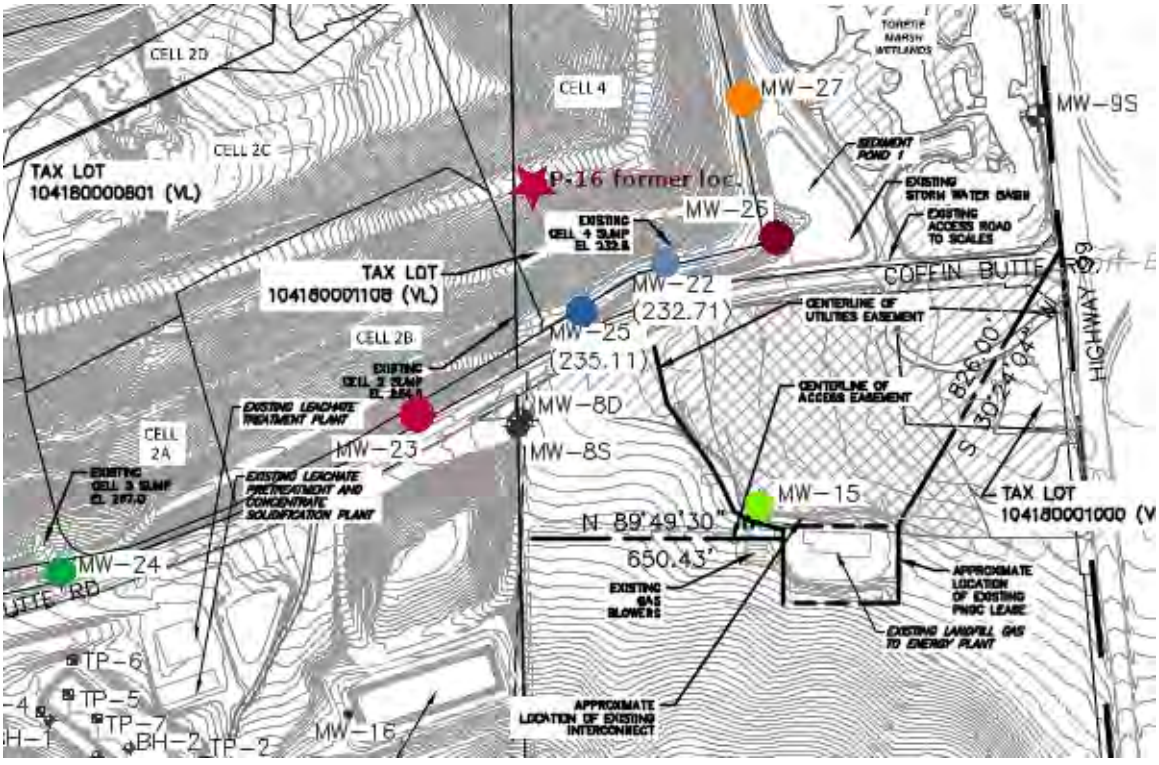


Figure 3. Location of monitoring wells in the area of concern.

4. Choice of baseline is questionable

The memo inaccurately suggests that the applicant started testing east-side wells for arsenic in 1991.

> *Arsenic testing at Coffin Butte initially began in April 1991, in well MW-S9* [corrected to MW-9S in the addendum] *on the landfill's northeast side.*

MW-9S was drilled on August 2, 1985, but there is no record of it having been tested for arsenic until February 8, 1995.[3]

The first reported arsenic measurements at Coffin Butte were in late 1988, mainly on the west side of the landfill.

The only pre-1994 measurement reported from the east side was apparently in MW-8S, in 1988.[4] That sample yielded a non-detection (ND) for an analysis threshold of 2 micrograms per liter in MW-8S. MW-8S is just across the road from the existing landfill, and about 90 yards downhill from MW-23, in the same direction as the interpreted hydraulic gradient.

The fact that arsenic was not detected in well MW-8S when it was sampled in 1988 may be a better indicator of baseline conditions, than wells that were sampled only after the acknowledged seepage problem that was discovered in 1994.

Applicant has instead claimed that MW-9S provides baseline data:

> *However, it is important to note that the initial sampling at this well – which established baseline arsenic levels in background concentrations - occurred prior to the completion of Cell 2 construction or any landfilling on the east side of Coffin Butte.*

3 Based on data provided in the AEMRs including a digital appendix of the 2023 AEMR, Appendix_F_-_2023_Historical_Database.xlsx. The latter shows that in 1991 MW-9S was sampled for alkalinity, chemical oxygen demand, chloride, hardness, nitrogen (various measures), total dissolved solids, suspended solids, sulfate, and total organic carbon, but not arsenic or other metals.

4 This measurement is missing from the database provided as digital appendix F, but shown as a plotted value in the 2023 AEMR, p. C-114 as well as in AEMRs from previous years.

As discussed above, there appears to be no record of sampling MW-9S prior to the early-1990s seepage incident.

According to the 2021 AEMR, this well drilled in 1985 is only 35 feet deep. The site map shows that this well is located right at the edge of State Hwy 99W, under what was part of the "half cloverleaf" interchange that was constructed for Camp Adair in the 1940s, using aggregate and fill rock from various sources. It is also right alongside the creek that was channelized to create what was called "the canal" during the Camp Adair period. This well is also immediately adjacent to a remedial wetland ("Toketie Marsh") that was constructed during the same time as the seepage occurred. Historical satellite images from Google Earth (Figure 4) show the condition of the area around MW-9S at that time.

The applicant has claimed:

> *Because this well is more than 1,800 feet away from MW-23, and because sampling occurred prior to the construction of Cell 2, it is implausible for the readings at this location to have been impacted by leachate.*

This ignores that there was a very simple way for leachate from the south side of the landfill to reach MW-9S.

This seepage would have drained into the ditch on the north side of Coffin Butte Road, flowed down through the ditch into the sediment pond, and into the newly created wetland as it was filling with water. Contaminated water in the wetland then would simply need to seep down through the disturbed sediments in which MW-9S was drilled.



Figure 4. View of east side of existing landfill development area from satellite images taken in May of 1944 (available on Google Earth). The recently constructed wetland on the east side of the scale-house road ("Toketie Marsh") is still in an unvegetated state though filling with water (indicated by shimmer). The sedimentation pond that flows into Toketie Marsh, receiving water from the ditch that runs past MW-23, also appears to be water-filled in this image. MW-9S is located at the edge of Toketie Marsh on the west side of Hwy 99W, next to the area where part of the former cloverleaf ramp has been bulldozed away.

Indeed, the available data from MW-9S (Figure 4) show that measurements shortly after the seepage problem was discovered in 1994 were higher (35 to 42 micrograms per liter) than the values seen since 2014 (in the range 27 to 29 micrograms per liter). This is consistent with the idea that this well could have initially been contaminated by leachate (which has arsenic concentrations above 100 micrograms per liter) arriving relatively directly via surface drainage, but since has declined to levels more consistent with a groundwater plume.

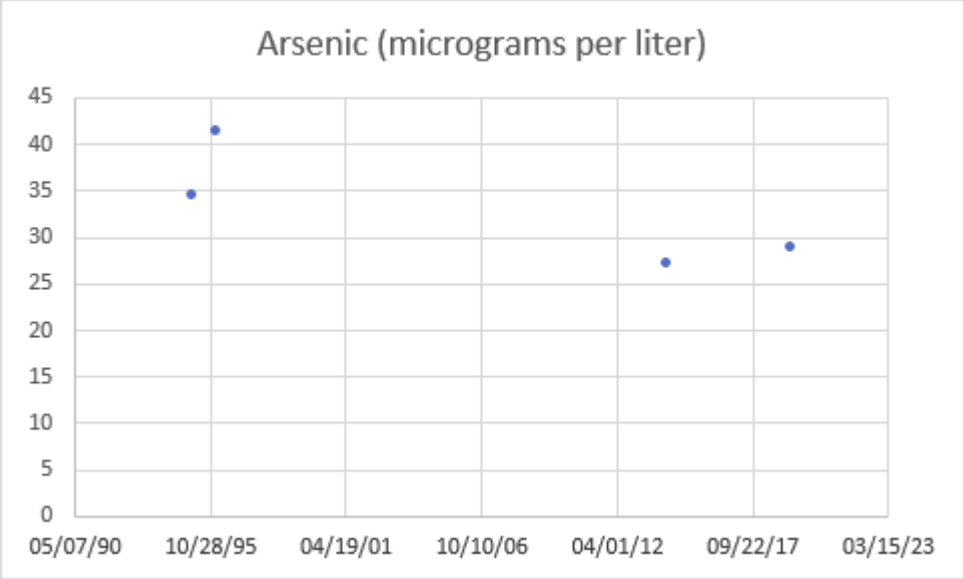


Figure 4. Arsenic concentrations measured in MW-9S from 1990 to 2023. Note that, although the applicant states that "this well has been subject to a quintennial sampling schedule (every five years) since 1991," the earliest reported are from 1995, and there appears to have been an 18-year gap in arsenic testing from February 1996 to April 2014. According to the applicant's arsenic addendum this well was again tested for arsenic in October 2024, with a reported concentration of 27 micrograms per liter.

In any case, concentrations observed in MW-23 and the compliance-boundary well MW-27 in 2023 exceeded the highest concentrations ever measured in MW-9S.

So even if we accept the applicant's questionable claim that MW-9S represents "baseline," recent measurements have exceeded the supposed baseline values.

From:	Rebecca Geier
To:	Benton Public Comment
Subject:	Fwd: Oppose/Deny LU-24-027
Date:	Tuesday, April 29, 2025 3:19:07 PM

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

---------- Forwarded message ---------
From: **Rebecca Geier** <rebeccassgeier@gmail.com>
Date: Tue, Apr 29, 2025, 2:59 PM
Subject: Oppose/Deny LU-24-027
To: <publiccomment@bentoncounty.or.gov>

My name is Rebecca Sherman Geier and I live one-third of a mile from the Coffin Butte landfill. My address is: 38566 Highway 99W
Corvallis, OR 97330.

I am writing because I vehemently oppose Republic Services' Conditional Use Permit Application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

Living so close to the landfill, we often experience extremely strong smells, ranging from a chemical-type smell to the smell of rotten eggs.

Not knowing the origins of the smells--and if they are perhaps hazardous--I hesitate to be outside working in our yard or in the vegetable garden, which we rely on for our produce annually.

Needless to say, taking a walk in our area always causes me to question the wisdom of breathing the acrid smell outside and this has seriously affected me. Imagine how an expanded landfill would affect our already bad air quality. Moreover, the proposed expansion will be even closer to our property.

Similarly, the almost constant noise from the landfill sometimes resembles an explosion (when the large semis dump their loads). The construction of the expansion of the landfill will certainly increase the noise levels. There will be blasting of the site (the hillside which is even closer to our property) and construction vehicles operating almost constantly.

The noise from the landfill is already affecting our neighborhood and the expansion will seriously affect our lives here and the character and quality of our neighborhood.

There are so many other reasons to oppose the expansion of the landfill such as leachate issues, soil quality (arsenic?), water quality, traffic noise and additional garbage trucks on the highway, and loose garbage flying off the trucks on a daily basis.

The deleterious affect on wildlife is heartbreaking. There is a Great Blue heron rookery directly adjacent to the current landfill and any expansion would certainly seriously affect

them and other wildlife.

Benton County is supposed to value environmental sustainability. Please, please reject LU-24-027!

Thank you.

Rebecca Sherman Geier

From: Barbara Grant
To: Benton Public Comment
Subject: LU-24-027
Date: Monday, April 28, 2025 10:06:05 PM

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

To: Benton County Planning Commission
From: Barbara Grant, 420 NW 35th St., Corvallis
Re: Opposition to Coffin Butte Landfill expansion

I am writing to vehemently oppose the conditional use application to expand the Coffin Butte Landfill. The application clearly does not meet 53.215 Criteria because no evidence is or can be provided to assure that the proposed use will not seriously interfere with uses on adjacent property, with the character of the area, or with the purpose of the zone. The stench and air quality, already poor due to the current size of the landfill, will undoubtedly become worse if the landfill enlarges. The methane and toxins emitted restrict local residents from recreating outdoors, present a hardship to farmers trying to hire workers, contaminate land, water, and air, and reduce property value. Who would want to buy property in this beautiful part of the Valley when the air quality is so unhealthy and bound to worsen if the landfill is allowed to expand? Driving by the landfill from the north access road to Corvallis, Highway 99W, is not only an eyesore and certainly not welcoming to visitors to the City, but also is clogged with trucks going to and from the dump, causing undue wear and tear on the (taxpayer funded!) roads, thus presenting an undue burden.

I have lived in Corvallis for 41 years, enjoyed its quality of life, and take pride in knowing Benton County has a Comprehensive Plan to preserve the quality of life and responsible land use in the future. The County's Plan and codes should be used to guide the Planning Commission in their decisions. It is quite clear that the application to expand the Coffin Butte Landfill violates numerous goals of the Comprehensive Plan. When I learned that 90% of the contents of Coffin Butte Landfill is trucked in from other counties, I was appalled. No wonder that landfill has become enormous, creating an environmental and financial liability to our County.

I urge the Planning Commission to vote according to its own criteria for conditional use authorization and acknowledge the inadequacy of this application to meet these wise and necessary criteria. Please protect Benton County by voting NO on this application.

From: Community Development, Benton County, Oregon
To: Benton Public Comment
Subject: LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date: Monday, April 28, 2025 4:57:28 PM

Subject of Testimony: Bloody Carcases Delivered to Landfill

Full Name: Joan Hagar

Email: sharpbelgians@gmail.com

Street Address: 37112 NW Moss Rock Dr, Corvallis 97330

Written Testimony:

I strongly oppose the landfill expansion because of the impact the operation has on those of us who regularly travel on Hwy 99. We are all familiar with the accumulation of litter along the shoulder, the plastic draped in the trees and the frequent need to dodge materials flying out of uncovered loads. And then there are the special trips down Hwy 99 like the following:

On March 26th, 2025 around noon, my friend and I were traveling south on Hwy 99W, from Hwy 22 Junction to our home on Moss Rock Rd. Between Rickreall and Monmouth, I began noticing deposits on the road that looked like road-killed animals, ranging between the size of a rat to as large as a rabbit. These occurred every 50 – 200 yds on the road, with a trail of wet drips in between. At the stoplight in Monmouth, we caught up to a lorry-type truck (bigger than a pickup) that was leaking fluid from the covered cargo bed. As we proceeded south on Hwy 99W behind this truck, we witnessed splats of gore and a trail of blood escaping from the cargo. When the truck picked up speed south of Monmouth, a pink mist of blood began spraying out the back and covering our windshield. At this point, we pulled over to the side of the road to get out of the gorey discharge. After a couple of cars passed us, we continued south on Hwy 99W and could still see the truck leaking discharge ahead of us. My friend called 911 to report it. The truck turned on Coffin Butte Rd. and we were right behind it as it turned into the landfill. We had to wash chunks of gore and bloody spray off the front of our vehicle when we got home.

I've never once seen VLI or Republic staff doing litter patrol on the highway. The trucking companies clearly aren't taking responsibility for their mess. It falls on Benton Co work crews and volunteers to clean up after these corporations. Enough is enough. Stop the landfill expansion now!

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 209.107.192.95

From: m h
To: FREDERICKS Carly
Cc: Benton Public Comment
Subject: Re: Fw: Why we should not expand landfill
Date: Tuesday, April 29, 2025 8:04:20 PM
Attachments: Outlook-sjmbueef.png

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

Here is another version, edited slightly, that contains the information that was on the form that was not able to be submitted, in case you need that information.

April 29, 2025
7:27 pm

To Whom it May Concern:

I am writing this to urge that the Benton County landfill not be expanded as proposed.

I am beginning to write this as the first hearing on the proposed expansion of the Benton County landfill is due to begin in a half hour. I had hoped to submit written testimony online while watching the meeting online. Unfortunately, the web form for submissions is not working, and no functioning email address is provided where it is described that people may submit testimony via email. I also could not find a way to join the hearing online. I hope this testimony reaches the right place. Although testimony is open it does not seem like submitting testimony is as easy as it could be.

I often drive near the dump on my way to hike on the Willamette Greenway. The dump is busy with big trucks coming and going from the steaming mountain made of garbage. As we turn east toward the Willamette River, I stop holding my breath to avoid the airborne toxic particles. There is garbage strewn on both sides of the road as we travel east toward the Greenway from the dump. It is a beautiful area of rolling hills and flat farms if you don't look in the direction of the dump.

From Luckiamute Landing State Natural Area, the dump is in view across the valley fields and forests to the west. The mountain of garbage sends up plumes of steam-like vapor. Sometimes I wonder if the steamy landfill is partly the reason why there are many clouds at the confluence of the Luckiamute, Willamette, and Santiam Rivers at the state natural area. Whenever I see the landfill I wonder why anyone would think that putting so much toxics and garbage in such a beautiful valley was advisable.

Big tanker trucks pull out of the dump often, full of toxic effluent bound for the Corvallis water treatment plant, which is not equipped to handle the toxic liquid. This toxic liquid ends up in the Willamette River and downstream to the Pacific Ocean, poisoning everything it

comes into contact with to some extent. Not to mention homes and wells. This is unacceptable.

We need state of the art ways to get rid of waste, to not produce it in the first place, and to render it harmless before we are done with it. We do not want everyone else's waste here. This is too nice a place to destroy with toxic waste. Benton County has done more than its share, and it's time to let other counties take care of their own waste.

Thank you.

Melissa Hartley
2535 NW Pendleton Place
Corvallis, OR 97330
hartley_me@yahoo.com
541 740-6203

On Tue, Apr 29, 2025 at 7:33 PM m h <mhfaboard@gmail.com> wrote:

> Thank you for letting me know that you received my testimony.
> Melissa
>
> On Tue, Apr 29, 2025 at 7:26 PM FREDERICKS Carly <carly.fredericks@bentoncountyor.gov> wrote:
>
> > Hi Public Comment team,
> >
> > I am forwarding this email that we received from a constituent who reported an issue with the online form. Could you please make sure that Melissa's email is included in the public record?
> >
> > Thank you!
> > Carly
> >
> > Carly Fredericks
> > Communications Coordinator
> >
> > Office: 541-766-6800 | Cell: 541-231-7999
> > Email: carly.fredericks@bentoncountyor.gov
> > Address: 4500 SW Research Way, Corvallis
> >
> > www.bentoncountyor.gov
> >
> > Disclosure Statement: This e-mail message, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. If

you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message.

From: m h <mhfaboard@gmail.com>
Sent: Tuesday, April 29, 2025 7:11 PM
To: *Benton Web PIO <Pioinfo@bentoncountyor.gov>
Subject: Why we should not expand landfill

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

I hope this testimony reaches the right place. Although testimony is open, the web form is not functioning on the country site, and an email address is not given on the testimony page.

I often drive near the dump on my way to hike on the Willamette Greenway. The dump is busy with big trucks coming and going from the steaming mountain made of garbage. As we turn east toward the Willamette River, I stop holding my breath to avoid airborne toxic particles. There is garbage strewn on both sides of the road as we travel east toward the Greenway from the dump. It is a beautiful area of rolling hills and flat farms if you don't look in the direction of the dump.

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Melissa Hartley

From: Mark Henkels
To: Benton Public Comment
Subject: Comment in Opposition to Landfill Expansion
Date: Tuesday, April 29, 2025 4:47:04 PM

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

I also have attached this. It is the text of my oral testimony.
Mark Henkels, <mphcorvallis@gmail.com>

Mark Henkels, Ph.D.
7540 NE Pettibone Drive
Corvallis, OR 97330
mphcorvallis@gmail.com, (541) 231-9386

Testimony in Opposition to Coffin Butte Landfill Expansion: Application file number: LU-24-027

April 29, 2025

My name is Mark Henkels. I am a former professor of Public Policy and Administration at Western Oregon University. I participated in the Benton County Talks Trash (BCTT) process, serving on the Community Education Subcommittee and helped write the history section of that document.

History and contemporary experience demonstrates that the expansion will definitely interfere with the character of the area and impose an undue burden on facilities and services available to the area.

The background and history told in the BCTT document show that Coffin Butte became a major industrial facility rather accidentally and reveals many problems in its operation.

Benton County approved the formal creation of the landfill to divert wastes that were previously placed in the forests and rivers without effective control. By the 1970s, problems with Coffin Butte even led Corvallis Disposal to negotiate a 99-year lease on another unsuitable site near Highway 20 in 1970 that was never used.

Early expert opinion on the suitability of Coffin Butte as a dump can be seen in the BCTT passage that states:

"In the March 19, 1971 Gazette-Times, County Sanitarian Roger Hayden speculated that one day soon Benton County may be barging its wastes down river to a regional site where proper sorting and recycling could take place. Hayden suggested at the time that eventually local solid waste would have to be taken to the eastern side of the state since western Oregon had location, water, and soil condition difficulties."

Much has been said about how Coffin Butte is a "regional dump", but this "status" was created in the early 1970s when Benton County and surrounding counties planned for it to close by 2000. The "Chemeketa Agreement" also stated that only wastes from

specific areas of Polk, Benton, and Linn County would go there. Not Marion County, and certainly not Washington County and beyond where much of the current waste come from. Coffin Butte was a convenient solution for that time but never considered ideal, even when the vision was of a facility operating at a small fraction of the current volume.

One of the main themes of the BCTT history section states: "*Historically, the interests of landfill owners and operators and those of the neighbors and other Benton County residents have not always coincided.*" The evolution of the landfill from a small regional facility overseen by local businesses to the second largest landfill in Oregon controlled by a giant out-of-state corporation tremendously magnifies the impact on neighbors and Benton County residents. Even in the period of 2010-2014, the flow of refuse was less than half of current 1 million tons being deposited per year. This cap will be lifted should the expansion be allowed.

The consistency of public opposition to efforts to expand reflect the public's awareness of how inappropriate a massive landfill is in that location, and has been consistently reinforced by expert information and scientific studies.

Two closing points. First, the landfill has leaked into aquifers of the area. As the BCTT report noted, such intrusions into local wells led the operators to buy the neighboring Helms property in the 1980s.

Finally, Benton County residents should not rely on any added "conditions of approval" that appear to mitigate risks. Consider how the EPA and state environmental inspectors have found methane leaks from the cover that far exceeded Republic Services's self-reported leaks. Benton County has avoided establishing their own monitoring program, Oregon is just now showing interest in this issue and certainly the US EPA will not prioritize such things. We would be fools to rely on Republic Services for this reporting.

The expansion will open large surfaces above and below ground for more decades, creating vulnerability to leaks, and health, fire, and the global environmental risks.

Sadly, a USGS publication notes that the EPA has concluded that all landfills eventually will leak into the environment.(https://pubs.usgs.gov/fs/fs-040-03/pdf/fs-040-03.pdf).

I hope you recognize how even the existing operation violates the character of the area and the environmental values stated in our County codes. It's time to draw a permanent limit for the landfill.

Mark Henkels, Ph.D.
7540 NE Pettibone Drive
Corvallis, OR 97330
mphcorvallis@gmail.com, (541) 231-9386

Testimony in Opposition to Coffin Butte Landfill Expansion: Application file number: LU-24-027

April 29, 2025

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Finally, Benton County residents should not rely on any added "conditions of approval" that appear to mitigate risks. Consider how the EPA and state environmental inspectors have found methane leaks from the cover that far exceeded Republic Services's self-reported leaks. Benton County has avoided establishing their own monitoring program, Oregon is just now showing interest in this issue and certainly the US EPA will not prioritize such things. We would be fools to rely on Republic Services for this reporting.

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Sadly, a USGS publication notes that the EPA has concluded that all landfills eventually will leak into the environment.(https://pubs.usgs.gov/fs/fs-040-03/pdf/fs-040-03.pdf).

I hope you recognize how even the existing operation violates the character of the area and the environmental values stated in our County codes. It's time to draw a permanent limit for the landfill.

From: Willow Holdorf
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Monday, April 28, 2025 8:15:48 PM

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

Dear Benton County Planning Commissioners,

My name is Willow Holdorf and my family home is 38483 Plowshares Road, Corvallis, Oregon 97330. I live at 865 Pacific St., Apt. 1, Brooklyn NY 11238.

I am extremely worried about how an expansion of the landfill would affect the neighborhood of my family home and do not understand why anyone would want more trucks driving from far away along highway 99 - affecting traffic and with a high carbon footprint. I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

As many have said, the proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- Air and water pollution threaten our local ecosystems and community health
- Traffic increases that pose safety risks on nearby roads and pathways
- Odor and noise issues that degrade quality of life for residents and visitors
- Negative impacts on wildlife, recreation, and property values
- Long-term climate and environmental consequences for future generations
- The proposed expansion does nothing to align with Benton County's 2040 Thriving Communities Initiative. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Willow Holdorf
Corvallis, Oregon 97330 and Brooklyn, New York 11238

From: Duane Jager
To: Benton Public Comment
Subject: Opposed to proposed Coffin Butte expansion
Date: Monday, April 28, 2025 10:52:12 AM

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

My name is Duane Jager, and my wife Heather and I live at 4485 SW Airport Ave, Corvallis, OR 97333. I'm writing in opposition to Republic Services' proposed Coffin Butte landfill expansion plan.

Here are some of the reasons we most oppose this expansion.

1. **Out-of-County Waste**
Much of the waste received at Coffin Butte is from **outside** Benton County. We understand that in 2020 less than 12% of the waste was from Benton County. Because of this, what is the necessity of expanding the landfill for our local needs?

2. **Health Hazards**
Strong chemical odors and dust containing harmful substances have been reported. Also, there is risk of groundwater contamination affecting well water in the area.
There have been methane leaks with some readings exceeding 100,000 ppm. Legal limit is 500 ppm. This certainly creates a fire risk as well as affecting the air quality.

3. **Emergency Access Concerns**
The proposed expansion would eliminate Coffin Butte Road, a critical emergency route.

4. **Quality of Life**
Nearby residents experience bad air days which limit activities they can do outside on their property and create potential health concerns.

5. **Property Values**
There are concerns that the value of nearby property could be negatively impacted making it difficult to sell property and attract new residents.

In conclusion, we see very little positive value to the residents of Benton County and many negative reasons for not allowing this expansion of Coffin Butte. Therefore, we urge the Commission to do what is right for the residents of our beautiful Benton County and deny the Conditional Use Permit.

Sincerely,

Duane and Heather Jager
541-760-2783
4485 SW Airport Ave, Corvallis, OR 97333

From: Stephen Jones
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Tuesday, April 29, 2025 7:21:16 AM

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

Dear Benton County Planning Commissioners,

My name is Stephen Cassidy Jones, I live at 1316 Packard Street Ann Arbor, MI 48104.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- Air and water pollution threaten our local ecosystems and community health
- Traffic increases that pose safety risks on nearby roads and pathways
- Odor and noise issues that degrade quality of life for residents and visitors
- Negative impacts on wildlife, recreation, and property values
- Long-term climate and environmental consequences for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Stephen Cassidy Jones, PhD

From: Judith Kenner
To: Benton Public Comment
Subject: Deny LU-24-02
Date: Monday, April 28, 2025 5:58:28 PM

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

Dear Benton County Planning Commissioners,

My name is Judith Kenner and I live at 1725 NW Garryanna St, Corvallis, OR 97330.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would **seriously interfere with the character of the surrounding area** and impose **an undue burden on public resources**, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- **Air and water pollution** threaten our local ecosystems and community health
- **Traffic increases** that pose safety risks on nearby roads and pathways
- **Odor and noise issues** that degrade quality of life for residents and visitors
- **Negative impacts on wildlife, recreation, and property values**
- **Long-term climate and environmental consequences** for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Judith Kenner

Corvallis, OR 97330

From: Community Development, Benton County, Oregon
To: Benton Public Comment
Subject: LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date: Tuesday, April 29, 2025 8:12:44 PM

Subject of Testimony: LU-24-027 Conditional Use Permit Application Regarding Landfill Expansion

Full Name: GINA LIND FLAK

Email: gflakmn@gmail.com

Street Address: 28891 BLAZE DR, CORVALLIS OR 97330

Written Testimony:

Dear Benton County Planning Commission:

I am writing to comment on the Conditional Use Permit (CUP) application submitted by Valley Landfills Inc. I am vehemently opposed to any expansion of the Coffin Butte landfill.

My husband and I live near the landfill. We have animals on our land and a well and septic system. I am already concerned about the quality of our water, and I believe that any expansion of the landfill will put our health and the health of the animals on our land at risk.

Losing access to the water in our well would seriously interfere with the use of our property. We do not currently have a water tank so we would need to buy one at great expenses and pay to have water trucked in. We would no longer be able to lease our farm-zoned property for livestock as we do now as it wouldn't be economically feasible.

We have not seen any evidence presented by Republic or Vallery Landfills to show that their plans will not interfere with our existing land use, or well water, or the beauty of the area, which is why we purchased our home here 9 years ago.

I'm also concerned about the blasting that would take place since we already experience noise – often beginning as early as 5:30 am when trucks begin arriving, and the dust and odor emanating from the landfill and all of the traffic.

Each morning, I drive on Coffin Butte Road, cross Hwy 99 and continue on Camp Adair Road on my way to work in Albany. Camp Adair Road is littered with trash as far as Independence Highway and even onto Hwy 20. Last summer, I followed a trail of pink insulation in the ditches and hanging from bushes and trees along the road, all the way from Hwy 20 to the Coffin Butte landfill in my neighborhood. There were bright pink pieces of insulation on Hwy 20 heading toward Corvallis, Independence Highway, Camp Adair Road, Hwy 99, and Coffin Butte Road up to the landfill entrance. A year later and I still see pieces of that pink insulation. It's disgusting we allow this to happen.

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 98.97.35.195

From: Double L
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Tuesday, April 29, 2025 12:56:01 PM

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

Dear Benton County Planning Commissioners,

My name is Linda Lingemannand I live at 820 NW Raintree Drive, Corvallis OR 97330.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- Air and water pollution threaten our local ecosystems and community health
- Traffic increases that pose safety risks on nearby roads and pathways
- Odor and noise issues that degrade quality of life for residents and visitors
- Negative impacts on wildlife, recreation, and property values
- Long-term climate and environmental consequences for future generations

Where we live, we have experienced these concerns first-hand, specifically, more frequent occurrences of odors from the landfill, as well as increased traffic on Highway 99W, as trucks head for the landfill.

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,

Linda Lingemann

Corvallis, OR 97330

From: David Lowry
To: Benton Public Comment
Subject: Coffin Butte Landfill expansion
Date: Monday, April 28, 2025 7:13:27 AM

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

Dear Sirs:

I am opposed to the expansion of the landfill. The current landfill is a burden on the local environment. The leachate from the structure pollutes the groundwater upon which many residential and area farmers rely. The trash comes from a far-ranging area and includes many toxic items, in spite of recycling efforts, like batteries, fluorescent light bulbs, petroleum products from containers and numerous other harmful products that flow by gravity and reach the underlying strata. These will continue to flow from the area for countless years, resulting in polluted groundwater for many Benton County citizens. It should not be a burden on our county for disposal of the refuse from far-flung areas of the state. Not only do we have to bear the burden of the landfill itself, a visit th the areas outside the site reveals large amounts of trash strewn about our roads as the trucks approach the site from all directions.

While the current revenue is enticing, the long-term costs of this facility will continue to cost the residents of Benton County long into the future. Let's not shift the long-term cost of the landfill on our future residents but close the existing facility as scheduled and relocate the landfill to an area that can benefit from the latest technologies.

Again, I strongly urge opposition to the expansion.

Sincerely yours,

David P. Lowry
3105 NW Roosevelt DR
Corvallis, OR 97330

From:	Carol McClelland Fields
To:	Benton Public Comment
Subject:	Oppose/Deny LU-24-027 -Written Testimony
Date:	Tuesday, April 29, 2025 4:16:42 PM

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

Carol McClelland Fields

37326 Soap Creek Rd,
Corvallis, OR 97330

Thank you.
--
~~~~~~~~~~~~~~~~~~~~~~~~~~~

Carol McClelland Fields, PhD, BCC
541 243 3675
~~~~~~~~~~~~~~~~~~~~~~~~~~~

To: publiccomment@bentoncountyor.gov

Subject: Oppose/Deny LU-24-027 -**A Garbage-Truck Sized Hole in the Community Wildlife Protection Plan (CWPP)**

Dear Benton County Planning Commissioners,

My name is Carol McClelland Fields, and I live at 37326 Soap Creek Rd about four miles from Coffin Butte Landfill.

I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

> **Benton County cannot afford to make a decision to build a new landfill/landfill expansion *without a full understanding the fire risks associated with landfills.***
>
> **The applicant's fire mitigation plan concludes that "operations at Coffin Butte Landfill *do not present a significant fire risk.*" This statement is completely ludicrous.**

I will demonstrate a serious gap in the County's assessment of Coffin Butte Landfill's fire risk, a disconnect between Benton County's official stance on fires in the county as well as how a large fire on Coffin Butte Landfill **seriously threatens the livability on adjacent properties** [Benton County Code 53.215 (1)]**, seriously impacts the character of the area** [Benton County Code 53.215 (1)], **and imposes an undue burden on the county's and region's fire services, emergency management services, first responders, and residents.** [Benton County Code 53.215 (2)]

Benton County's Official Efforts to Protect the County from Fire

"BENTON COUNTY'S VISION FOR WILDFIRE MANAGEMENT AND ADAPTABILITY:

> *For the County's populace to be wildfire aware and prepared for fire emergencies and for **all properties to be adapted to local wildfire risk.**"* (page 57 of CWPP)

The Benton County Community Wildfire Protection Plan (CWPP) for 2023 – 2028 provides a comprehensive approach to managing wildfire threats in the County's forestlands and in the **WUI (*Wildland-Urban Interface: the geographic area where structures and other human developments meet or intermingle with vegetative fuels or border up against wildland fuels.)*** (page 12 of CWPP)

> **Twenty-three (23) fire, county, state, federal agencies and forestry organizations** participated in the CWPP planning process by appointing representatives to a Technical Advisory Committee. (Page 3 of CWPP)

> **This CWPP was "*agreed upon and endorsed*** *by the Benton County Board of Commissioners, the Oregon Department of Forestry, and the Fire Defense Board in early 2023* ***... to provide a framework for those local agencies associated with wildfire suppression and protection services to assess the risks and hazards associated with wildland urban interface areas and to identify strategies for reducing those risks***." The individuals who signed the current version of the CWPP include: Michael Curran (ODF West Oregon District, District Forester), Ben Janes (Corvallis Fire Department, Fire Chief), and Pat Malone (Benton County Board of County Commissioners), Vance Croney (Benton County Counsel) (page 2)

"State law says that in Oregon the Wildland-Urban Interface (WUI) boundary is defined by areas within an Urban Growth Boundary, or any area with a building density of at least one building per 40 acres...The focus is placed on those areas with ***sufficient building density and sufficient fuels to facilitate a WUI conflagration.***" (page 12, 14) In addition to the forest and vegetation areas, **built fuels (structures or infrastructure) must be considered.**

Communities in wildfire-prone areas, including Benton County, are creating **Fire Adapted Communities** which incorporate people, buildings, **businesses, infrastructure**, cultural resources, and natural areas into the effort to prepare for the effects of wildland fire by:

> • Acknowledging and **understanding the County's wildfire risk.**
> • Recognizing that regions of the County are **in or near a fire-prone ecosystem.**
> • **Having leaders** and citizens with the knowledge, skills, willingness and realistic expectations to properly prepare for and deal with wildland fire.
> • **Communicating clearly with citizens about wildfire risks** and specific methods for preparedness.
> (page 20)

The local CWPP is meant to guide actions to implement safety measures and fuel management to protect residents, homes, **businesses**, natural areas, and cultural resources against wildfires by:

> 1) **Bringing together multiple private and public stakeholders** across the landscape in partnership to reduce fire risk
> 2) Identifying and prioritizing areas for **hazardous fuel reduction**
> 3) **Reducing the ignitability** of the structures in the areas
> (page 15)

However, There Is Large Gap in Benton County's Vision for Managing Wildfires: Benton County's CWPP DOES NOT MENTION COFFIN BUTTE LANDFILL!

I searched the current CWPP document for the following words and phrases:

- **Coffin Butte** - a couple of mentions of Coffin Butte Road as ingress and egress for Northern County. **NO mention** of the Coffin Butte Landfill.
- **Valley Landfill, Inc** - **NO mention** of this company name
- **Republic Services** - **ONE mention** under this heading: *1.1.1e Create additional disposal opportunities for yard debris using alternative methods to burning*
- **Methane** – Phrase **Not Found**
- **Lithium Batteries** – Phrase **Not Found**

In the Northern Forest Area– Strategic Planning Area #3 (Page 48-50). *("North central portion of Benton County from Kings Valley to Soap Creek and includes the communities of Kings Valley, Hoskins, and Wren."* Although not mentioned in the written description, this region extends to Hwy 99, including the Coffin Butte landfill.)

> The CWPP mentions the high voltage powerlines that cross into this region (page 50), but somehow misses the fact that there's a **methane-belching landfill** in the northernmost corner of the Northern Forest Area **that has a documented pattern of landfill equipment and working faces catching fire on a regular basis.**
>
> An important element in understanding *"the danger of wildfire is **the availability of** diverse fuels in the landscape, such as natural vegetation, structures, and **combustible materials.**"* The bolded phrase is used three times in the document, but landfill-related combustible materials (methane, lithium batteries, or other flammable, toxic substances) are never mentioned. (page 25)
>
> *"Prevention activities primarily focus on **altering the characteristics of fuel to mitigate the risk of catastrophic fires."*** (page 25) But if the combustible nature of the Coffin Butte Landfill aren't included in the CWPP or aren't in the minds of County Leaders and Officials, then it's impossible to focus on *"altering the characteristics of fuels to mitigate the risk of catastrophic fires"!*

Why are Republic Services and the Coffin Butte Landfill Missing from the CWPP? Did Anyone Even Notice?

I am not the first to notice this gap in the CWPP. In discussing this topic with a neighbor, I learned that **the Coffin Butte Landfill was INTENTIONALLY LEFT OUT of the CWPP.** *Read the email chain exchange (appended below*) that transpired in March 2022 when my neighbor sent an inquiry to the County staff person who was developing the CWPP. (Note that this same staff*

person was also the County's Planning Official for the previous Republic Services CUP application in 2021.)

> **Why didn't any of the 23 organizations and four signers of the 2023 - 2028 CWPP notice that Coffin Butte Landfill managed by Republic Services was NOT included in the CWPP?**

Coffin Butte Landfill Itself Is a HUGE Flammable Target for Airborne Embers and Source of Airborne Embers

There are several frightening fire scenarios to consider:

1. **Consider a fire** (which may be due to spontaneous combustion, unstable lithium batteries, landfill vehicles or equipment, recently arrived hot loads, firecrackers set off to deter seagulls) **that originates on the Coffin Butte landfill and sets off a methane-fueled explosion.** From there, the embers fly up to five miles into OSU McDonald-Dunn forests, Starker forests, rural neighborhoods, urban areas, and agricultural lands. And then embers from those new fires fly another five miles downwind…and so on.

2. **Consider a hot, high wind event with fire in a nearby forested or agricultural area that generates embers that ignite the industrial-sized methane plumes** that have been documented to exist over the landfill. From there, the embers fly up to five miles into OSU McDonald-Dunn forests, Starker forests, rural neighborhoods, urban areas, and agricultural lands. And then embers from those new fires fly another five miles downwind…and so on.

3. **Consider a series of lightning strikes hit Coffin Butte landfill during an intense summer storm.** Whether they ignite lithium batteries which are inherently unstable, spark the methane plumes, or burn underground materials, a fire starts. From there, the embers fly up to five miles into OSU McDonald-Dunn forests, Starker forests, rural neighborhoods, urban areas, and agricultural lands. And then embers from those new fires fly another five miles downwind…and so on.

The origin of the fire or the method that provides the spark that starts the fire aren't the main issues here.

The flammable, explosive nature of landfill methane and the toxic nature of the fires creates **a very dangerous scenario that would irrevocably change the nature of our community and**

the surrounding areas for years and decades to come. As a result, the livability of this region would be detrimentally impacted for years and decades to come.

A sizeable fire at the landfill would put undue burden on fire and emergency management services. Due to the landfill's steep terrain, toxic air generated by a fire, the risk of methane or lithium battery explosions, radioactive waste, and a myriad of other inherent risks, firefighters could NOT and would not put their resources toward fighting the landfill fire itself, they would have to focus on the endless fires that would start from the embers generated by the landfill fire or from the nearby forested areas adjacent to the landfill itself.

The undue burden would also fall on residents who live in the immediate area of the fire or find themselves under a blanket of toxic smoke that is known to have significant health risks. In the aftermath of such a fire, properties and homes would not be inhabitable, which would have a serious impact on the lives of many.

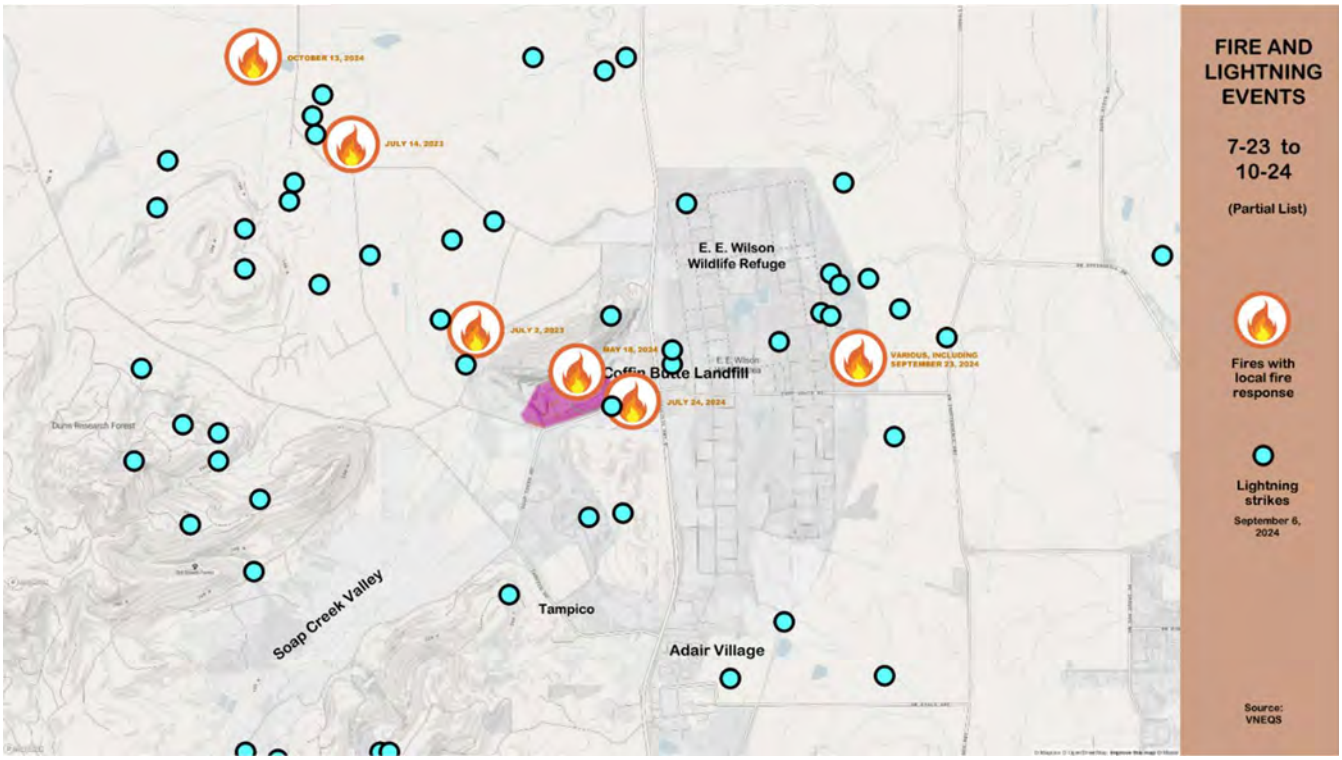
We can't just "assume" that a fire will never happen at Coffin Butte Landfill.

According to FEMA, there are an average of **8,300 landfill fires each year nationwide.** This number is likely underreported because landfill fires on private land may not be included.

In 2022 alone *"there were **390 unique fire incidents reported at waste and recycling facilities in the U.S. and Canada**, and based on reasonable assumptions, we can **extrapolate that 2,400-plus facility fires occurred in 2022."*** (Waste 360 article dated January 9, 2023)

And don't forget, *the Bridgeton Landfill **<owned and operated by Republic Services>** has been experiencing a **"subsurface smoldering event"** — a chemical reaction that heats and consumes waste like a fire but lacks oxygen — **for more than 14 years**, emitting noxious odors."* Missouri Independent, Allison Kite, January 22, 2025

The map on the next page is a compilation of **fire events for the region surrounding Coffin Butte Landfill** from July 2023 – October 2024 and lightning strikes from one storm on September 6, 2024.



The risk and threat of fire cannot be minimized or dismissed. **Any operations plan for Coffin Butte Landfill put forth by the applicant can't erase the enhanced fire risk in our region.**

How can County Leaders, County Officials, and Planning Commission – in good conscience – make decisions about the future of the new landfill / landfill expansion without fully understanding the fire risks and their impact on Benton County?

This landfill business isn't another blueberry farm or winery; it's a waste disposal business that builds infrastructure, accepts processes toxic materials from various counties throughout Oregon and beyond, and generates two toxic commodities (methane & leachate) in high quantities into the foreseeable.

Coffin Butte Landfill definitely contributes to the fire risk we face in Benton County, we just buried the lede and minimized the proof by leaving the landfill out of the CWPP, which is one of the main planning document for fire management in Benton County!

I firmly oppose LU-24-027.

We can't make a decision to build a new landfill/landfill expansion without first understanding the fire risks *(along with all the other risks other residents have mentioned: health, air quality, water quality)* associated with the landfill.

Let's return to the description of some of the goals of Fire-Adapted Communities that Benton County has commit to:

- Acknowledge and **understand its wildfire risk.**
  Currently the county and community have not acknowledged nor understood the fire risk associated with the Coffin Butte Landfill.

- Recognize that it is **in or near a fire-prone ecosystem.**
  Currently we, as a county, do NOT recognize the risks of fire events at the landfill, whether they originate at the landfill or they are sparked by other fires in the region.

- **Have leaders** and citizens with **the knowledge, skills, willingness and realistic expectations** to properly prepare for and deal with wildland fire.
  The fact that leaders and officials of this community signed off on the CWPP without a single mention of the landfill runs counter to the county's vision. An unforgivably large oversight.

- **Communicates clearly with citizens about wildfire risks** and specific methods for preparedness.
  Benton County has NOT communicated the wildfire risks of the landfill because they have NEVER looked at the issue, or they are too afraid to voice facts that run counter Republic Services' dreams of expanding the landfill.

* Email Exchange that demonstrates why the Coffin Butte Landfill Was Left Out of the CWPP.

Read the email chain exchange that transpired in March 2022 when my neighbor sent an inquiry to the County staff person who was developing the CWPP. (Note that this same staff person was also the County Planning Official for the previous Republic Services CUP application in 2021.)

Subject: Community Wildfire Protection Plan

From: N Whitcombe - Sent: Friday, March 18, 2022 2:01 PM
Hi Inga,
I do not see anything in the Community Wildfire Protection Plan that addresses exit routes from

vulnerable neighborhoods (for example, Coffin Butte Road). Am I missing that? It seems to have been an issue that has mobilized several at-risk neighborhoods lately (for example, Oak Creek and Soap Creek of course).

I also did not see the issue of the landfill addressed. Since the landfill is itself an enormous fire risk (because of the methane it generates and its history of catching on fire), I am wondering if that should be addressed in this plan. Many of us in the neighborhood have wondered if the higher temperatures that we have been experiencing lately will have an impact on the flammability of the methane in the landfill. I have not been able to find any research that addresses this issue.

Whom should I speak with about these issues?

On Fri, Mar 18, 2022 at 3:22 PM WILLIAMS Inga wrote:
Nancy,
Please review the Scope document that I have attached <not available>. This is what was given to the Board of County Commissioners at the beginning of this project. Disregard the Draft stamp, this is what was approved. Review of evacuation routes will be done after the CWPP has been approved, and then folded into it during an update.

I am not sure who you can talk to about the **increase in flammability of the landfill, sorry. It isn't a topic I will add to the CWPP.**

From: N Whitcombe - Sent: Friday, March 18, 2022 3:28 PM
Who at the County is working on this *[the risk associated with the landfill]*?

On Fri, Mar 18, 2022 at 3:39 PM WILLIAMS Inga wrote:
No one is working on the landfill topic at the moment. It may be addressed through a community process in the broader context of waste management options. But I do not know when that process will begin exactly – maybe a month or two?

From: N Whitcombe - Sent: Friday, March 18, 2022 4:22 PM
I would like to bring the issue of the flammability of the existing landfill to the attention of whoever is working on the wildfire protection plan. It seems that **when you have a vast reservoir of flammable methane as a known fire risk, and which has repeatedly caught on fire, that should be taken into account in the formulation of a plan to reduce wildfires.**

From: WILLIAMS Inga – Sent Fri, Mar 18, 2022 at 4:31 PM
Nancy,
I am working on the CWPP**. I don't see how I can include this in CWPP as I have no experience in the topic, and it would be a task too large to undertake for what is in the final draft stages.** It may be that it could be included as a task to be worked on in future year updates.
Inga

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Carol McClelland Fields
Corvallis, OR 97330

From: Cheryl McLean
To: Benton Public Comment
Cc: clint@clintbrownartist.com
Subject: Landfill expansion
Date: Monday, April 28, 2025 10:53:56 AM

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

Dear Benton County Planning Commissioners,

My name is Cheryl McLean, and my husband, Clint Brown, and I live at 2150 NW Jackson Creek Road, near Crescent Valley High School.

We are writing because we adamantly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. We urge the Planning Commission to deny this application for so many important reasons.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, which is already in violation of Benton County Code 53.215 (1) and (2).

Specifically, this expansion raises major concerns about:

- Air and water pollution that threaten our local ecosystems and community health
- Traffic increases that pose safety risks on nearby roads and pathways
- Odor and noise issues that degrade quality of life for residents and visitors
- Negative impacts on wildlife, recreation, and property values
- Long-term climate and environmental consequences for future generations

The proposed expansion does **nothing** to align with Benton County's 2040 Thriving Communities Initiative. In fact, this expansion **undermines** our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,

Cheryl McLean and Clint Brown, Corvallis, Oregon

From: Cressey Merrill
To: Benton Public Comment
Subject: Oppose/deny LI-24-027
Date: Tuesday, April 29, 2025 6:12:26 PM

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

Dear Benton County Planning Commissioners,

My name is Cressey Merrill and I live at 38544 hwy 99 w, Corvallis, Oregon 97330.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- Air and water pollution threaten our local ecosystems and community health many times the odor is so strong that people will not come over to visit, and I can not be outside and enjoy my property.
- Traffic increases that pose safety risks on nearby roads and pathways. The increased traffic has started creating sinking of the roadway.
- Odor and noise issues that degrade quality of life for residents and visitors. The blasting noise is excessive sometimes, and will shake my house and rattle my windows.
- Negative impacts on wildlife, recreation, and property values. My property value is going down and the poor wildlife is being displaced.
- Long-term climate and environmental consequences for future generations

The proposed expansion does nothing to align with Benton County's 2040 Thriving Communities Initiative. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Cressey Merrill
38544 hwy 99 w, Corvallis, Oregon 97330

Cressey Merrill

Bottom Dwellers Inc
541-231-7186

From: Cressey Merrill
To: Benton Public Comment
Subject: Oppose/deny LI-24-027
Date: Tuesday, April 29, 2025 6:12:26 PM

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I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Cressey Merrill
38544 hwy 99 w, Corvallis, Oregon 97330

Cressey Merrill

Bottom Dwellers Inc
541-231-7186

From: CRESS MERRILL
To: Benton Public Comment
Subject: Deny LU-24-027
Date: Tuesday, April 29, 2025 7:27:59 PM

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

My name is Paulette Merrill and my husband and I own the property at 38544 Hwy 99W Corvallis, Or. 97330.
I am writing to urge the denial of the expansion of the Coffin Butte Landfill. As many of my neighbors have already communicated, this proposal is against many of the standards of living that the residents of Corvallis hold dear. I will mention specifically water quality--most of the neighbors of the present landfill have private or shared wells. I understand rock blasting will be required for this project. Blasting can disrupt the established water ways.
Traffic using the landfill is already excessive. A few years ago there was an accident in my neighbors frontage. More traffic means more potential for accidents.
I won't even bother to devote the time and space needed to go on about quality of life issues. We are certainly living in trying times and need all the peace and tranquility we can get. I don't see expanding the landfill as doing anything to promote peace or tranquility.
I urge you to deny LU-24-027.
Paulette Merrill
38544 Hwy 99W
Corvallis, Or. 97330
16390 Hiram
Oregon City, Or 97045
503-656-4629

From: Kellie N
To: Benton Public Comment
Subject: Please DO NOT expand Coffin Butte
Date: Monday, April 28, 2025 11:03:07 AM

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

Dear Benton County Planning Commissioners,

My name is Kellie Neet and I live at 2255 NW Brownly Heights Drive.

I am writing because I STRONGLY oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application!

The proposed expansion would **seriously interfere with the character of the surrounding area** and impose **an undue burden on public resources**, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- Air and water pollution - threaten our local ecosystems and community health
- Odor and noise issues - that degrade quality of life for residents and visitors
- Negative impacts - on wildlife, recreation, and property values
- **Long-term environmental and health consequences - for future generations!**

WE ARE NOT A GARBAGE DUMP FOR PEOPLE FROM OTHER PARTS OF THE STATE.

You KNOW that this would have serious environmental and health effects on our children, grandchildren, and great-grandchildren. There is just no question about that - the only question is, how bad. It is not worth that risk.

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Kellie Neet, 2255 NW Brownly Heights Drive, Corvallis OR, 97330

From: Kellie E. Neet
To: Benton Public Comment
Subject: Please do what is right and DENY LU-24-02
Date: Tuesday, April 29, 2025 11:03:47 AM

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

Hello,

I am a Corvallis resident who has written you about this issue once before and I am doing so one more time. This time, I want to speak from the bottom of my heart and appeal to you as Benton county residents to do the right thing.

I am sure you are getting pressure from big businesses with big money to approve the landfill expansion. But please dig deep into your hearts and think about if there is possibly a reason to say yes to this application. If you do so, I am sure you will find there is not.

I am sure you are getting inundated with tons of scientific "data" saying a larger landfill would have no impact on the local community. But how can anyone possibly know that? They can't. They are just basically assuming everything will go well. They can't KNOW that it will. There are always risks - and the risks are to us and our children and grandchildren - not to them. It is not worth the risk!!

In addition, there are absolutely NO benefits to Benton county to becoming - even more so - the dumping ground for the state of Oregon. Absolutely none.

It is not worth ANY risk to Benton county residents, so that a large corporation in Arizona can make money. These risks to Benton county residents include water quality (especially well water), air quality (methane!!), and soil contamination that would be here forever. And that's not to mention the impact of trucks driving here from all over the state - air pollution, traffic, road damage, and increase of auto accident risk.

It is YOUR job to advocate for Benton county residents, NOT for big corporations.

For our community, your kids, your grandchildren, my kids, my grandchildren, for all of us - you must look deep into your hearts for the right answer, and if you do so, I know the answer will be a resounding NO to LU-24-02.

Corvallis and our surrounding community should NOT be a dump for the state of Oregon. That is just WRONG and if you look into your heart, you know that. Portland can find its own solution. Eastern Oregon can find its own solution! There is so much land in eastern Oregon; why on earth are they trucking one-third of their garbage to Benton county? It makes absolutely no sense!!

All of those other areas of Oregon - and other states - should come up with their own solutions (that hopefully, those landfills will be further away from developed communities like Corvallis).

In addition, in my opinion we should be looking to decrease the size of Coffin Butte, so that it

only takes local garbage, absolutely NOT to be increasing its size.

Please do the right thing.

Sincerely,
Kellie Neet

From: Lauren Ohlgren
To: Benton Public Comment
Subject: Oppose LU-24-02!
Date: Tuesday, April 29, 2025 11:16:05 AM

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

Benton County Planning Commissioners,

I am a Corvallis resident and strongly oppose Republic Services' Conditional Use Permit application to expand the Coffin Butte landfill. Please deny this application.

The dump is not owned by Benton county and the profits go to a corporation in Arizona. Less than 7% of the garbage disposed of here comes Benton county; some of it comes from out-of-state, and one-third of the garbage from all of eastern Oregon comes here!

An expansion raises major concerns about:

- **Air and water pollution** threaten our local ecosystems and community health
- **Traffic increases** that pose safety risks on nearby roads and pathways
- **Odor and noise issues** that degrade quality of life for residents and visitors
- **Negative impacts on wildlife, recreation, and property values**
- **Long-term climate and environmental consequences** for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027 to protect the health and future of Benton County.

Sincerely,
Lauren Ohlgren

Corvallis, Oregon

From: olsenk@exchangenet.net
To: Benton Public Comment
Subject: Oppose and Deny LU-24-027
Date: Tuesday, April 29, 2025 3:41:33 PM

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

Dear Benton County Planning Commissioners,

My name is Kari Olsen and I live a few miles south of the Coffin Butte landfill in Benton County.

I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the landfill. I urge the Planning Commission to deny this application.

I have lived, worked, gone to school, and hiked in Benton County for over 45 years. I nearly made an offer on a home in the Soap Creek area years ago, but I would not consider it today, nor any place downwind or downstream from the Coffin Butte landfill.

When poison leaches into the ground, it is difficult or impossible to determine which way it will run in the aquifer, and I fear for the safety of my own well water. Dumping leachate into the Willamette River is outrageous. Republic Services has neither the means nor motive to disclose risks accurately. I have no confidence that any "Conditions of Approval" would be enforced.

I make an effort to buy local food, but now I will have to try and research if locally grown food has been irrigated with dump leachate.

The proposed expansion is in violation of Benton County Code 53.215 (1) and (2). Besides air and water pollution, there is noise, smell, and traffic pollution already harrassing wildlife and people. Expansion would cause problems for a larger area, and for future generations.

The proposal is contrary to Benton County's "2040 Thriving Communities Initiative", especially the goals of "Safe, & Livable", "High Environmental Quality", "Conservation of Natural Resources", and "Consideration of Carrying Capacity". Such an expansion is irresponsible environmental stewardship, a public health risk, and unsustainable.

Please reject LU-24-027.

Thank you for your consideration.

Sincerely,

Kari Olsen
2681 Rose Crest Dr.
Philomath, Oregon 97370

From: Ken Robertson
To: Benton Public Comment
Subject: Coffin Butte Public Testimony
Date: Tuesday, April 29, 2025 10:11:33 AM

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

The Benton County Board of Commissioners MUST deny the Coffin Butte Expansion application from Republic Services. The list of reasons for denial include many concerns including impacts to groundwater particularly related to the toxic brew of leachate, air pollution and odor, documented methane exceedances, potential landfill fires, recent citations for worker health and safety violations, increased traffic and noise, and devaluation of surrounding property.

Republic has all to gain financially and argues to continue their control of how Benton County gets rid of their landfill garbage. This company has no incentive do the right thing and they have demonstrated time and again they will violate federal and state water and air quality regulations and severely limit the life span of this landfill by manipulating the County Commissioners to allow garbage from many other counties for a payout to the County. This payout to the County is a small percentage of what Republic has profited from having Coffin Butte under their control. This generalized list of all the violations and serious concerns for the expansion does not tell the full story. If the Commissioners read and listen objectively to the concerns of public, the EPA, and the State, including County staff, the Commissioners will not, in good conscience, vote to approve the expansion application.

If not for Republic's greed to make as much money as they can by bringing vast amounts of garbage from other counties, Coffin Butte would have been operational in its current location for decades. From what I have read, Benton County's portion of the garbage that goes to the landfill is a very small percentage of what goes into the landfill. The writing has been on the wall for years and yet, the Commissioners are actually considering allowing the expansion which will only multiply the pollution and problems at a faster rate while we continue to serve as the dumping ground for several counties. The right choice seems so obvious ..... Deny the application.

We do not live near the landfill. The protest against the expansion is not just a problem for the property owners living near the landfill to fight. They are not alone. This affects all of us living in the state of Oregon and it definitely affects the communities and wildlife living downstream from where the leachate is dumped into the Willamette River. Our hearts are with the coalition who have been fighting the expansion for years.

Of course Republic wants to expand. I understand this is the only landfill they own in Oregon. It's far cheaper for them to expand than to acquire another area for a new landfill. The people and the environment must be given precedence over the 2nd largest waste mgt company in the US. Can you, the Commissioners, NOT see why to continue placating Republic Services is the WRONG decision? The only benefit the

Commissioners can claim is that it will bring in some revenue to the County. However, as one person explained very well in the Gazette Times, in terms of the budget, the County must look at not only the dollars Republic is paying, but the full costs to the County in terms of how much it costs to monitor and manage Republic and the landfill. And the rule of Risk vs. Reward definitely applies here.

We have many more thoughts about this, but we will end here. There should be enough here to justify why the landfill expansion should not be approved.

Thank you for reading our testimony. May you have the Strength and Courage to do the right thing!!

Sincerely,
Ken and Denise Robertson
Corvallis, OR

From: Ken Robertson
To: Benton Public Comment
Subject: Coffin Butte Public Testimony
Date: Tuesday, April 29, 2025 10:11:33 AM

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The Benton County Board of Commissioners MUST deny the Coffin Butte Expansion application from Republic Services. The list of reasons for denial include many concerns including impacts to groundwater particularly related to the toxic brew of leachate, air pollution and odor, documented methane exceedances, potential landfill fires, recent citations for worker health and safety violations, increased traffic and noise, and devaluation of surrounding property.

Republic has all to gain financially and argues to continue their control of how Benton County gets rid of their landfill garbage. This company has no incentive do the right thing and they have demonstrated time and again they will violate federal and state water and air quality regulations and severely limit the life span of this landfill by manipulating the County Commissioners to allow garbage from many other counties for a payout to the County. This payout to the County is a small percentage of what Republic has profited from having Coffin Butte under their control. This generalized list of all the violations and serious concerns for the expansion does not tell the full story. If the Commissioners read and listen objectively to the concerns of public, the EPA, and the State, including County staff, the Commissioners will not, in good conscience, vote to approve the expansion application.

If not for Republic's greed to make as much money as they can by bringing vast amounts of garbage from other counties, Coffin Butte would have been operational in its current location for decades. From what I have read, Benton County's portion of the garbage that goes to the landfill is a very small percentage of what goes into the landfill. The writing has been on the wall for years and yet, the Commissioners are actually considering allowing the expansion which will only multiply the pollution and problems at a faster rate while we continue to serve as the dumping ground for several counties. The right choice seems so obvious ..... Deny the application.

We do not live near the landfill. The protest against the expansion is not just a problem for the property owners living near the landfill to fight. They are not alone. This affects all of us living in the state of Oregon and it definitely affects the communities and wildlife living downstream from where the leachate is dumped into the Willamette River. Our hearts are with the coalition who have been fighting the expansion for years.

Of course Republic wants to expand. I understand this is the only landfill they own in Oregon. It's far cheaper for them to expand than to acquire another area for a new landfill. The people and the environment must be given precedence over the 2nd largest waste mgt company in the US. Can you, the Commissioners, NOT see why to continue placating Republic Services is the WRONG decision? The only benefit the

Commissioners can claim is that it will bring in some revenue to the County. However, as one person explained very well in the Gazette Times, in terms of the budget, the County must look at not only the dollars Republic is paying, but the full costs to the County in terms of how much it costs to monitor and manage Republic and the landfill. And the rule of Risk vs. Reward definitely applies here.

We have many more thoughts about this, but we will end here. There should be enough here to justify why the landfill expansion should not be approved.

Thank you for reading our testimony. May you have the Strength and Courage to do the right thing!!

Sincerely,
Ken and Denise Robertson
Corvallis, OR

From: Rouse, Stephanie
To: Benton Public Comment
Subject: Opposition to LU-24-02
Date: Monday, April 28, 2025 3:54:34 PM

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

Dear Benton County Planning Commissioners,

My name is Stephanie Rouse and I live at 970 NW Cypress Ave in north Corvallis.

I am writing to express my opposition to Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would **seriously interfere with the character of the surrounding area** and impose **an undue burden on local public resources**, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- **Air and water pollution** that threaten our local ecosystems and community health
- **Traffic increases** that pose safety risks on nearby roads and pathways, and that would be costly to mitigate
- **Odor and noise issues** that degrade quality of life for residents and visitors
- **Negative impacts on wildlife, recreation, and property values**
- **Long-term climate and environmental consequences** for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Stephanie Rouse
Corvallis, Oregon 97330

This email and any attachments may be confidential or proprietary. Any review, use, disclosure, distribution or copying of this email is prohibited except by or on behalf of the intended recipient. If you received this message in error or are not the intended recipient, please delete or destroy the email message and any attachments or copies and notify the sender of the erroneous delivery by return email. To the extent that this message or its attachments were sent without encryption, we cannot guarantee that the contents have not been changed or tampered with. Any advice expressed in this message is

being delivered to you solely for your use in connection with the matters addressed herein and may not be used for any other purpose without our prior written consent.

From: Deb Savageau
To: Benton Public Comment
Subject: Reject LU-24-027
Date: Monday, April 28, 2025 2:58:53 PM

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Dear Benton County Planning Commissioners,

My name is Deb Savageau and I live at 3201 Columbus St SE, Albany OR 97322

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would **seriously interfere with the character of the surrounding area** and impose **an undue burden on public resources**, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- **Air and water pollution**threaten our local ecosystems and community health
- **Traffic increases** that pose safety risks on nearby roads and pathways
- **Odor and noise issues** that degrade quality of life for residents and visitors
- **Negative impacts on wildlife, recreation, and property values**
- **Long-term climate and environmental consequences** for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,

Deb Savageau

LTC USAFR Retired

Albany, OR 97322

From: Jason
To: Benton Public Comment
Subject: Public Comment for Benton County Conditional Use Application 2025-04-29
Date: Tuesday, April 29, 2025 4:45:02 PM

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

From Jason Schindler, current Benton County ENRAC chair – 2025-04-29

Dear Planning Commission, Benton County Commissioners, Staff, et al.,

I am writing to reflect on our process and the challenges faced by the Environment & Natural Resources Advisory Committee (ENRAC) in fulfilling our mandate. Our mission, as delegated by the Benton County Commissioners and Planning Commission, was to review and make recommendations regarding the Site Development Map Plan and narrative. We made that review and collectively voted to deny the approval of the CUP, and I urge you to vote similarly.

The mandate to ENRAC has been interpreted in various ways, leading to confusion and overlapping responsibilities. Despite the support from Benton County Staff, the limited expertise and time of our volunteer members have made it difficult to perform our duties effectively, as well as confusion further noted below.

The relationship with VNEQS, a community opposing the landfill expansion, has been strained, with BC staff expressing negative sentiments towards activists and the dissolved SWAC board. This has created a perception of bias and an uneven playing field. This has also lent an air of, undeserved, un-importance and perfunctory nature to this recommendation. Hopefully, this is not the case.

Public meeting laws, recently enforced more strictly, have further complicated our operations. These implementations have disabled direct communication between board members, making collaboration and documentation sharing challenging, and are in fact probably unlikely--or at least could have been enabled with proper support and meeting laws implementation. The sudden enforcement of these regulations has hindered our ability to function effectively.

The expedited nature of our assessment of the CUP, encouraged by BC staff, has devalued our role and rushed the process. The pressure to quickly vote on the CUP, without thoroughly reviewing the extensive documentation, has compromised our ability to provide a comprehensive evaluation.

Despite these challenges, ENRAC has done its best to assess the CUP and provide a detailed recommendation. We greatly appreciate that it be considered, as mandated. We urge the Planning Commission to consider our concerns and ensure a thorough evaluation of the CUP Application, taking into account the environmental perspective we have provided.

Thank you for considering our recommendation.

Jason Schindler

From: Community Development, Benton County, Oregon
To: Benton Public Comment
Subject: LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date: Tuesday, April 29, 2025 9:08:53 AM

Subject of Testimony: Please DENY the Application for the Landfill Expansion

Full Name: Greg Shiffer

Email: gs77@proton.me

Street Address: 2012 NW Arthur Pl, Corvallis, OR 97330

Written Testimony:

I support the recommendation of the staff report to DENY the application for the landfill expansion. Thank you.

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 76.144.11.212

From: Priya Thakkar
To: Benton Public Comment
Cc: Mark Yeager; Joel Geier
Subject: Oppose/Deny LU-24-027 from local farm
Date: Tuesday, April 29, 2025 1:32:44 PM

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

My name is Priya Thakkar, I am the owner and operator of Raising Joy Farm, a cut flower farm located at 38987 Arena Rd, approximately 2 miles (almost 3.5 by road) from Coffin Butte Road. This is outside of the area identified in the staff report as an adjacent property, but I want to assure you that the impact of the landfill reaches far beyond that area. I have a direct view of the landfill and can see lights from the operations, and am certainly close enough to smell, and be sickened by, the stench coming from the landfill operations. The new site will be relatively the same distance to my home and fields, but will increase the surface facing the west, which is where my property is located.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

As a small farmer, I wanted to highlight the considerably increased anxiety, distress, and inconvenience that would be caused by the landfill expansion and the impact on my ability to make use of my property.

Small farms operate on razor thin profit margins, and small farmers often farm with the simple goal of making enough to survive and support their farm. As a farmer, I have worked 70-80 hour weeks, in all weather conditions, just to break even financially. Farmer mental health is a significant concern, and farmers are 3.5 times more likely to die by suicide than the rest of the population (https://www.visionwestnd.com/research-resources/2024/5/30/the-silent-crisis-mental-health-in-agriculture). I point out this crisis only to highlight the incredible stress that impacts farmers on a day to day basis and to help illustrate the impact of the landfill expansion could have for local farms and local farmers, who are already facing unbelievable levels of stress on a day to day basis.

In recent years, I have struggled with the intense and sickening odors from the landfill, and this has impacted my ability, as well as my employees' ability to work productively. We have days when the landfill odor is so intense that it makes me nauseous and as a result, I have to balance my ability to work outside and be sick to my stomach, with my need to harvest and process cut flowers, that I need in order to sell and make enough money to sustain my farm. Cut flowers have an unforgiving harvesting timeline, and often even a day away from the fields can result in major crop losses. On a day when the dump stench is strong, I have to decide if I force myself and my employees to work through the smell, in order to not lose money on the product that I need to harvest. This causes an incredible amount of stress, and difficulty with balancing staff needs and retention with the needs of the farm, as well as a significant financial burden.

I have filed complaints with DEQ and the response received from Republic through DEQ is "No odors detected" and that their systems are working, which makes me incredibly concerned that the increased landfill area and increased space facing my property would only increase the odors that Republic claims to not detect.

Pest management is an important and incredibly stressful concern for small farms, such as my own. I have worked hard to create an environment that invites pollinators, songbirds, beneficial insects, to minimize my use of pesticides, but with the knowledge and understanding that an upset to the ecosystem could cause an infestation that can devastate a crop. An increase of birds that are attracted to the landfill, drives away songbirds and larger birds (Great Blue Herons and Hawks) who manage the voles and mice on our farm. These changes to the ecosystem have an impact on the pests present on crops, resulting in either costly increases in pesticide use or crop loss/failure. In the almost 10 years that we have owned our farm, there has been a significant increase in the "pest" birds present, as the landfill has continued to grow and grow.

Again, I want to express my opposition to Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application. The proposed expansion would cause significant distress to small farms and farmers in the area, such as myself, and seriously interfere with the use of our nearby property **BCC 53.215 (1).**

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Priya Thakkar, Raising Joy Farm
Corvallis, OR 97330

From: Patricia Thomas
To: Benton Public Comment
Subject: Coffin Butte Landfill - No on Expansion
Date: Tuesday, April 29, 2025 2:28:50 PM

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Dear Benton County Planning Commissioners,

My name is Patricia Thomas and I live in Corvallis.

I am writing because I oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would **interfere with the character of the surrounding area** and impose **an undue burden on public resources**, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- **Air and water pollution** threaten our local ecosystems and community health
- **Traffic increases** that pose safety risks on nearby roads and pathways
- **Odor and noise issues** that degrade quality of life for residents and visitors
- **Negative impacts on wildlife, recreation, and property values**
- **Long-term climate and environmental consequences** for future generations

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of our Benton County.

Sincerely,

Patricia Thomas

512 NW Ave., Corvallis 97330

From: martina.vega@soapcreekent.com
To: Benton Public Comment
Subject: Opposition to LU-24-027
Date: Tuesday, April 29, 2025 4:49:27 PM

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Dear Benton County Planning Commissioners,

My name is Martina Vega and I live at 37272 Soap Creek Road, Corvallis, OR 97330.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). **I am deeply concerned by the plans to expand the Coffin Butte Landfill and vehemently oppose the expansion. I was born in the Soap Creek Valley and grew up here. It is a beautiful home, except for the air and water pollution from the Coffin Butte Landfill. By enlarging the landfill, the pollution will increase. The Soap Creek Valley is a residential area, not a site for toxic waste. Families and individuals must be able to enjoy where they live and use their land, without the risk of pollution from the chemicals the landfill allows to permeate the air, water, and soil of our Valley. The Soap Creek Valley and the entirety of Benton County need a comprehensive waste management plan that ensures the health of those living here as they breathe the air, farm the soil, and recreate the waterways where the landfill disposes of liquids. Expanding the landfill is the opposite of this and harms current and future individuals. The plan to expand the landfill violates the County code by interfering with uses of nearby property and character of the area under code BCC 53.215 (1).**

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Martina Vega
Corvallis, OR, 97330

From: robyn.m.vega@soapcreekent.com
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Tuesday, April 29, 2025 12:37:37 AM

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Dear Benton County Planning Commissioners,

My name is Robyn Vega and I live at 37272 Soap Creek Road. I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application. The proposed expansion would **seriously interfere with the character of the surrounding area** and impose **an undue burden on public resources**, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

Water pollution- The increased leachate from this new garbage cell is unacceptable. I am particularly concerned about the possible contamination of local wells. There is not sufficient treatment for the current leachate and it is metered into the Willamette River to make it go away. That is in violation of Benton County Comprehensive Plan policy 6.5.5

- **Air pollution,** especially the release of methane, threatens our local ecosystems and community health and increases our fire danger
- **Traffic increases** that pose safety risks on nearby roads and pathways
- **Odor and noise issues** that degrade quality of life for residents and visitors
- **Negative impacts on wildlife, PROPERTY VALUES, and recreation**
- **Long-term climate and environmental consequences** for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.
I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.
Sincerely,
Robyn Vega

Corvallis, OR 97330

From:	David Wikander
To:	Benton Public Comment
Subject:	Opposed To The Coffin Butte Expansion
Date:	Tuesday, April 29, 2025 10:01:18 AM
Attachments:	PastedGraphic-2.tiff

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Dear Benton County Planning Commissioners,

My name is David Wikander. My address is below.

I think it is a crazy idea to have other counties, and or non local communities truck their waste into our local site. We have a growing population as it is, and the challenges of operating a landfill in an environmentally safe way, along with all the various impacts of; air quality safety, odor, water pollution, noise, increase of traffic, impact on wildlife, property values, recreation, etc etc are Many. It's challenging enough to operate the landfill as it is.

There is no ethical reason in my book for this proposal to go forward. NONE. I don't see any real benefit to our local community, only negative impacts.

I am 100% Against the proposal of the Coffin Butte Landfill Expansion. LU-24-027

Thank You

David

David Wikander ORSCC, CPCC, PCC
Personal & Relationship Coach

831-227-6032
davidw@baymoon.com
awaken-vitality.com

3365 NW Marshall Dr.
Corvallis, Oregon 97330

Conscious Intentional Relationships
Keeping the Heart & Magic Alive

CRR Global Faculty

From: ryan.wilson1768@gmail.com
To: Benton Public Comment
Cc: angela.krueger.94@gmail.com
Subject: Oppose/Deny LU-24-027
Date: Monday, April 28, 2025 9:26:00 AM

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Hello,

Ryan Wilson 28903 Tampico Road Corvallis Oregon 97330
Hello, I am writing to testify against the expansion of coffin butte landfill.

Aside from the obvious reason to stop the landfill expansion such as private companies unfairly profiting off of the local resources of the area, pollutions contaminates and the fact that Benton County should not be the primary dumping ground for all of Oregon. My primary concern is for the safety of farming in the area. Due to our proximity to the landfill where we grass a herd of cattle for local food production, we have been finding a staggering increase of air blown trash coming from the dump. We get styrofoam, plastic bags, and metallic chip bag that become air born from the landfill and litter the pastures we use to raise livestock. This poses a significant risk to the animals. If a cow or calf were to eat a plastic bag or styrofoam this would certainly mean their death. With an expansion to the landfill it can only be expected to intake more trash that will lead to more airborne plastics reaching susceptible animals, both wildlife and nearby associated livestock. We feel it is imperative that Republic Services is responsible for the care the material they take into the landfill and should use methods to prevent airborne debris from leaving their site.

Some of these trash finds can be found under Pastur teaur story
https://www.instagram.com/stories/highlights/17938813898405124/

Ryan Wilson, LEED Green Assoc.
OSU Alumni - CEM, MBA
Cell:5037793488
Email: ryan.wilson1768@gmail.com

From:	DELAVEGA Marriah
To:	Benton Public Comment
Subject:	FW: Benton County Board of Commissioners, Oregon "Coffin Butte expansion" Planning Commission Application LU-24-027
Date:	Monday, April 28, 2025 1:21:18 PM
Attachments:	image001.png

Please see below.

Marriah De La Vega
Executive Assistant to the Board of Commissioners and County Administrator
D : 541-766-6800 C : 541-368-6985
Email:
marriah.delavega@bentoncountyor.gov
www.Bentoncountyor.gov

From: Benton County Board of Commissioners, Oregon <noreply_wordpress@bentoncountyor.gov>
Sent: Monday, April 28, 2025 1:14 PM
To: *Benton Web BOC <bocinfo@bentoncountyor.gov>
Subject: Benton County Board of Commissioners, Oregon "Coffin Butte expansion"

From: Ella May Wulff <ewulff@peak.org>

Subject: Coffin Butte expansion

Message Body:

Please add my name to those of the many other Benton County residents who oppose any expansion of the Coffin Butte landfill. I was appalled to learn that little Benton County is the repository for waste from about 20 percent of Oregon residents. This is definitely NOT beneficial to the county, no matter how much Republic Services pays the county for the privilege of contaminating our air and water. Nearby residents are already suffering from the noxious smells coming out of the present landfill, and all of us in future will undoubtedly have to pay for increased medical expenses, water treatment, etc. as landfill leachate makes its way through groundwater to wells and the river.

It is not in the interest of any county resident to expand the landfill. Its size should be permanently capped, and any future contracts between Benton County and the landfill managers should specify that only waste generated in Benton and the immediately adjacent counties is allowed in the Coffin Butte landfill.

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This e-mail was sent from a contact form on Benton County Board of Commissioners, Oregon (https://boc.bentoncountyor.gov)

Submitter's IP Address: 149.137.172.152

From: Liza Yeager
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Tuesday, April 29, 2025 7:12:42 PM

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

Dear Benton County Planning Commissioners,

My name is Liza Yeager. I primarily live in Chicago these days, but I grew up at 37269 Helm Drive, in the Soap Creek Valley—that's the place I still think of as home.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

Growing up in the Soap Creek Valley, I knew that I lived in an incredibly special place. I knew that it was beautiful, and that the trees smelled good, and that I was lucky to hear coyotes howling at night. But it's only since I've moved away that I've come to appreciate something else about the place that I grew up: I always believed—without a doubt—that the soil was clean, that the air was healthy, and that the water that came out of the well on my family's property was healthy to drink.

Since I've lived in other places, in other states, I've learned just how lucky I was to take those things for granted. Where I live now, I assume that the ground is layered with toxins and waste. I don't trust the water. I know that when I'm walking around outside, I'm breathing in stuff that probably isn't good for me. I support local efforts to clean things up—but honestly, it feels like a lost cause. Like people have been so careless for so long that the problems are impossible to solve.

Please, don't let that happen in Benton County. We all deserve clean air and water. It's not too late to stop the Coffin Butte Landfill from doing irreparable long-term damage to the health of our entire community.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- Air and water pollution threaten our local ecosystems and community health
- Traffic increases that pose safety risks on nearby roads and pathways
- Odor and noise issues that degrade quality of life for residents and visitors
- Negative impacts on wildlife, recreation, and property values
- Long-term climate and environmental consequences for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,

Liza Yeager

Chicago, IL, 60640

From: Mark Yeager
To: Benton Public Comment
Subject: North Benton County Citizens Advisory Committee Comments - LU-24-027
Date: Tuesday, April 29, 2025 10:17:15 AM

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

Dear Planning Commissioners - I am submitting the attached testimony and document in opposition to LU-24-027.

Thank you,

Mark Yeager

April 29, 2025

Chair Fowler and Members of the Planning Commission

Testimony in Opposition to LU-24-027

My name is Mark Yeager, and I live at 37269 Helm Drive in Corvallis. I have lived at this residence since 1987. I am a professional Environmental and Civil Engineer in Oregon as well as a Certified Water Rights Examiner. I have served in multiple appointments on the Benton County Sold Waste Advisory Council and the Disposal Site Advisory Committee.

I submit this testimony today to provide some context within which to consider the current proposal to build a new landfill cell south of Coffin Butte Road.

On November 5, 1973, Authur L. Tollefson, Chairman of the North Benton County Citizens Advisory Committee (NBCAC) wrote to James Davenport, Chairman of Benton County Planning Commission (letter attached):

"Let it be clearly understood that we are unalterably opposed to the long-term continuation of the use of the Coffin Butte site for its present service area. We are even more vigorously opposed to its expansion to serve a three-county area."

Side note – the Coffin Butte dump now serves more than 23 counties.

Further, the letter from the NBCAC states: "There is a substantial body of facts relating to the unsuitability of this site and the surrounding area which have seemed so evident to us as to make any serious consideration of the Coffin Butte site utterly ridiculous, totally intolerable."

Finally, the letter states: "Given the ecological and geological factors, the population considerations, and the aesthetic and recreational potential, Coffin Butte is far better suited to be a public park than a public dump."

Here we are 52 years later, and the madness continues. It must stop now. You can take the first step to implement a waste management paradigm shift to a brighter future. I urge you to deny this conditional use permit.

Respectfully submitted,

Mark Yeager

November 5, 1973

Mr. James Davenport, Chairman
Benton County Planning Commission

Gentlemen:

The North Benton Citizens Advisory Committee has been advised that truly serious consideration is being given to the Coffin Butte site for a regional disposal station for three counties. It is our understanding that the consideration is not based on the fact that it is a good site but more on the basis that it 1) is slightly better than two flood plain sites proposed in Benton County, 2) there has recently been a seeming lack of opposition from the residents of the Coffin Butte vicinity, and 3) it has continued to be a disposal over long-standing objections of the local residents.

Let it be clearly understood that we are unalterable opposed to a long-term continuation of the use of the Coffin Butte site for its present service area. We are even more vigorously opposed to its expansion to serve a three-county area.

We have not recently voiced our objections for the following reasons:

1. We thought everyone knew how obviously bad this site was for even a county disposal area, let alone an expanded version, else why would they have looked further?

2. There has been a long-standing commitment on the part of the Corvallis Disposal Company and the county to close the present operation as soon as another site could be found. This commitment was most recently reconfirmed to this Citizen's Advisory Committee when we were preparing our recommendations to the Benton Comprehensive Plan.

3. Although the date of closing the present operations has been delayed time after time, the people felt the commitment was made in good faith and therefore have demonstrated patience, tolerance and understanding concerning the difficulties entailed in finding an alternate site.

There is a substantial body of facts relating to the unsuitability of this site and to the surrounding area which have seemed so evident to us as to make any serious consideration of the Coffin Butte site utterly ridiculous, totally intolerable. These facts cluster into three groups which include ecological and geological considerations, and population distri-

bution in North Benton County, and aesthetic and recreational factors. Consider the following:

A. Ecological and Geological Considerations

1. The Planning Commission has established as a guiding principle that land should be zoned for its highest and best possible use. The North Benton Committee recommended that Poison Oak Hill just south of Coffin Butte be zoned for a minimum of 20 acres because of the shallowness of soil. The Planning staff and Commission decided that a five-acre residential zoning would be acceptable if care were taken in siting of leech fields and septic tanks. It is obvious that neither the North Benton Committee, the County Planning Staff, nor the Planning Commission would consider any higher density. The risk of pollution and other unpleasant consequences given the topography, shallowness of soil and rainfall were deemed to be too great. Coffin Butte and Poison Oak Hill are not only in the proximity but are very similar in type of soil, permeability, and steepness. It therefore seems illogical that Coffin Butte could safely absorb the runoff from the expected 182, 150 tons of solid waste per year (see Page 31. Item 4 of the feasibility study) by 1980, while adjacent areas of similar soils are deemed inadequate for more than one septic tank per five acres.

2. The disposal site as it now exists handles only 38, 190 tons per year (see Page 2, Item 2 of study) and seriously pollutes Soap Creek. If 182, 150 tons per year are placed on the site, the name of the stream might well be changed to "Sewer Creek".

3. It also appears illogical that soils which are so poor for septic tanks that the "suburban residential classification has been considered for elimination" (Page 7 of study) should be suitable for handling the leachate from the dump runoff despite the development of additional systems.

4. Nowhere in the feasibility study is there any statement that the site would be a good, or even an adequate site from a geological or ecological point of view. The report contains numerous statements which either contraindicate the use of the site, or which equivocate on key points. Other points are open to question. The following may serve as a few examples.

(a) The existence of three ponds high on the south slope, Artesian wells on the north, and many springs in the existing dump area strongly suggest the importance of the butte as an aquifer and the existence of large amounts of water trapped inside the hill. The report admits that it, plus the rainfall and steep slope would hamper sanitary landfill methods in the winter months. In addition, we would suggest that ground water contamination would be highly probable.

(b) Whereas much is made of dry wells and related matters (Pages 4 and 5) the evidence of trapped water is literally ignored.

(c) We also take exception to the statements concerning prevailing wind patterns (Page 8), because of the specific geography of the site. During the several years when burnir was permitted, local residents have become experts concerning prevailing wind patterns. These consistently flow from west to east around Coffin Butte either to the north or south. The valley between the two hills in which the proposed dump would be located is a wind chute.

(d) There are numerous other questions of great importance relating to the geology and ecology which the feasibility study does not answer - for example:

(1) Does the shallow highly fractured chlorite and basalt sub-rock which has been quarried for years act as an aquifer to surrounding wells?

B. Factors related to population concentrations in proximity to the disposal site.

1. Because Corvallis, North Albany, Philomath and Monroe are the four largest incorporated cities in Benton County, it is easy to assume that they also represent the four largest population concentrations. This is not the case. The Lewisburg area contains more people than Monroe, but this area is so closely tied to Corvallis that it tends to be viewed as part of the city. But the Adair-Tampico Road-Arboretum Road area

is farther from Corvallis than Corvallis is from Philomath. Perhaps few people realize that it also currently contains more people than does the city of Monroe. There are approximately 600 people living on the Adair base itself. The Tampico Road and Arboretum Road areas each contain thirty or so homes. Directly north of Adair are another dozen or so homes. Within about a mile of the main entrance to Adair, there are presently approximately 1, 000 people.

2. In the areas in the region which have been tentatively zoned by the Planning Commission for five-acre parcels, there are about 1, 200 undeveloped acres, including more than 500 acres on Poison Oak Hill directly across the county road from the proposed disposal site. Assuming 4 people each on the more than 200 potential sites, plus additional probable utilization of Adair, more than 1, 000 additional people can be expected in the area in the near future. These figures do not include the present or future population in the immediate vicinity of Coffin Butte itself or in other differently zoned land parcels.

Whether it was planned or not, the Adair Hills area is the de facto northern terminus of the linear city of which Corvallis is the focal point. It is vital that present and potential population concentration of the area is recognized.

C. Aesthetic and Recreational Considerations

1. It is doubtful if there exists a more beautiful view in Benton County than those which can be had from the crests of either Coffin Butte or Poison Oak Hill. For example, to the south one can see the entire length of the Soap Creek Valley, and over the pass at its end rears Mary's Peak.

2. The report mentions screening of the site from the existing residences and the county road. It does not concern itself with screening from Highway 99 nor from the 5-acre homesites which will be developed on Poison Oak Hill. The remarks on Page 7 concerning zoning are therefore in error.

3. Much of the land in the Soap Creek area below would be potentially suitable for recreational purposes - golf courses, hunt clubs, riding trails, etc. The area owned by the game com-

mission to the east is already used for related purposes, and has the potential for considerable greater use.

4. The planning task force indicated its recognition of this aesthetic and recreation potential by designating both hills as potential park sites.

Given the considerations presented above, as well as other specific facts and details too numerous to mention, it is the concensus of the North Benton Area Committee that the location of a regional disposal facility would be extremely short-sighted and very dangerous. Given the ecological and geological factors, the population considerations, and the aesthetic and recreational potential, Coffin Butte is far better suited to be a public park than a public dump. It should certainly no longer be considered for a three-county regional facility, and the agencies and officials of Benton County are strongly urged to honor their long-standing commitment to terminate its present use as quickly as possible. It would seem there would be more suitable sites in less populous areas, perhaps in one of the other two counties for which no sites have been proposed to date.

Sincerely yours,

Arthur L. Tollefson

Arthur L. Tollefson
Chairman, North Benton
Advisory Committee

ALT:ml

From: Darena Yee
To: Benton Public Comment
Cc: Darena Yee
Subject: Oppose/Deny LU-24-027
Date: Monday, April 28, 2025 12:16:32 PM

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

Dear Benton County Planning Commissioners,

I am writing to strongly oppose Republic Services' Conditional use Permit application LU-24-027 to expand the Coffin Butte Landfill. Please deny this application.

I moved with my family to Corvallis 6 years ago, falling in love with the abundance of nature all around us. Probably like you, I felt so lucky to be living among the generations-old trees and watch the rushing flow of the Willamette River. We found a sweet little park in Philomath where little kids would watch for tadpoles along a bank of the river while older people floated in their innertubes. Our dog would leap in the river dodging the little kids while fetching a stick. I thought I must've done something really good in a past life to have lucked into living in such a treasured spot on our planet.

But just in the few years I've lived here, there is such a profound difference in our experience living here. It literally stinks here on most mornings these days! It doesn't matter the season or if the sun is shining -- the air stinks to the point of our staying inside closing all the windows. Then on my drive to Monmouth for weekly dog obedience classes I saw exactly what was causing the stench. I could smell the Coffin Butte landfill miles before I'd pass it on 99. The landfill scale seemed much larger than what our community would fill so I looked into how we in Benton County could all help limit the amount of our own garbage. Hah, it wouldn't have made much of a difference because I then found out that our county has accepted garbage from outside our own county, even as far as from a county in Washington. Whhhhat???? And now Republic wants to expand and add further toxic plumes to the Benton County environment?

The amount of poisonous plumes and toxic leaching of our river and soil is increasing every day. The stench, once periodic, is now a weekly occurrence. The stench is a nagging warning to be heeded. Even our wineries are affected in that when Emerson was about to close on the sale of their winery, the buyer that day smelled the landfill stench. The buyers backed out of the sale. How many other property sales need to be adversely affected by the stench and other hidden poisonous implications of the landfill before we do something about it?

In January, the EPA Enforcement initiated an action against Coffin Butte Landfill. This is significant because of the possible implications of danger to our quality of living. Republic has not met their Burden Of Proof on how the dangers the landfill is causing to our environment. The expansion would be a gateway to continued expansions and their ability to ignore subpoenas. Please, Planning Commissioners, be the change you want to see in the healthy future of all the families, human and wildlife alike, and deny LU-24-027.

Thank you.

Darena Yee

2858 NW Monterey Pl
Corvallis, Or 97330

From: Mae Yih
To: Benton Public Comment
Cc: Mary Howells
Subject: public comment Cofffin Butte Land use expansion
Date: Monday, April 28, 2025 3:45:01 PM

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Benton County Commission
4500 SW Research Way, Corvallis OR.
Public Comments April 28, 2025
Dear Commission Chair and Commissioners:
For the record, my name is Mae Yih, Oregon state senator, retired, my address is 34465 Yih Lane NE, Albany, Oregon.
I have testified before you on July 18, 2023 and I am testifying again to urge you to deny further expansion of Coffin Butte land use for burial of public waste but to encourage Republic Waste Disposal Service to consider new technologies for:
Recycling of plastic bags to hydrogen gas,
Storage of solar and wind energy, and
Converting waste to energy, such as being accomplished at a facility in Brooks, Oregon
This information is the result of an essay contest I have sponsored every year since 2009 for Albany high school senior students till last year. The purpose of the essay contest was to encourage the study of science and critical thinking. Essay topics have ranged from the uses of rare metals, energy independence, nuclear energy and many others.
In 2022, the essay contest topic was "A Plan for Sufficient Energy for the Nation as We Move Forward Replacing Fossil Fuel with Renewable & Other Sources." The new technologies recommended by Spencer Madsen,, the essay winner, could be useful for your consideration. I encouraged Spencer to present the conclusion of his essay to you, but due to a family vacation conflict he was unable to do so. I am now again presenting his research to you so that you can consider the new technologies and converting waste to energy as you make your policy decision.
Should you or your staff have questions, I would urge you to contact Spencer, or Dr. David Alman, Assistant director for Materials Engineering & Manufacturing at the National Energy Technology Laboratory in Albany, who served as a judge of the essay contests.
Many thanks for the opportunity to testify again. Feel free to contact me if there is any questions.
Mae Yih
Oregon state senator, retired
34465 Yih Lane NE, Albany, OR 97322
Phone 541 327 2666
Cell " 981 3401
CC: Dr. David Alman, Assistant Director for Materials Engineering & Manufacturing, National

Energy Technology Laboratory, 1450 SW Queen Avenue. Albany, OR 97321
Spencer Madsen, 606 NW Cascade Falls Ct. Albany, OR 97321

From: Dianne Cassidy
To: Benton Public Comment
Subject: Oppose LU-24-027
Date: Wednesday, April 30, 2025 12:38:57 PM

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

Dear Benton County Planning Commissioners,

My name is Dianne Cassidy and I live at 512 NW 16th St in Corvallis.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expend the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

Air and water pollution threaten our local ecosystems and community health.
Traffic increases that pose safety risks on nearby roads and pathways.
Odor and noise issues that degrade quality of life for residents that live in the area.
Negative impacts on wildlife, recreation, and property values in the immediate area.
Long-term climate and environmental consequences for future generations.

The proposed expansion does nothing to align with Benton County's 2040 Thriving Communities Initiative. This expansion would seriously undermine our shared goals for responsible environmental stewardship prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Dianne Cassidy
Corvallis, OR, 97330

Sent from my iPad

From: Jana Cowan
To: Benton Public Comment
Subject: Oppose Coffin Butte Landfill expansion
Date: Wednesday, April 30, 2025 10:24:36 AM

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

My name is Jana Cowan and I live at 4227 NW Elmwood Drive, Corvallis OR 97330 .

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would **seriously interfere with the character of the surrounding area** and impose **an undue burden on public resources**, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- **Air and water pollution** threaten our local ecosystems and community health
- **Traffic increases** that pose safety risks on nearby roads and pathways
- **Odor and noise issues** that degrade quality of life for residents and visitors
- **Negative impacts on wildlife, recreation, and property values**
- **Long-term climate and environmental consequences** for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Jana Cowan

Corvallis, OR

Sent from my iPad

From: Zack Dahl
To: Benton Public Comment
Subject: Coffin Butte Landfill Proponent
Date: Wednesday, April 30, 2025 3:15:50 PM

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

To Whom It May Concern:

Oregon's landfills are renowned for their advanced waste handling methods, serving as a crucial component of our waste management system. These facilities are meticulously designed to safeguard the environment by securely containing waste and capturing the offsets generated during decomposition. This collaborative approach ensures that everyone involved contributes to the responsible disposal of non-recyclable items, benefiting Oregonians as a whole.

However, the United States faces a critical shortage of outlets for recycling, reuse, and waste reduction. Consequently, landfills play a vital role in securely storing discarded waste items.

It is disheartening to observe the societal mindset that has allowed us to adopt a "not in my backyard" attitude. This attitude has led to the unfortunate practice of shipping waste over long distances to remote "rural" sites for disposal. This practice merely shifts waste from one location in Oregon to another, resulting in the same offsets as a landfill situated in Benton County. Is this truly an acceptable solution?

Benton County's climate goals demand a comprehensive approach to waste management. Considering the significant amount of CO2 produced during the transportation of this material to Eastern Oregon, it is crucial to assess whether this action truly aligns with Benton County's climate objectives. Instead of merely shifting offsets from one county to another, we must ensure that our actions truly benefit all Oregonians.

The closure of a landfill raises concerns about the potential need for the approval of transfer stations to handle bulked-up discarded waste. These facilities continue to pose challenges such as noise, odor, bird issues, and emissions, resulting in the same negative complaints that have plagued landfills in the past. Therefore, we must carefully consider the long-term implications of our decisions and ensure that we are taking the most effective steps to address waste management concerns.

Benton County's ongoing expansion of housing projects inevitably leads to an increase in waste generation. This raises the question of where this additional waste will be disposed of. It is essential to strike a balance between accommodating growth and maintaining sustainable waste management practices.

If the landfill isn't located where it currently is and is closed, all the waste it accepts will now have to be transported through Portland. This will undoubtedly add to the already congested freeways, resulting in increased emissions from trucks dealing with stop-and-go traffic.

For most companies that use the landfill, they can send multiple loads of waste daily. When these companies are forced to ship waste to regional landfills on I-84, multiple trucks will be required to transport the waste. These regional companies will now need three trucks to haul what one truck currently hauls daily, and all these trucks will still travel through Benton County.

This process and issue are likely to attract negative attention, so why do 135-300 opponents potentially have the power to influence over 500,000 solid waste and recycling ratepayers? These ratepayers will pay significantly higher fees to ship their waste over long distances, which will result in increased emissions that negatively impact our environment.

There are several other scenarios that could lead to more environmental impacts if the landfill doesn't exist. Remember, shifting waste from one community to another doesn't truly improve environmental consequences; it

merely exacerbates them.

This is a difficult decision, but it's crucial to make the hard choice that may not be popular with a few individuals versus a choice that affects 500,000 Oregonians. When that choice is made, remember that you have the opportunity to shape the future of an environmentally sound landfill.

I urge you all to support the landfill's continued operation. Listen to the opponents' concerns, and then work along with regulatory agencies, staff and Republic Services, so you all can create an even more advanced and state-of-the-art landfill that can handle waste until new markets emerge to help us reduce the amount of waste we place in landfills.

Sincerely,

Zack Dahl
President
Dahl Disposal Service Inc.

From: Carroll Johnston
To: Benton Public Comment
Subject: Deny LU-24-027 Conditional Use Permit for Coffin Butte Landfill
Date: Wednesday, April 30, 2025 8:15:38 AM

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

I strongly oppose the granting of a conditional use permit for the expansion of Coffin Butte Landfill (LU-24-027). A larger landfill will only increase the amount of toxic leachate (PFAS, etc.) making its way into the Willamette River, which I and many others use for recreation. I also use EE Wilson Wildlife Area near the landfill, which can also be affected by various negative outputs from the landfill into both air and water. The already excessive amounts of methane gas released from the landfill would also be increased by a landfill expansion. This contribution to greenhouse gases will contribute to climate change worldwide. I believe these negative effects violate both Benton County Code 53.215 (1) and (2).

Please deny approval of this permit for expansion of the landfill.

Carroll Johnston

Sent from Carroll's iPhone

From: Jeff Peterman
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Wednesday, April 30, 2025 6:23:56 AM

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

We strongly oppose the expansion of the Coffin Butte Landfill.

We believe every community or county must provide a site to handle their refuse disposal. Accepting waste from 20 counties at Coffin Butte simply means the facility will fill quickly. Restricting waste collection to Corvallis/Albany, or to Benton County will guarantee the current facility will operate for many years, serving the needs of our local communities.

Most importantly, the current toxic leachate is not well controlled. Expanding the site will only exacerbate the problem. This operational activity violates BCC 53.215 (2) and Benton County Comprehensive Plan policies 5.1.2, 5.2.1, AND 5.7.4. This toxic leachate is reaching the Willamette River, and must be contained.

The smell coming from the dump surely depresses property values in the area - again, this would likely be controllable if the volume of trash accepted was limited.

The Benton County Talks Trash final report noted that when the landfill was expanded in the past, none of the “Conditins of Approval” were ever enforced. It makes no sense to agree to yet another expansion.

We strongly urge you to deny the application for expansion.

Thank you.

Jeff and Beth Peterman
7575 NW Valley View Drive
Corvallis, OR 97330

From: Mark Yeager
To: Benton Public Comment
Subject: Landfill Leachate Testimony - LU-24-027 - In Opposition
Date: Wednesday, April 30, 2025 8:06:14 PM

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

Dear Planning Commissioners - following the discussion and dialogue at the first night of the public hearing process, I thought it might be helpful to provide some information on landfill leachate at Coffin Butte.

Thank you,

Mark Yeager

April 30, 2025

Chair Fowler and Members of the Planning Commission

LU-24-027, Letter in Opposition

RE: LANDFILL LEACHATE

My name is Mark Yeager, and I live at 37269 Helm Drive in Corvallis. I have lived at this residence since 1987. I am a professional Environmental and Civil Engineer in Oregon as well as a Certified Water Rights Examiner. I have served multiple appointments with the Benton County Solid Waste Advisory Council and the Disposal Site Advisory Committee. I also served on the Benton County Talks Trash workgroup and two subcommittees.

For over 40 years I have worked in the municipal engineering field focusing primarily on water supply, wastewater treatment, and stormwater management. I am providing these comments with background information to provide a better understanding of landfill leachate and **the undue burden it places on public facilities and services**.

Landfills are designed to contain waste materials. However, one of their most concerning byproducts often goes unnoticed - leachate. This toxic liquid forms when rainwater and decomposing waste mixes, percolates through the waste, and dissolves compounds creating a cocktail of hazardous chemicals, heavy metals, and organic pollutants. People also often throw liquid waste into their trash, and garbage generates liquids as it breaks down.

The Coffin Butte landfill has a large “working face” that is open at the surface and receives large amounts of rainwater most of the year. It rains a lot here in Oregon and especially at Coffin Butte, which receives about 50 inches of rain per year. In addition, the plastic cover that exists on most of the Coffin Butte landfill has been documented to have many tears and holes that allow rainwater into the buried trash (while methane and landfill gases to leak out).

Coffin Butte currently generates approximately 30 million gallons of leachate per year. About half of the leachate is hauled in tanker trucks to Corvallis wastewater treatment plant and half is hauled to the City of Salem. On a normal day, 15-20 tanker loads are hauled to these facilities.

Leachate, an extremely polluted wastewater, threatens ground and surface waters and requires adequate treatment before discharge. Co-treatment of leachate in municipal wastewater treatment plants (WWTPs) is a commonly practiced method for leachate

management. However, there is very little actual “treatment” that occurs when processed at a conventional municipal WWTP, and changing characteristics of leachate along with more stringent discharge limits in WWTPs have led to questions about sustainability of co-treatment. The solution to pollution should NOT be dilution, but that is essentially what is happening now.

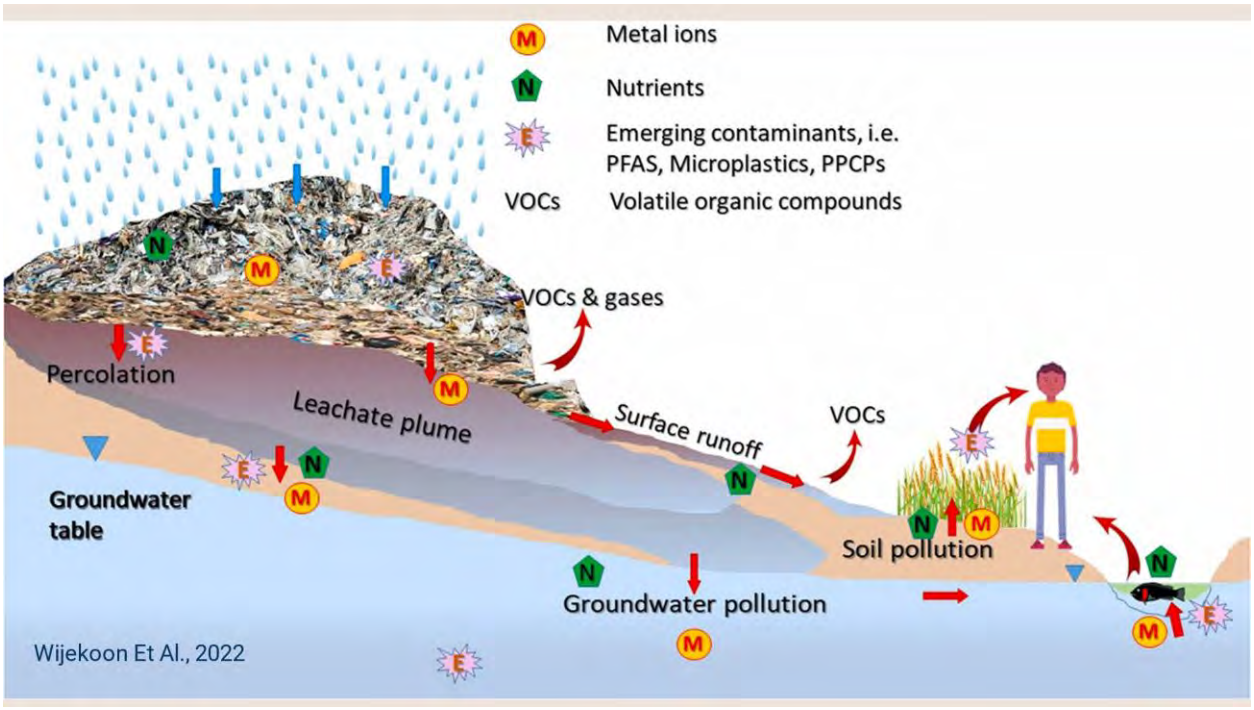
The transport and discharge of leachate into WWTPs in Oregon is not regulated by DEQ. Quoting from DEQ’s guidance manual for landfills “This alternative is subject to any pretreatment and/or wastewater connection requirements of the authority operating the treatment works. Discharges to publicly-owned treatment works (POTW) are not directly regulated by the Department.”

Neither the Corvallis nor the Salem WWTPs have any special unit processes designed or operated to deal with landfill leachate. As a result, the leachate accepted at those facilities essentially passes through untreated, and what materials are removed likely end up in the wastewater sludge (biosolids), material that is land applied on local agricultural fields.



Generally, leachate has a high biochemical oxygen demand (BOD) and high concentrations of organic carbon, nitrogen, chloride, iron, manganese, and phenols. Many other chemicals may be present, including pesticides, pharmaceuticals, solvents, and heavy metals. We know that many inappropriate and illegal materials are being thrown in dumpsters. **Leachate also contains very high levels of PFAS**.

PFAS are widely used, long-lasting chemicals, components of which break down very slowly over time. Scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals.

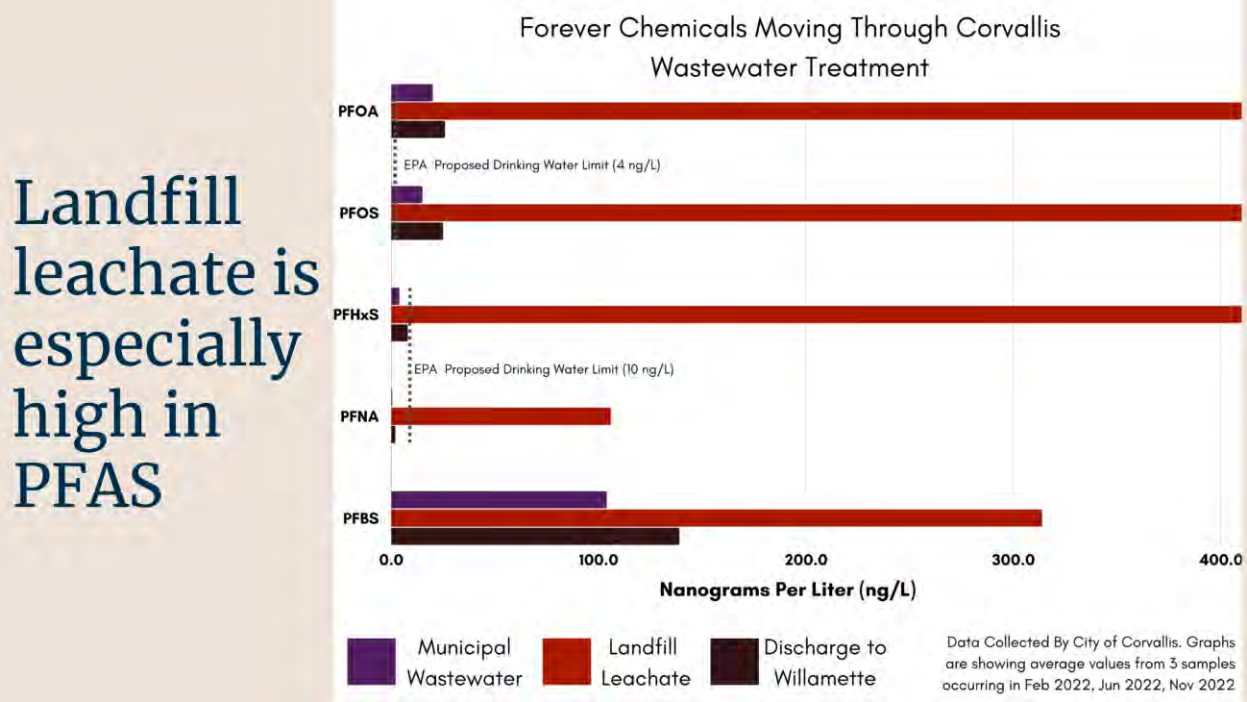


While the existing landfill will continue to generate leachate for decades to come, the proposed new landfill location will add to the volume of leachate that has to be managed. The Applicant is supposedly going to stop hauling leachate to Corvallis by the end of 2025, but they refuse to announce where they plan to take that portion of the leachate. Apparently, they have a couple more years to take leachate to Salem.

PFAS into Willamette River

Because of the increasing concern related to PFAS compounds, the City of Corvallis began monitoring their background incoming wastewater along with the leachate from the landfill. When the landfill delivers the leachate to Corvallis, it is stored in tanks on site, and then slowly discharged into and mixed with sewage coming from the rest of the city.

The analysis confirmed that landfill leachate concentration of PFAS compounds is orders of magnitude greater than the background levels coming from the rest of the city. When mixed with the influent wastewater, it is “treated” and then discharged into the Willamette River. The concentration of several PFAS constituents being discharged into the river end up being higher than the background coming into the treatment plant. See the graph below.



Another quote from the DEQ landfill guidance manual on landfills and leachate states “The Department recommends treatment methods that reduce leachate contaminants, not methods that transfer the environmental problem to another medium.”

What is happening with the current method of managing leachate from the landfill is exactly what DEQ recommends against. The contaminants from the leachate are not truly being reduced. While there may be some treatment of conventional pollutants like ammonia, other pollutants like heavy metals, pharmaceuticals, and PFAS are simply being either discharged into the river or end up in the sludge that is land applied and contaminating soil.

The Willamette River is a public facility. As such, the additional exposure to wildlife, recreational enthusiasts, and water users (both drinking water and agricultural) from leachate generated by the existing and proposed landfill expansion constitutes an undue burden in violation of BCC 215 (2).

Similarly, agricultural lands, some of which are public (OSU Soap Creek Beef Ranch), that receive sludge from these treatment plants are also subjected to an undue burden in violation of BCC 215(2). Portions of the Soap Creek Beef Ranch were historically the homestead of Letitia Carson and the focus of OSU’s Letitia Carson Legacy Project.

Portions of the existing landfill (Cells 1 an 1A) were “closed” in the 1970s, and 50 years later, those cells are still generating 2 million gallons of leachate per year. The engineer from Maul Foster Alongi gave the impression that overall leachate volumes will decrease over time, once the existing landfill is capped and closed. Given that cells 1 and 1A are still producing large quantities of leachate five decades later, it is apparent that (1) that this only happens over very long-time scales and (2) Republic hasn’t given any kind of timetable for closing the existing landfill – what if they decide to leave it in “interim cover” and seek future expansions or proceed to implement their 2021 plan to close the road and fill the valley with trash?

The fact that the staff and their consultants that are reviewing the application are not asking any questions about the fate and impacts of the landfill leachate is disappointing, to say the least. This is another example where the County does not seem to be seriously evaluating the long-term environmental impacts associated with hosting a massive landfill and its planned expansion.

I hope this information clarifies the landfill leachate situation at Coffin Butte. I urge the Planning Commission to deny this conditional use permit application.

Respectfully submitted,

Mark Yeager

From: Isus2017
To: Benton Public Comment
Subject: Republic Service landfill
Date: Thursday, May 1, 2025 8:05:04 AM

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

Dear Commissioners,
I am writing to express my opposition to any kind of expansion under any kind of description of Coffin Butte landfill. Our air and climate are being polluted at unsafe levels, there have been EPA violations and extremely high levels of methane leaks, our waters, if not already polluted are threatened with toxic leachates from the landfill. This is not suitable land for such a major landfill that already exists, much less so when increasing its capacity. The public has repeatedly complained and yet you still accept the wooing of the corporations, driven by the desire for more money. Trading money for our health and for the health of the land and all its inhabitants is wrong. We must reduce our trash, stop producing plastic disposables, find other solutions and this has been pursued successfully in many places.
I already have (supposedly "safe" levels so far) lead and who knows what else in my well water. I already smell the methane stink of the dump on foggy mornings. I already reduce my trash production drastically. I'm already happy to pay taxes for necessities like roads and schools. I'm asking you to represent me and many more of us and keep our air and water clean. Stop compromising our children's futures for money. There are other ways to exist that take care of one another and the land.
-Berthe Palmrose
Mountain View Drive
Corvallis

Sent from Proton Mail for iOS

From: Community Development, Benton County, Oregon
To: Benton Public Comment
Subject: LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date: Thursday, May 1, 2025 7:11:40 AM

Subject of Testimony: Coffin Butte expansion

Full Name: Deborah Carey

Email: boiester@gmail.com

Street Address: 1975 SE Crystal Lake Drive, Corvallis, 97333,

Written Testimony:

Enough with the leachate, with the damage to our groundwater, with the acceptance of all this garbage! We need a plan to deal comprehensively with Willamette Valley trash first. I ask that you all consider first the health of your constituents. Do not allow this problem to fester. Please do not allow for a greater sore. Do not approve this expansion. Thank you.

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 104.28.116.139

From: Diane Chavez
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Thursday, May 1, 2025 6:09:08 PM

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

Dear Benton County Planning Commissioners,

My name is Diane Chavez and I live in Salem. My garage goes to Coffin Butte landfill and I believe that it is time to find better alternatives.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

Air and water pollution threaten our local ecosystems and community health
Traffic increases that pose safety risks on nearby roads and pathways
Odor and noise issues that degrade quality of life for residents and visitors
Negative impacts on wildlife, recreation, and property values
Long-term climate and environmental consequences for future generations
The proposed expansion does nothing to align with Benton County's 2040 Thriving Communities Initiative. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County and Marion County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Diane Chavez
Salem, Oregon 97301

From: Kris Fausti
To: Benton Public Comment
Subject: Fwd: Deny LU-24-027
Date: Thursday, May 1, 2025 8:56:35 PM

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

Dear Benton County Planning Commissioners,

We are writing to voice our strong opposition to the proposed landfill expansion and to urge you to deny the associated Conditional Use Permit application LU-24-027. We live on Tampico Road approximately 1 mile south of the proposed landfill expansion. We rely on a domestic well for drinking water and to water fruits and vegetables that we consume, and we are deeply concerned about the potential impacts that the landfill expansion will have on local water and air quality. These concerns and impacts have not been adequately addressed by the applicant. We also have serious concerns about increased traffic, increased noise pollution and offensive odors, increased fire danger, diminished or lost recreational and wellness activities and impacts to fish and wildlife due to contamination and loss of habitat. Expanding the landfill footprint will absolutely interfere with the uses of adjacent properties and the character of the surrounding area, and has great potential to decrease our property values and quality of life. We have invested in a future of living in a rural community where we could commit to home and property improvements, contributing to the collective spirit of our neighborhood. This expansion can kill this vision and sense of community in which we have invested. We understand that finding a sustainable solution to waste disposal in Benton County is a problem that we must collectively solve, but turning Benton County into the dumping grounds for a large portion of the state is not a reasonable or forward-thinking answer.

Thank you,

Pete Gruendike & Kristina Fausti

From: Community Development, Benton County, Oregon
To: Benton Public Comment
Subject: LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date: Thursday, May 1, 2025 11:09:23 AM

Subject of Testimony: landfill expansion

Full Name: Kathy L Graham

Email: grahamfarms4064@aol.com

Street Address: 4064 NW OAK GROVE DR

Written Testimony:

I live within 3 miles of Coffin Butte landfill. A am totally against any expansion of this landfill. Trucks from around the state are destroying our roads, loosing garbage as they travel these roads. The odor from the dump is terrible to say the least. Republic has falsely reported information the the EPA or just not bothered reporting at all. This landfill is causing people health problems from the stench, and causing water problems with the run off from the garbage. This expansion will bring house value down as who would want to live by this mess, the dump is large enough for garbage from the adjoining counties and does not need trash from all over the state.

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 76.27.234.140

From: Kris Fausti
To: Benton Public Comment
Subject: Fwd: Deny LU-24-027
Date: Thursday, May 1, 2025 8:56:35 PM

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

Dear Benton County Planning Commissioners,

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Thank you,

Pete Gruendike & Kristina Fausti

From: Dave Larmouth
To: Benton Public Comment
Cc: Dave Larmouth
Subject: Coffin Butte Landfill Expansion
Date: Thursday, May 1, 2025 2:22:37 PM
Attachments: image001.png

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

Dave Larmouth – Outreach Manager, Dahl Disposal Service

Good evening Commissioners. My name is Dave Larmouth, and I am the Outreach Manager for the Dahl family of companies, including Dahl Disposal Service, a solid waste and recycling collection company serving East and South Lincoln County. Dahl has been a family-owned small business since 1964. We currently employ fifty people who work hard every day to provide for their families.

I am here tonight to express my support for the proposed expansion of the Coffin Butte Landfill. This facility is essential to keeping our local solid waste system safe and affordable. We already struggle with illegal dumping and burning in our County, and a significant increase in the cost of disposal will drive more people to make choices that are harmful to public health and our environment.

This issue is bigger than Benton County. The idea of a regional landfill makes good economic sense, as there are economies of scale that are possible with larger quantities of material that do not pencil out at smaller facilities. However, with the closure of Riverbend Landfill in Yamhill County, and the waste-to-energy facility in Marion County, Coffin Butte is our sole remaining disposal site in this region. If we cannot expand Coffin Butte Landfill and extend its lifespan, we will be left with few alternatives, all of which are located in Eastern Oregon. The additional hauling distance would increase our disposal costs significantly, as well as increase the amount of fossil fuels and air emissions that go along with long-haul truck transport. Increased disposal costs will negatively impact the families, businesses, schools and hospitals of Lincoln County.

The process of siting new landfills in Western Oregon has been described as nearly impossible, due to the complexity of Oregon's land use and environmental regulations. We need to make decisions that are best for the entire region, not just the neighbors. Many of the vocal opponents to this expansion chose to buy land near an existing landfill, then push lawmakers to get it shut down because they don't like the view or the truck traffic.

People often talk about making decisions for the greater good. In this case, the best use of resources is to expand Coffin Butte Landfill and put off an expensive alternative for as long as possible.

Thank you.

Dave Larmouth
(he/him/his)
Dahl Disposal Service
Cell: 971-241-8807

www.dahldisposalservice.com

From:	Community Development, Benton County, Oregon
To:	Benton Public Comment
Subject:	LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date:	Thursday, May 1, 2025 11:28:43 AM

Subject of Testimony: Recommend denial of land use permit for Coffin Butte Landfill

Full Name: John Livingston

Email: Livingstonjohn@att.net

Street Address: 6473 Doral Drive SE Salem, Oregon 97306

Written Testimony:

I live in Salem and much of our solid waste is now going to the coffin Butte Landfill. I am a retired engineer and spent over 20 years designing landfills and remediating their groundwater pollution. The Coffin Butte site is not a favorable place to permanently use as a municipal landfill. ALL landfills leak leachate int the groundwater. It is just a matter of how MUCH they leak. The groundwater direction of flow is into aquifers used for agricultural and municipal use. Drinking water taken from the Willamette River flows from the aquifers in the coast range, thus even if drinking water is not directly taken using wells east of the landfill, the groundwater still flows to the river.

The leachate from the landfill that is collected on top of the bottom liner system cannot currently be economically treated to remove all the chemicals present. Most people are not aware that the leachate is caused by the rainwater percolating thru the waste and thus the water dissolves the materials in the waste and percolates by gravity to the base of the landfill. If not collected it seeps thru or around the liner system and gets into the groundwater. It is extremely expensive to treat groundwater to restore it to pre-pollution quality.

The Coffin Butte landfill should be closed and a new site developed that is underlain by salt water that cannot be used for any purpose. It may be that the only sites possible are in dry lakebed locations or where there has never been usable groundwater. The BEST PRACTICES of municipal landfill design do not really protect the underlying groundwater from contamination. They merely delay the inevitable contamination and forever remediation at public expense.

Please deny the expansion of the Coffin Butte Landfill, improve recycling and salvaging and start studying more secure long-term management of the waste stream.

Sincerely, John Livingston

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 73.240.219.76

From: Carol McClelland Fields
To: Benton Public Comment
Subject: Public Comment to Oppose/Deny LU-24-027 - odor - methane
Date: Thursday, May 1, 2025 4:45:20 PM

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

Carol McClelland Fields
37326 Soap Creek Rd
Corvallis, OR 97330

Thank you for accepting my public comment and for all the work you are doing to keep everything organized.

--
~~~~~~~~~~~~~~~~~~~~~~~~~~~

Carol McClelland Fields, PhD, BCC
541 243 3675
~~~~~~~~~~~~~~~~~~~~~~~~~~~

To: publiccomment@bentoncountyor.gov

Subject: Oppose/Deny LU-24-027 -**A Garbage-Truck Sized Hole in the Community Wildlife Protection Plan (CWPP)**

Dear Benton County Planning Commissioners,

My name is Carol McClelland Fields, and I live at 37326 Soap Creek Rd about four miles from Coffin Butte Landfill.

I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application because the proposed use seriously interferes with uses on adjacent property, with the character of the area, or with the purpose of the zone [Benton County Code 53.215 (1)]

I live 4.1 miles south of Coffin Butte Landfill.

On a good day, I don't smell any landfill stench.

On a bad day, I smell the landfill stench as soon as I walk out my door in the morning. I limit my time outdoors on these days!

On a very bad day, I smell the landfill stench INSIDE MY HOUSE! Specifically on the second floor of my home. This has happened twice in 2025…so far. It's a very disconcerting sensation to meet that acrid stench *inside* my own home. This is new. Prior to 2025, I had not had this experience. It is hard to escape the stench and toxic cocktail of chemicals when there's no where else to go!

The smell that is not the most disconcerting aspect of this experience…it is knowing that the landfill stench is caused by dangerous chemicals and that methane is highly flammable.

> Methane itself is odorless. However, when methane is released into the atmosphere, methane is accompanied by other **toxic pollutants.** These chemicals have serious health impacts, primarily on the lungs and immune system.
>
> Why Coffin Butte landfill gas stinks:
>
> > **Hydrogen sulfide [H2S]:** Rotten-egg smell. Even low concentrations cause eye irritation, sore throat and cough, nausea, shortness of breath, and fluid in the lungs.
> >
> > Long-term, low-level exposure can cause headaches, dizziness, and memory issues. Coffin Butte landfill gas has about **8 parts per million by volume.**

Methyl Mercaptan [CH3SH]: Bad fart smell / asparagus-pee smell, also produced by pulp mills. Detectable by humans down to 1 part per billion. **Coffin Butte landfill gas has 2300 times that level.**

Isopropyl mercaptan [C3H8S]: Skunk smell, extremely pungent. **Coffin Butte landfill gas has over 2 parts per million by volume.**

Dimethyl sulfide [(CH3)2S]: Rotten cabbage smell, also what you smell if a batch of home-brew goes bad. **Coffin Butte landfill gas has about 2 parts per million by volume.**

#cleanair #corvallis

In addition, methane is highly flammable. Methane mixed with air can be an explosive combination. A disconcerting thought given that the nature of our region is bucolic meadows and forests as well as agricultural lands.

Odor Complaint

When I report the bad and very bad days to the State of Oregon Department of Environmental Quality (DEQ), my complaint is acknowledged by the Permitting and Compliance Specialist -- Air Quality. She informs the Coffin Butte Landfill's Environmental Manager, and he sends a response about what they noted on that day. ***Our odor patrol on the Xth at XX am did not detect anything. It includes driving out Soap Creek Road. All landfill systems were operating normally that day. Let me know if you have any questions.*** Everyone who submits a complaint receives a message along this theme.

Odor Patrol?

They drive around trying to smell the landfill stench?

Olfactory fatigue occurs when the olfactory receptors in the nose become desensitized to a noxious smell after being exposed to it for a long time. The nose filters out what it considers "background noise." This is a physiological response and cannot be overridden. When this happens, the person can no longer smell the landfill stench. Even if they have a number of people on Odor Patrol, working anywhere near the landfill has likely changed their ability to smell the stench.

Geographic range. How does the Odor Patrol know where to check for landfill stench. Do they only check when they smell it? Is it a daily operation? At what time of day? Are they constantly on the move? Where do they focus? We've heard of

landfill stench complaints from people driving by the landfill on 99W as well as from people in North Corvallis, which is 8-12 miles away, and on Hwy 20 south of town.

Altitude. It's not enough to just measure the smell at ground level. Plumes of methane have been reported from drone / flight data. How is the Odor Patrol accounting for altitude? Based on reports by neighbors, I know that someone high on the ridge directly across Soap Creek from my property smells the landfill stench on days I don't smell it on the valley floor. There can be pockets of stench that would be hard to isolate while driving around.

Weather patterns and air currents may mean that they don't smell anything at the landfill, because the wind patterns send the methane mixed with dangerous chemicals up into the atmosphere. When those particles come back down, they can be miles from the landfill and the Odor Patrol.

"All landfill systems were operating normally."

My nose tells me that I have landfill stench *inside my home*.

The Republic Services claims the landfill systems were *operating as they should*.

Something doesn't compute.

Without third party methane measurements, this rapidly becomes a "he said/she said" situation.

If the landfill systems are working, then why are the neighbors in the area regularly impacted by the landfill stench?

- Are there leaks that the landfill operators are not aware of? This is likely based on recent EPA reports about large methane plumes above and around Coffin Butte Landfill that were never reported by the landfill operators.

- Are they just measuring methane on part of Coffin Butte Landfill? What's happening on the **47% and 38% of the landfill that has been deemed exempt from monitoring? Please read about the findings in the following article that will shed more light on this sentence.**

In an article entitled: ***Oregon corporate landfills using loophole to avoid methane monitoring, study finds*****,** Tracy Loew of the Salem Statesman Journal reports: (the following italicized excerpts were taken directly from this article):

Oregon's ***corporate-owned landfills are using a loophole in state law to avoid methane monitoring on an average of about half of their operating surfaces****, a new study concludes.*

County-owned landfills, meanwhile, are exempting an average of 10% of their surfaces*, according to the report released Thursday by the Eugene-based environmental group Beyond Toxics. (That 37 page report: OREGON'S SECRET CLIMATE KILLERS: Pulling Back the Curtain on Hidden Landfill Methane Emissions. March 2025. Authors Mason Leavitt, Lisa Arkin.*

The rules require quarterly monitoring of the landfill, by walking the surface with a handheld gas analyzer. Identified leaks measuring over 500 parts per million must be fixed within 10 days.

The rules *allow landfills to use "alternative compliance options," including changing walking paths, to exclude monitoring where there are potential safety and other issues, such as steep or slippery slopes and physical obstructions.*

Mason Leavitt, data analytics specialist for Beyond Toxics, said companies appear to be abusing that exemption.

*For example****, the 178-acre Coffin Butte Landfill, near Corvallis, exempted 40 acres in the third quarter of 2022 and 30 acres in the fourth quarter of the same year, citing "high vegetation," according to the report. The landfill continued to exempt those areas in 2023 without citing a reason.***

The researchers determined the percentage of each landfill that was unmonitored each quarter. ***Coffin Butte Landfill, near Adair Village, operated by Republic Services: Between 53% and 62%.***

U.S. EPA finds problems with methane monitoring

Beyond Toxics' conclusions mirror those in a recent U.S. Environmental Protection Agency report.

More than 100 EPA inspections over the past three years found that many municipal solid waste landfills across the country were not properly monitoring emissions.

"While the regulations allow municipal solid waste landfills to exclude certain areas from the surface emissions monitoring (e.g., areas with steep slopes or other dangerous areas), the ***EPA observed during recent inspections that areas that are not dangerous are improperly excluded from monitoring,"*** *the EPA report states.*

"If a municipal solid waste landfill excludes areas from the surface emissions monitoring, the facility should document and explain the basis for excluding each area from monitoring in the surface emission design plan and SEM reports. The regular side slopes of the landfill may not be excluded from monitoring per the regulations," the report reads.

Coffin Butte Landfill was among those the EPA inspected.

(https://www.statesmanjournal.com/story/tech/science/environment/2025/03/06/oregon-landfills-methane-monitoring-loophole-study/81163394007/)

Furthermore, we need third-party methane measurements using drone equipment and satellite imaging. Wouldn't it be helpful for Republic Services, DEQ, EPA< surrounding counties, and the residents to:

Know how much danger we are in due to methane with dangerous chemicals mixed in - health impacts, fire danger, greenhouse gases that contribute to climate change, etc

To know **the extent of the leaks…and more importantly, where to fix those leaks.**

To know the **emissions in the entire plume,** not just at ground level.

To reiterate, these measurements MUST BE monitored by *neutral* third party entities. Based on numerous instances in the past, we cannot rely on the Applicant's ability to accurately measure and report what is happening at Coffin Butte

From the same article referenced above:

> *In 2022, the EPA found* ***Coffin Butte was leaking methane at levels that exceed state and federal limits and what the landfill had publicly reported.***
>
> *EPA investigators* ***returned in 2024 and found more than 40 locations where methane exceeded limits, including at holes in the cover material.***
>
> *EPA, rather than DEQ, is continuing to lead that investigation, Darling said.*

Expanding the landfill will dramatically increase the methane / dangerous chemicals production and influence the frequence of the landfill stench. As the landfill moves to different cells, different neighborhoods will be more impacted**. I believe the landfill stench I smelled *inside my house* had to do with Republic Services rounding a corner to dump trash in a new cell that is more aligned with where my property is.**

I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

As noted above: The Applicant's proposed use seriously interferes with my use of my property, just four miles from Coffin Butte, seriously interferes with the character of Soap Creek Valley area and beyond. [Benton County Code 53.215 (1)]

Between the toxic landfill stench, the flammable methane, and the Applicant's loose, reckless, and blatant disregard for State and Federal laws, measuring protocols, and reporting standards, do we know what's actually happening at Coffin Butte Landfill.

We are ALL at risk of health issues, catastrophic fires, dangerous air quality, and deadly water quality – in Benton County and the counties and residents that surround the landfill and drink water tainted by disposal for the toxic leachate. Our lives and the character of our area could easily be irrevocably changed with a spark, breathing the air, or drinking the water!

I appreciated the questions the Planning Commissioners asked during the first night of the hearing. Please continue to ask deep, detailed, and pointed questions to surface the essential details of this situation.

Respectfully Submitted

Carol McClelland Fields, PhD
37326 Soap Creek Road, Corvallis, OR

From: Isus2017
To: Benton Public Comment
Subject: Republic Service landfill
Date: Thursday, May 1, 2025 8:05:04 AM

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

Dear Commissioners,
I am writing to express my opposition to any kind of expansion under any kind of description of Coffin Butte landfill. Our air and climate are being polluted at unsafe levels, there have been EPA violations and extremely high levels of methane leaks, our waters, if not already polluted are threatened with toxic leachates from the landfill. This is not suitable land for such a major landfill that already exists, much less so when increasing its capacity. The public has repeatedly complained and yet you still accept the wooing of the corporations, driven by the desire for more money. Trading money for our health and for the health of the land and all its inhabitants is wrong. We must reduce our trash, stop producing plastic disposables, find other solutions and this has been pursued successfully in many places.
I already have (supposedly "safe" levels so far) lead and who knows what else in my well water. I already smell the methane stink of the dump on foggy mornings. I already reduce my trash production drastically. I'm already happy to pay taxes for necessities like roads and schools. I'm asking you to represent me and many more of us and keep our air and water clean. Stop compromising our children's futures for money. There are other ways to exist that take care of one another and the land.
-Berthe Palmrose
Mountain View Drive
Corvallis

Sent from Proton Mail for iOS

From: Philipp Schmidt-Pathmann
To: Benton Public Comment
Subject: Coffin Butte Expansion Application LU-24-027
Date: Thursday, May 1, 2025 12:53:03 PM

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

To: Benton County Planning Commission
Re: Coffin Butte Expansion Application LU-24-027

The issue before you today is very specific: whether to grant permission to Republic Services to expand the Coffin Butte landfill. Because of their past failures as operators of the facility, the lack of oversight by the County and the State, and the likelihood that increasing the size will not improve performance, we strongly recommend that the request to expand be denied.

You may wonder why a non-profit organization from Seattle is taking a position on a landfill expansion in Oregon. The Institute for Energy and Resource Management (IeRM) works to bring the US approach to solid waste into the 21st Century. We were involved as observers in the Sustainable Materials Management Plan process, thanks to an invitation from a group of concerned Benton County citizens. The goals of the SMMP, reducing methane emissions harmful to the climate and greatly increasing recycling rates, are consonant with ours. We promote an integrated waste management system, similar to waste management programs that have been successfully implemented in Europe and Asia. Given the intent of the SMMP, the Benton County climate action pan, and the State of Oregon's global warming emission reduction goals, the Coffin Butte landfill is a target of opportunity.

Thus we believe that you have before you not only a narrow decision about expansion of the landfill, but a chance to change the direction of waste management for the County and perhaps the region, given that most of what goes into the landfill is from elsewhere. Why should you be concerned about this? In addition to the immediate issues of odors, emissions, and truck traffic, there are more fundamental problems that must be addressed: wasted resources, lost revenues, and the major impacts of landfilling on the climate.

By denying this request for expansion, you will take the first step toward a paradigm shift in waste management policy. We urge you to do so, to continue to pursue the goals of the SMMP, and to begin the shift to an integrated waste management system. Your children, and their children, will thank you.

Sincerely,

Philipp Schmidt-Pathmann, CEO
Institute for Energy and Resource Management
12623 SE 83rd. Ct.
Newcastle, WA 98056
www.ie-rm.org
206-313-9774

From: Che
To: Benton Public Comment
Subject: RE Coffin Butte Expansion
Date: Thursday, May 1, 2025 9:33:31 AM

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

I would like to register my strong opposition to Republic's expansion. I don't trust the company, we don't need to do this, and most of all our community clearly does not want it. That should count. I hoper it does.
Thanks.
Cheryl Stevenson

"Humankind has not woven the web of life. We are but one thread in it. Whatever we do the web, we do to ourselves. All things are bound together.

Chief Seattle

From:	Community Development, Benton County, Oregon
To:	Benton Public Comment
Subject:	LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date:	Thursday, May 1, 2025 8:21:01 AM

Subject of Testimony: Possibly Future Lawsuits for Leachates Causing Cancer

Full Name: Hilary White

Email: pup@comcast.net

Street Address: 4050 NE Fair Acres Dr, Corvallis 97330

Written Testimony:

11 states have lawsuits to hold parties responsible for cancers caused by ingested tap water with PFAS, specifically kidney or testicular cancers. Whether from public or private drinking water, these cancers were from those drinking tap water for at least 6 months. Oregon is not included in this lawsuit for AL, CA, CO, FL, MASS, NH, NJ, NY, NC, Ohio, PA. Benton County could end up facing lawsuits in the future from leachates coming from the landfill once Republic Services closes up shop at Coffin Butte. Having a landfill in a very rainy valley adds to the leachate run off of PFAS that will go on for decades. Just because tanker trucks empty leachates into the Wastewater Management, their filtering is not enough to remove forever chemicals released nearby into Willamette River.

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This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 76.144.26.10

From:	Community Development, Benton County, Oregon
To:	Benton Public Comment
Subject:	LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date:	Thursday, May 1, 2025 8:21:01 AM

Subject of Testimony: Possibly Future Lawsuits for Leachates Causing Cancer

Full Name: Hilary White

Email: pup@comcast.net

Street Address: 4050 NE Fair Acres Dr, Corvallis 97330

Written Testimony:

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This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 76.144.26.10

From:	Dave Larmouth
To:	Benton Public Comment
Cc:	Billy Bellmore
Subject:	Coffin Butte Landfill Expansion
Date:	Friday, May 2, 2025 11:18:23 AM
Attachments:	image001.png

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

Sent on behalf of Billy Bellmore, Shop Supervisor, Dahl Disposal Service,
billy.bellmore@dahldisposalservice.com
380 NW 1st Street, Toledo OR 97391

To Whom It May Concern:

Oregon's landfills are renowned for their advanced waste handling methods, serving as a crucial component of our waste management system. These facilities are meticulously designed to safeguard the environment by securely containing waste and capturing the offsets generated during decomposition. This collaborative approach ensures that everyone involved contributes to the responsible disposal of non-recyclable items, benefiting Oregonians as a whole.

However, the United States faces a critical shortage of outlets for recycling, reuse, and waste reduction. Consequently, landfills play a vital role in securely storing discarded waste items.

It is disheartening to observe the societal mindset that has allowed us to adopt a "not in my backyard" attitude. This attitude has led to the unfortunate practice of shipping waste over long distances to remote "rural" sites for disposal. This practice merely shifts waste from one location in Oregon to another, resulting in the same offsets as a landfill situated in Benton County. Is this truly an acceptable solution?

Benton County's climate goals demand a comprehensive approach to waste management. Considering the significant amount of CO2 produced during the transportation of this material to Eastern Oregon, it is crucial to assess whether this action truly aligns with Benton County's climate objectives. Instead of merely shifting offsets from one county to another, we must ensure that our actions truly benefit all Oregonians.

The closure of a landfill raises concerns about the potential need for the approval of transfer stations to handle bulked-up discarded waste. These facilities continue to pose

challenges such as noise, odor, bird issues, and emissions, resulting in the same negative complaints that have plagued landfills in the past. Therefore, we must carefully consider the long-term implications of our decisions and ensure that we are taking the most effective steps to address waste management concerns.

Benton County's ongoing expansion of housing projects inevitably leads to an increase in waste generation. This raises the question of where this additional waste will be disposed of. It is essential to strike a balance between accommodating growth and maintaining sustainable waste management practices.

If the landfill isn't located where it currently is and is closed, all the waste it accepts will now have to be transported through Portland. This will undoubtedly add to the already congested freeways, resulting in increased emissions from trucks dealing with stop-and-go traffic.

For most companies that use the landfill, they can send multiple loads of waste daily. When these companies are forced to ship waste to regional landfills on I-84, multiple trucks will be required to transport the waste. These regional companies will now need three trucks to haul what one truck currently hauls daily, and all these trucks will still travel through Benton County.

This process and issue are likely to attract negative attention, so why do 135-300 opponents potentially have the power to influence over 500,000 solid waste and recycling ratepayers? These ratepayers will pay significantly higher fees to ship their waste over long distances, which will result in increased emissions that negatively impact our environment.

There are several other scenarios that could lead to more environmental impacts if the landfill doesn't exist. Remember, shifting waste from one community to another doesn't truly improve environmental consequences; it merely exacerbates them.

This is a difficult decision, but it's crucial to make the hard choice that may not be popular with a few individuals versus a choice that affects 500,000 Oregonians. When that choice is made, remember that you have the opportunity to shape the future of an environmentally sound landfill.

I urge you all to support the landfill's continued operation. Listen to the opponents' concerns, and then work along with regulatory agencies, staff and Republic Services, so you all can create an even more advanced and state-of-the-art landfill that can handle waste until new markets emerge to help us reduce the amount of waste we place in

landfills.



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From: Community Development, Benton County, Oregon
To: Benton Public Comment
Subject: LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date: Friday, May 2, 2025 9:15:55 AM

Subject of Testimony: Eagles scavenging at landfills

Full Name: Camille Hall

Email: camillehall@peak.org

Street Address: 7175 NW Mountain View Drive, Corvallis, OR 97330

Written Testimony:

Eagles are attracted to edible waste and food scraps at landfills. Attached is a quick story from the trade magazine Waste Today. The presence of eagles scavenging on the blue heron rookery is not a coincidence.

https://www.wastetodaymagazine.com/article/landfill-birds-scavenging-prevention/

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 73.96.219.83

From:	Joel Geier
To:	Benton Public Comment
Subject:	LU-24-027: Information to add to the record regarding groundwater
Date:	Saturday, May 3, 2025 6:48:59 PM

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

Dear members of the Planning Commission and Community Development Department staff:

Please enter the attached document:

> Ochoa, C.G.; Jarvis, W.T.; Hall, J.
> A Hydrogeologic Framework for Understanding Surface Water and Groundwater Interactions in a Watershed System in the Willamette Basin in Western Oregon, USA.
> *Geosciences* **2022**, *12*, 109. https://doi.org/10.3390/geosciences12030109

into the record for LU-24-027. This is a peer-reviewed, open-access article distributed under the terms and conditions of the Creative Commons Attribution license (https://creativecommons.org/licenses/by/4.0/).

The article contains scientific information that is highly relevant to understanding the flaws in the Applicant's claims that construction of the proposed new landfill will not impact groundwater access and groundwater quality on adjacent properties.

The article describes findings from a scientific investigation of groundwater and its relationship to surface water flow in the Oak Creek watershed, on the west side of Corvallis and also in Benton County.

The Oak Creek watershed is less than 10 miles south of the proposed new landfill, bordering on the Soap Creek watershed in its upper reaches. It is similar to the proposed development in terms of:

- bedrock geology,
- climate including seasonal precipitation,
- topographic relief,
- proximity to the Corvallis Fault.

I've cited this article in my own previously submitted testimony on groundwater issues. The second author, Dr. William (Todd) Jarvis, an Engineering Geologist registered in Oregon, kindly reviewed my testimony on that topic before I sent it to you, and confirmed that my representations of the technical findings in this article were accurate.

In particular, I cited this document as an example of how:

- Groundwater divides do not necessarily coincide with topographic divides

(contrary to the applicant's claims).
- Groundwater directions in fractured bedrock (similar to that under Tampico Ridge) cannot be fully predicted from topography and shallow investigations.
- Bedrock structures such as the Corvallis Fault (which also angles down under the proposed development site) can influence groundwater flow directions.

This study also serves as an example of what the Applicant could have done, if they were genuinely interested to develop an understanding of groundwater in the area around the proposed new landfill. Such an investigation could provide a well-founded analysis of the risks for groundwater resources on adjacent properties.

But the Applicant has not undertaken such an investigation. Instead they're expecting you to accept arguments based almost entirely on the very limited data that they've collected on their own site. They know that this leaves major gaps, which they've tried to fill by conjecture and "arm-waving."

I hope that you will see that **arm-waving in the absence of relevant data is not an acceptable way to dismiss the legitimate concerns of nearby residents**, for whom loss of access of to safe and reliable well water would **seriously interfere with use of their property (Benton County Code 53.215)**.

Thank you for taking this information into consideration for your deliberations.

Yours sincerely,
Joel Geier, Ph.D.
38566 Hwy 99W
Corvallis, OR 97330-9320

From: Joel Geier
To: Benton Public Comment
Subject: LU-24-027: Information to add to the record regarding arsenic
Date: Saturday, May 3, 2025 6:11:57 AM

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

Dear Community Development Department staff and members of the Planning Commission:

Please enter the attached document:

> Arsenic in Ground Water of the Willamette Basin, Oregon
> by Stephen R. Hinkle and Danial J. Polette
> Water-Resources Investigations Report 98–4205

into the record for LU-24-027.

This is a publicly available document produced by the United States Geological Survey.

It contains scientific information that is highly relevant to the Applicant's claims that the high levels of arsenic discovered in groundwater at the landfill site are "typical" for this part of the Willamette Valley.

I've cited this document in my own previously submitted testimony on the arsenic issue (in which, I notice now, I misspelled the name of the second author as "Pollette").

This document is technical in nature, so some details may require a scientific background to understand. But here's one simple thing to note:

If you run text search on this document, you'll find that the names of the two counties closest to Coffin Butte Landfill, Benton and Polk, occur just four times in total. Two of those instances are as labels on maps. The other two are for a single document in the list of references. Nowhere in this document is there any mention of arsenic as being a naturally occurring problem in either Benton or Polk County.

In contrast, Linn and Lane counties are mentioned frequently (a total of about 75 time). Linn and Lane are the counties in the southern Willamette Valley where arsenic in groundwater is recognized to be a common problem, not Benton or Polk.

In other words, the "character of the area," in areas of Benton and Polk counties all around the landfill, has been an area where rural residents haven't had to worry about arsenic in their wells, at least up until now.

Thank you for taking this information into consideration for your deliberations.

Yours sincerely,
Joel Geier, Ph.D.
38566 Hwy 99W
Corvallis, OR 97330-9320

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Article

A Hydrogeologic Framework for Understanding Surface Water and Groundwater Interactions in a Watershed System in the Willamette Basin in Western Oregon, USA

Carlos G. Ochoa [1,*], William Todd Jarvis [2] and Jesse Hall [3]

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Abstract: A broad understanding of local geology and hydrologic processes is important for effective water resources management. The objectives of this project were to characterize the hydrogeologic framework of the Oak Creek Watershed (OCW) geographical area and examine the connections between surface water and groundwater at selected locations along the main stem of Oak Creek. The OCW area comprises the Siletz River Volcanic (SRV) Formation in the upper portion of the watershed and sedimentary rock formations in the valley. Past hydrologic and geologic studies and our field measurement data were synthesized to create a hydrogeologic framework of the watershed, including a geologic interpretation and a conceptual model of shallow, deep, and lateral groundwater flow throughout the OCW. The highly permeable geology of the SRV formation juxtaposed against the Willamette Basin's sedimentary geology creates areas of opposing groundwater flow characteristics (e.g., hydraulic conductivity) in the watershed. The Corvallis Fault is the primary interface between these two zones and generally acts as a hydraulic barrier, deflecting groundwater flow just upstream of the fault interface. The extreme angle of the Corvallis Fault and adjacent less permeable sedimentary geology might facilitate subsurface bulk water storage in selected locations. The stream-aquifer relationships investigated showed gaining conditions are prominent in the upper watershed's northern volcanic region and transition into neutral and losing conditions in the downstream southern sedimentary region in the valley. Agriculture irrigation seepage in the valley appeared to contribute to streamflow gaining conditions. Results from this case study contribute critical information toward enhancing understanding of local hydrogeologic features and potential for improved SW-GW resources management in areas near coastal ranges such as those found in the Pacific Northwest, USA.

Keywords: hydrology; geology; surface water-groundwater interactions; fault permeability; gaining stream; losing stream

Citation: Ochoa, C.G.; Jarvis, W.T.; Hall, J. A Hydrogeologic Framework for Understanding Surface Water and Groundwater Interactions in a Watershed System in the Willamette Basin in Western Oregon, USA. **2022**, *12*, 109. https://doi.org/10.3390/geosciences12030109

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1. Introduction

Understanding the interactions between surface water and groundwater (SW-GW) is critical for improved water resources management [1,2]. Surface water and groundwater cannot be seen as isolated components [3] and the role of geology in their spatial and temporal variability throughout the landscape needs to be better understood. The replenishment of groundwater from surface water sources such as irrigation and precipitation can be influenced by geologic characteristics, such as the presence of fractured bedrock or basalt [4], and the timing and quantity of precipitation [5,6] or irrigation [7,8]. A common expression of SW-GW relationships occurs at the stream and aquifer intersection. Geology has long been considered a primary driver of watershed hydraulic characteristics [9–11]

such as streambed permeability and the rate of surface water infiltration into the aquifer [12]. A variable SW-GW flow exchange can influence the streamflow volume between any two points along the stream and can create gaining conditions where groundwater inputs contribute to streamflow, or losing conditions where streamflow is lost through the permeable substrate [13–15]. Groundwater inputs can constitute a significant portion of the overall streamflow volume of a gaining reach or stream, especially during low-flow conditions [16]. The SW-GW connections are highly dependent on the geological features responsible for water transport and distribution throughout the landscape [4,17–19].

Geologic faults are another feature that significantly influences SW-GW relationships, particularly the dynamics of groundwater flow. Faulting impacts groundwater hydrology by altering flow vectors near the fault core zone [20]. Fault gouge, coupled with separation, creates a broad spectrum of hydraulic barriers, conduits, or a combination of these [4,17,20,21]. Impermeable areas within fault zones can sever the hydraulic continuity of aquifers, producing incongruent groundwater tables and isolated groundwater compartments. Active faults can have irregular fault core thickness and a degree of damage to surrounding rock along their profile length [21]. Varying degrees of damage and fault gouge create significant contrasts in permeability along with the fault profile, and as a result, a single fault can be both a barrier and a conduit for groundwater flow [21,22].

A common resource management integration of SW-GW relationships is by using groundwater replenishment tools such as managed aquifer recharge (MAR). In a 60-year retrospective of global MAR, Dillon et al. [23] indicated that "*MAR is a management tool to consider with and complement new efficiency measures in irrigation, switching to low water use crops, conjunctive use of surface water and groundwater resources including substituting use of recycled water for groundwater, and foregoing extraction*". The drivers for considering MAR in various forms include limited surface reservoir sites, increased costs associated with surface water treatment for harmful algal blooms, decreasing barriers to fish passage, and increased costs to purchase water from regional water suppliers. Over the past 50 years, the storage of managed aquifer recharge in the US has increased nearly 10-fold from approximately 300 Mm^3 $year^{-1}$ in 1965 to 2570 Mm^3 $year^{-1}$ in 2015 [23].

According to the Oregon Water Resources Department (OWRD), managed recharge and related aquifer storage and recovery (ASR) projects have been operating in Oregon since 1996, with more than 7.5 Mm^3 per year stored annually. Potential aquifer storage identified by Woody [24] approaches Oregon's annual public water supply in the year 2000, or 500 Mm^3. Oregon currently has approximately 15 state-authorized and planned ASR test sites servicing municipalities and agriculture. Most of these sites store water in volcanic rock aquifers, including the Siletz River Volcanics [24]. The use of small-scale managed recharge utilizing rainwater or spring water for domestic well storage is increasingly considered in mountainous areas underlain by low permeability volcanic rocks and siltstone [25,26]. Likewise, a market for aquifer storage space is gaining momentum as the concept of Aquifer Recharge Units (ARU) is being developed [27].

Characterizing hydrogeology's role in SW-GW interactions is critical for understanding the potential for integrated water resources management, including stream-aquifer interactions and groundwater recharge. This project examined hydrogeological features influencing SW-GW interactions in the southern portion of the Willamette Basin region in western Oregon, USA. The objectives of this case study were to: (1) characterize the hydrogeological framework of the watershed geographical area, and (2) examine stream-aquifer relationships along the main stem of the creek.

2. Materials and Methods

2.1. Study Site

The study was conducted in the Oak Creek Watershed (OCW) within the Willamette Basin region. The OCW (44.57° latitude; −123.30° longitude) encompasses 3360 hectares, and it is adjacent (west) to the City of Corvallis, Oregon, USA. The main stem of Oak Creek

flows 11 km from its source and highest point (650 m above sea level, MASL) in the McDonald-Dunn Forest to its lowest point (64 MASL) at the confluence with Marys River. The climate in the region is a Mediterranean type, with a warm and dry season in the summer and a mild and wet winter season. Most precipitation occurs as rainfall between November and April. Mean annual precipitation within the basin ranges from 2500 mm at higher elevations to 1000 mm at lower elevations [28]. The monthly-averaged lowest temperature occurs in January (0.67 °C), while the highest occurs in August (27.4 °C). The lowest and highest total monthly precipitation occurring in July (9.1 mm) and December (181.4 mm), respectively [29]. Oak Creek is a fourth-order headwater stream with discharge volumes generally ranging between 0.01 $m^3 s^{-1}$ and 0.25 $m^3 s^{-1}$, and peak discharge reaching up to 6 $m^3 s^{-1}$ in the winter. Upland overstory vegetation at the OCW is dominated by Douglas-Fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), and western red cedar (*Thuja plicata*). At lower elevation sites, White oak (*Quercus alba*), red alder (*Alnus rubra*), Oregon ash (*Fraxinus latifolia*), and bigleaf maple (*Acer macrophyllum*) dominate the landscape.

Land cover in OCW encompasses forest (70%), agriculture (12%), urban (12%), and undeveloped (6%). Land use categories at OCW include forestry in the uplands, agriculture in mid to lower elevation sites, and urban including Oregon State University (OSU)'s main campus at the bottom of the watershed. Much of the area of the OCW is a mixture of publicly and privately-owned forest maintained for uses such as timber harvest, protected water drinking water-supply source areas, recreation, and forestry and agricultural research stations associated with the Colleges of Agricultural Sciences and College of Forestry at OSU. Approximately 20 hectares of OSU's pasture fields in the lower valley are irrigated with water diverted from Oak Creek during the summer. Water pumped from the creek is run through underground pipes that feed individual irrigation lines with multiple sprinkler pods at different fields. The rest of the agricultural activity in OCW depends mostly on the soil moisture accumulated during the wet precipitation season in the winter. No deep groundwater extraction for agriculture irrigation currently exists at the OCW. The Siletz River Volcanic (SRV) rock formation underlying much of OCW has become increasingly important for municipal and domestic water supplies in the last 30 years [30]. Over the past 20 years, significant residential growth near the cities of Corvallis and Philomath, Oregon, USA has been occurring [30,31].

The generalized hydrostratigraphy of the rocks underlying OCW has been summarized by [20,30,32,33] based on water well logs available from the OWRD, oil exploration wells available from the Oregon Department of Geology and Mineral Industries (ODGMI), field examination of rock quarries, outcrop examination, and hydrogeologic mapping (Table 1).

Table 1. Lithology, permeability, and hydrologic features of the various geologic formations at OCW.

Formation Name	Generalized Lithology	Permeability Architecture	Hydrologic Properties
Alluvium	Sand, gravel, cobbles thin, 10 m thick	Porous media.	Prolific yield for irrigation near Willamette River.
Spencer/Tyee/Yamhill, undifferentiated	Shale, siltstone, interbedded sandstone, up to 3000 m thick	Microfractures in siltstones and shale, porous media in sandstones.	Low yield for domestic wells. Some saline water and artesian flow in deep sandstones.
Siletz River Volcanics	Basalts with interbedded claystone and sandstone, up to 1000 m thick	Fractures, conduit flow in interflows. Stratigraphic and structural groundwater compartments common.	Moderate yield for domestic and municipal wells.

2.2. Hydrogeologic Framework

2.2.1. Site Geologic Conditions Map and Hydrogeologic Cross-Sections

Information from several sources including previous geophysical research conducted in the OCW [20], oil and gas exploration well logs maintained by the ODGMI, United Stated Geologic Survey (USGS) geological maps, OWRD water well logs, and our field-based data were used to create a Site Geologic Conditions Map along with cross-sections of site geologic and hydrogeologic conditions (Figure 1).

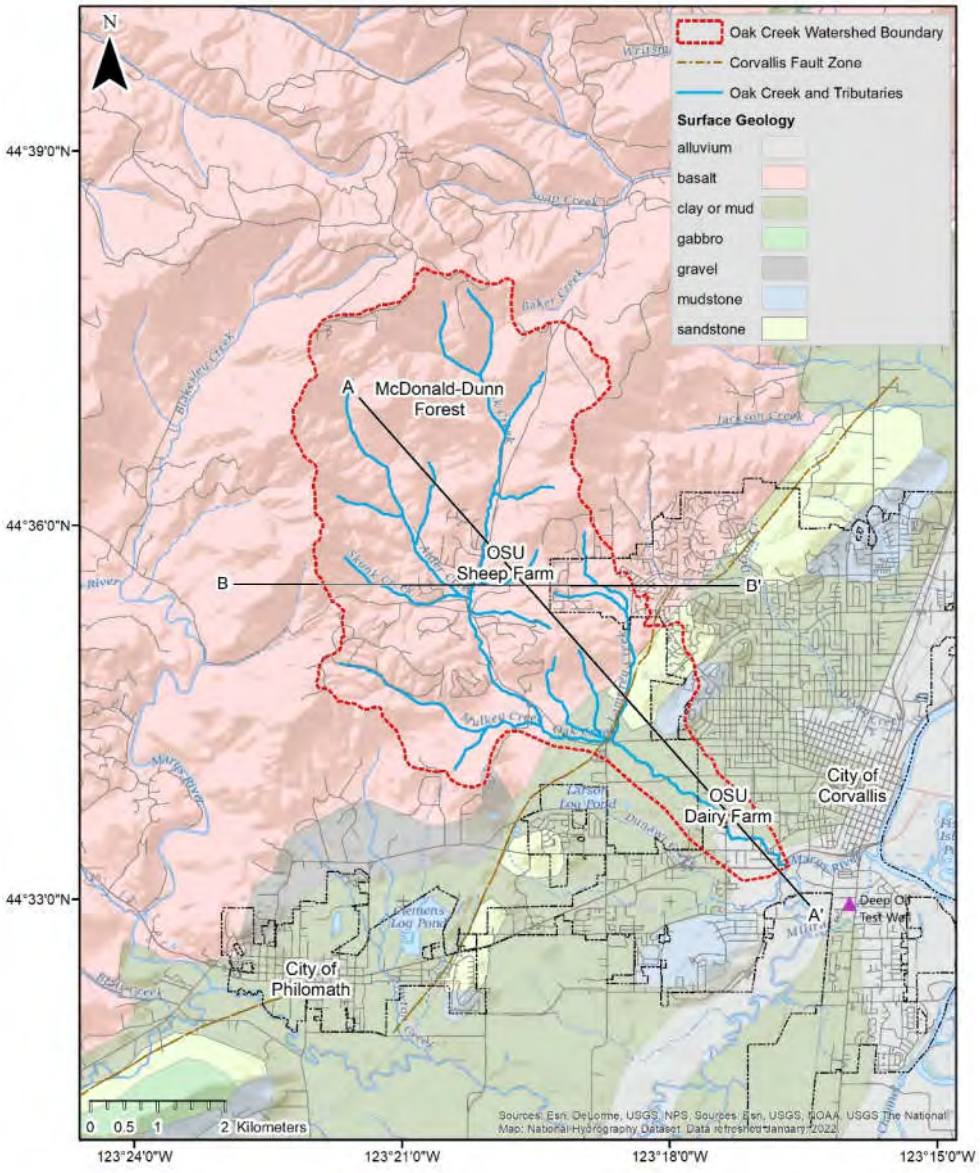


Figure 1. Surface geology map showing geologic cross-section locations and the main geologic features in the Oak Creek Watershed (OCW) and the surrounding region including Corvallis, Philomath, and Oregon State University (OSU).

Well logs of particular interest included those of a 655 m deep well completed in 1934 by the Willamette Petroleum Syndicate (WPS) located in south Corvallis near the outlet of the watershed (see Figure 1), and a 2581 m deep well completed in 1964 by the Gulf Oil Corporation of California (GOC) located approximately 18 km to the southeast near

Halsey, Oregon, USA (location not shown on Figure 1). The GOC well penetrates surficial alluvial deposits of soil, clay, sand, and gravel before encountering the Eugene Formation, the Spencer Formation, the Yamhill Formation, the Tyee Formation, and finally, the SRV Formation at 2160 m below ground surface. The WPS well records are relatively complete to a depth of 655 m, other than a missing section between 412 and 475 m depth, which was likely omitted due to a high-pressure water flow event occurring when the borehole was deepened with a cable tool. The well log annotation substantiated that the drillers required a water shut-off valve when they reached approximately 450 m. This interval is likely a confined aquifer and is stratigraphically located in a volcano-clastic conglomerate mentioned in the GOC well log. If the missing zone and the volcano-clastic zone are stratigraphically equivalent, this zone's apparent thickness likely decreases from nearly 450 to 60 m thick from east to west.

Seismic reflection data and deep exploratory well logs throughout the Willamette Valley reveal the bottom SRV unit extends from beneath the continental shelf in the west [34,35] to as far east as the Cascade Range [20]. Geophysical evidence shows the thickness of the SRV formation to be approximately 8 to 18 km [36–38], with about 4.5 km exposed west of the Corvallis Fault [20].

The Corvallis Fault, which bisects the watershed, is a low-angle reverse-thrust fault [20] uplifting the watershed's northern volcanic region over the southern sedimentary region and pushing it to the southwest. The position of the fault creates two distinct geologic areas with opposing hydrogeologic conditions. Portions of the study site north of the Corvallis Fault overlie the SRV Formation, which consists of a mélange of permeable Paleocene to Eocene submarine basaltic pillow lavas interbedded with less permeable tuffaceous marine sediments which dip approximately 20 degrees to the west. The fault-cutting alignment perpendicular across the watershed creates an abrupt interface between the northern high conductivity volcanic geology and the southern low conductivity sedimentary geology. Additionally, numerous dikes of gabbro, diorite, and aplite rock cut through the fault zone and act as hydraulic barriers, completely severing the hydraulic connection at the fault interface and redirecting groundwater in these areas [20]. The low angle of the Corvallis Fault creates a wedge of Siletz Formation volcanic rocks overlying Spencer and Tyee formation sedimentary rocks [20] which compartmentalizes vertical groundwater movement and promotes horizontal groundwater movement parallel to the fault line.

South of the Corvallis Fault, geology abruptly transitions into thick repetitious sequences of bedded units of graded sandstones, siltstones, and shales [39]. Fractured marine basalt found north of the Corvallis Fault interface is highly permeable due to large conduits (fractures) cutting through the formation; however, the rock itself is nearly non-porous. Conversely, the sedimentary formations found south of the fault are more porous but less permeable.

These two regions' opposing hydrological characteristics influence where and how groundwater flows and how late into the dry summer season water remains in these formations to supply surface water streams (baseflow). The Tyee and Spencer formations, sandstones and siltstones with high porosity (14% to 49%) but low permeability (1×10^{-11} to 6×10^{-6} m s^{-1}), can sustain baseflow into surface water streams later into the dry season when compared to the less porous (3% to 35%) and more permeable (4×10^{-7} to 2×10^{-2} m s^{-1}) basalts of the SRV Formation [40,41].

To better understand the geologic structure of the OCW, we constructed two hydrogeologic cross-sections (A-A′ and B-B′), the locations of which are shown on the surface geology map (see Figure 1). Cross-section A-A′ runs from the McDonald-Dunn Forest in the northern region of the watershed in a southeast direction through Oak Creek and the Corvallis Fault. Cross-section B-B′ runs from west to east, approximately perpendicular to Oak Creek at the OSU Sheep Center.

Subsurface geology and static water level information represented on the geologic cross-sections were obtained through the analysis of over 600 OWRD well logs, two deep

exploration drill logs (WPS and GOC), geology maps, previous research reports [20,30,32,42], and our stream and shallow groundwater well level information. Geologic and hydrologic data of wells within 250 m of each side of the cross-section line were projected onto the cross-section transect to create a vertical hydrogeologic profile (n = 620). Additionally, well log stratigraphy from the nearby WPS and GOC deep exploration wells were projected to the cross-section profile (n = 2). Together, the cross-sections provide a three-dimensional representation of the hydrogeologic framework of the OCW site and an indication of how the Corvallis Fault affects OCW groundwater dynamics.

2.2.2. Stream-Aquifer Interactions

We used shallow groundwater and stream levels data to assess stream-aquifer interactions at one site (OSU Sheep Center; 118 MASL) in the northern volcanic portion of the watershed and one site (OSU Dairy Center; 80 MASL) in the southern basin-sediment infills. Data from previously installed monitoring wells (<6 m depth; 50 mm diameter) were used to characterize water table fluctuations at these two sites [33]. Two wells (sw-1 and sw-2) were in the riparian area at the OSU Sheep Center, and three wells (dw-1 to dw-3) were located in the riparian zone at the OSU Dairy Center. A laser level was used to measure onsite soil surface, stream, and water table elevation to develop cross-section profiles at each location. Data from two other wells in a 2-ha irrigated pasture grass field and one well in its adjacent riparian area, near the stream gauge, were used to characterize irrigation percolation contributions to the shallow aquifer and potential return flow to the stream. All wells were equipped with water level loggers (Model HOBO U20-001-01, Onset Computer, Corp., Bourne, MA, USA) and programmed to record data every hour. A water level meter (Model 101, Solinist Canada Ltd., Georgetown, ON, Canada) was used to collect depth to water table during selected dates. These data were used for verification or calibration of the water level loggers. A water level logger (Model HOBO MX2001, Onset Computer, Corp., Bourne, MA, USA) was installed in each location (OSU Sheep Center and OSU Dairy Center) to measure stream water level fluctuations.

In addition to the monitoring of stream and groundwater levels to assess stream-aquifer interactions, we also monitored hydrostatic pressure differential at selected locations in the streambed during summer groundwater baseflow conditions. We built a hydraulic potentiometric manometer (potentiomanometer) [33] to collect hydrostatic pressure data from 20 different locations along the creek, from its headwaters to its mid and lower reaches. Three measurements at each location were taken at 1 m depth in areas where streambed conditions permitted an adequate seal between the potentiomanometer and surrounding sediment. Locations with large rocks, highly compacted sediments, or sand and gravel bottoms did not provide adequate conditions for manometer readings. A 'vertical gradient' (positive or negative) was obtained for each location based on the potentiomanometer readings. Hydrostatic pressure values of zero or between −1 and 1 mm were considered to be neutral [33].

2.2.3. Potentiometric Surface Map

We developed a potentiometric surface map based on a previous study on springs and losing reaches of the upper watershed [30], static water level data obtained from OWRD well logs, surface water levels of surrounding rivers and streams, and data obtained from our observation wells. Potentiometric contour lines were created by first generating an Excel® spreadsheet detailing the position of wells, surface water observation locations, and the respective static water level of our observation wells at each location. Static water level (meters below ground surface) was then subtracted from the ground surface elevation to obtain hydrostatic head in meters at each location. The OWRD water level measurements span approximately 65 years and at different times of the year, as summarized in their well-log database. We acknowledge there could be much uncertainty; consequently, all the wells' data are referenced as a generalized summary of water level measurements. Long-term data from observation wells at or near OCW are scarce.

Data from a well near the OCW showed seasonal static water level variations of about 4 to 25 m during the period or record 1994 to 2014 (Figure A1). This is within the contour interval of 25 m we used in generating the potentiometric surface map.

Given static water levels in individual wells represent a snapshot in time, synoptic contour lines were generated using the spatial analyst extension of ArcMap® (Version: 10.4.1, ESRI, Redland, CA, USA) to create a digital elevation model (DEM) of the water table surrounding the OCW. Spatial analyst does not consider the influence of the Corvallis Fault when using water elevation data to generate the DEM. Thus, specific contour lines were manually edited to show the elevation of groundwater more accurately as it crosses the geologic interface at the Corvallis Fault. These maps were compared to and shown to be consistent with past hydrologic research in the area (see for example [32]).

Potential lines were edited where there were conflicting or limited data. For example, the potential lines were not shown in areas with a limited potentiometric low associated with pumping from clusters of domestic wells. Likewise, the potential lines were adjusted where our field observations of the potentiomanometer readings suggested gaining or losing reaches that conflicted with direct field observations such as a spring occurrence or detailed water level measurements in dedicated observation wells.

3. Results

3.1. Hydrogeologic Framework

3.1.1. Hydrogeologic Cross-Sections

Figure 2a,b shows the cross-sectional representation of the three distinct geologic formations found at the OCW study site: the fractured and highly permeable SRV Formation to the north of the Corvallis Fault, the low permeability Tyee and Spencer Formations to the south of the fault, and the fault zone itself. The water table in the sedimentary basin region is laterally continuous compared to stratigraphically compartmentalized water-bearing zones found in the Siletz Formation [30]. Depths to water in the OCW site ranged from nearly ground-surface (<1 to 3 m) in the upper region of the watershed near the McDonald-Dunn Forest to nearly 100 m below ground surface in the central portion of the watershed near the OSU Sheep Center (see Figure 1).

Figure 2a (cross-section A-A') shows the multilayered aquifer system of the SRV formation, as well as the shallow and deep aquifer zones of the basin region east of the fault. Data from the WPS and GOC deep exploration wells showed that the water table in the basin east of the fault was generally within 3 to 5 m below the ground surface, with slight fluctuation throughout the year. The GOC drill logs showed a 400+ m thick layer of a water-bearing zone of volcano-clastic conglomerate extending as far west as the Corvallis Fault. Dip estimations suggest the volcano-clastic layer shallows to the west from the GOC well and could be located 10 to 60 m below the OSU Horse Center (Figure 2a). Previous field observations by Goldfinger [20] near the City of Philomath, OR, noted this volcano-clastic layer outcropping in a gravel pit within Spencer Formation siltstones on the Corvallis Fault interface. The volcano-clastic layer at the Philomath Gravel Pit supports the notion that this layer is contiguous east to the GOC exploration well location, dipping between 1 and 3 degrees to the north striking to the southwest.

Figure 2b (cross-section B-B') illustrates the Siletz River Volcanics region of the watershed. Data from nearby well logs showed unconfined, confined, perched, and compartmentalized aquifer systems within the SRV formation near the OSU Sheep Farm. Depth to water table data was more erratic as the distance from Oak Creek increased, with static water levels adjacent to the creek found near the ground surface. Static water levels decreased in elevation as the distance from the creek increased. Additionally, artesian wells near the west end of the profile (data not shown) indicated confined aquifers within the SRVs near the OSU Sheep Center and McDonald-Dunn Forest. During the dry season, the central water-bearing unit in this region appeared to be individual isolated pockets of sandstone within the SRVs.

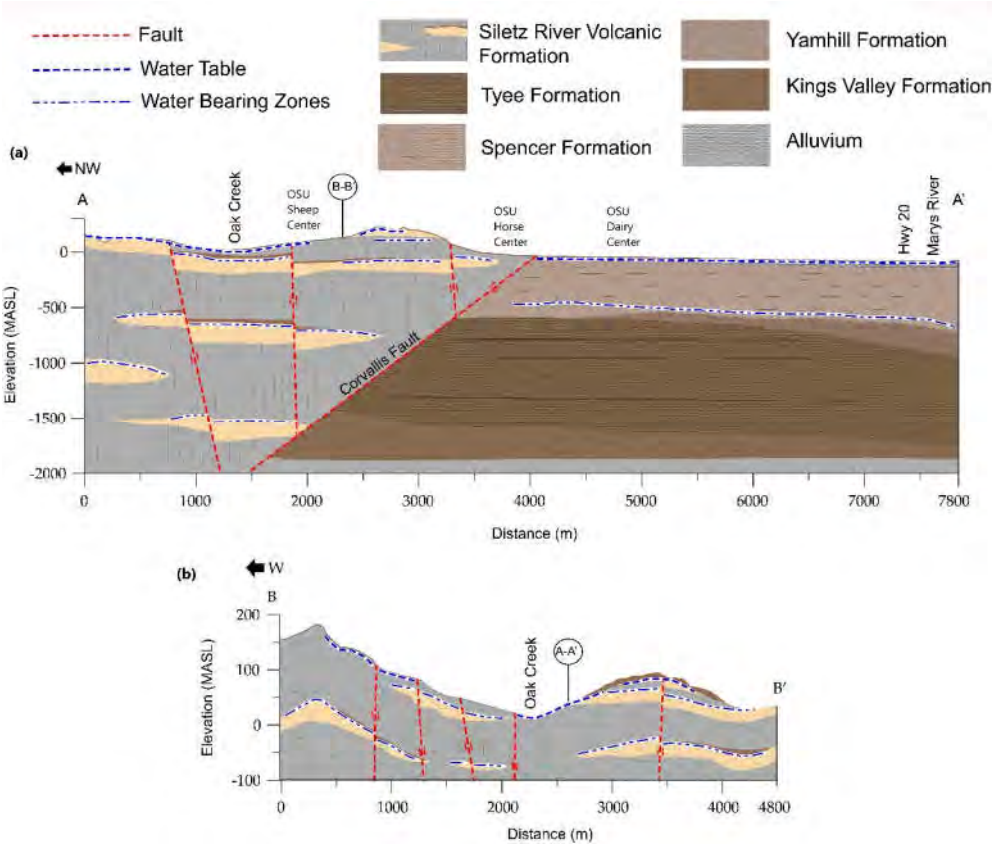


Figure 2. Geologic cross-sections of the Oak Creek Watershed. (**a**) Cross-section A-A′ (drawn to scale) runs from the headwaters of Oak Creek in McDonald-Dunn Forest, southeast to the confluence with Marys River. (**b**) Cross-section B-B′ (drawn 5× vertical exaggeration) runs from the headwaters of Oak Creek in the McDonald-Dunn Forest southeast to its confluence with Marys River.

3.1.2. Stream-Aquifer Relationships

Figure 3 shows three years (2019–2021) of seasonal water level fluctuations in the stream, the monitoring well in the riparian zone, and a well in a non-irrigated crop field at the OSU Dairy Center, in the sedimentary rock formations (see Figure 1). The well in the riparian area is 6 m north of the stream, the well in the irrigated field is 160 m north of the stream, and the well in the non-irrigated agricultural field is 90 m south of the stream. Relatively rapid rises and declines in stream level in response to rainfall events during winter and spring were observed. Groundwater levels in all wells began rising with the onset of winter precipitation, which reached its peak in January. Following the end of the rain season in the spring, groundwater levels started a steady decline, which in the non-irrigated field continued until baseflow conditions were reached in the fall. In the irrigated field, groundwater levels started rising soon after the onset of the irrigation season (July to September) and remained relatively high during the summer and fall. A slight groundwater level rise during the irrigation season was also observed in the riparian area well, located 6 m north of Oak Creek and 40 m south of the irrigated field's edge. Marginal to no summer precipitation was observed during the three years evaluated; therefore, the groundwater level rises observed in the wells in the irrigated field and riparian area were attributed to irrigation seepage and return flow to the stream, respectively. All irrigation applications were from water diverted from Oak Creek. Total water applied (irrigation depth) for the pasture field depicted in Figure 3 was 510 mm in 2020 and 670 mm in 2021. No records are available for 2019. Annual total precipitation was 871, 1004, and 1043 mm in 2019, 2020, and 2021, respectively.

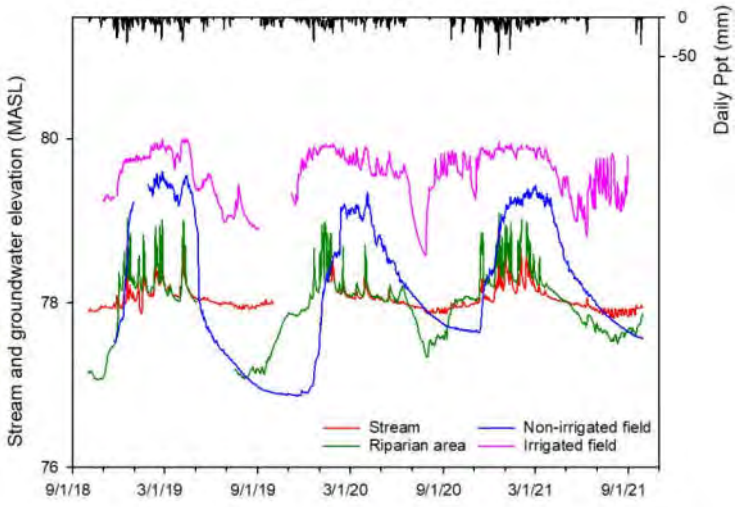


Figure 3. Seasonal surface water and shallow groundwater response to precipitation (Ppt) in three water years (2019 to 2021) at in-stream and various monitoring well locations at variable distance from Oak Creek's mainstem near the OSU Dairy Center: a well in the riparian area 6 m north of the stream, a well in an irrigated field 160 m north of the stream, and a well in a non-irrigated agricultural field 90 m south of the stream. Irrigation season is typically July to September every year. Daily Ppt records obtained from https://agsci.oregonstate.edu/hyslop-weather-station (accessed on 30 January 2022).

A closer look at stream and groundwater levels variability in the wells in irrigated, non-irrigated, and riparian areas during the 2020 irrigation season (27 July to 12 September) is shown in Figure 4. A downward groundwater level trend, typical of the transition to baseflow conditions in the summer, can be observed in all wells before the start of irrigation. While a steady decline in groundwater level occurred in the non-irrigated field during the rest of the season, the well in the irrigated field first, followed by the well in the riparian area, showed a rise in groundwater level of up to 1.18 m a few days after irrigation started. Several peak and slow decline events observed in the irrigated field well corresponded to irrigation applications. Groundwater levels for both the riparian and irrigated field wells continued higher than the non-irrigated field during the remainder of the irrigation season.

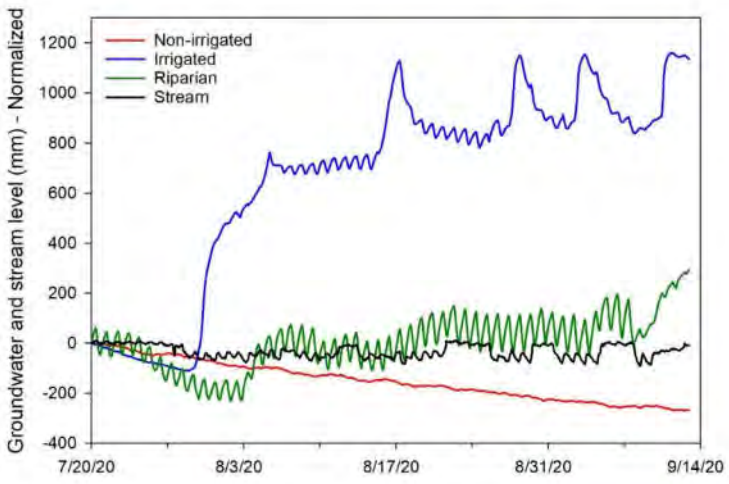


Figure 4. Stream and shallow groundwater level variability in wells at riparian, irrigated, and non-irrigated field locations during the 2020 irrigation season (27 July to 12 September).

Variable seasonal stream-aquifer interactions along non-irrigated fields in both the SRV and Sediments formations were observed. Figure 5a shows groundwater and Oak Creek levels at an upstream cross-section at the OSU Sheep Center, in the SRV rocks-dominated area of the OCW in 2021 (See Figure 1). The steep gradient between groundwater and stream levels for peak flow in the winter and baseflow in the summer indicated 'gaining' streamflow conditions. Figure 5b shows groundwater and Oak Creek levels at a downstream cross-section at the OSU Dairy Center, in the Sediments portion of the OCW. At this reach, groundwater and stream levels showed 'losing' streamflow conditions during the summer (baseflow) and 'gaining conditions' during the winter precipitation season.

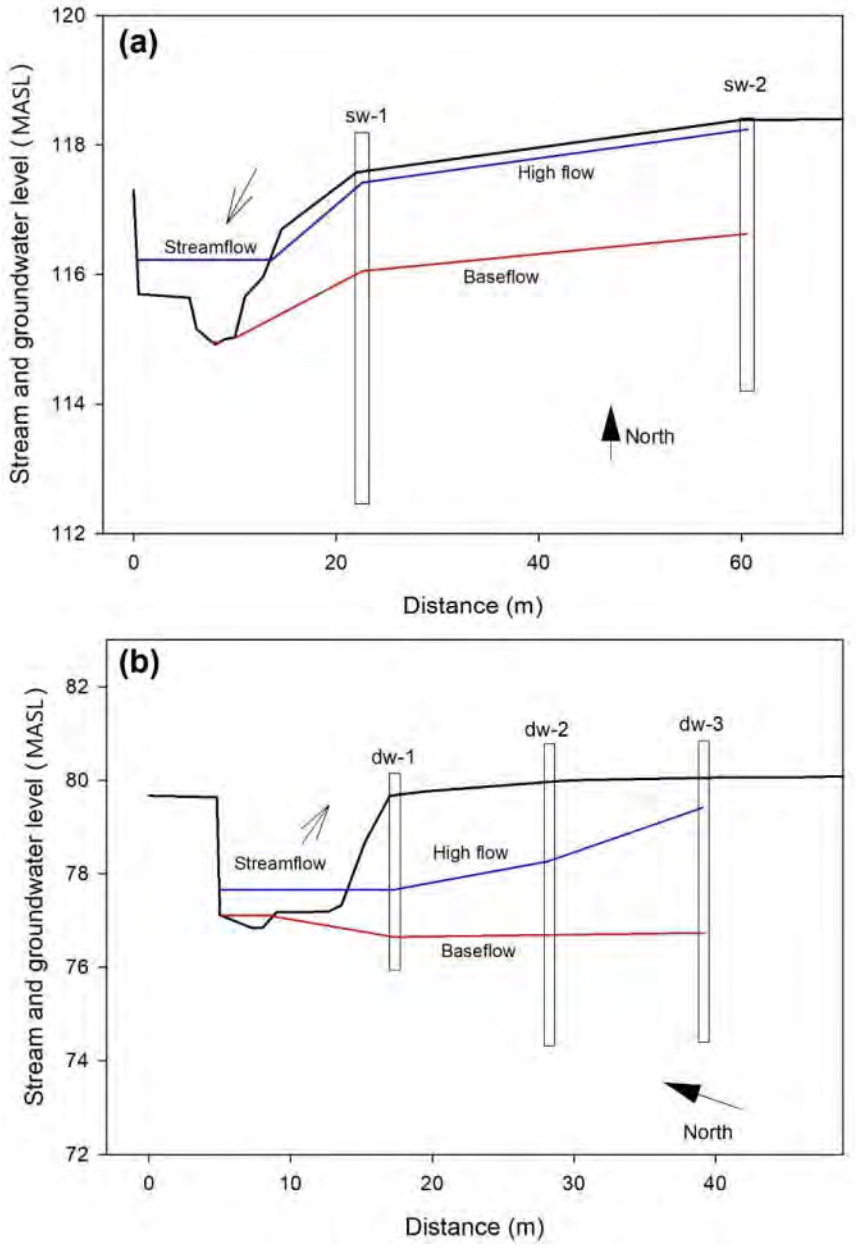


Figure 5. Surface water and groundwater levels (MASL) at baseflow (summer) and high streamflow (winter) conditions in (**a**) the Siletz River Volcanics formation at the OSU Sheep Center and (**b**) the alluvium in the Spencer formation at the OSU Dairy Center.

Data from the potentiomanometer test conducted under baseflow conditions in the summer showed that the Oak Creek streambed is losing water to the aquifer at locations upstream from the confluence with Alder Creek (see Figure 1), in the permeable fractured volcanic geology, as indicated by the negative pressure values obtained. The negative vertical hydraulic gradient gradually decreased until it reversed at approximately 3 km upstream of the Corvallis Fault, where multiple readings showed a positive slope immediately upstream of the fault. Once Oak Creek crossed the Corvallis Fault, hydraulic gradients became much less variable and maintained neutral or positive pressure conditions, as reported in [33].

3.1.3. Potentiometric Surface Map

The potentiometric surface map (Figure 6) generated from shallow static water level and surface water level data showed that the region's water table generally followed surface topography across the study area. Most of the groundwater within the OCW originated in higher elevations in the McDonald-Dunn Forest and flowed down-gradient to the south towards Oak Creek and Marys River's confluence. Water table elevation levels are 1 to 3 m higher on the northern side of the fault line and then drop significantly immediately past the fault. Once past the fault plane, water table elevations and gradients had much less variance than those of the volcanic region. In the southern region, surface topography affected water table elevations in places, but groundwater generally flows at a consistent gradient toward either the Marys River or the Willamette River.

The watershed's northern volcanic portion was characterized by downward vertical gradients that flowed from several aquicludes and aquitards, resulting in a multilayered aquifer system (see Figure 2a: Cross-Section A-A'). Water table levels in the southern sedimentary region of the watershed generally remained much more consistent, only fluctuating between 1 to 5 m throughout the year.

The Corvallis Fault lies at the boundary between the Siletz Formation and the Tyee and Spencer Formations and acts as the interface between these two opposing hydrologic zones. Potentiometric contour lines generated from OWRD well log data indicated that the fault zone acts as both a barrier and a conduit for groundwater flow through the fault interface. Impermeable zones within the fault deflect groundwater, while large fractures and truncations allow groundwater to pass. Additionally, the abrupt change in permeability between the two formations impacts groundwater paths and velocities, as fluid transfer through geologic material is much more efficient in the watershed's northern volcanic region.

Hydraulic gradients within the OCW generally mimic the topography, with groundwater circulating from higher elevations towards lower elevations in the creek channel or to the south in the basin. This is generally true down to the Corvallis Fault, where the fault's impermeable nature causes groundwater to flow parallel to the fault plane until it either finds a conduit or flows through the terminus of the fault damage zone.

Potentiometric contour lines adjacent to the fault have been altered by the change in permeability architectures and the less-permeable fault zone, which has caused them to become fragmented in places. Additionally, water table elevations in the Oak Creek basin within 1 to 2 km northwest of the fault-line have been elevated, as indicated by the area's diminutive groundwater flow gradient.

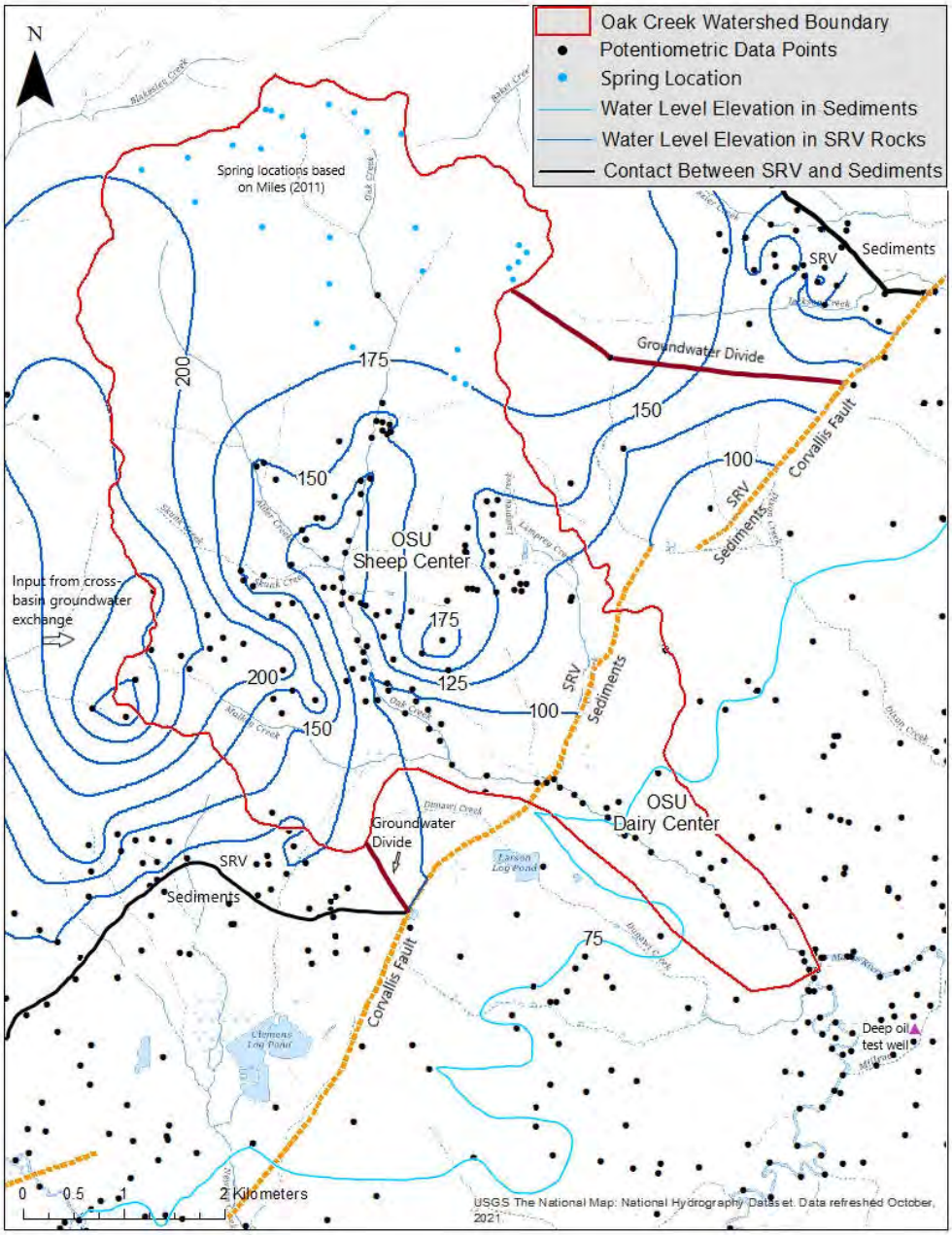


Figure 6. Potentiometric surface map of the Oak Creek Watershed and the surrounding region.

3.1.4. Conceptual Model

A conceptual (block) model, including the neighboring hydrogeologic conditions, was created to gain a three-dimensional representation of the OCW and surrounding region's hydrogeologic framework. The model developed is a synthesis of available topographic, geologic, and hydrologic data. Location, depth, and representation of geologic formations and structures were based on geologic descriptions from well logs and maps described by Goldfinger [20]. The nearby WPS and GOC deep exploration wells drilled southeast of the OCW provided data on subsurface geology structure, including lithology, potential water-bearing zones, dip and strike of geological layers, and water quality. The dip angle and distance from the exploration wells to the study area were considered when interpreting hydrogeological structure and conditions.

The Oak Creek Watershed conceptual model (Figure 7) shows that watershed hydrologic characteristics are dominated by surface topography and geology. The highly contrasting permeability architecture of the opposing geologic formations and the fault between the northern volcanic and the southern sedimentary regions influence groundwater flow through the fault interface. This groundwater compartmentalization model is consistent with other studies completed in fractured volcanic aquifers in Oregon [4,43]. Past drilling and other research data [20,30] in the OCW have indicated numerous intrusions of very low permeability volcanics throughout the region, especially along faults. The contrasting permeabilities of the northern and southern regions paired with impermeable intrusives along the fault interface have produced a zone of decreased permeability along the fault plane. As groundwater circulates hydraulically down-gradient and encounters this zone, velocities decrease, and flow is deflected along the fault strike. Groundwater gradients within the two regions of the study site are highly contrasting, with higher grades in the northern volcanic region compared to a lower grade in the southern sedimentary region. The fracture permeability, coupled with the higher surface slope in the Siletz Formation, results in a discontinuous water table with numerous perched and confined systems. In contrast, low permeability, and low gradients in the Tyee and Spencer formations of the southern region create a shallow water table circulating towards the Willamette River, which serves as a regional hydraulic sink (Figure 7).

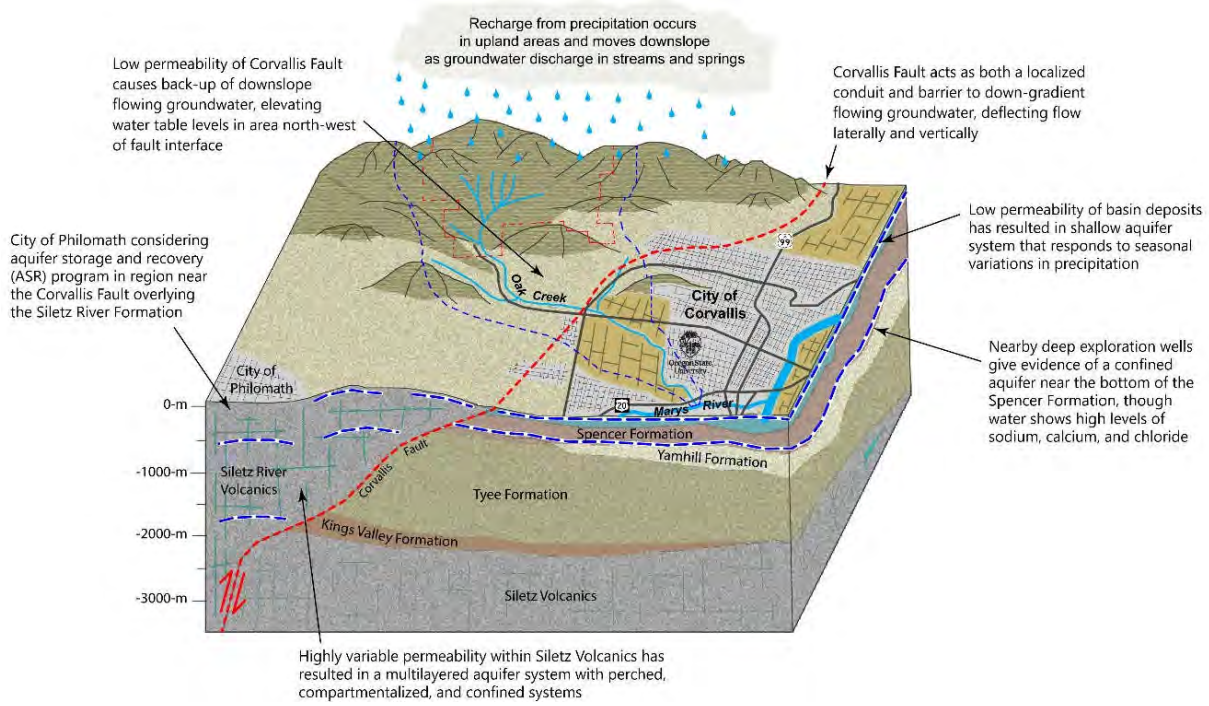


Figure 7. Conceptual model of the groundwater system of the Oak Creek Watershed and surrounding region based on a synthesis of topographic features and data from hydrologic and geologic investigations.

4. Discussion

4.1. Interaction of Geology and Hydrology

Previous sections discussed the geology and hydrology using a synthesis approach building upon rather than duplicating previous studies. Most of the physical hydrology studies summarized in this study focused on low flow conditions, given this is a time of year with competition for water use between agricultural facilities, fisheries, and rural residential land use rather than exploring the interaction of geology, direct runoff, and

baseflow. Seasonal SW-GW connections are variable and can be contrasting within short distances. Gaining conditions are prominent in the watershed's northern volcanic region and transition into neutral and losing conditions in the southern sedimentary region. As depicted in Figure 8, the upper part of the watershed is a springs basin where the SRV is composed of low permeability rock mixed with higher permeability breccia and interflow zones, similar to conditions commonly found in rock quarries. Based on areal analysis, the rocks and interflow zones dip westward due to uplift along the Corvallis Fault. Losing reaches of the incised streams are more common where the topography becomes less steep. Whether the noted stream losses can be directly attributed to a function of changes in permeability architecture is uncertain and its study goes beyond the purpose of this synthesis paper.

The middle section of the watershed constitutes a generally gaining reach of the mainstem of Oak Creek. Drainage from the overlying perched aquifer to springs discharging along the stream bank can be observed downgradient of the OSU animal research facilities. Ground-truthing through observations of water levels in shallow wells confirmed the hydraulic separation of the perched aquifer from the deeper volcanic rock aquifer. Stable isotope analyses of stream water, coupled with general water chemistry analyses, indicate mixing of surface water and groundwater in the OCW exists [44]. Reconnaissance-level stream gauging using a potentiomanometer identified isolated losing reaches [33]. Whether the losing reaches are a function of an apparent increase in intercalated low permeability sedimentary rocks or volcanic rock permeability architecture or stream capture of clusters of permit-exempt wells servicing the rural residences remains unknown without further investigations.

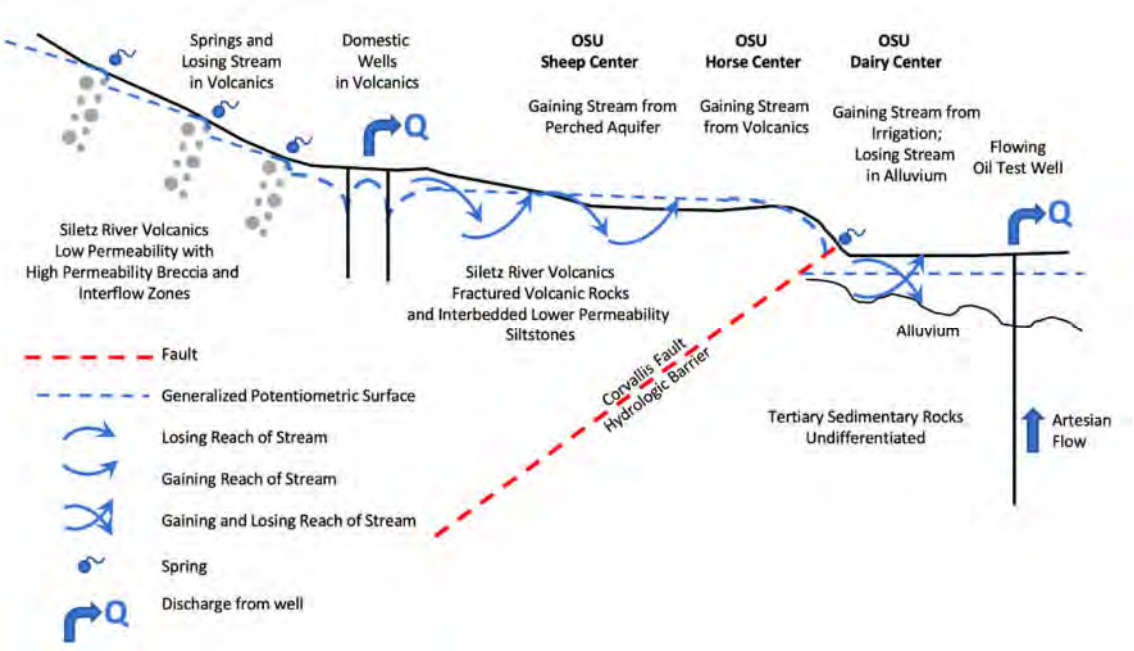


Figure 8. Summary sketch of hydrogeologic observations and interpretations. Not to scale. Generalized orientation of the section coincides with section A-A′ on Figure 1.

Study results showed that the hydrogeology of the OCW is characterized by two regions of contrasting hydrologic properties: the highly fractured and permeable Siltez Volcanic rocks in the northern region of the watershed and the low permeability sediments of the Spencer, Yamhill, and Tyee formations in the southern region. The interface between these two regions is the Corvallis Fault that serves as a hydraulic barrier to groundwater flowing downgradient from the Coastal Range to the Marys River basin to the south

and the Willamette River to the east. The Corvallis Fault severs the hydraulic continuity of the volcanic rock aquifer by juxtaposing the lower permeability sedimentary rocks to the east against the higher permeability rocks on the hanging wall of the reverse fault. The hydrologic barrier interpretation of the Corvallis Fault is corroborated by previous work that mapped the Benton County area's well function, including wells located within the OCW and SRV, Tyee, and Spencer Formations. Transmissivity, specific capacity, and total yield all increased in the Oak Creek Basin area near the Corvallis Fault [30]. These findings are consistent with the hydrogeologic framework presented in this article. As groundwater encounters the less-permeable interface of the Corvallis Fault, it backs up, increasing the amount of groundwater available for withdrawal. This results in groundwater mounding in the SRV north of the fault that contributes to the compartmentalization of the volcanic rock aquifer.

Higher variability of groundwater level exists within the Siletz Formation compared to the Tyee and Spencer formations. The potentiometric surface map developed in this study provides evidence of the northern and southern regions' opposing permeability architectures and hydraulic conductivities. Water contours in the northern region generally have a higher gradient than those in the southern region due to the volcanic rock's greater effective porosity (permeability) and hydraulic conductivity. Water moves more freely through the northern portion of the watershed, and as a result, the hydraulic gradient is steeper in the northern region compared to the southern region. The potentiometric surface map developed in this project is consistent with a groundwater map completed in the Corvallis area that stopped just east of the OCW [32]. While no wells penetrate the Corvallis Fault to confirm the hydraulic separation from west to east, the decrease in hydraulic gradient in wells tapping the sedimentary rocks to the east, coupled with the reported artesian flow from a nearby oil and gas exploration well provides first order approximations of the lack of direct hydraulic continuity across the Corvallis Fault. Irrigation of fields along the lower reach of the OCW also complicate the confident assessment of gaining and losing reaches as some of the return flows from irrigation occur along the north bank of the stream. Yet, water levels measured in shallow wells located on the south bank of the stream are unchanged during the irrigation season.

4.2. Groundwater Compartmentalization

The Corvallis Fault, coupled with complex inter-layering of sedimentary rocks and volcanic rocks and groundwater mounding, has created a groundwater compartment in the OCW. Groundwater compartments have demonstrated the suitability of Columbia River Basalts for the storage of water and gas. Mansfield [45] described a compartmentalized aquifer in northwestern Oregon for aquifer storage and recovery as an affordable alternative to above-ground storage. The Mist Gas Field, located along the Oregon coast near Astoria, Oregon, has been used since the 1980s to store natural gas in compartmentalized volcanic rocks similar to the compartment described by Mansfield, precluding the need for expensive above-ground storage facilities [46]. Harpham [43] designed an Aquifer Storage and Recovery project to repurpose a dam site in the Deschutes Basin near Tumalo, Oregon, USA where a surface water reservoir constructed on the footwall of a fault in the volcanic rocks has never held water since construction in 1915. Ringrose and Meckel [47] cite the role of fault architecture as a critical element for storage site characterization elsewhere in the world, citing a global petroleum assessment where 71% of the known hydrocarbon reserves occurred in structural (i.e., faulted) traps, as opposed to stratigraphic or other traps.

Beyond the trace of the Corvallis Fault, the outline of the OCW groundwater compartment closely coincides with watershed boundary. As depicted in Figure 6, the northern boundary is defined hydraulically by the groundwater mounding or "divide" just beyond the watershed boundary. Likewise, the aquifer compartment's southern boundary closely coincides with the watershed boundary, which is hydraulically defined by groundwater mounding or divide.

4.3. Land and Watershed Management Practices

An isotope and geochemical investigation by Johnson [44] identified a connection between agricultural land use in the middle reaches of the OCW. The preponderance of forest and agricultural use within the OCW, coupled with the related rural residences served by individual permit-exempt water wells, underscores the importance of protecting drinking water supplies, especially given that permit-exempt water wells are typically paired with onsite wastewater systems that are well known for contributing nitrates and phosphorus to groundwater [48]. While the Agricultural Improvement Act (Farm Bill) of 2018 primarily focuses on building partnerships between water utilities and agricultural producers in watersheds to limit nutrient and sediment runoff, the Conservation Partnership Programs rarely address groundwater and much less groundwater supplying drinking water derived from private wells [49].

This paradox is not unique to the Farm Bill of 2018. The Wellhead Protection and Source Water Protection Programs associated with the Safe Drinking Water Act, as amended in 1986, served as the impetus behind states to develop programs to protect groundwater supplying public water systems. However, the Wellhead Protection and Source Water Protection Programs continued to overlook protection for areas serviced by private wells. The Sole Source Aquifer program authorized by the Safe Drinking Water Act of 1974 allowed citizens to petition the Environmental Protection Agency for Sole Source Aquifer Designation when an aquifer supplies at least 50% of the drinking water for a "service area" and if there are no reasonably available alternative drinking water sources should the aquifer become contaminated. This study provides an example of the type of information needed to develop a Source Water Protection program in mixed agriculture, forestry, and rural residential land use through the Sole Source Aquifer petition process.

4.4. Framework Adds to Role of Geology and Potential Groundwater Supplies

One of the ancillary goals of the study was to evaluate the substitution for surface water supplies used by research farms that require temporary dams on Oak Creek which inhibit fish passage. The OCW study offers an unusual alignment of supplemental water needs, hydrogeologic framework that contributes to water supply options, current favorable land use for water quality protection, and aquifer compartmentalization for subsurface storage. The nearby communities of Philomath and Dallas, Oregon, USA are experiencing growth and desire to develop new groundwater supplies and underground water storage options in the same aquifers underlying the OCW. The findings of our study contribute options to supplement these and other local municipal water supplies [50] and can inform proposed aquifer storage and recovery (ASR) projects in the surrounding region. ASR is a proven technology used by many municipalities where water is injected and stored in subsurface aquifers for future extraction. Use of ASR may be possible within the volcanic rocks underlying the OSU agricultural research facilities. Comparable hydrogeologic compartmentalization of the volcanic rocks in the OCW were proven to be instrumental in ASR in the volcanic rocks underlying Warren, Oregon, USA as described by Mansfield [44].

While proximity does not guarantee viability, the OCW is located near other ASR projects utilizing the volcanic rocks for subsurface storage. Aquifer storage and recovery techniques have been shown to be successful within the volcanic rocks serving as water supplies for the City of Dallas, Oregon, USA. The Dallas ASR system is unique in Oregon because the naturally brackish groundwater found in the volcanic rocks mixes with the injected water. However, recovery of injected water has been sufficient to supplement municipal water supplies during periods of water scarcity.

The neighboring City of Philomath is also pursuing ASR for supplementing municipal drinking water supplies and has generated plans to develop two existing drinking water wells. Philomath water managers expect the ASR project to reduce water demands

on the nearby Marys River, which has experienced record low flows during the summer months. Preliminary pump tests and other performance analyses conducted on the City's wells have shown promising results.

The minimal overburden overlying the SRV in the OCW contribute to the viability of managed recharge. Likewise, constructed wetlands could be used to treat water before infiltration. The general lack of land development, except for small agricultural research facilities, research forest, and the few rural residences, make the OCW a valuable location for managed aquifer recharge.

Hydrogeological information in the OCW region is limited as deep drilling in the area has been sparse. The 650-m deep oil exploration well drilled east of the OCW encountered a sufficient water flow that well casing was installed to shut off the flow. The old well records do not report whether the water was fresh or saline, or any estimated flow rates. However, the available deep well data from nearby oil and gas exploration wells suggests that a well approaching 500 m in depth located east of the Corvallis Fault may encounter fine-grained sandstones capable of yielding sufficient water quantities to facilities located in the lower portion of the OCW, though the produced water quality remains unknown. Further investigation, including the drilling of a small diameter test hole followed by geophysical logging, would provide information on the number and thickness of the interbedded sandstones encountered in the test hole. Geophysical logging would also provide a first-order approximation of the salinity of water stored in the sandstones.

5. Conclusions

This case study contributes critical information toward enhancing understanding of local hydrogeologic features and improved groundwater resources management in areas near coastal ranges such as those found in the Pacific Northwest, USA. While this study's goal was to characterize the hydrogeologic framework within and near the Oak Creek Watershed (OCW) and enhance base knowledge of groundwater flow and aquifer fluid dynamics in the region, we were able to link this information for current and future water uses. First, the interaction of geology and hydrology are assessed with particular focus on the hydrologic role of the Corvallis Fault. The hydraulic barrier-conduit role of the fault contributes to the compartmentalization of the volcanic rock aquifer, creating two hydraulically separated groundwater compartments. The complex intrinsic and secondary permeability architecture of the volcanic rock aquifers imposed through flows and later structural geologic history link two adjacent watersheds through inter-basin groundwater flow. These findings provide an opportunity for proactive land and watershed management practices given the OCW and nearby mountainous regions are used, or are anticipated to be used, for residential and municipal drinking water supplies, either through direct capture through wells or secondary capture through managed aquifer recharge storage and recovery. Deep drilling frontiers for underutilized groundwater and aquifer storage exist, as shown by the limited hydrogeologic data reported for a smattering of past oil and gas exploration wells near the OCW.

Author Contributions: C.G.O., W.T.J. and J.H. developed the study design. J.H. conducted field data collection. All co-authors contributed to data analyses and the writing of the manuscript. All authors have read and agreed to the published version of the manuscript.

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Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

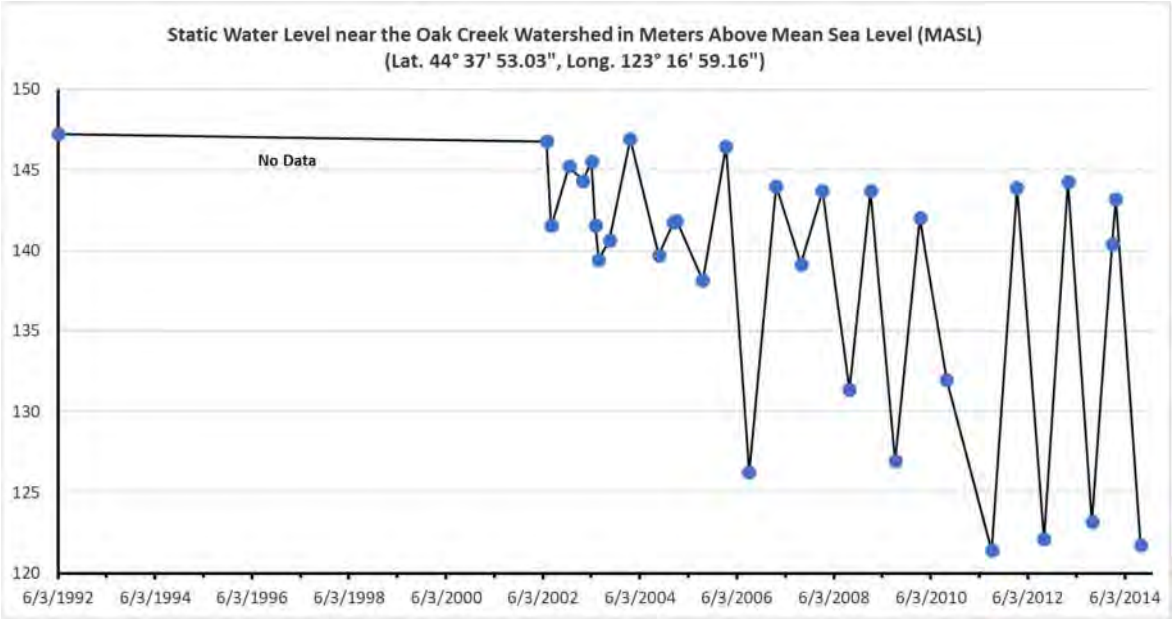


Figure A1. Example of Static Water Level Measurements at Observation Well near the Oak Creek Watershed (OCW), Corvallis, Orgon, USA. Data source (https://www.oregon.gov/owrd (accessed on 30 January 2022)).

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BY STEPHEN R. HINKLE AND DANIAL J. POLETTE

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Information regarding Oregon District activities is available at:
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Arsenic in Ground Water of the Willamette Basin, Oregon

By Stephen R. Hinkle *and* Danial J. Polette

SUMMARY AND CONCLUSIONS

Arsenic concentrations exceeding the U.S. Environmental Protection Agency (USEPA) current Maximum Contaminant Level (MCL) of 50 µg/L (micrograms per liter) are widespread in ground water in the Willamette Basin. The Oregon Water Resources Department and the U.S. Geological Survey began a cooperative study in the Willamette Basin in 1996. One goal of this study is to characterize the regional distribution of naturally occurring poor-quality ground water, such as ground water with high concentrations of arsenic. Characterization of the regional distribution of arsenic concentrations in the Willamette Basin will be useful to public health officials, water-resource managers, the medical community, and those using ground water for drinking and cooking.

The spatial distribution of arsenic concentrations in ground water of the Willamette Basin was assessed by combining historical data from 597 sites with data from 131 sites collected for this study. A total of 728 spatially distinct samples thus were available. Additional data also were collected to evaluate temporal variability of arsenic concentrations on a seasonal timescale. Samples were collected quarterly from 17 sites for 1 year for this purpose. Temporal variability was addressed for two reasons: First, characterization of temporal variability allowed evaluation of the acceptability of combining arsenic-concentration data collected during different seasons for determining the spatial distribution of arsenic concentrations. Second, knowledge of temporal variability will benefit well owners and water managers who require guidance on timing for sampling.

During the course of quarterly sampling, arsenic concentrations in water from many wells remained essentially constant, but variations of up to almost a factor of three were observed in other wells. No obvious correlation with season was apparent. Analytical accuracy, as determined from 11 standard reference samples submitted during the course of project work, generally was within ±10 percent, and always ±20 percent. Thus, analytical variability can only explain some of the observed temporal variability. One possible explanation for observed temporal variability in arsenic concentrations is that differences in the amount of pumpage prior to sampling may lead to variations in the amounts of water pumped from different sources (different aquifers or parts of aquifers), and thus, differences in water chemistry.

For a regional assessment of arsenic concentrations in ground water, where arsenic concentrations may vary in space by several orders of magnitude, the relatively smaller temporal variations such as those observed in the quarterly samples are not a significant limitation, and the aggregation of data collected at different times is justified. However, this conclusion may not necessarily apply to all investigations of arsenic concentrations in ground water. For some purposes, site-specific characterization may require characterization of temporal variability. Such characterization may require evaluation over a range of well uses and seasons.

Concentrations of arsenic in the 728 spatially distributed samples ranged from less than 1 to 2,000 µg/L. Concentrations in 58 (8.0 percent) of the samples exceeded the USEPA current MCL.

Regionally, the distribution of arsenic concentrations in ground water of the Willamette Basin appears to be primarily related to aquifer geology. High arsenic concentrations (concentrations exceeding the USEPA current MCL) are widespread in bedrock areas in south-central and eastern Lane County, and Linn County. High concentrations of arsenic also are present in some ground water in the Tualatin Basin (a subbasin in the northwestern part of the Willamette Basin). High arsenic concentrations in Lane and Linn Counties appear to be associated with two regionally extensive associations of rocks, (1) the Fisher and Eugene Formations and correlative rocks, and (2) the undifferentiated tuffaceous sedimentary rocks, tuffs, and basalt. (These rock associations are defined by Walker and MacLeod, 1991. The undifferentiated tuffaceous sedimentary rocks, tuffs, and basalt are approximately equivalent to the Little Butte Volcanic Series of Peck and others, 1964.) At land surface, these two rock associations cover 24 percent of the Willamette Basin. These associations of rocks include extensive volumes of silicic (rhyolitic) volcanic rocks, which are commonly associated with high concentrations of arsenic. High concentrations in the Tualatin Basin are associated with alluvial deposits. At a regional scale, well depth does not appear to be a useful predictor of arsenic concentration in the Willamette Basin. However, depth may be an important parameter on a local scale, particularly where wells of different depth tap aquifers in different geologic units.

Ground waters in bedrock areas in south-central and eastern Lane County, bedrock areas in Linn County, and alluvial areas in the Tualatin Basin may be more likely to yield water high in arsenic than ground water elsewhere in the basin. However, it cannot be assumed that these areas are the only areas in the basin that contain ground water with high concentrations of arsenic. Little or no data exist for many parts of the basin. Even in areas that have been sampled, geohydrologic heterogeneity makes it difficult to formulate meaningful generalizations regarding the likelihood of finding high-arsenic ground water. There is no substitute for actual sampling.

Available information, in combination with an understanding of processes known to promote arsenic mobilization, is sufficient to formulate hypotheses that explain arsenic sources and mobilization in the Willamette Basin. However, available geochemical data and interpretations are sparse. Thus, these hypotheses are preliminary, serving mainly to help direct future geochemical investigation in the Willamette Basin.

Anthropogenic sources of arsenic can be significant in some settings. Arsenical pesticides such as lead arsenate have been used in the basin, and arsenic can be released into the environment from industrial sources. However, regional patterns of arsenic occurrence in Willamette Basin ground water are not consistent with either industrial or agricultural sources of arsenic.

Naturally occurring arsenic commonly is found in a variety of solid phases. Arsenic can be a component of volcanic glass in volcanic rocks of rhyolitic to intermediate composition, adsorbed to and coprecipitated with metal oxides (especially iron oxides), adsorbed to clay-mineral surfaces, and associated with sulfide minerals and organic carbon. Examination of these potential arsenic sources for arsenic availability in the Willamette Basin apparently has never been done.

Two categories of processes largely control arsenic mobility in aquifers: (1) adsorption and desorption reactions and (2) solid-phase precipitation and dissolution reactions. Arsenic adsorption and desorption reactions are influenced by changes in pH, occurrence of redox (reduction/oxidation) reactions, presence of competing anions, and solid-phase structural changes at the atomic level. Solid-phase precipitation and dissolution reactions are controlled by solution chemistry, including pH, redox state, and chemical composition.

Several species of arsenic occur in nature, but arsenate (arsenic V) and arsenite (arsenic III) are the two forms commonly found in ground water. For this study, samples from five domestic wells were analyzed for arsenic species. Two additional analyses for arsenic species in ground water from the Willamette Basin were available in the literature. Arsenite was the predominant species of arsenic in six of these seven samples. The predominance of arsenite has both geochemical and toxicological implications. From a geochemical standpoint, mobility of arsenite differs from that of arsenate. From a public-health perspective, arsenite is more toxic than arsenate, and arsenite also is more difficult to remove from drinking-water supplies than is arsenate. Seven samples do not characterize regional arsenic speciation patterns. However, if the predominance of arsenite in Willamette Basin samples is substantiated by additional speciation work, public health officials and water managers may need to evaluate the scope of the arsenic problem with regard not only to arsenic concentrations, but also to arsenic speciation.

Existing data, including the speciation data, and published interpretations were used to establish preliminary hypotheses for the evolution of high-arsenic ground water in the Willamette Basin. For ground water in bedrock areas of Lane and Linn Counties, existing information suggests that at least some of the following controlling factors likely are important in adsorption and desorption reactions that often control arsenic mobility: (1) high pH, (2) presence of competing anions, and (3) occurrence of reducing conditions. Existing information did not allow for evaluation of the potential importance of adsorption and desorption reactions related to solid-phase structural changes at the atomic level, or solid-phase precipitation and dissolution reactions.

For alluvial ground water of the Tualatin Basin, presence of competing anions and occurrence of reducing conditions may be important controlling factors in arsenic adsorption and desorption reactions. These two factors might be more important than pH controls over arsenic adsorption and desorption. Reducing conditions and high concentrations of dissolved iron also suggest that dissolution of iron oxides, with subsequent release of adsorbed and (or) coprecipitated arsenic, may play a role in arsenic mobility in the Tualatin Basin.

Although the regional distribution of arsenic concentrations in ground water of the Willamette Basin has been evaluated by this study, an understanding of how ground water in parts of the basin evolved to contain high concentrations of arsenic has not yet been developed. Limited geochemical data have allowed establishment of preliminary hypotheses to explain the evolution of high-arsenic ground water. Developing an understanding of arsenic sources and processes responsible for evolution of high concentrations of arsenic, though, will require additional geochemical investigation. In particular, thermodynamic evaluation of ground water chemistry and study of solid phases present in aquifers would facilitate development of an understanding of adsorption and desorption and precipitation and dissolution reactions controlling arsenic mobility in the Willamette Basin. A key benefit of detailed geochemical study of arsenic in ground water of the Willamette Basin would be increased predictability of areas likely to yield ground water with high arsenic concentrations. Such increased predictability would be likely to have transfer value beyond the Willamette Basin.

INTRODUCTION

In response to increasing demands on ground-water resources in the Willamette Basin, Oregon (fig. 1), the Oregon Water Resources Department (OWRD) and the U.S. Geological Survey (USGS) began a cooperative study of the basin's ground-water resources in 1996. This study was designed to increase the current understanding of the ground-water resource, and to better characterize the distribution of naturally occurring poor-



Figure 1. Location of the Willamette Basin, Oregon.

quality ground water in the basin. Essential components of the study of the physical ground-water resource are the development of a quantitative understanding of regional ground-water availability and flow, and of ground-water/surface-water interactions. Of paramount interest in the characterization of naturally occurring poor-quality ground water in the Willamette Basin is the distribution of arsenic in ground water, the subject of this report.

Arsenic contaminates many regional aquifer systems worldwide (Cantor, 1996; Thornton, 1996), and arsenic commonly is detected in ground water of the Willamette Basin at concentrations exceeding the U.S. Environmental Protection Agency (USEPA) current drinking water Maximum Contaminant Level (MCL) of 50 µg/L (micrograms per liter) (U.S. Environmental Protection Agency, 1996). Arsenic is associated with a number of adverse effects on human health. The USEPA considers arsenic to be a human carcinogen (U.S. Environmental Protection Agency, 1996). Examples of other adverse health effects attributed to consumption of arsenic range from weakness and abdominal pain to neurological and cardiovascular problems. A review of health effects associated with consumption of arsenic is given in a report by World Health Organization (1996).

Purpose and Scope

The primary purpose of this report is to describe the spatial distribution of arsenic concentrations in ground water of the Willamette Basin. Both historical data and data collected for this study (henceforth, "project data") were used for this purpose. Project data also were used to evaluate temporal variability of arsenic concentrations. It is useful to have an understanding of temporal variability before arsenic-concentration data, collected at different times, is used to evaluate spatial distributions. Evaluation of temporal variability may also benefit well owners and water managers, who may require guidance on timing for sampling.

A secondary purpose of this report is to briefly summarize current knowledge of the geochemistry of arsenic in the Willamette Basin. Relevant geochemical data are few, so this discussion is inherently general, serving mainly to outline future research needs. Possible sources of arsenic are evaluated, and geochemical processes that may control arsenic mobilization are briefly discussed.

Location and Description of the Willamette Basin

The Willamette Basin is an approximately 12,000-square-mile basin in northwestern Oregon. Primary drainage is by the Willamette River, but for the purposes of the study, the basin is defined to also include the region drained by the Sandy River; both rivers are tributary to the Columbia River. The Willamette Basin was home to 69 percent of the State's population in 1990 (Broad and Collins, 1996).

The crests of two north-south trending mountain ranges, the Coast and the Cascade Ranges, respectively define the western and eastern edges of the Willamette Basin. The Willamette Valley, an elongated, structural and erosional lowland, lies between these mountain ranges. The Coast Range is composed of marine sedimentary rocks and associated volcanic rocks. The Cascade Range is composed of lava flows and pyroclastic and epiclastic rocks. The Willamette Valley is filled with clastic basin-fill sediments of primarily alluvial origin; these alluvial sediments form the most important aquifers in the Willamette Basin. The geologic framework of the basin is described by Gannett and Caldwell (in press), and a regional representation of the surficial geology of the Willamette Basin is given on the geologic map of Oregon compiled by Walker and MacLeod (1991). Usage of geologic names in this report is consistent with that of Walker and MacLeod (1991).

STUDY DESIGN AND METHODS

The overall approach used to collect, assemble, and analyze data for this report is described in this section. First, a description of the sources of historical data is given, followed by a description of the sampling design for project data. Approaches used to define the quality of both historical and project data are discussed, as are collection and analytical methods used for project data. Finally, benchmarks for comparison of arsenic-concentration data, and methods for identification of well locations, are described.

Historical Data

Analysis of historical data (arsenic concentrations and site locations, and in most cases, well depths) from regional ground-water investigations was the starting point for evaluation of distribution of arsenic in the Willamette Basin. Some wells were sampled more than once; in these cases, the first-in-time sample was selected. Four sets of historical data used in this report are described below.

Historical data from the USGS National Water Information System (NWIS) database (Maddy and others, 1990) (271 wells). These data were collected between 1971 and 1997 as parts of various USGS projects. Many of these projects were regional in scope, and thus these data cover large areas in the Willamette Basin. In addition to arsenic concentrations, depth data also were retrieved. Data from both unfiltered and filtered samples were found in NWIS. Some of these NWIS data are discussed in the following reports: Frank and Collins, 1978; Gonthier, 1983; Leonard and Collins, 1983; Hinkle, 1997. Project data, although stored in NWIS, are discussed separately (see section "Sampling Design for Project Data").

Data from four USGS studies (Frank, 1973, 1974, 1976; Helm and Leonard, 1977), not entered into NWIS (89 wells). These data, also from regional-scale projects, encompass large areas in the southern part of the basin. The data were collected between 1964 and 1973 by USGS personnel. Well depths were obtained from tables in the reports. Techniques used to process these samples (in particular, filtering or a lack thereof) are not known.

Data from a USGS study in Lane County, not entered into NWIS (171 wells; 1 nonthermal spring). These data were collected during 1962–63, and summarized by Goldblatt and others (1963). Many of these wells withdraw water from the arsenic-rich Fisher Formation (Goldblatt and others, 1963). Arsenic concentrations and well depths were compiled from original project notes from USGS files. Samples were collected and analyzed as unfiltered samples (A.S. Van Denburgh, U.S. Geological Survey, oral commun., 1997).

Data from Linn County Department of Health Services, Environmental Health Program (65 wells). More than 100 wells were sampled for arsenic by the Environmental Health Program in 1987. Most of these wells were located near Sweet Home, an area that received little coverage in the three regional data sets listed above. Drillers' logs were on file with the Environmental Health Program for many of these wells. In 1996, USGS personnel were able to locate 65 homes corresponding to addresses from well drillers' logs for sampled wells. Arsenic concentrations from Environmental Health Program files and well depths from well drillers' logs were matched with the home locations to create a data coverage. Samples were probably collected and analyzed as unfiltered samples.

Sampling Design for Project Data

Project data were collected for several purposes. Ground-water samples were collected to fill gaps in the spatial distribution of the historical data and to illustrate the magnitude of temporal variability in arsenic concentrations. In addition, five ground-water samples were analyzed for arsenic species. Quality-control (QC) data were collected to evaluate the quality of project data, evaluate the quality of historical data (by resampling selected historical sites), and compare results obtained by different processing and analytical methods.

Samples from 125 wells and 6 nonthermal springs were collected during 1996 and 1997 to complement the spatial distribution of historical data. The wells and springs sampled were distributed throughout the lower elevation areas of the Willamette Basin, which are areas of greatest ground-water use. These sites had not previously been sampled for arsenic by the USGS. Some wells were sampled more than once during the course of this project; in these cases, the first-in-time samples were used to define the spatial distribution of arsenic.

To evaluate temporal variability of arsenic concentrations, samples were collected quarterly for 1 year from each of 17 sites. These samples also were collected during 1996 and 1997. A subset (5) of these 17 sites were sampled for arsenic species.

QC samples were used to evaluate the quality of techniques used to collect and analyze project samples. Twelve field equipment blanks, 6 sets of triplicate split samples, and 11 standard reference samples (SRSs) were analyzed over the course of the project. Field equipment blanks allow evaluation of the extent of any sample contamination

resulting from sample collection, processing, and analysis. Replicate samples allow evaluation of the reproducibility (precision) of analyses. SRSs facilitate evaluation of analytical accuracy. The USGS SRS program, an interlaboratory testing program, is described in a report by Long and Farrar (1995). Preparation, description, and most probable values (MPVs) of constituents of individual SRSs used in this study are described by U.S. Geological Survey (1990) and Long and Farrar (1991, 1993, 1995). An MPV for an analyte is the median of the concentrations determined by the participating laboratories. Analytical results are reported as percentages of SRS-program MPVs.

Additional quality assurance included resampling 11 historical sites. Comparison between historical arsenic concentrations and concentrations determined upon resampling offers a measure of the reliability of historical data.

Comparisons between filtered and unfiltered samples, and between USGS and USEPA analytical methods, also were made. Characterization of differences in arsenic concentrations among unfiltered and filtered samples helps quantify the effect of sample filtering, and increases the transfer value of the data and interpretations presented in this report. Data from comparison of USGS and USEPA analytical methods facilitate comparison of arsenic concentrations determined by USGS methods with USEPA water-quality criteria.

Project Sample Collection Methods

Project samples from wells and springs used for evaluation of spatial distribution of arsenic were not filtered. Unfiltered samples, in addition to being more economical to collect than samples filtered through 0.45-µm (micrometer) filters, also have the advantage of being more representative of the water being consumed by most well owners. Another justification for collection of unfiltered samples is that many of the historical data, with which project data were combined, were from analyses of unfiltered samples. Furthermore, USEPA and World Health Organization (WHO) guidelines for water quality (see section "Comparisons with Water-Quality Criteria") apply to "finished water." For most project wells, which were primarily domestic wells, "finished water" generally is equivalent to unfiltered water. However, because unfiltered samples may contain more colloids and (or) more sediment entrained during pumping, unfiltered samples are less representative of water actually moving through an aquifer than are 0.45-µm-filtered samples. Thus, the use of unfiltered samples in characterization of ground-water quality represents an approximation. Additional, quantitative discussion on this topic is presented in the section, "Comparison of Processing and Analytical Methods."

Of the 125 project wells used for evaluation of spatial distribution of arsenic, 116 were actively used domestic wells. The remaining 9 wells included 3 public-water-supply wells, 3 industrial wells, 2 irrigation wells, and 1 livestock well. Of these nine wells, those that were not actively used were purged a minimum of three casing volumes prior to sampling to remove standing water from the well. Samples from actively used wells were collected following a minimum purge time of 1 minute. Longer purge times, characteristic of most USGS ground-water-quality work, were deemed unnecessary for actively used wells in this project because these wells experienced a degree of regular purging from the frequent use of the wells. A resulting limitation, however, is that samples from these wells may lose arsenic by way of adsorption to iron casing or precipitation as ground water undergoes geochemical changes while residing in a well bore or casing. Thus, arsenic concentrations in samples from these wells may be biased toward low arsenic concentrations relative to water actually moving through the aquifer. The extent of this possible bias has not been quantified, but because these wells were actively used, this potential bias is likely to be small.

Project samples collected from springs were collected from flowing springs. Fine sediment was present along with the water in several of the springs, so spring samples were filtered through 0.45-µm nominal-pore-size filters.

Project wells sampled for evaluation of temporal variability in arsenic concentrations were actively used wells, sampled using the same methods as for project wells sampled for evaluation of spatial distribution of arsenic.

Project wells sampled for arsenic speciation also were actively used wells. Samples were collected as unfiltered samples following a minimum well purge time of 1 minute. Samples were col-

lected without headspace in brown glass vials, wrapped in aluminum foil (to prevent photooxidation), and shipped on ice to the laboratory.

Eleven wells represented in the historical data set were resampled. All were actively used wells and were sampled using the same methods as for project wells sampled for evaluation of spatial distribution of arsenic.

Samples for comparison between filtered and unfiltered samples, and comparison of USGS and USEPA methods, were collected from a subset of the wells sampled for temporal variability. Each 10-liter sample was split in the field by mechanical agitation into four subsamples. One subsample was filtered through a 0.10-µm nominal-pore-size 47-mm-diameter filter. One subsample was filtered through a 0.45-µm nominal-pore-size 142-mm-diameter filter. Two subsamples were collected as unfiltered samples. For each set of the four subsamples, both of the filtered samples and one of the unfiltered samples were analyzed by USGS methods (see section "Project Analytical Methods"). The other unfiltered sample was analyzed by USEPA methods (see section "Project Analytical Methods").

All arsenic samples, except samples collected for analysis of arsenic species, were field-acidified to below pH 2 with nitric acid. Samples for analysis of arsenic species were not acidified.

Project Analytical Methods

Arsenic analyses were done at the USGS National Water Quality Laboratory (NWQL) in Arvada, Colorado. Most arsenic determinations were done by hydride atomic absorption with a 3-minute sulfuric acid and potassium persulfate digestion (Fishman and Friedman, 1989). This is the standard USGS method, and it is referred to as the "USGS method" in this report. Ten analyses were done by graphite furnace atomic absorption with a 2-hour hydrochloric acid and nitric acid digestion (U.S. Environmental Protection Agency, 1994). This method is referred to as the "USEPA method" in this report. The analytical minimum reporting level (MRL) was 1 µg/L for both methods.

Samples for arsenic speciation were analyzed by the USGS Methods Research and Development Program at the USGS NWQL. Samples were analyzed for two inorganic species, arsenite (arsenic III) and arsenate (arsenic V), and two organic species, monosodium methylarsonate (CH_3AsO_3HNa) and sodium dimethylarsinate ($(CH_3)_2AsO_2Na$). Analyses were done by direct injection high-performance liquid chromatography/hydride generation/inductively coupled plasma-mass spectrometry. Method detection limits (MDLs) were 0.2 µg/L (expressed as mass of arsenic per liter). Samples were analyzed within 48 hours of collection.

Comparisons with Water-Quality Criteria

To provide benchmarks against which arsenic-concentration data can be compared, arsenic-concentration data are compared with USEPA and WHO drinking-water standards. Concentrations of arsenic are compared to the USEPA current drinking water MCL for arsenic of 50 µg/L (U.S. Environmental Protection Agency, 1996). The USEPA current MCL is the maximum concentration of a contaminant allowed in a public water system. This MCL is under review (U.S. Environmental Protection Agency, 1996). Bagla and Kaiser (1996) report that the USEPA is considering reducing the current MCL by 90 percent. However, until any such reduction in the MCL occurs, the current MCL remains a logical benchmark for comparison. As an alternative benchmark, concentrations of arsenic also are compared to the WHO provisional guideline of 10 µg/L (World Health Organization, 1996).

Water with an arsenic concentration below the USEPA current MCL or WHO provisional guideline is not necessarily free from health risks. For example, arsenic concentrations may be below the USEPA current MCL and WHO provisional guideline, but still be greater than the USEPA drinking-water Risk-Specific-Dose Health Advisory (RSDHA) of 2 µg/L (U.S. Environmental Protection Agency, 1996). (The RSDHA is defined as the concentration of a contaminant in drinking water that is expected to result in a specified increased risk of cancer. The USEPA RSDHA for arsenic is calculated at the 1-in-10,000 cancer risk level. Consumption of water containing a contaminant at the RSDHA 1-in-10,000 risk level is expected to be associated with the following risk: a 70-kg adult drinking 2 L of such water per day for 70 years faces an increased risk of cancer of

approximately 1 in 10,000.) Furthermore, effects of arsenic consumption on human health are not uniform among different people, and no single threshold can be defined as the dividing line between "safe" and "unsafe." Comparison of arsenic data to the USEPA current MCL and WHO provisional guideline are done solely for illustrative purposes; no implication of "safety" or lack thereof is implied.

Methods of Identifying Wells

All wells discussed in this report were assigned well location names corresponding to well locations. Well locations generally were determined when the wells were first visited. Well locations were identified using the Township, Range, and Section method of land subdivision. Two methods are shown on figure 2. Most wells were identified with a system that uses nested groups of the letters A, B, C, and D for section subdivision. Prior to about 1967, wells were identified with an alternative system, using letters A through R (excluding I and O) for section subdivision. To preserve linkage to historical data sources, all wells discussed in this report are referred to by the well location names originally assigned to them. It should be noted, however, that in some cases, the original well location names do not accurately describe the true locations of the wells. To provide accurate locational and identifying information for wells discussed in this report, corrected well locations, and additional identifying information (USGS site identification number and OWRD well log identification number), are listed along with original well locations in the

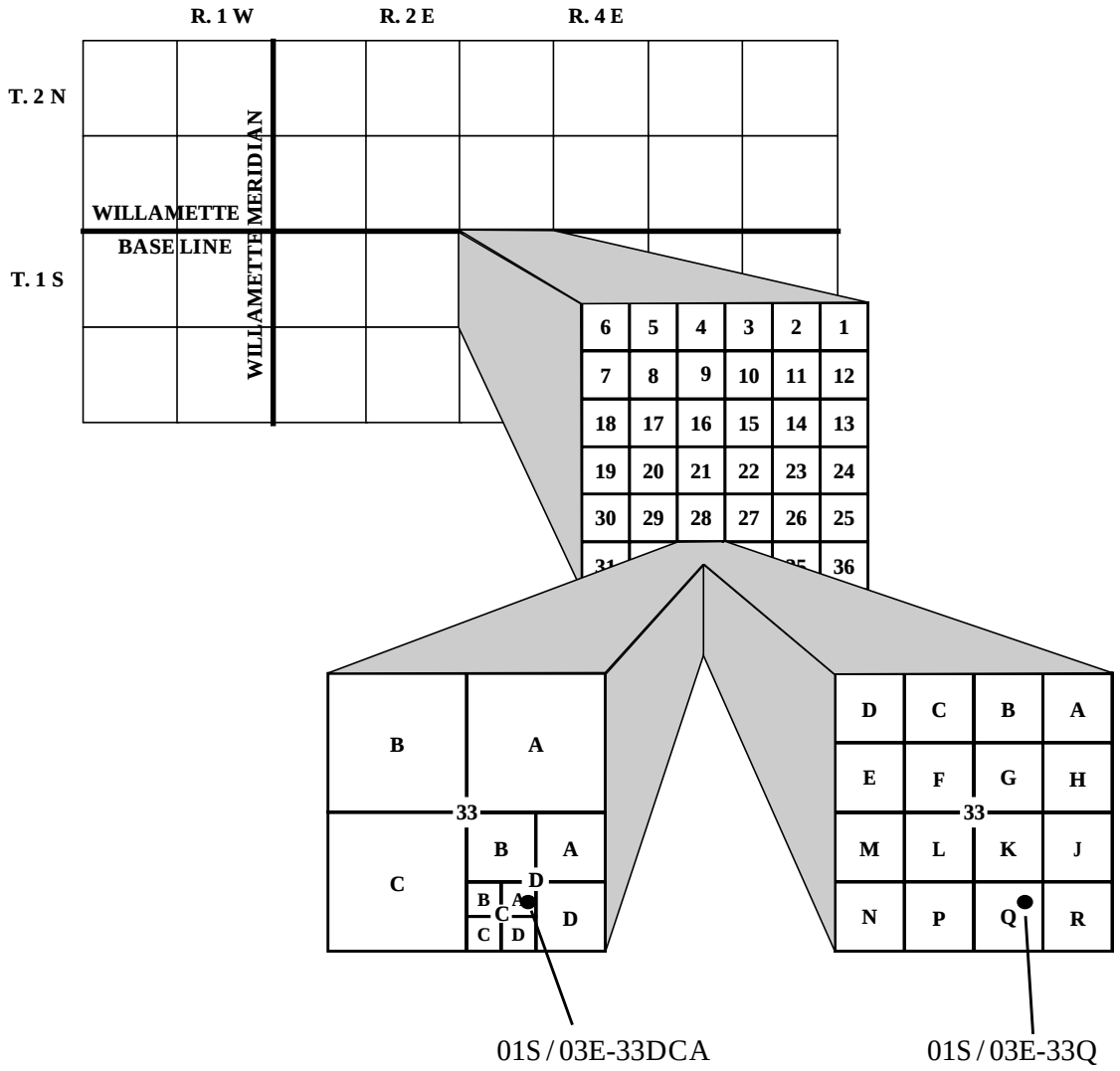


Figure 2. Well-location system.

Appendix. Note that in the project data report (Orzol and others, in press), wells are listed by corrected well location names.

DATA QUALITY: SAMPLING AND ANALYTICAL VARIABILITY VERSUS ENVIRONMENTAL VARIABILITY

In this section, project QC data are evaluated to characterize sampling and analytical variability. Sampling and analytical variability must be evaluated before environmental variability can be addressed. Three sets of QC data were collected as part of project data-collection activities. First, sampling and analytical variability of project data are evaluated. Second, the quality of historical data is discussed. Evaluation of historical data is difficult because few historical quality-control data are available. However, resampling of historically sampled sites provides insight into the quality of the historical data. Third, a comparison of sample processing and analytical methods is presented; these data illustrate the magnitude of the differences that can arise from use of various sample processing and analytical methods.

Quality of Project Data

All 12 project field equipment blanks yielded arsenic concentrations below the MRL of 1 µg/L. These results indicate that field and laboratory methods were noncontaminating.

The coefficient of variation (CV) (standard deviation divided by mean, expressed in percent) for each of the six sets of project triplicate split samples ranged from 0.0 to 14 percent. The median CV was 6.0 percent.

Analytical accuracy of project data was quantified with data from 11 SRSs. Analytical accuracy ranged from 92 to 110 percent for nine of the SRSs, but was 82 and 120 percent for the other two SRSs. In other words, reported concentrations were in error by up to about ±20 percent.

Contamination-free sampling and analysis, and reasonable analytical precision and accuracy, indicate that project data were adequate for definition of patterns of regional arsenic occurrence. However, because analytical accuracy was observed to range up to about ±20 percent, definitive characterization of temporal variability at individual sites is compromised where temporal variability also is on the order of ±20 percent or less.

Quality of Historical Data

The quality of project data is well characterized, so comparison of project and historical arsenic concentrations yields a measure of the quality of the historical data. Evaluation of the analytical accuracy of historical data is particularly desirable. However, arsenic concentrations determined in original studies and determined again during this study may differ for a variety of reasons unrelated to differences in data quality. Notably, differences between historical arsenic concentrations and arsenic concentrations determined from sampling during this project may reflect changes in the source of water being sampled at different times. Changes in the source of water being sampled can arise for a number of reasons. Ground-water flowpaths in aquifers can change over seasonal or longer time scales. Also, water often flows into wells from more than one permeable zone, and the relative contributions from different zones can change as pumping stresses change. Thus, changes in type of well use (for example, change from domestic use to lawn-watering use) or differences in the history of well use prior to sampling can result in changes in the source of water being withdrawn from wells. Finally, changes in well construction or well characteristics (for example, well cave-in over time) can result in changes in source water for wells. (Note, however, that none of the 11 wells were known to have been deepened between the time of historical sampling and the time of project resampling.) In addition to changes in source water to wells, variability in arsenic concentrations can arise from differences in sample processing prior to analysis, or, especially in the case of unfiltered samples, differences in the amount of colloid- or sediment-bound arsenic. Therefore, an absence of strong correlation between historical and project arsenic concentrations is not necessarily cause for rejection of the historical data. Because differences between historical and project data can arise from a number of factors in addition to differences in data quality, the central purpose for which the resampling data were collected was to determine if the magnitudes of the historical data are adequate

for definition of patterns of regional arsenic occurrence.

Data from the 11 sites with historical data that were resampled are presented in table 1. Differences between historical and project data are variable. For example, a difference of less than 10 percent was observed for well 19S/03W-31E1, whereas an order-of-magnitude difference was observed for well 22S/03W-17N. However, historical and project arsenic concentrations were in agreement when interpreted relative to exceedances of the USEPA current MCL. Sites at which historical arsenic concentrations exceeded the USEPA current MCL also yielded water exceeding the USEPA current MCL upon sampling during this project, and sites at which historical arsenic concentrations were less than the USEPA current MCL also yielded water below the USEPA current MCL upon sampling during this project. The historical data therefore indicate a similar pattern of spatial variability of arsenic concentrations as the project data.

Closer examination of these data indicates that data from the early 1960s generally correlate poorly with project data, whereas later data demonstrate reasonably good correlation. This pattern may reflect improvements in analytical techniques since the early 1960s.

Because two historical samples dating from the mid- to late-1960s (wells 12S/01W-29N1 and 18S/04W-14ACB) had both arsenic and chloride data, these sites were sampled for chloride as well as arsenic during project sampling (table 1). For well 12S/01W-29N1, both the arsenic and chloride concentrations were slightly lower upon project sampling: the arsenic concentration upon project sampling was 86 percent of the historical concentration, and the chloride concentration, 88 percent of the historical concentration. For well 18S/04W-14ACB, both the arsenic and the chloride concentrations were considerably lower upon project sampling: the arsenic concentration upon project sampling was 60 percent of the historical concentration, and the chloride concentration, 33 percent of the historical concentration. Historical chloride concentrations would be expected to be reliable, and would have been negligibly affected by sample processing or the presence of colloids and sediment. Thus, the changes in chloride concentrations suggest that changes in the source of water being pumped by these two wells have occurred over time. If historical chloride concentrations had been similar to project chloride concentrations, then the historical arsenic analyses might be suspect. However, differences in chloride concentrations between historical and project sampling suggest that differences in arsenic concentrations between historical and project sampling were a result, at least in part, of changes in the source of water being pumped by these wells.

Comparison of historical arsenic concentrations and arsenic concentrations determined upon project sampling indicate that historical arsenic concentrations will not necessarily reflect current arsenic concentrations. Use of historical data in process-oriented geochemical studies could be problematic. However, the comparison does

Table 1. Comparison of historical arsenic concentrations with arsenic concentrations measured during this project
[Well location as recorded in original data source; arsenic concentrations in micrograms per liter; "--", unknown]

		Historical data		Project resampling	
Source for historical data	Well location	Date	Arsenic concentration	Date	Arsenic concentration
USGS files; Goldblatt and others, 1963	18S/04W-22B	10/04/62	160	08/20/97	820
USGS files; Goldblatt and others, 1963	18S/04W-10D	10/17/62	120	08/20/97	520
USGS files; Goldblatt and others, 1963	22S/03W-17N	10/25/62	32	09/05/96	3
USGS files; Goldblatt and others, 1963	19S/03W-11E2	01/08/63	420	11/13/96	700
USGS files; Goldblatt and others, 1963	19S/03W-31E1	03/29/63	120	11/13/96	130
Frank, F.J., 1973	18S/04W-14ACB	06/12/69	500[a]	09/06/96	300[b]
Helm and Leonard, 1977	12S/01W-29N1	06/24/65	70[c]	08/29/96	60[d]
Linn County Dept. of Health Services	13S/01E-33	--/--/87	10	09/06/96	4
Linn County Dept. of Health Services	14S/01E-05	--/--/87	74	09/06/96	89
Linn County Dept. of Health Services	13S/01E-33AC	04/09/87	900	09/06/96	790
Linn County Dept. of Health Services	13S/01E-35	07/06/87	<5	09/06/96	3

[a]Chloride concentration 43 milligrams per liter.
[b]Chloride concentration 14 milligrams per liter.
[c]Chloride concentration 26 milligrams per liter.
[d]Chloride concentration 23 milligrams per liter.

suggest that the historical data are adequate for definition of patterns of regional arsenic occurrence.

Comparison of Processing and Analytical Methods

Hydrologists employ a variety of sample processing and analytical methods in geochemical and water-quality studies. Samples may be collected as unfiltered or as filtered samples. Filtering may be done using any of a variety of pore sizes, but 0.10-µm and 0.45-µm pore sizes are most commonly used. Analysis of arsenic usually is done using either hydride atomic absorption (commonly used by the USGS) or by graphite furnace atomic absorption (commonly used by the USEPA).

When combining data collected by a number of investigators using a variety of sample processing and analytical methods, questions about the comparability of data arise. Furthermore, comparison of analyses performed using non-USEPA analytical methods against USEPA water-quality criteria raises questions about comparability of analytical techniques. Information on comparability of different sample processing and analytical methods is given in this section. Data from split samples that were (1) filtered through 0.10-µm nominal-pore-size filters and analyzed by hydride atomic absorption, (2) filtered through 0.45-µm nominal-pore-size filters and analyzed by hydride atomic absorption, (3) analyzed as unfiltered samples using hydride atomic absorption, and (4) analyzed as unfiltered samples using graphite furnace atomic absorption are shown in table 2 and on figure 3.

Differences in reported arsenic concentrations between unfiltered and filtered samples generally were small. However, one set of samples (from well 21S/03E-08CBD2) demonstrated that concentrations of arsenic in unfiltered samples can be considerably greater (factor of three) than those in filtered samples. Differences between unfiltered and filtered samples may result from differences in the amount of colloid- or sediment-associated arsenic in the samples. Concentrations in both the unfiltered and the filtered samples from this site were greater than the USEPA current MCL, so interpretation was not affected significantly. However, interpretation of data from other sites could conceivably be affected by such differences between unfiltered and filtered samples and investigators will need to bear such potential differences in mind. Overall, however, combining filtered and unfiltered samples appears to be acceptable for definition of patterns of regional arsenic occurrence.

Differences in reported arsenic concentrations between the two analytical methods were small. Arsenic concentrations reported for samples analyzed by the USEPA method were slightly higher than those analyzed by the USGS method. These differences could be a result of differences in analytical methods. The longer digestion associated with the USEPA method could result in differences in reported arsenic concentrations. Different reagents used in sample digestion in the two methods also could result in differences in reported arsenic concentrations. However, the observed differences also could simply represent analytical variability.

Table 2. Comparison of arsenic concentrations for various processing and analytical methods

[USGS, U.S. Geological Survey; USEPA, U.S. Environmental Protection Agency; arsenic concentrations in micrograms per liter; processing and analytical methods described in text]

Well location	Filtered, 0.10-micrometer filter	Filtered, 0.45-micrometer filter	Unfiltered (USGS method)	Unfiltered (USEPA method)
01N/03W-04CCC	54	57	53	64
01N/03W-07CCD1	17	17	16	22
01N/03W-15ADB1	47	47	53	60
01S/03W-10BCA1	55	57	59	64
02S/02W-11CCD1	16	16	20	24
15S/01W-23CCA	18	18	18	21
17S/01W-24DCA	70	75	70	82
19S/01W-03ADB	41	43	40	46
21S/03E-08CBD2	62	64	180	180
18S/04W-14BBA	1,100	1,100	1,100	1,200

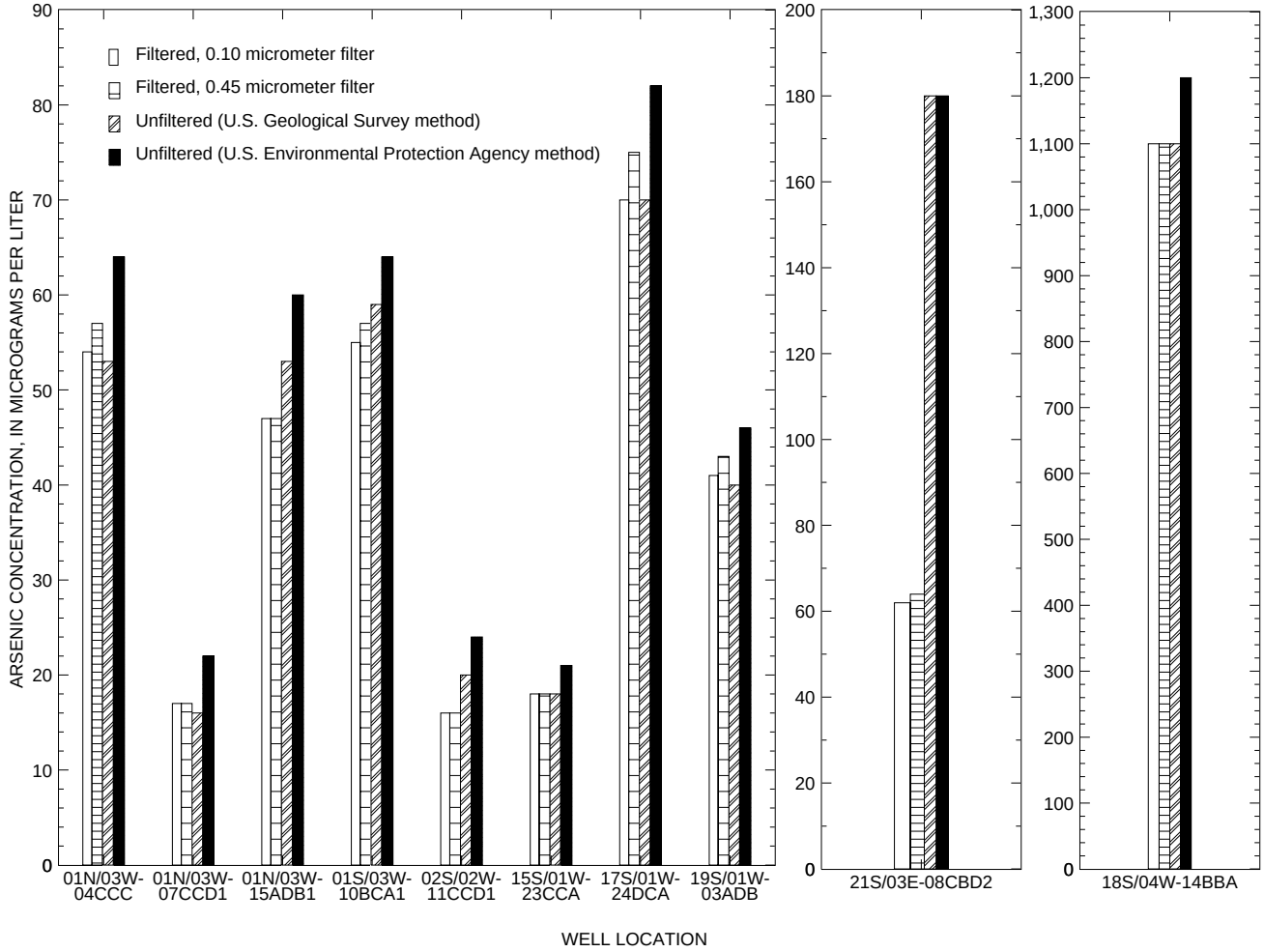


Figure 3. Comparison of arsenic concentrations determined by various processing and analytical methods.

DISTRIBUTION OF ARSENIC

The distribution of arsenic in ground water of the Willamette Basin is discussed in terms of temporal and spatial variability. First, project data are used to assess temporal variability. It is useful to assess temporal variability before arsenic-concentration data collected at different times is used to evaluate spatial distribution. Also, assessment of temporal variability should benefit well owners and water managers who desire guidance on when to sample for arsenic. Second, historical and project data are used to define spatial variability of arsenic concentrations in ground water in the Willamette Basin.

Temporal Variability

Project data were used to evaluate temporal variability of arsenic concentrations in ground water during a 1-year period. These data help characterize variability resulting from seasonal and other short- to medium-term factors. Characterization of temporal variability in arsenic concentrations over longer periods of time was not explicitly done, but long-term variability was discussed qualitatively in a previous section of this report, “Quality of Historical Data.”

Arsenic concentrations measured quarterly over a period of 1 year at 17 sites are given in table 3 and shown on figure 4. Field-measured specific conductance, a surrogate for dissolved solids, also is given in table 3. Arsenic concentrations did exhibit temporal variability. Although arsenic concentrations in water from many wells remained essentially constant over the course of sampling, concentrations at some sites varied by up to almost ±50 percent from mean concentrations, and arsenic concentrations in samples from well 19S/01W-

Table 3. Temporal variations in arsenic concentrations and specific conductance

["As", arsenic concentration in µg/L (micrograms per liter); "SC", field-measured specific conductance in µS/cm (microsiemens per centimeter) at 25 degrees Celsius; "--", not measured]

Well location	Date	As	SC	Date	As	SC	Date	As	SC	Date	As	SC	Date	As	SC
01N/03W-04CCC	11/21/96	53	587	02/20/97	52	585	05/15/97	82	496	08/19/97	97	522	12/05/97	72	616
01N/03W-07CCD1	11/19/96	16	345	02/20/97	17	357	05/15/97	19	345	08/19/97	26	314	12/05/97	18	345
01N/03W-15ADB1	11/21/96	53	1,220	02/20/97	47	1,300	05/15/97	64	1,390	08/19/97	63	1,500	12/05/97	52	1,450
01S/02W-29DBD	11/12/96	33	--	02/20/97	28	194	05/15/97	35	193	08/19/97	41	195	12/05/97	29	192
01S/02W-33BBA	11/12/96	12	--	02/20/97	10	274	05/15/97	12	272	08/19/97	13	275	12/05/97	12	274
01S/03W-10BCA1	11/19/96	59	341	02/20/97	52	340	05/15/97	62	339	08/19/97	56	339	12/05/97	56	341
02S/02W-11CCD1	11/19/96	20	335	02/20/97	16	335	05/15/97	18	334	08/19/97	19	336	12/05/97	18	336
15S/01W-23CCA	08/14/96	19	268	11/15/96	18	263	02/18/97	19	261	05/13/97	17	262	08/20/97	19	262
15S/01W-23CCC2	08/14/96	11	164	11/15/96	11	167	02/18/97	10	163	05/13/97	9	161	08/20/97	12	164
17S/01W-24DCA	09/06/96	85	194	11/15/96	70	198	02/19/97	74	195	05/13/97	84	191	08/21/97	69	193
18S/04W-14ACA	09/05/96	9	319	11/14/96	6	293	02/18/97	5	253	05/14/97	6	250	08/21/97	10	320
18S/04W-14BBA	09/04/96	830	1,040	11/15/96	1,100	1,070	02/20/97	640	797	[a]	[a]	[a]	08/20/97	1,100	1,060
19S/01W-03ADB	09/04/96	15	188	11/14/96	40	329	02/18/97	23	193	05/13/97	33	237	08/21/97	28	205
19S/03W-11E2	11/13/96	700	389	02/19/97	710	393	05/14/97	740	396	08/20/97	850	391	12/04/97	800	390
19S/03W-31E1	11/13/96	130	295	02/19/97	130	295	05/14/97	140	291	08/20/97	130	285	12/04/97	130	292
21S/03E-08CBD2	09/05/96	140	1,590	11/14/96	180	1,460	02/18/97	130	1,120	05/13/97	100	1090	09/04/97	69	1,450
22S/03W-17N	09/05/96	3	298	11/13/96	3	292	02/19/97	4	276	05/14/97	4	295	09/04/97	4	381

[a]Four samples within 37 hours:
05/13/97 at 7 p.m., As, 1100 µg/L; SC, 1090 µS/cm
05/14/97 at 10 a.m., As, 810 µg/L; SC, 952 µS/cm
05/14/97 at 8 p.m., As, 880 µg/L; SC, 809 µS/cm
05/15/97 at 8 a.m., As, 600 µg/L; SC, 877 µS/cm.

03ADB varied by a factor of 2.7 between the lowest and highest concentrations. The data as a whole demonstrate no obvious correlation with seasons. Analytical variability may be responsible for some of the observed variability, but can only explain up to about ±20-percent variation among samples. Differences in arsenic concentrations also could be due, in part, to temporally varying amounts of colloid- or sediment-bound arsenic. However, 10 of the 17 wells used for quarterly sampling also were used in the comparison of unfiltered and filtered samples. The resulting data showed little colloid- or sediment-bound arsenic present in samples from those wells at that time, except for well 21S/03E-08CBD2. Clearly, other factors are responsible for some of the observed temporal variability in arsenic concentrations.

It is likely that temporal variability in project data reflects variation in contributing sources of water to wells, and in the absence of seasonal patterns in temporal data, variation in contributing sources to wells is probably largely due to short-term (hour-to-hour or day-to-day) variations in well use prior to sampling. Relatively heavy well use can temporarily deplete water from parts of an aquifer adjacent to the well, and thus the well can yield water of different chemical quality than when sampled after a period of relatively light use. Two pieces of evidence suggest that some of the 17 wells sampled for temporal variability yield water from different sources at different times, although a relation between differences in contributing sources to wells and differences in well use remains only a hypothesis. One piece of evidence for changing water sources to wells lies in the specific conductance data. Specific conductance generally was less variable in samples where arsenic concentrations were less variable (table 3). Furthermore, specific conductance had the greatest relative temporal variability for water from well 19S/01W-03ADB; the same site also had the greatest relative temporal variability in arsenic concentrations (table 3). Because large changes in the chemistry of individual bodies of ground water generally take place over a period of years, it is difficult to explain large seasonal changes in specific conductance of well water by processes other than changing water sources to wells. A second piece of evidence suggesting changing water sources to wells is derived from examination of data from well 18S/04W-14BBA. Maximum and minimum arsenic concentrations in samples from this site varied by nearly a factor of two over the course of a year. At this site, some additional temporal sampling was conducted. Four samples were collected over one 37-hour period. The observed variability during a

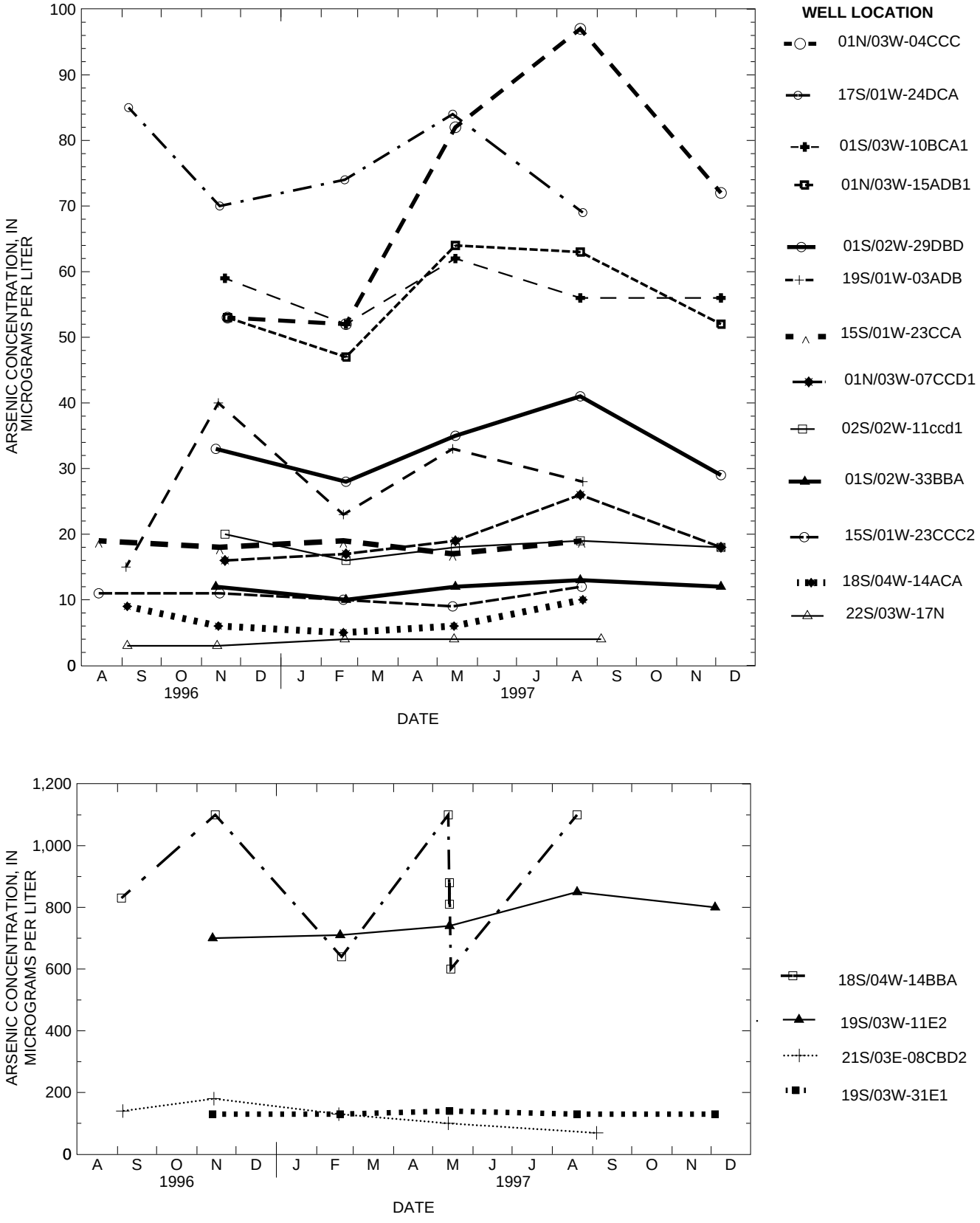


Figure 4. Temporal variations in arsenic concentrations.

37-hour period was as great as the variability observed during the course of a year (table 3, fig. 4). Such variability over the course of 37 hours cannot be ascribed to seasonal factors.

Certainly, a relationship between arsenic concentrations and well use prior to sampling remains only a hypothesis. But regardless of the processes resulting in the observed temporal variability, the data demonstrate that short-term variability in arsenic concentrations can be similar in magnitude to variability observed during the course of quarterly sampling.

The temporal variability of the project data (less than a factor of three) contrasts greatly with temporal variability in arsenic concentrations reported by Nadakavukaren and others (1984) for some wells in Lane County in the southern part of the Willamette Basin. Nadakavukaren and others (1984) reported temporal variability of up to about three orders of magnitude over the course of a year for some of the 14 wells sampled. Such variability is intriguing, because temporal variability of this magnitude in ground-water chemistry at individual sites is unusual.

Nadakavukaren and others (1984) noted that arsenic concentrations often were low (relative to mean concentrations) during the winter (rainy) season. However, they also reported that equally low concentrations were observed during other seasons, including the summer (dry) season, at several sites. Thus, although they observed temporal variability in arsenic concentrations, Nadakavukaren and others (1984) reported that they were unable to relate temporal variability to environmental factors. Unfortunately, sample-collection procedures were not defined in the paper. One aspect of the data not discussed in the original paper, but that may have significant bearing on interpretation of temporal variability, is that most of the wells sampled were irrigation wells. Irrigation wells tend to be unused during the rainy season, and frequently remain idle for long periods during other parts of the year. Recall that it was proposed that temporal variability of project data was related, at least in part, to well use prior to sampling, and recall, also, that project wells either were actively used domestic wells or were sampled after purging three well-bore volumes. It is possible that the extreme variability in arsenic concentrations reported by Nadakavukaren and others (1984) could be related to previous well use (or lack of well use), especially if the wells were not purged prior to sampling. Certainly, the use of irrigation wells for most of the work presented by Nadakavukaren and others (1984), and the absence of documentation of well-purging criteria, make interpretation of their temporal data difficult. Data of Nadakavukaren and others (1984) suggest that caution be applied when using historical data for which both well-use and well-purging information are unavailable.

The absence of seasonal trends in project data suggests that data collected at different times in the Willamette Basin can be combined for use in definition of spatial variability in arsenic concentrations. However, data of Nadakavukaren and others (1984), although difficult to interpret, suggest that historical data for which the history of well use and well purging are unknown may not always be sufficient for site-specific characterization. Thus, although temporal variability is not likely to be a significant problem for a regional evaluation of ground-water arsenic concentrations, the quality of historical data should be evaluated. Most of the historical data compiled for use in this report were from samples collected by USGS personnel. The remainder of the data (from Linn County Department of Health Services, Environmental Health Program) were collected from domestic wells, which presumably were actively used wells. USGS protocols have long required (at least as far back as 1960; Rainwater and Thatcher, 1960) that ground-water samples be collected from purged or actively used wells. Thus, from a standpoint of well use/well purging, the historical data used in this report are believed to be of adequate quality for a regional assessment of arsenic concentrations in ground water. Resampling of selected wells represented in the historical data supports this assumption, as was shown in the section “Quality of Historical Data.”

Spatial Distribution

Historical and project data were combined and used to evaluate the spatial distribution of arsenic concentrations in ground water of the Willamette Basin. A total of 728 spatially distinct samples thus were available—597 historical and 131 project samples. Of these 728 samples, 721 were from wells, and 7 were from nonthermal springs. These data are available in digital format

(CD-ROM) in a separate data report (Orzol and others, in press).

Concentrations of arsenic in the 728 samples ranged from < 1 to 2,000 µg/L. A histogram of these data is shown on figure 5. Concentrations in 58 samples (8.0 percent) exceeded the USEPA current MCL (50 µg/L), and 158 (21.7 percent) exceeded the WHO provisional guideline (10 µg/L). The 728 samples were not randomly distributed throughout the basin, so it does not follow that 8 percent of all wells in the basin will exceed the USEPA current MCL. Furthermore, because some of the data (in particular, data of Goldblatt and others, 1963, and data from Linn County Department of Health Services) were collected to address suspected arsenic problems, the cumulative data set contains a bias towards high arsenic concentrations (exceeding the USEPA current MCL). The data do, however, indicate the existence of extensive bodies of high-arsenic ground water in the basin.

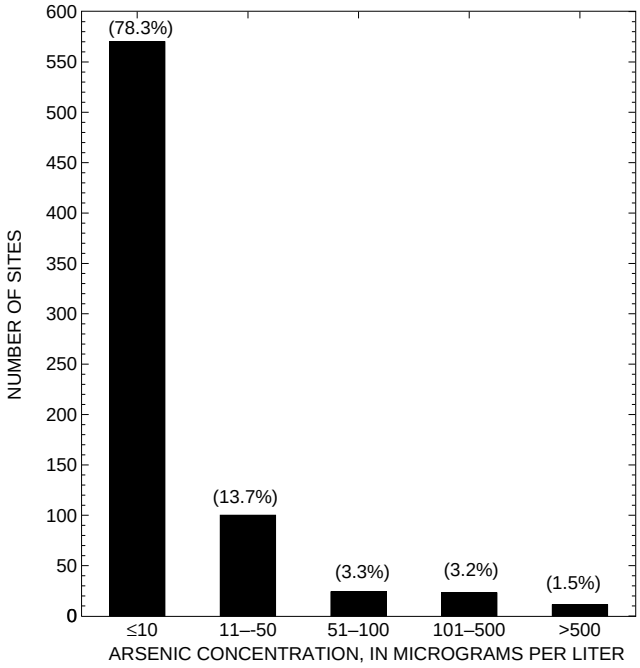


Figure 5. Arsenic concentrations for sites sampled in the Willamette Basin, Oregon. (Number in parentheses is percentage of the total number of sites.)

Depth data were available for 651 of the 728 sites. The relation of arsenic concentration to depth is shown on figure 6. Data from springs were included on this figure; springs were assigned a "well depth" of zero. (For plotting purposes, censored data [concentrations below reporting levels] were arbitrarily plotted at one-half of the reporting

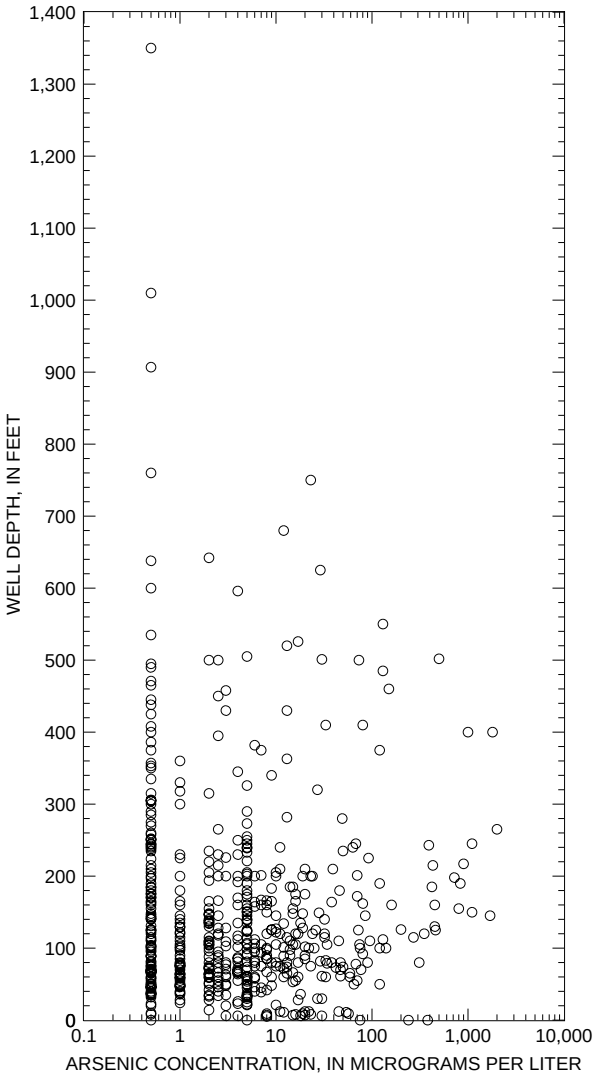


Figure 6. Relation of arsenic concentration to well depth. (Data from six springs also are included; "well depth" is set to zero for springs.)

levels. Censoring occurred at three concentration levels: 1, 5, and 10 µg/L.) No obvious relation of arsenic concentration to well depth was observed. On a regional scale, depth does not appear to be a useful parameter for predicting arsenic concentrations. However, depth may be an important parameter on a local scale.

The spatial distribution of arsenic concentrations is shown on plate 1. Patterns of arsenic occurrence are apparent. Most (53) of the 58 samples with high concentrations of arsenic came from wells and springs in bedrock areas (areas where bedrock is exposed at land surface or is covered by thin layers of alluvium) in south-central and eastern Lane County, and Linn County (pl. 1). The remain-

ing 5 (of the 58) samples came from wells near the center of the Tualatin Basin in Washington County (northwestern part of the Willamette Basin) (pl. 1). These five wells produce water from alluvial deposits. Not only were most of the 58 occurrences of high arsenic concentrations in Lane and Linn Counties, but the highest concentrations also were found there. Arsenic concentrations ranged up to 2,000 µg/L in Lane and Linn Counties, and six samples contained ≥1,000 µg/L. In contrast, the maximum concentration of arsenic in the Tualatin Basin, 77 µg/L, was substantially smaller than many of the concentrations found in Lane and Linn Counties, although still a concentration of considerable concern.

All five exceedances of the USEPA current MCL in the Tualatin Basin were from filtered samples. Many of the exceedances of the USEPA current MCL in Lane and Linn Counties were from unfiltered samples, but concentrations in filtered samples from that part of the Willamette Basin have been observed to exceed 1,000 µg/L. Because filtered samples generally contain primarily dissolved constituents, the presence of high concentrations of arsenic in filtered samples suggests that geochemical conditions can be favorable for development of high dissolved-arsenic concentrations both in the Tualatin Basin and in bedrock areas of Lane and Linn Counties.

Intermediate arsenic concentrations (>10 µg/L and ≤ 50 µg/L) were widespread in the Willamette Basin (pl. 1). As might be expected, many of the occurrences of intermediate arsenic concentrations were located in the same regions where high arsenic concentrations were found. However, intermediate arsenic concentrations were found in many other areas as well, and in a variety of geologic materials.

Occurrence of high concentrations of arsenic in bedrock areas of Lane and Linn Counties appears to be related to the areal extent of two associations of older volcanic rocks: (1) the Fisher and Eugene Formations and correlative rocks (Oligocene and upper Eocene epochs), and (2) undifferentiated tuffaceous sedimentary rocks, tuffs, and basalt (Miocene and Oligocene epochs). (The undifferentiated tuffaceous sedimentary rocks, tuffs, and basalt are approximately equivalent to the Little Butte Volcanic Series of Peck and others [1964].) The surficial extent of these two rock associations is shown on plate 1. At land surface, the two rock associations cover 24 percent of the Willamette Basin. All detections of high concentrations of arsenic in Lane and Linn Counties occur in or very close to places where these volcanic rocks crop out, or in areas where thin layers of alluvial materials cover the rocks. These rocks include extensive volumes of silicic (rhyolitic) volcanic rocks. Ground water high in naturally occurring arsenic commonly is associated with volcanic rocks silicic to intermediate in composition (Welch and others, 1988). Thus, the apparent relationship between high concentrations of arsenic and geologic unit is not unexpected.

Interpretation of relationships between high concentrations of arsenic in ground water and geologic units could be improved upon at a local scale by use of more detailed (local) geologic maps. For example, although high concentrations of arsenic often occur in water within the Fisher and Eugene Formations and correlative rocks, Goldblatt and others (1963) suggest that the Fisher Formation, and not the Eugene Formation, is the source of most of the arsenic in that area. Similarly, water within basalt flows in the undifferentiated tuffaceous sedimentary rocks, tuffs, and basalt is not a likely candidate for high concentrations of arsenic because basalt typically yields water low in arsenic (Welch and others, 1988). The regional nature of the work presented in this report, with the requisite use of regional-scale rock associations, did not allow for finer-scale interpretation of the occurrence of high concentrations of arsenic relative to geologic characteristics. However, investigators involved in local-scale ground-water assessments should be able to make use of more detailed geologic mapping to help guide sampling.

Large portions of the area covered by the Fisher and Eugene Formations and correlative rocks, and the undifferentiated tuffaceous sedimentary rocks, tuffs, and basalt, are not represented by data collected and compiled for this report. Although most of the unsampled areas underlain by these rocks are not densely populated, they are not uninhabited, and the potential for impacts to human health are not insignificant. The surface exposure of these rocks alone represents 24 percent of the area of the Willamette Basin, and their full extent is greater. Additional sampling of wells completed in these arsenic-containing rocks would better define

the spatial distribution of high-arsenic water in areas not sampled during this study. Further, the presence of high arsenic concentrations in other aquifers in the Willamette Basin (pl. 1) suggests that additional sampling might reveal still more problem areas.

GEOCHEMISTRY OF ARSENIC

An understanding of factors controlling the distribution of arsenic in ground water requires a knowledge of arsenic sources and of processes controlling arsenic mobility. To that end, possible sources of arsenic in Willamette Basin ground water are discussed in this section. Processes that have been shown to control arsenic mobility in other natural systems are discussed next. Then, arsenic speciation data collected as part of this project, along with some historical speciation data, are presented. Finally, geochemical data (including the speciation data) and information from existing interpretive reports are used to construct preliminary hypotheses regarding possible geochemical controls over mobilization of arsenic in the Willamette Basin. An understanding of arsenic sources and geochemistry in the basin could help guide future monitoring efforts both in the basin and elsewhere. However, rigorous geochemical investigation of reasonable hypotheses will be required before an adequate understanding of arsenic geochemistry in the Willamette Basin can be said to exist. Thus, this discussion may serve future research.

Sources of Arsenic

Arsenic can be introduced into ground water from anthropogenic and natural sources. Anthropogenic sources may be important in some settings. Because industrial activity tends to be localized, it would be difficult to explain regional patterns of arsenic occurrence in the Willamette Basin by introduction from industrial sources. However, arsenical pesticides such as lead arsenate were historically used in large quantities in agricultural areas of the Willamette Basin (Rinehold and Jenkins, 1993). High-arsenic ground water in bedrock areas of Lane and Linn County tends to occur in nonagricultural areas, so it is unlikely that the observed high concentrations of arsenic in ground water in those areas can be attributed to historical use of arsenical pesticides. However, in contrast to land-use patterns in the bedrock areas of Lane and Linn Counties, land use in alluvial portions of the Tualatin Basin includes a variety of agricultural land uses, and high-arsenic ground water in alluvium in the Tualatin Basin does generally coincide with occurrence of agricultural areas. Closer inspection of the data, however, shows that detections of high concentrations of arsenic in Tualatin Basin ground water generally are near rivers and streams (pl. 1). Ground water near these rivers and streams likely represents ground water near the end of ground-water flowpaths. Occurrence of high concentrations of arsenic in downgradient parts of ground-water flowpaths could result from transport of arsenic from upgradient areas where arsenical pesticides historically had been applied, or from mobilization of naturally occurring arsenic during geochemical evolution as ground water moves along flowpaths. Arsenic is nearly immobile in topsoils, and arsenic in arsenical-pesticide-contaminated topsoil leaches on timescales of decades or more (Aten and others, 1980). Thus, occurrence of high concentrations of arsenic primarily in downgradient areas, and not more uniformly distributed in the Tualatin Basin, is more consistent with a natural source than an anthropogenic source. However, no rigorous ground-water flowpath analysis has been done for arsenic transport in the Tualatin Basin, and instances of leaching of arsenic from sites of historical arsenical use into ground water of the Tualatin Basin cannot be ruled out. Nonetheless, regional patterns of arsenic concentrations in ground water of the Willamette Basin as a whole probably reflect primarily natural sources.

Naturally occurring arsenic commonly is found in volcanic glass in volcanic rocks of rhyolitic to intermediate composition; adsorbed to and coprecipitated with metal oxides, especially iron oxides; adsorbed to clay-mineral surfaces; and associated with sulfide minerals and organic carbon (Welch and others, 1988). Sulfide minerals can contain arsenic either as a dominant mineral-forming element or as an impurity; sulfide minerals are found locally in the Western Cascades (U.S. Geological Survey, 1969). Metal oxides and clay minerals are ubiquitous in the Willamette Basin. Organic carbon is widespread in many parts

of the Willamette Basin, especially in alluvial deposits. Volcanic glass, commonly a major component of volcanic rocks, also is widely found in Willamette Basin aquifers, although much of the original glass in older volcanic rocks has been devitrified (Peck and others, 1964). Thus, arsenic originally associated with such volcanic glass either will have become associated with devitrification alteration products such as clays and metal oxides, or will have been released into solution and subsequently adsorbed or precipitated elsewhere or flushed from the aquifer. However, volcanic glass is still abundant in the Willamette Basin, and thus may constitute a current source of arsenic. At a minimum, the apparent relationship between rock associations containing silicic volcanic rocks and the occurrence of high concentrations of arsenic in ground water in Lane and Linn Counties described earlier in this report suggests that considerable amounts of arsenic might ultimately have come from volcanic glass. Thus, several sources of naturally occurring arsenic dispersed in aquifer materials can reasonably be postulated. However, examination of these various potential arsenic sources for arsenic availability in the Willamette Basin apparently has never been done.

Review of Geochemical Processes Controlling Arsenic Mobility

Two categories of processes largely control arsenic mobility in aquifers: (1) adsorption and desorption reactions and (2) solid-phase precipitation and dissolution reactions. Attachment of arsenic to an iron oxide surface is an example of an adsorption reaction. The reverse of this reaction, arsenic becoming detached from such a surface, is an example of desorption. Solid-phase precipitation is the formation of a solid phase from components present in aqueous solution. Precipitation of the mineral calcite, from calcium and carbonate present in ground water, is an example of solid-phase precipitation. Dissolution of volcanic glass within an aquifer is an example of solid-phase dissolution.

Arsenic adsorption and desorption reactions are influenced by changes in pH, occurrence of redox (reduction/oxidation) reactions, presence of competing anions, and solid-phase structural changes at the atomic level. Solid-phase precipitation and dissolution reactions are controlled by solution chemistry, including pH, redox state, and chemical composition.

Adsorption and Desorption Processes

Arsenic is a redox-sensitive element. This means that arsenic may gain or lose electrons in redox reactions. As a result, arsenic may be present in a variety of redox states. Arsenate and arsenite are the two forms of arsenic commonly found in ground water (Masscheleyn and others, 1991). Arsenate generally predominates under oxidizing conditions. Arsenite predominates when conditions become sufficiently reducing. Under the pH conditions of most ground water, arsenate is present as the negatively charged oxyanions $H_2AsO_4^-$ or $HAsO_4^{2-}$, whereas arsenite is present as the uncharged species $H_3AsO_3^0$ (Hem, 1985). The strength of adsorption and desorption reactions between these different arsenic species and solid-phase surfaces in aquifers varies, in part, because of these differences in charge. Differences in species charge affect the character of electrostatic interactions between species and surfaces.

Arsenate and arsenite adsorb to surfaces of a variety of aquifer materials, including iron oxides, aluminum oxides, and clay minerals. Adsorption and desorption reactions between arsenate and iron-oxide surfaces are particularly important controlling reactions because iron oxides are widespread in the hydrogeologic environment as coatings on other solids, and because arsenate adsorbs strongly to iron-oxide surfaces in acidic and near-neutral-pH water (Dzombak and Morel, 1990; Waychunas and others, 1993). However, desorption of arsenate from iron-oxide surfaces becomes favored as pH values become alkaline (Fuller and Davis, 1989; Dzombak and Morel, 1990). The pH-dependence of arsenate adsorption to iron-oxide surfaces appears to be related to the change in iron-oxide net surface charge from positive to negative as pH increases above the zero-point-of-charge (pH at which the net surface charge is equal to zero) of about 7.7 for goethite (crystalline iron oxide) (Stumm and Morgan, 1996) or 8.0 for ferrihydrite (amorphous iron oxide) (Dzombak and Morel, 1990). Where pH values are above about 8, the negative net surface charge of

iron oxide can repel negatively charged ions such as arsenate.

Iron-oxide surfaces also adsorb arsenite, and both arsenate and arsenite adsorb to aluminum oxides and clay-mineral surfaces. However, these adsorption reactions appear generally to be weaker than is the case for arsenate adsorption to iron-oxide surfaces under typical environmental pH conditions (Manning and Goldberg, 1997). Nevertheless, pH-dependent adsorption and desorption reactions other than those between arsenate and iron-oxide surfaces may be important controls over arsenic mobility in some settings. As is the case for adsorption of arsenate to iron-oxide surfaces, adsorption of arsenite to iron-oxide surfaces tends to decrease as pH increases, at least between the range from pH 6 to pH 9 (Dzombak and Morel, 1990). Unfortunately, arsenate and arsenite adsorption and desorption reactions with other common surfaces are less well characterized, and apparently more complex than is the case for adsorption and desorption reactions with iron-oxide surfaces (Manning and Goldberg, 1997).

As a result of the pH dependence of arsenic adsorption, changes in ground-water pH can promote adsorption or desorption of arsenic. Because solid-phase diagenesis (water-rock interaction) typically consumes H^+ (Stumm and Morgan, 1996), the pH of ground water tends to increase with residence time, which, in turn, increases along ground-water flowpaths. Because iron-oxide surfaces can hold large amounts of adsorbed arsenate, geochemical evolution of ground water to high (alkaline) pH can induce desorption of arsenic sufficient to result in exceedances of the USEPA current MCL in some environments (see, for example, Robertson, 1989).

Similarly, redox reactions can control aqueous arsenic concentrations by their effects on arsenic speciation, and hence, arsenic adsorption and desorption. For example, reduction of arsenate to arsenite can promote arsenic mobility because arsenite is generally less strongly adsorbed than is arsenate. Redox reactions involving either aqueous or adsorbed arsenic can affect arsenic mobility (Manning and Goldberg, 1997).

Arsenic adsorption also can be affected by the presence of competing ions. In particular, phosphate and arsenate have similar geochemical behavior, and as such, both compete for sorption sites (Hingston and others, 1971; Livesey and Huang, 1981; Manning and Goldberg, 1996). Oxyanions in addition to phosphate also may compete for sorption sites. For example, Robertson (1989) suggested that correlation of arsenate with oxyanions of molybdenum, selenium, and vanadium in ground water of the Southwestern United States may be evidence for competitive adsorption among those oxyanions.

Finally, structural changes in solid phases at the atomic level also affect arsenic adsorption and desorption. For example, conversion of ferrihydrite to goethite or to other crystalline iron-oxide phases may occur gradually over time (Dzombak and Morel, 1990). Fuller and others (1993) demonstrated that as ferrihydrite crystallizes into goethite, the density of arsenic adsorption sites decreases. This decrease in density of adsorption sites can result in desorption of adsorbed arsenic. Structural changes in other solid phases may possibly affect arsenic mobility, too. The role of such solid-phase structural changes on ground-water arsenic concentrations has, however, received little attention to date.

Precipitation and Dissolution Processes

The various solid phases (minerals, amorphous oxides, volcanic glass, organic carbon) of which aquifers are composed exist in a variety of thermodynamic states. At any given time, some aquifer solid phases will be undergoing dissolution, whereas others will be precipitating from solution. Arsenic contained within solid phases, either as a primary structural component of or an impurity in any of a variety of solid phases, is released to ground water when those solid phases dissolve. Similarly, arsenic is removed from ground water when solid phases containing arsenic precipitate from aqueous solution. As an example, because arsenic often coprecipitates with iron oxide (Waychunas and others, 1993), iron oxide may act as an arsenic source (case of dissolution) or a sink (case of precipitation) for ground water. Furthermore, solid-phase dissolution will contribute not only arsenic contained within that phase, but also any arsenic adsorbed to the solid-phase surface. The process of release of adsorbed arsenic as a result of solid-phase dissolution is distinct from the process of desorption from stable solid phases.

The interplay of redox reactions and solid-phase precipitation and dissolution may be particularly important with regard to aqueous arsenic and solid-phase iron oxides and sulfide minerals. High concentrations of arsenic often are associated with iron oxides and sulfide minerals (Thornton, 1996). Iron oxides frequently dissolve under reducing conditions, but often precipitate under oxidizing conditions. Sulfide minerals generally are unstable under oxidizing conditions, but may precipitate under reducing conditions. Thus, as a result of the redox-sensitive nature of iron oxides and sulfide minerals, transfer of large amounts of arsenic between these solid phases and neighboring water may result from redox-facilitated precipitation and dissolution reactions.

Arsenic Speciation in the Willamette Basin

Three samples from alluvial wells in the Tualatin Basin and two from bedrock wells in Lane County were analyzed for four common species of arsenic. Concentrations of the two organic species of arsenic analyzed (monosodium methylarsonate, or CH_3AsO_3HNa, and sodium dimethylarsinate, or $(CH_3)_2AsO_2Na$) were below MDLs, so only the data for the two inorganic species are tabulated. These speciation data are given in table 4.

Two additional analyses for arsenic species in ground water from the Willamette Basin were available in the literature. Welch and others (1988) reported arsenite and arsenate concentrations for water from two wells in Lane County. Arsenite represented 7 percent and 62 percent of the total arsenic in these samples (total arsenic concentrations being 25 and 45 µg/L, respectively).

The most striking feature of the data from the two studies is the predominance of arsenite. The predominance of arsenite has both geochemical and toxicological implications. From a geochemical standpoint, the speciation data are of interest because mobility of arsenite differs from that of arsenate (see section “Review of Geochemical Processes Controlling Arsenic Mobility”). From a public-health perspective, the speciation data are interesting because arsenite is more toxic than arsenate in at least some of its effects. In human acute toxicity studies, arsenite has been shown to be more potent than arsenate (U.S. Environmental Protection Agency, 1988). With regard to human chromosome breakage, arsenite is about an order of magnitude more potent than arsenate (U.S. Environmental Protection Agency, 1988). Morrison and others (1989) report that arsenite is 50 times as toxic as arsenate, but do not report the organisms studied. Also, arsenite is more difficult to remove from drinking-water supplies than is arsenate (Gupta and Chen, 1978; Schneiter and Middlebrooks, 1983). However, it would be premature to make generalizations regarding arsenic toxicity in the Willamette Basin based upon such limited speciation data (seven samples). Complicating the matter, in the benchmarks against which drinking water arsenic concentration data commonly are compared—the USEPA current MCL and the WHO provisional guideline—no differen- tiation is made between arsenite and arsenate. But if the apparent predominance of arsenite in Willamette Basin ground water is confirmed by additional speciation work, public health officials and water managers may need to evaluate the scope of the arsenic problem with regard not only to arsenic concentrations, but also to arsenic speciation.

Table 4. Speciation of arsenic

[Total arsenic concentration is from a separate analysis of a separate sample, and differs from the total of arsenite-plus-arsenate because of sampling and (or) analytical variability. Recovery, total of arsenite-plus-arsenate divided by total arsenic; µg/L, micrograms per liter]

Well location	Date	Arsenite (percent of total of arsenite-plus-arsenate)	Arsenate (percent of total of arsenite-plus-arsenate)	Arsenite (µg/L)	Arsenate (µg/L)	Total of arsenite-plus-arsenate (µg/L)	Total arsenic concentration (µg/L)	Recovery (percent)
01N/03W-04CCC	08/19/97	76	24	61.1	18.9	80.0	97	82
01S/03W-10BCA1	08/19/97	96	4	58.8	2.3	61.1	56	110
02S/02W-11CCD1	08/19/97	94	6	15.3	.9	16.2	19	85
18S/04W-14BBA	08/20/97	>99	<1	1,200	6.1	1,210	1,100	110
19S/03W-31E1	08/20/97	68	32	61.5	29.4	90.9	130	70

Geochemistry of Arsenic in the Willamette Basin

Few routine chemical analyses (of major ions and field parameters) are available for high-arsenic ground water from bedrock areas of Lane and Linn Counties. Goldblatt and others (1963) noted that high-arsenic ground water tended to have high pH (>8.0) and high orthophosphate concentrations, although only two routine chemical analyses for high-arsenic ground water were published. Reliable measures of redox conditions were not collected. However, the observation was made during site visits that water from many of the wells in bedrock areas of Lane and Linn Counties that yielded high-arsenic ground water during project sampling also had sulfide odors. The presence of sulfide in water indicates chemically reducing conditions. The observation of sulfide, along with the detection of arsenite (the more reduced of the two major arsenic species) in some ground-water samples, indicates the presence of reducing conditions in some ground water in these areas.

Together, these data suggest that for ground water in bedrock areas of Lane and Linn Counties, one or more of the following controlling factors likely are important in adsorption and desorption reactions that in turn often control arsenic mobility: (1) high pH, (2) presence of competing anions, and (3) occurrence of reducing conditions. The sparse available data do not allow even for speculation about adsorption and desorption reactions related to solid-phase structural changes at the atomic level in ground water of bedrock areas of Lane and Linn Counties. Similarly, evidence is lacking to even begin to develop hypotheses about solid-phase precipitation and dissolution reactions.

Previous investigations of the quality of Tualatin Basin ground water provide some preliminary insight into arsenic geochemistry there. Rounds and others (1994) reported that high phosphorus concentrations (up to 2.9 mg/L [milligrams per liter]) are common in Tualatin Basin ground water. In an analysis of 47 filtered ground-water samples from the Tualatin Basin, Hinkle (1997) reported that the median arsenic concentration in low-dissolved-oxygen samples (dissolved oxygen concentrations < 1.0 mg/L) was greater than the median arsenic concentration in well-oxygenated samples. The difference was statistically significant. Of the 47 samples, the 4 that exceeded the USEPA current MCL not only had low dissolved-oxygen concentrations, but also had high concentrations of orthophosphate (0.36 to 2.0 mg/L) and iron (160 to 1,900 µg/L). However, pH was not unusually high; pH of three of the four high-arsenic samples ranged from 7.5 to 7.6, and was 8.1 for the fourth sample.

These data suggest that for alluvial ground water in the Tualatin Basin, presence of competing anions and occurrence of reducing conditions may be important controlling factors in arsenic adsorption and desorption reactions. These two factors might be more important than pH controls over arsenic adsorption and desorption. Reducing conditions and high concentrations of dissolved iron also suggest that dissolution of iron oxides, with subsequent release of adsorbed or coprecipitated arsenic, may play a role in arsenic mobility in the Tualatin Basin.

Hypotheses about factors affecting arsenic adsorption and desorption reactions should account for arsenic speciation. Limited geochemical data suggest that desorption of arsenic from solid phases may be an important process in ground water both in bedrock areas of Lane and Linn Counties and in alluvium in the Tualatin Basin. Desorption of arsenate from iron oxides commonly results from high pH or the presence of competing ions. Such processes, of course, require the presence of arsenate on solid-phase surfaces. Because redox reactions often are slow and frequently far from equilibrium, it would not be unexpected to find arsenate adsorbed to solid-phase surfaces in chemically reducing environments. It might appear, though, that the predominance of arsenite relative to arsenate in aqueous speciation samples would be inconsistent with a hypothesis of desorption of arsenate from iron-oxide surfaces. However, it may be that arsenate is desorbed from aquifer surfaces and subsequently reduced to arsenite.

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APPENDIX

APPENDIX

Table 1. Wells discussed in report text, tables, and figures, listed by well location name from original source, and cross-referenced by recalculated well location and by U.S. Geological Survey site identification number and Oregon Water Resources Department well log identification number

["--", identical to "Well location (original source)"; N/A, none or not determined].

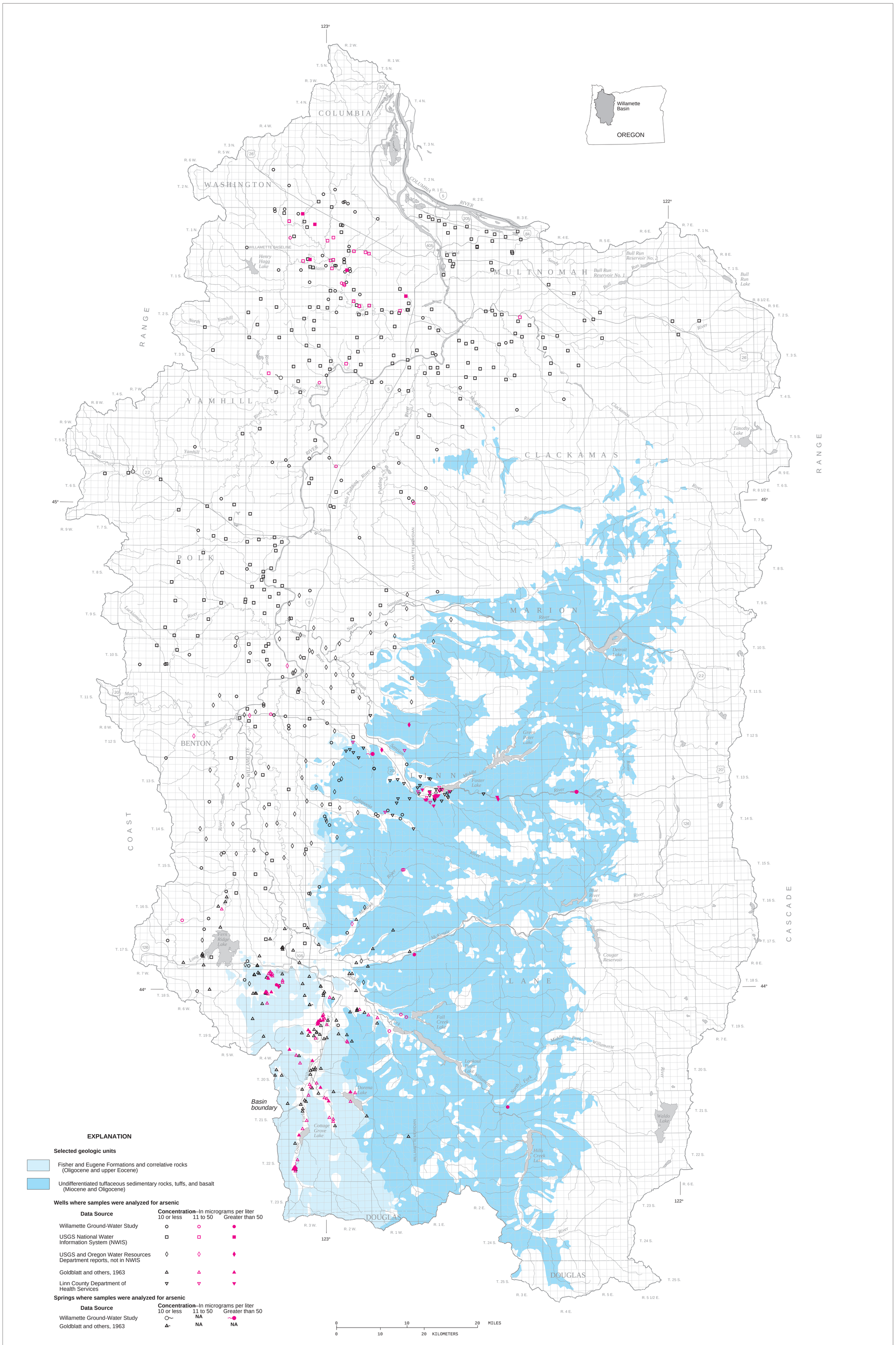
Well location (original source)	Well location (recalculated)	U.S. Geological Survey site identification number	Oregon Water Resources Department well log identification number
01N/03W-04CCC	--	453540123041101	WASH 5967
01N/03W-07CCD1	--	453445123063201	WASH 6037
01N/03W-15ADB1	--	453422123020201	N/A
01S/02W-29DBD	--	452707122572201	WASH 10406
01S/02W-33BBA	--	452651122565001	WASH 10475
01S/03W-10BCA1	--	453002123025301	WASH 143
02S/02W-11CCD1	--	452416122541601	WASH 12572
12S/01W-29N1	12S/01W-29CCA	442934122502801	LINN 9588
13S/01E-33	13S/01E-33DB1	442332122412701	LINN 12832
13S/01E-33AC	--	442348122412301	LINN 12776
13S/01E-35	13S/01E-35BD1	442347122391001	LINN 12914
14S/01E-05	13S/01E-32CD1	442323122424801	LINN 10997
15S/01W-23CCA	--	441447122464501	LANE 50736
15S/01W-23CCC2	--	441446122465701	LANE 5873
17S/01W-24DCA	--	440420122445701	LANE 2085
18S/04W-10D	18S/04W-10BB1	440125123095901	N/A
18S/04W-14ACA	--	440029123080301	LANE 17048
18S/04W-14ACB	--	440024123080901	LANE 17052
18S/04W-14BBA	--	440036123083201	LANE 16780
18S/04W-22B	18S/04W-22BA1	435942123092501	N/A
19S/01W-03ADB	--	435656122471801	LANE 19429
19S/03W-11E2	19S/03W-11BC3	435606123012501	N/A
19S/03W-31E1	19S/03W-31BB1	435237123061801	N/A
21S/03E-08CBD2	--	434528122290901	LANE 23527
22S/03W-17N	22S/03W-17CC1	433859123045601	N/A

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Prepared in cooperation with
OREGON WATER RESOURCES DEPARTMENT

WATER-RESOURCES INVESTIGATIONS REPORT 98-4205
Arsenic concentrations in ground water, and selected geologic units—PLATE 1

Hinkle, S.R. and Polette, D.J.
Arsenic in Ground Water of the Willamette Basin, Oregon



EXPLANATION

Selected geologic units

Fisher and Eugene Formations and correlative rocks (Oligocene and upper Eocene)

Undifferentiated tuffaceous sedimentary rocks, tuffs, and basalt (Miocene and Oligocene)

Wells where samples were analyzed for arsenic

Data Source	Concentration—In micrograms per liter: 10 or less	11 to 50	Greater than 50
Willamette Ground-Water Study	○	○	●
USGS National Water Information System (NWIS)	□	□	■
USGS and Oregon Water Resources Department reports, not in NWIS	◊	◊	♦
Goldblatt and others, 1963	△	△	▲
Linn County Department of Health Services	▽	▽	▼

Springs where samples were analyzed for arsenic

Data Source	Concentration—In micrograms per liter: 10 or less	11 to 50	Greater than 50
Willamette Ground-Water Study	○~	NA	~●
Goldblatt and others, 1963	△-	NA	NA

Base modified from U.S. Geological Survey Digital base from
U.S. Geological Survey Digital Line Graphs published at 1:100,000, 1987;
U.S. Bureau of the Census, TIGER/Line(R), published at 1:100,000, 1990;
U.S. Geological Survey Digital Line Graphs published at 1:100,000, 1988
and modified by the State of Oregon. 1994;
U.S. Geological Survey quadrangle maps published at 1:24,000
as digitized by Oregon Department of Transportation;
Universal Transverse Mercator projection, Zone 10
1927 North American Datum

DISTRIBUTION OF ARSENIC CONCENTRATIONS IN GROUND WATER, AND SELECTED GEOLOGIC UNITS OF THE WILLAMETTE BASIN, OREGON

By
Danial J. Polette and Stephen R. Hinkle

Geology from Walker and MacLeod, U.S. Geological Survey Digital Line G
published at 1:500,000, 1991 and modified by the State of Oregon, 199

From: Community Development, Benton County, Oregon
To: Benton Public Comment
Subject: LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date: Saturday, May 3, 2025 11:41:51 AM

Subject of Testimony: Coffin Butte Landfill

Full Name: Liv N. Gifford

Email: livgifford@gmail.com

Street Address: 2055 NW Elder St Corvallis OR 97330

Written Testimony:

I am writing to oppose the expansion of the Coffin Butte Landfill. I am a resident of Benton County and member of the faculty at Linn-Benton Community College, where I teach Public Health.

It concerns me greatly that our small county is the dumping grounds for so much of Western Oregon, and we are shouldering more than our share of environmental concerns as a result. I am especially concerned about leachate, including heavy metals, carcinogenic industrial solvents, and PFAS, as well as reports that methane from the landfill far exceeds regulatory limits. Less than ten percent of the garbage dumped in Coffin Butte comes from Benton County, and the quantity of waste deposited at Coffin Butte has been increasing steadily over the years. None of this seems fair or worth the risk.

In this era of climate change, we need to be curbing environmental hazards, not expanding them. Under the current administration, environmental protections are under attack. It is up to our community to protect our air, water, and soil quality for future generations. Landfill expansion goes against our sustainability goals, and in this case NIMBY is the answer.

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 76.144.58.134

From: wanderinfeet@yahoo.com
To: Benton Public Comment
Subject: Coffin Butte Expansion
Date: Saturday, May 3, 2025 7:23:57 AM

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

Clean land, air and water are limited resources and are needed now and in the future. Typically it is more cost effective to prevent pollution versus respond afterwards with clean-up efforts. An expansion to gain six years appears short-sighted and not a viable path forward.

I was born in Corvallis and grew up in North Albany. As a kid growing up on a farm, we reused things, recycled and composted at home before it was trendy. We did make trips to the dump and, as kids, it was fascinating to see the big trucks and bigs piles of trash at the landfill at Coffin Butte.

In more recent years, I've seen items at the dump that really don't belong there: BBQ grills (scrap metal), bikes, etc that would be better recycled/repurposed. Yes, this takes time and education of the public.

Through the years, our world, as a whole, has moved towards more packaging, plastic and things that have planned obsolescence and are not cost effective to repair. Cheap and low quality items are "disposable," as can be seen at move out days during OSU when students abandon mattresses, couches, etc by the dumpsters or on the street corners in Corvallis.

By continuing to expand the ease of making our trash "go away," people will continue to make the easy and convenient choice of putting all things in a dumpster versus taking the time to consider if there is value in recycling (ie: scrap metal) or passing items along to another person (bikes, clothing, etc.)

I realize there is a need to serve the local community with the landfill. I also realize when landfill prices go up, more things get illegally dumped, often left in rural and farming areas, creating more work for someone else. I know people in the Portland area who choose to load up their building scrap to bring it to Coffin Butte because it's cheaper.

Landfill for the local community makes sense. Being a cheap dumping ground for waste as far away as Washington does not make sense. The decision China made to stop accepting plastic recycling from overseas a few years ago comes to mind.

Tracy H

From: Joseph Crockett
To: Benton Public Comment
Subject: LU-24-027
Date: Sunday, May 4, 2025 8:48:46 AM

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

On the April 29th landfill public meeting, there was a question from the Commission about when the landfill became a regional landfill. This is from the 1983 planning commission staff report:

STAFF REPORT
File NO: PC-83-7
Staff Contact: C. Plemons

Appendix 1, page 9
The Coffin Butte site be designated as a regional landfill serving a geographic area including Benton and parts of Linn and Polk counties.

The Benton County Planning Commission and Board of Commissioners should not allow any new expansion of the present Coffin Butte Disposal site service area (Benton County and portions of southern Polk County and western Linn County).

The original document is a scanned document (PC-83-07-C(2) pg 11-29 STAFF REPORT - 5.1MB file). Attached is a full transcript of the document. Either one or both should be allowed into the record.

Joe Crockett
37609 Soap Creek Rd
Corvallis, 97330

STAFF REPORT
File NO: PC-83-7
Staff Contact: C. Plemons

NATURE OF REQUEST:
To amend the Benton County Comprehensive Plan regarding certain policies relating to the Coffin Butte Landfill, change the Comprehensive Plan Map for the area to Landfill Site, and to change the Zone Designation to Landfill Site zone, for approximately 266 acres.

PROPERTY LOCATION:
To the west of Highway 99N, north of Coffin Butte T10S, R4N, Section 18, Tax Lot 301, 1106, and 1107: T10S, R5M, Section 13, Tax Lot 1000.

PROPERTY OWNER:
Valley Landfills, Inc., P. 0. Box 807, Corvallis, OR 97339

ZONE DESIGNATION:
Forest Conservation - 40 acre minimum (FC-40)

COMP. PLAN DESIGNATION:
Forest Conservation

CAC PLANMING AREA:
North Benton

HISTORICAL NARRATIVE
The Coffin Butte Landfill was first zoned as Suburban Residential -
Agricultural in 1970. In 1974, the western portion of the existing

landfill
area was zoned Agriculture-Forestry, and the eastern portion (or that
bordering Highway 99W) was zoned Rural Residential. All of the property
was re-zoned to Forest Conservation in 1979.

In 1974 a Conditional Use Permit was requested by Corvallis Disposal Company
(operator of Coffin Butte at that time) to expand the existing landfill
site. The Benton County Planning Commission held public hearings on February
19, 1974 and March 5, 1974 and approved the request subject, to certain
conditions.

The approval by the Planning Commission was appealed to the Benton County
Board of Commissioners. On May 15, 1974, the Board of Commissioners upheld
the decision of the Planning Commission, and amended the Conditions of
Approval to require that a "Solid Waste Management Plan for Benton County" be
submitted for review by the Planning Commission. March 29, 1977, this plan
was reviewed and the landfill has operated since then under the ownership of
Valley Landfills, Inc.

SITE CHARACTERISTICS

Surrounding Land Use

The site is located between the Oregon State Department of Fish and Wildlife Game Farm and Highway 9W to the East, Wiles Road to the West, Coffin Butte to the North, and Poison Ivy Hill and Coffin Butte Road to the South.

There are several residences south of the landfill. Two residences and a duplex are located southeast of the junction of Sulphur Springs and Coffin Butte roads. A residence is located east of the junction of Coffin Butte and Wiles Roads, and several are located south of Coffin Butte Road between Sulphur Springs and Wiles Road.

Land uses to the east of the landfill site are primarily associated with the State Game Farm. North of the site are a number of residences, with forestry occurring on the face of the butte and agriculture on the flat lands to the north of the butte face. West of the butte is primarily agricultural. South of the landfill, between Wiles Road and Sulphur Springs roads, is agricultural. Between Sulphur Springs road and Highway 99N, are forest uses. The applicant owns approxitmately 59 acres south of Coffin Butte and currently leases the acreage to a Christmas tree grower.

Implementing Ordinances

The siting, expansion and monitoring of the landfill is supervised by a number of County, State and Federal agencies. Benton County's Solid Waste Management Ordinance, Number 23, adopted in December 1980, governs the franchising of the landfill operator and requires submittal of an application and factual information:

"Upon the basis of the application, evidence submitted, and the results of investigation, the Department shall make a finding on the qualifications of the applicant and whether or not additional service, land, equipment or facilities should be provided and what conditions of service should be imposed including, without limitation, whether the site should be opened to the public and under what conditions, whether or not certain types of wastes, solid wastes or hazardous wastes should be excluded from the site or types of wastes solid wastes or hazardous wastes should be excluded from the site or types of wastes which should be required to be accepted at the site, and shall make a finding as to whether or not the site is economically feasible, whether of not the site may be integrated with existing private or

County-owned
or operated sites, and further, that the sites complies with all rules and regulations
adopted pursuant to this ordinance or ORS Chapter 459. The Board may impose
conditions deemed necessary to carry out the purposes and policy of this ordinance."

The Benton County Comprehensive Plan and Zoning Ordinance governs uses of the
site and the size and location of the service area.

Oregon Revised Statutes 459 and the National Resource Conservation and
Recovery Act of 1976 also governs municipal solid waste, leachates, and other
actors relating to landfill operations.

STAFF COMMENTS:

On March 8, 1983, the Planning Commission held a Study Session on this issue.
A summary of the concerns that developed are presented and discussed below.
Benton County Solid Waste Advisory Council recommended approval of the
requests subject to two conditions:

1. No landfill be allowed on north face of Coffin Butte.

2. No landfill be allowed on property south of Coffin Butte Road.

These two conditions were also requested by the North Benton Citizens Advisory
Committee (CAC) and they recommended approval of the

requests.

Staff concurs with these conditions. The property on the North face of Coffin
Butte (approximately 30 acres) should remain under the Comprehensive Plan
Designation of Forestry Conservation (FC), from the crest of the butte North.

The other issue concerning the property south of Coffin Butte Road can be
resolved through Conditions of Development placed on any approval of the site
plan by the Planning Commission. The proposed zone allows no additional
landfill activities unless approved by the Planning Commission at a public
hearing. Therefore, the Commission may limit expansion into any area that is
not appropriate for a landfill.

SUMMARY OF REQUESTS

REQUEST NO. 1 . Amend certain Benton County Comprehensive Plan policies
related to Solid Waste. (Refer to Appendix 1 for those policies)

REQUEST NO. 2. Amend the Comprehensive Plan Map to change the Plan
designation on the property from Forest Conservation (FC) to Landfill Site (LS).

REQUEST NO. 3. Amend the Benton County Zoning Ordinance to include a Landfill
Site Zone.

REQUEST NO. 4. Amend the Zoning Map to change the zoning to Landfill Site
from Forest Conservation.

REQUEST NO. 5. Approval of a Site Development Plan to enlarge the area
approved for use as a landfill.

Discussion on Comprehensive Plan Text Amendments

The three Comprehensive Plan policies proposed by the applicant for amendment
are, in part, a direct result of the Conditions of Approval placed on the landfill in 1974.
That permit limited the service area of the landfill to portions of Western Linn County
and Southern Polk County. Therefore, any proposal to amend the Conditions of
Approval regarding the service area must also be accompanied by an Amendment
to the Benton County Comprehensive Plan text.

The applicants have included evidence relative to this Plan text amendment on
Page 2 and 3 of their submittal information. This material is in conformance
with the requirements in Chapter IV.A.3.b (page 82) of the Benton County
Comprehensive Plan.

Deletion of these policies would remove the requirement to limit the landfill
service area. The applicant states that if these policies are deleted,
approximately 19,500 additional tons per year of solid waste from Polk and
Linn Counties will be deposited in the Coffin Butte Landfill. This is estimated to shorten the existing life of the landfill by 10 years. However, the applicants have noted, if the proposal to allow the expansion of the
landfill is approved, the life of the site will be 50 years.

Staff Recommendation

Staff recommends approval of the following motion:

That based on the request and discussion contained in the Staff Report, and on
the criteria, discussion and conclusions found in the Goals Analysis section
of the Appendix, the Planning Commission recommend to the Board of

Commissioners that the Comprehensive Plan policies 24, 25, and 26 relating to
Solid waste in the Public Facilities and Services element be deleted: and that
new policies in the Environmental Quality element be added as follows:

25. Benton County shall coordinate its solid waste actions,

programs, and
Policies with those of the Chemeketa Solid Waste Management Plan or Its
successor.

26. The Solid Waste Advisory Council as established by the Solid Waste
Ordinance shall continue to advise the Benton County Board of Commissioners on all solid waste matters.

27. The Coffin Butte site shall have a landfill site designation and shall
serve as a regional landfill servicing a geographic area including Linn,
Polk and Benton Counties.

28. A designated percentage of the annual County franchise fee should be used
for educational and promotional programs on waste reduction and recycling,
emphasizing methods in which individuals and businesses can reduce,
or utilize recoverable materials whose present destination is
che landfill.

29. Recycling facilities, public or private, should be located at rural sites
for the convenience of County citizens.

Discussion on Plan Map Amendment

The proposed Comprehensive Plan Map Amendment to Landfill Site (LS) from
Forestry (FC) allows the rezoning of the site to Landfill Site Zone, and implements

comprehensive plan policy 27 as discussed above. This Plan Map designation is intended to be site specific and is to apply to the property
such time as the site is properly reclaimed to a resource use, and the
re-designation of the site is approved.

Staff Recommendation

Staff recommends approval of the following motion:

That the Planning Commission recommend to the Board of Commissioners that
based on implementing Comprehensive Plan Policy 27, and the Criteria,
Discussion and Conclusions found in the Goals Analysis section of the Staff
Report:

1. Based on the recommendation of the North Benton CAC and the Solid
Waste Advisory Council, amend the request to remove the property from
the crest of Coffin Butte northward from any change in Plan Map Designation: and

2. Approval of the amended request to change the Comprehensive Plan
designation from Forestry to Landfill Sites (LS) as outlined in the Site Plan, for approximately 266 acres located from the crest of Coffin Butte south to Coffin Butte Road and Including 59.23 acres owned by the applicant south of Coffin Butte Road.

Discussion on Zoning Ordinance Text Amendment

This is a proposed addition to the Zoning Ordinance, creating a Landfill Site
Zone that i s site specific, and is applied to property under the ownership or
control of the landfill operator. The draft of this zone can be found in the
appendix. This zone is also intended to implement the Comprehensive Plan
policies as proposed in this report.

This zone coordinates the permitting process now placed in three agencies -
the Benton County Environmental Health Department, the County Development
Department, and the Oregon Department of Environmental Quality.
intended to eliminate duplication of effort by providing a Public Hearing
Review Process.

Activities normally associated with a landfill operation are allowed as
permitted uses in the zone, but it should be noted that all activities
associated with disposal of solid waste are guided by both the Site
Development Plan and the Solid Waste Franchise.

Once the landfill area is completely filled, the operators of the site are
required by both County and State law to reclaim the area in accordance with

an approved plan. The land then reverts to a resource use as determined by
the Planning Commission at a later date.

Staff Recommendations

Staff Recommends approval of the following motion:
That the Planning Commission recommend to the Board of Commissioners amending
of Benton County Zoning Ordinance to include the Landfill Site (LS) Zone as
Article XXX.

Zoning Map Amendment Discussion

As discussed earlier in this report, this zone is intended to be a site
specific zone to be placed in the property owned or under the control of
Valley Landfills. The placement of this zone on the property implements
certain policies in the Comprehensive Plan. While this zone designation is
site specific, it does not allow the placement of solid waste except in
accordance with the approved site Development Plan and the Solid Waste
Franchise.

Staff Recommendation

Staff recommends approval of the following motion:
That the Planning Commission recommend that the Board of Commissioners amend
Benton County Zoning Map to place the Landfill Site (LS) zone on

the subject
property from the Crest of Coffin Butte southward to Coffin Butte Road, and
including the 59.23 acre parcel south of Coffin Butte Road, and that the
northern 30 acres from the Crest of Coffin Butte north be retained in the
Forest Conservation (FC) zone.

Staff Comments

Valley Landfills, Inc. has submitted a Site Plan Map and Narrative, as
required by the draft Landfill Site Zone, for approximately 266 acres of land
proposed to be designated as Landfill Site.

As discussed in the staff report on the Plan Amendment and Zone Change
requests, approximately 184 acres were approved in 1974 for landfill use. The
Site Development Plan, as finally approved, will replace that previous permit.

This request proposes to expand the area approved for landfills by
approximately 10 acres for a total of 194 acres. The remaining 72 acres would
be left in open space or utilized for leachate irrigation and tree farm.

The Development Plan narrative and the Staff Report on the Amendment request
discusses impacts on surrounding land uses. The narrative also briefly
discusses site screening, access and reclamation of completed landfill areas.

The Development Plan Map locates future, existing and completed landfill
areas, the leachate collection system, location of landscaping, and
drainageways. The location of the tree farm and leachate irrigation area
south of Coffin Butte Road are also shown.

The Plan Map also contains a statement regarding the amount and type of
materials to be used for the final covering of completed landfill areas.

Findings

1. The proposed Site Development Plan Implements Policy 27 of the
Environmental Quality Element in the Benton County Comprehensive Plan.

2. The proposed uses of the property are permitted uses in the Landfill Site
Zone.

3. The Site Development Plan sets forth the future development of the
property owned by Valley Landfills, Inc., as a municipal solid waste

disposal site in accordance with the provisions of the Landfill Site Zone.

Staff Recommendation

Staff recommends approval of the following motion:
That the Planning Commission recommend to the Board of Commissioners approval
of the Coffin Butte Landfill Site Development Plan based on the findings

contained in the staff report and subject to the following Conditions of
Development.

1. Cross reference the narrative and the map in both documents.

2. Expand the narrative statement, Section (1.a.11), on reclamation
include the physical configuration of the completed landfill areas and
method of maintenance of the proposed pasture uses. Include a statement
regarding the effects of methane and internal heat generation on the long
term maintenance of the pasture, and include irrigation plans if proposed.

3. Describe in more detail in the narrative, the method of screening:
include a description of the location, height, width, depth and

physical
composition of the berm; and include the type and location of vegetative
screening; and include a statement regarding the long term maintenance of
and vegetative screens.

4. Include in the narrative the anticipated chemical composition of any
leachate material to be used for Irrigation south of Coffin Butte Road;
and include documentation that the material to be utilized as irrigation
meet federal and state standards for any run-off that may leave the
property lines.

5. Include i n the narrative a review of the Environmental and Operational
Factors in Art.XXX.05.A.1.(f) for the approximately 10 acres proposed for
addition to the landfill area.

6. Provide a detailed reclamation plan that sets form the anticipated
physical characteristics of the "terracing" including an average height
and width of the terracing, provide documentation that the site is
physically available to be reclaimed in this manner.

7. Submit for review by the Development Director a plan detailing the
proposed method Valley Landfills shall use to protect the small ponds
found on the Northeast corner of the property.

ACKNOWLEDGMENT OF CONDITIONS

By placing my signature below, I am the Manager of the above-named Valley
Landfills, Inc. and hereby understand and agree to the conditions placed on
this land use action by Benton County. (This copy must be signed and returned
to the Development Department before any permits are issued.

Applicant Date

Planning Official Date

APPENDIX 1.

EXISTING COMPREHENSIVE PLAN POLICIES RELATIVE TO SOLID WASTE
(Those Policies the Applicant Proposes for Amendment are Marked with an "*")

Public Facilities and Services:

24. Benton County shall participate in the update of the regional solid waste
management plan (now known as the "Chemeketa Plan").

25. Benton County shall coordinate its solid waste plans and policies with the
regional plan.

26. In updating the Chemeketa Plan strong consideration shall be given to the
following policies as adopted by the Planning Commission, April 4, 1978.

* a. The Coffin Butte site be designated as a regional landfill serving a
geographic area including Benton and parts of Linn and Polk counties.

* b. The sanitary landfill franchise operator continue to work toward a
resource recovery system and submit an annual plan or status report

c. Periodic reports of compliance with all state and local standards be
referred to the Planning Commission. The North Benton CAC shall be
notified regarding time and place of said reports.

d. The land area adjacent to the southeastern and southwestern parts of
Coffin Butte should be considered in appropriate for residential use.

*e. The Benton County Planning Commission and Board of Commissioners
should not allow any new expansion of the present Coffin Butte Disposal site service area (Benton County and portions of southern
Polk County and western Linn County).

f. A portion of the annual County franchise fee should be used for

educational and promotional programs on waste reduction, methods which individuals and businesses can reduce, redirect, or
utilize the recoverable materials whose present destination is the Recycling facilities should be located at the Coffin Butte disposal site.

Environmental Quality

25. Benton County shall coordinate its solid waste actions, programs, and
policies with those of the Chemeketa Solid Waste Management Program or its
successors.

26. Benton County shall update or replace the Chemeketa Plan via the creation
of a Solid Waste Advisory Council. This council will soon be established
through the County Solid Waste Ordinance revision, The Council shall
include a cross-section of participants including representatives from
Cities within the County and the County at large. Staff members from
Environmental Health, Public Works and Planning Department shall
assist but shall not be voting members of a solid Waste Advisory Council.

27. The Coffin Butte site shall be designated as a regional landfill

serving a
geographic area including Linn, Polk and Benton Counties.

28. The Benton County Planning Commission and Board of Commissioners shall not
* allow any new expansion of the present Coffin Butte landfill service area.
(See Figure H-1).

29. Valley Landfill, Inc., Corvallis Disposal Company and all waste related
service providers should submit an annual plan or status report and
continue to work toward a waste reduction and recovery system through
education.

30. A designated percentage of the annual County franchise fee should be used
for educational and promotional programs on waste reduction and recycling
emphasizing methods in which individuals and businesses can reduce,
or utilize recoverable materials whose present destination is the landfill.

31. Recycling facilities, public or private should be located at rural sites
for the convenience of County citizens,

32. Periodic public agency or private industry reports shall be made to the
Board of Commissioners reviewing Coffin Butte and the Corvallis demolition
landfill environmental conditions. The Planning Commission and

the North
Benton CAC shall be notified of time and place of the presentation of the
reports.

APPENDIX II

CITIZEN ADVISORY COMMITTEE, AGENCY AND CITIZEN COMMENTS

Comments from the local citizen group, various agencies and citizens are
summarized below:

North Benton Citizen Advisory Committee:

The North Benton CAC voted unanimously to recommend approval of the
requests subject to these conditions: (1) The land on the north side of
Coffin Butte remain in Forest Conservation (FC) and be subject to separation from the parent parcel; and (2) No disposal of municipal solid
waste on the 59.23 acre parcel south of Coffin Butte Road.

Oregon State Highway Division:

"The existing left turn channelization onto Coffin Butte provides good
access and traffic flow to the development area. This should

continue as
the access to this development. There is an existing field access to this
property just north of Coffin Butte Road. This should not be used for any
other purpose and no additional access to Highway 99W would be granted.

"The quarry belonging to Oregon State Highway Division just north of the
subject location is presently being developed and used. Plans are to
continue the use for an indefinite period. We would not object to this
development, but we would not want rules imposed on this development that
would also restrict the use of the quarry."

Benton County Solid Waste Advisory Council (SMAC):

The SWAC recommended approval of the zone change and plan amendments
subject to the same conditions as North Benton CAC requested.

Mauno and Marte Martignoni:

Nauro and Marie Martignoni own property bordering Highway 99W and are
opposed to the requested Plan and Zone Amendments as they purchased their
land based on the Forestry designation and feel that expansion of the
landfill across Coffin Butte Road would decrease the value of their land.

David and Debra Hackleman:

David and Debra Hackleman are adjacent property owners and are in favor of
the request if the property on the north of Coffin Butte remains under
Forestry Conservation (FC) zone.

APPENDIX III

GOALS ANALYSIS FOR COMPLIANCE REVIEW

Since the Benton County Comprehensive Plan has not been acknowledged by the
State Land Conservation and Development Commission (LCDC), this requested Plan
must be found to comply with the Statewide Planning Goals. Under each goal
the Plan policies and pertinent "in order to comply" statements from LCDC are
listed.

**GOAL 1 . CITIZENS INVOLVEMENT: To develop a citizens involvement program
that insures the opportunity for citizens to be involved in all phases of the
planning process.**

Criteria

LCDC has concluded that Benton County does not comply with

Goal 1, because the
county "...has failed to provide adequate opportunity for review and comment
on proposed plan revisions for CAC's..." and that in order to comply the county must
"...ensure that adequate opportunity for citizen involvement in accordance with plan
policy is provided." Benton County Comprehensive Plan Policy A.1.d states that the
County shall provide " ...ample mechanisms for citizen input to County decisions...*

Discussion

Benton County has altered its normal hearings process to allow ample
opportunity for public input. The County scheduled a study session before the
Planning Commission to receive public testimony prior to the actual hearing.
The local newspapers have placed articles on the proposed landfill in their
"community sections". The Citizens Advisory Committee was notified and held
an advertised public meeting to discuss the proposal. Property owners within
the affected area were notified by mail.

Conclusion

Benton County has met the requirements for Goal 1.

GOAL 2. LAND USE PLANNING: **To establish a land use planning process and
policy framework as a basis for all decision and actions**

related to use of
land and to assure an adequate factual base for such decisions and actions.

Criteria

LCDC has determined that Benton County complies with Goal 2. The applicant has submitted material in conformance with the procedures outlined in the Comprehensive Plan. The county scheduled the request for Public Hearing in Conformance with the Plan. Therefore, the request complies with Goal 2.

Portions of the site have been reclaimed and seeded to pasture grasses.

GOAL 3. AGRICULTURAL LANDS:

This site is designated as Forestry on the Comprehensive Plan Map. Therefore, the resource use of this site will be considered under Goal 4.

GOAL 4. FOREST LANDS:

Criteria

Benton County does not comply with Goal 4, however none of the "in order to comply" statements are relevant to siting of landfills. The site has Douglas Fir Site Classes of III and IV so the request must be analyzed for

Goal 4 and
Plan Compliance. The following Comprehensive Plan policies are relevant to
this proposal:

Policy L.6 (page 77) states that lands designated "Forestry" on the
Comprehensive Plan Map shall be conserved and protected for forest uses.

Polfcy L.9 (page 78) states that non-forestry uses shall be prohibited or
regulated so as to mitigate any possible conflicts.

An exception to Goal 4 is not needed since the applicants are required to
submit a reclamation plan, and return the land to a resource use.

Discussion

Approximately 184 acres out of the total 333 acres had prior DEQ and County
approval for a landfill, and thus, the forestry uses a limited. Of the remaining 119
Acres, 59 acres located south of Coffin Butte Road are currently in forestry use. The remaining 60 acres are located on Coffin Butte itself
which has a Douglas Fir Site Class of IV. The south face is currently in
grassland, the north primarily in Oak with some Douglas Fir. Any forestry
operations that would occur on that 60 acre parcel would occur on the north
face of the Butte due to the shallow, soils on the south face, which make

reforestation difficult.

Staff has recommended that the north face of Coffin Butte be removed from consideration and kept as Forestry. The property south of Coffin Butte Road cannot be utilized for landfill unless approval is granted by the Planning Commission at a Public Hearing.

Two of the Plan policies also discuss reduction of conflicts with resource
Most of the resource uses occurring in the Coffin Butte area are crops and livestock, and occur south of Coffin Butte Road and west of Sulphur
Other resource uses include field crops north of Military Road and west of Wyles Road. The north face of Coffin Butte contains a mixture of non-resource residences and small woodlot uses. These resource and non-resource uses have co-existed with the landfill since it's inception in the late 1940's.

Conclusion

The discussion above points out that there will be very few conflicts with surrounding resource uses. Portions of the subject property not currently in use as a landfill are in pasture, as are the portions already reclaimed. The

area proposed for expansion, will not remove land from resource use on a
permanent basis as it will be reclaimed to a resource use when landfilling
have been completed.

Therefore, based on the above discussions and also based on the fact that the
Landfill must be reclaimed to a resource use, the requested amendment complies
with Goal 4.

GOAL 5. OPEN SPACES, SCENIC AND HISTORIC AREAS, NATURAL
AREAS AND NATURAL RESOURCES: To conserve open space and
protect natural and scenic resources.

Criteria

LCDC has determined that Benton County does not comply with Goal 5.
four (4) quarries located in or adjacent to the site. Three quarries are owned
by the Oregon State Highway Division and are on land designated as
The remaining site is found within the landfill site itself. All of these sites are
designated as "3C" sites, meaning that they are adequately protected by the
plan and zoning designations of Forestry. Policy 12 in the Natural Resources
and Hazards of the Comprehensive Plan, and Article X Zoning Ordinance,
specify the standards for determining on a case-by-case basis

what types of
mitigation may be necessary if there are impacts on the site.

Policy C.12 (p. 9) reads: Benton County shall establish performance standards
or specific criteria for the review of mineral extraction applications. These
should include the following: proper maintenance of air and water quality,
fish and wildlife habitat, erosion control, visual quality, noise standards
and access requirements, the efficient use of the resource reclamation of the
site once the resource has been exhausted, and determination of the subsequent
use of the site. If a mineral extraction Conditional Use Permit is applied
for, the applicant shall provide to the County staff a copy of the DOGAMI
application which includes pertinent information regarding extraction,
reclamation and subsequent use of the extraction site.

The County has other policies relating to Rock Materials in the Comprehensive
Plan; Element C - Natural Resources and Hazards (pp 8 and 9) :

C.8 Benton County recognizes that it is necessary to maintain rock material
resource land sufficient to supply an adequate quantity of rock materials for
the needs of the County. The County shall protect aggregate resources through
the use of appropriate zoning techniques, with particular emphasis immediately

directed at existing and potential production and processing sites near
urbanizing or rural residential zones of the County.

C.9 Benton County shall appropriately zone mineral resource areas or provide
for mining operations by designating them as a Conditional Use within a zoning
district, which will allow for the efficient utilization of mineral resources
with minimum confilcts with adjacent lands and/or consider natural resource
use conversions.

C.10 Benton County shall encourage the efficient utilization of rock
materials after extraction.

C.11 Benton County will cooperate with State regulatory agencies in requiring
timely reclamation or restoration of al lands used for quarrying, extraction,
or site mining to mitigate environmental impacts created by such operations,
and guarantee the suitability of mineral lands for other beneficial uses.

C.13 Secondary or tertiary land uses of approved rock and gravel sites shall
be determined by the Planning Commission when an extraction permit application

Operation and reclamation plans shall be provided by the applicant to show how they are commensurate with the intended subsequent site

C.14 County staff shall work with landowners, aggregate operators, and State
agencies to coordinate site reclamation operations.

C.15 For other than dumpstone (riprap) quarries Conditional Use review shall
be required for either the expansion or activation of any of the aggregate
listed in the Natural Resources and Hazards Background Report as 3C

Discussion

The Natural Area that exists on the site has been disturbed by the existence
of the landfill and Benton County removed the site from the inventory for this
The location of the three Highway Department quarries will not conflict with the landfill, nor will the landfill conflict with the
The quarries were in existence at the time of the original permit in 1974, and were not an item of discussion at that time. The County will
work with the Highway Division on reclamation plans that will be coordinated
with the reclamation plans for the landfill itself.

The quarry located within the landfill site has been in existence for many years.
Although it is a pre-existing non-conforming use presently, its status
under the new zone will become permitted, in accordance with

approved
Department of Geology and Mineral Industries (DOGAMI) permits.
the site will be coordinated with the overall reclamation of the landfill
The LCDC Goal 5 in order to comply statements discuss sites and areas that do
not relate to the Coffin Butte landfill. The site was discussed in the LCDC
staff report but shown to have satisfactorily met the Goal 5 requirements.

Conclusion

Based on the above information, this request complies with Goal 5.

GOAL 6 . AIR, WATER, AND LAND RESOURCES QUALITY: To maintain and improve the quality of the air, water, and land resources of the state.

GOAL 7 . AREAS SUBJECT TO NATURAL DISASTERS AND HAZARDS: To protect life and property from natural disasters and hazards.

Criteria

These two goals are considered together in this report. L.C.D.C has
determined that Benton County complies with both planning goals.

Comprehensive Plan contains several policies relating to these two goals.
Since two elements of the Comprehensive Plan contain policies directly
addressing the landfill site, and are subject to amendment with this request,
staff has separated those policies for consideration in the section of the
staff report entitled "Comprehensive Plan Text Amendment Discussion".
Policies addressing Goals 6 and 7 relative to this request are found in the
Environmental Quality Element and are as follows:

H. 1. Benton County shall manage its air, water and land resource qualities
in cooperation with appropriate agencies to insure their protection, conservation and improvement.

H. 2. Benton County land use actions shall consider the threshold of the
County's air, water and land resource qualities within the parameters
set by statewide implementation plans and, when needed, more stringent parameters when local impacts are involved.

H.3. Benton County shall designate areas suitable for establishment,
control and management of the following: municipal waste water recycling plants or land application sites. solid waste disposal and recycling
sites, sludge disposal and industrial zones.

H.4. Benton County shall buffer or separate those land uses which create

or lead to conflicting requirements and impacts upon the air, water and land resources to the County.

Discussion

Both the Environmental Health and Planning Departments have cooperated with the Department of Environmental Quality in their efforts to protect groundwater in the area of the landfill as Policy H.1. and have not yet discovered any degradation of water below the required minimum in the monitor wells periodically tested.

The establishment of landfill sites and plan designation implements policy H.5, by separating the landfill from resource uses and removing it from the The applicant has attempted to buffer the landfill surrounding uses by placing a berm between the landfill and Coffin Butte Road.

The applicant has stated in the submittal material that a leachate control system is installed and is functional. The applicant is not allowed to receive hazardous waste. The materials placed in the landfill are residential, commercial and non-hazardous industrial. The leachate control system, (and daily covering with soil) treat any solid waste effluent that may

flow out of the landfill.

Conclusion

Based on the above discussion, the requested amendment complies with Goals 6
and 7.

**GOAL 8. RECREATIONAL NEEDS: To satisfy the recreational needs of the
citizens of the state and visitors.**

Criteria

L.C.D.C. has concluded that the Benton County Comprehensive Plan complies with
Goal 8. Therefore, if the requested Plan amendment complies with the
applicable Plan policies, it is consistent with Goal 8. Benton County
Comprehensive Plan policies do not specifically address the Coffin Butte site.

Conclusion

There are no Plan policies directly relating to the proposed amendment and the
use of the site and adjacent quarries are not encouraged nor allowed, therefore
the request complies with Goal 8.

GOAL 9. ECONOMY OF THE STATE: To diversify and improve the economy of the
state.

Criteria

LCDC has determined that Benton County complies with Goal. Therefore, if the request complies with Plan policies it complies with Goal 9.

Plan Policy B.6. (page 6) states that the County shall protect the economic viability of agriculture and timber resources by continuing the following preservation of resource land, and b) reduction or elimination of conflicts with resource use.

Discussion

The potential conficts with resource use are discussed in the Goal 4 section of this report as is the preservation of resource land.

The location of the landfill does not impact the economy of Benton County in a negative way. The landfill provides an economical and efficient location the placement of waste from commercial and industrial plants in the County.

Conclusion

Based on the discussion above and in the Goal 4 Section of this report, this request complies with Goal 9.

GOAL 10. HOUSING: To provide for the housing needs of Citizens of the State.

Criteria

L.C.D.C. has concluded that Benton County complies with Goal 10. Therefore,
if the request complies with the applicable Plan policies, it is consistent
with Goal 10. Benton County Comprehensive Plan policies in the Housing
Element do not specifically address the relationship of housing to the
landfill site .

Conclusion

Based on the above, this request complies with the Benton County Comprehensive
Plan and therefore, complies with Goal 10.

**GOAL 11, PUBLIC FACILITIES AND SERVICES: To plan and develop a timely,
orderly and efficient arrangement of public facilities and services to serve
as a framework for urban and rural development.**

Criteria

L.C.D.C. has determined that Benton County complies with Goal 11. if the
requested Plan amendment complies with the applicable Plan policies, it is
consistent with Goal 11.

This Goal is addressed in the "Comprehensive Plan Text Amendment Discussion"
section.

**GOAL 12. TRANSPORTATION: To provide and encourage a safe, convenient and
economic transportation system.**

Criteria

L.C.D.C. has determined that Benton County complies with Goal 12. This
request does not involve a change in the Transportation element Comprehensive Plan, therefore, this request complies with Goal 12.

GOAL 13. ENERGY CONSERVATION: To conserve energy.

Criteria

LCDC has determined that Benton County complies with Goal 13. There are no
Energy Plan Policies relating to the amendment and the request does not
involve a change in the Energy Element, therefore, this request complies with
Goal 13.

GOALS 14 AND 15. URBANIZATION AND GREENAY:
These goals are not. applicable to this request.

From: L. Dupée
To: Benton Public Comment
Subject: OPPOSE! LU-24-027
Date: Sunday, May 4, 2025 10:04:02 PM

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

Dear Benton County Planning Commissioners,

My name is Lynette Dupée-Schmidt and I live at 7920 NW Canyon Drive in Corvallis. I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would **seriously interfere with the character of the surrounding area** and impose **an undue burden on public resources**, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- **Air and water pollution** threaten our local ecosystems and community health
- **Roadside/Hwy Litter Increase substantially impacting the character, quality and beauty of our community** adding to the existing issues of litter and the limited resources currently available for control.
- **Traffic increases** that pose safety risks on nearby roads and pathways
- **Odor and noise issues** that degrade quality of life for residents and visitors
- **Negative impacts on wildlife, recreation, and property values**
- **Long-term climate and environmental consequences** for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,

Lynette Dupée-Schmidt

7920 NW Canyon Drive

Corvallis, OR 97330

From: ANDREW OULD
To: Benton Public Comment
Subject: reject LU-24-027
Date: Sunday, May 4, 2025 7:54:50 PM

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

Benton County Planning Commissioners,

My name is Andrew Ould, and I live at 874 SE Bayshore Circle in Corvallis.

I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application for these reasons:

Republic Services' proposed expansion would seriously interfere with the character of the surrounding area and impose undue burdens on public resources, in violation of Benton County Code 53.215 (1) and (2).

More specifically,I have deep concerns about:
• Air and water pollution that threaten our local ecosystems and community health, especially the 40 million gallons of leachate created annually by the landfill and the extensive methane gases arising from the landfill, as measured by EPA testing
• Republic's dubious compliance record
• Landfill odor that is growing more offensive and more pervasive — such that I've now noticed the landfill stench at the corner of Circle Blvd. and 9th— thus degrading our quality of life
• Negative impacts on wildlife, recreation, and property values
• Long-term climate and environmental consequences for future generations, including extensive methane gas emissions and increasing PFAS in the leachate

Republic Services' proposed expansion does not align with Benton County's 2040 Thriving Communities Initiative. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

Let's bring an end to landfill expansion and instead improve the health and well-being of our current generation — as well as future generations — by rejecting LU-24-027.

Our children and grandchildren will thank you.

Sincerely,
Andrew Ould
Corvallis, OR 97333

From: Jim Scheppke
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Sunday, May 4, 2025 9:48:01 AM

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

Dear Benton County Planning Commissioners,

My name is Jim Scheppke and I live in South Salem.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

I am a member of 350 Salem OR which worked with Beyond Toxics and the Energy Justice Network and other allies to help effect the closure of the Reworld incinerator in Brooks just north of Salem at the end of last December. For 38 years the incinerator emitted millions of tons of CO2 in addition to toxic emissions that poisoned the town of Brooks, made up mostly of low income Latinx working families. We now have results from moss studies conducted by the US Forest Service that prove this. For 38 years Brooks was a sacrifice zone so that a multinational company based in New Jersey could profit at their expense.

Now that the incinerator is closed most of Salem's solid waste is being trucked to the Coffin Butte landfill. We don't feel good about this. We have eliminated one sacrifice zone in Brooks, but our garbage is contributing to another sacrifice zone in Benton County. 350 Salem OR believes that we need to pursue aggressive Zero Waste strategies in Salem to dramatically reduce our waste, and we also need to dispose of what is left in a more environmentally responsible way, such as taking it by rail to a landfill in Eastern Oregon that is in a desert climate far away from vulnerable populations.

I should mention that Salem is also the recipient of millions of gallons of toxic leachate from the Coffin Butte landfill. In 2024 over 21 million gallons were trucked to Salem where it was dumped into our sewer system in South Salem and where it traveled through our sewer pipes all the way to the Willow Lake Treatment Facility north of Salem — a facility that is not designed to treat toxic leachate — where it ended up in the Willamette River. Salem was paid over $840,000 to pollute the Willamette River which we find to be unconscionable. If the Coffin Butte landfill was expanded there would be even more toxic leachate coming to Salem and polluting the river.

For these reasons and many others you must reject LU-24-027. Thank you for your consideration.

Sincerely,

Jim Scheppke, 1840 E. Nob Hill SE, Salem

From: Virginia Scott
To: Benton Public Comment
Subject: LU-24-027: Information to add to the record regarding Number of People Opposed to the Landfill Expansion
Date: Sunday, May 4, 2025 6:23:44 PM

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

Dear members of the Planning Commission and Community Development Department staff:

Please enter the the information below into the record for LU-24-027:

Benton County Residents Largely Oppose the Landfill Expansion

On Thursday May 1, 2025 during Republic Services testimony to the Planning Commission (2:03:45 time marker on the recording), Brian Rupe, the Area VP, Northwest from Republic Services "reminded" the planning commission members that, when considering the opposition comments, they need to keep in mind that only 0.2% of the Benton County population submitted comments in opposition and that the Planning Commission should remember the rest of the Benton County residents.

Rupe's statement has an unstated assumption, which is, *people who aren't being vocal don't agree with VNEQS*, or conversely are in favor of Republic's landfill expansion. There is no evidence for this.

In real life, it's a rule of thumb that for each person taking action, there are many behind them who agree, but are not taking visible action, for various reasons. Each activist is the "tip of an iceberg". Let's assume for our purposes that for every person taking action on the landfill issue, there are 20 who agree with them.

If we assume 20 behind the scenes supporters for each vocal supporter, then there are 40 people in Benton County who are pro-expansion and 6000 people who are anti-expansion. (Assuming the number of people active on the anti-landfill side is 300). (The pro side is only 2 people, since I've excluded the pro-expansion person who lives in Lincoln County.)

Along those lines, if you think that three-quarters of the people in Benton County don't care one way or another, then you have 24,725 who do care. And if we apply the percentages established above, that means that 24,560 of the people who care and do have an opinion, are people who are against the landfill expansion.

Benton County Population: 98,899 (2024)
Corvallis Population: 61,087 (2023?)

Below are the "group" testimonies that I am aware of, who are testifying as groups against the landfill expansion, and the number of people represented by each. You will note that these numbers are not totaled, as I am aware that, with the exception of the political parties where

voter registration limits an individual to one party, citizens may be part of several groups. The point in this table is that one comment does not equal one person in all cases, and that several comments were submitted on behalf of a group and its members in opposition to the landfill expansion.

Benton County Democrats Resolution (Registered Democrats in Benton County)	25,735
Benton County Republicans Resolution (Registered Republicans in Benton County)	12,242
Green Party Resolution (Registered Green Party in Benton County)	288
Mid-Willamette Bird Alliance	300
Marys Peak Group – Oregon Chapter of the Sierra Club	58,000
League of Women Voters – Corvallis	143
Willamette Broadband – Great Old Broads	300
VNEQS Petition Opposing the Landfill Expansion	1,300
Citizens registered for Oral Testimony (Air Table 5/2/25 3:57 PM)	63
Written Testimony submitted (Per Rupe)	200

Individual People Registered to Testify in Favor of the Expansion	2

Fools figure, and figures fool, but in this instance and by any manner in which these numbers are represented, the data illustrates strong and broad opposition to the landfill expansion.

Thank you for taking this information into consideration for your deliberations.

Yours sincerely,
Virginia Scott
37016 Soap Creek Road
Corvallis, OR 97330

From: Kim Davis
To: Benton Public Comment
Subject: Vote No! on Republic Services" Conditional Use Permit
Date: Monday, May 5, 2025 4:49:04 PM

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

Dear Benton County Planning Commissioners,

My name is Kim Davis. I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Benton County Planning Commission to deny their application.

I am a resident of Salem and am fully aware that Salem's solid waste is now being trucked to the Coffin Butte landfill. Rather than deploy adequate education and regulation in Salem to meaningfully reduce waste, Salem has simply passed the burden from a toxic trash burner in Brooks to a toxic landfill in Corvallis. Worse still, the leachate from the landfill is being dumped into Salem's sewer system and then dumped into our treasured Willamette River. This is wholly unacceptable!

All our counties need to be finding ways to deal with waste now, not later. Please don't just kick the can down the road and expand the landfill. Vote No now to protect our lands and waters and all of us who depend on healthy, thriving environments.

On behalf of our grandchildren, thank you in advance for denying this permit application.

Kim Davis

97306

From:	Joel Geier
To:	Benton Public Comment
Subject:	LU-24-027: Leachate and arsenic issues
Date:	Monday, May 5, 2025 7:36:23 PM

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Dear Planning Department staff and members of the Planning Commission:

Please enter the attached presentation into the record for this land-use decisions.

This is a presentation that I developed for local United States Geological Survey (USGS) water quality scientists, for a meeting in January of 2025. Unfortunately due to current disruptions in funding for federal agencies, which have impacted the USGS office in Corvallis, we haven't been able to follow up on this discussion.

Please note Slide 16, "Shifting explanations." These were compiled from past minutes of Benton County's Solid Waste Advisory Committee (SWAC) and from the applicant's "Annual Environmental Monitoring Report."

SWAC volunteers expressed concern about the observed high arsenic levels more than 20 years ago. In response, the landfill's representatives gave them a shifting set of explanations, none of which have stood up to the test of time.

In the applicant's testimony last Thursday, their consultant Jeff Shepherd raised yet another hypothesis for the observed high levels of arsenic in groundwater at the landfill site.

As a scientist, I see hypotheses as a good thing. But hypotheses need to be tested, in order to see if they hold water.

Despite 30 years of anomalously high arsenic levels at this landfill site, the applicant has yet to present a scientific plan to test any of their various arm-waving explanations for the observed high levels of arsenic. That includes their most recent attempt at an explanation, as presented to you last Thursday.

Yours sincerely,

Joel Geier, Ph.D.
38566 Hwy 99W
Corvallis, OR 97330-9320

Water contamination concerns arising from landfills in Oregon

Joel Geier
Mark Yeager
(with contributions from Mason Leavitt)



Main Topics

Contaminants from landfill leachate passed through wastewater treatment plants into Oregon rivers

Sewage sludge (“biosolids”) from same wastewater treatment plants

Arsenic plume apparently forming from Coffin Butte landfill

What's in landfill leachate?

Dissolved metals (major):

Calcium	160 mg/L	
Iron	0.91 mg/L	– exceeds MCL for drinking water
Manganese	1 mg/L	– exceeds MCL for drinking water
Magnesium	160 mg/L	
Silicon	37 mg/L	

Dissolved metals (trace):

Antimony	16 µg/L	– exceeds MCL for drinking water
Arsenic	120 µg/L	– exceeds MCL for drinking water
Barium	570 µg/L	
Chromium	180 µg/L	– exceeds MCL for drinking water
Cobalt	38 µg/L	
Copper	5.3 µg/L	
Lead	1.2 µg/L	– goal for drinking water is zero
Mercury	???	– data missing from reports for Coffin Butte
Nickel	140 µg/L	
Selenium	1.6 µg/L	
Silver	0.1 µg/L	
Thallium	0.1 µg/L	
Vanadium	140 µg/L	
Zinc	37 µg/L	

What's in landfill leachate?

Organic chemicals above detectable limits in 2021 at Coffin Butte:

Acetone	460 µg/L
Benzene	3.8 µg/L
2-Butanone	490 µg/L
Carbon Disulfide	3.7 µg/L
1,4 Dichlorobenzene	2.1 µg/L
Ethylbenzene	5.2 µg/L
p-Isopropyl toluene	1.8 µg/L
Naphtalene	5.2 µg/L
Toluene	37 µg/L
1,2,4-Trimethylbenzene	1.7 µg/L
m,p-Xylene	7 µg/L
o-Xylene	4.3 µg/L

Past years:

cis-1,2-Cichloroethene
Isopropyl benzene
4-Methyl-2-Pentatone

Substances still found in local fields that were "irrigated" with leachate before 1998:

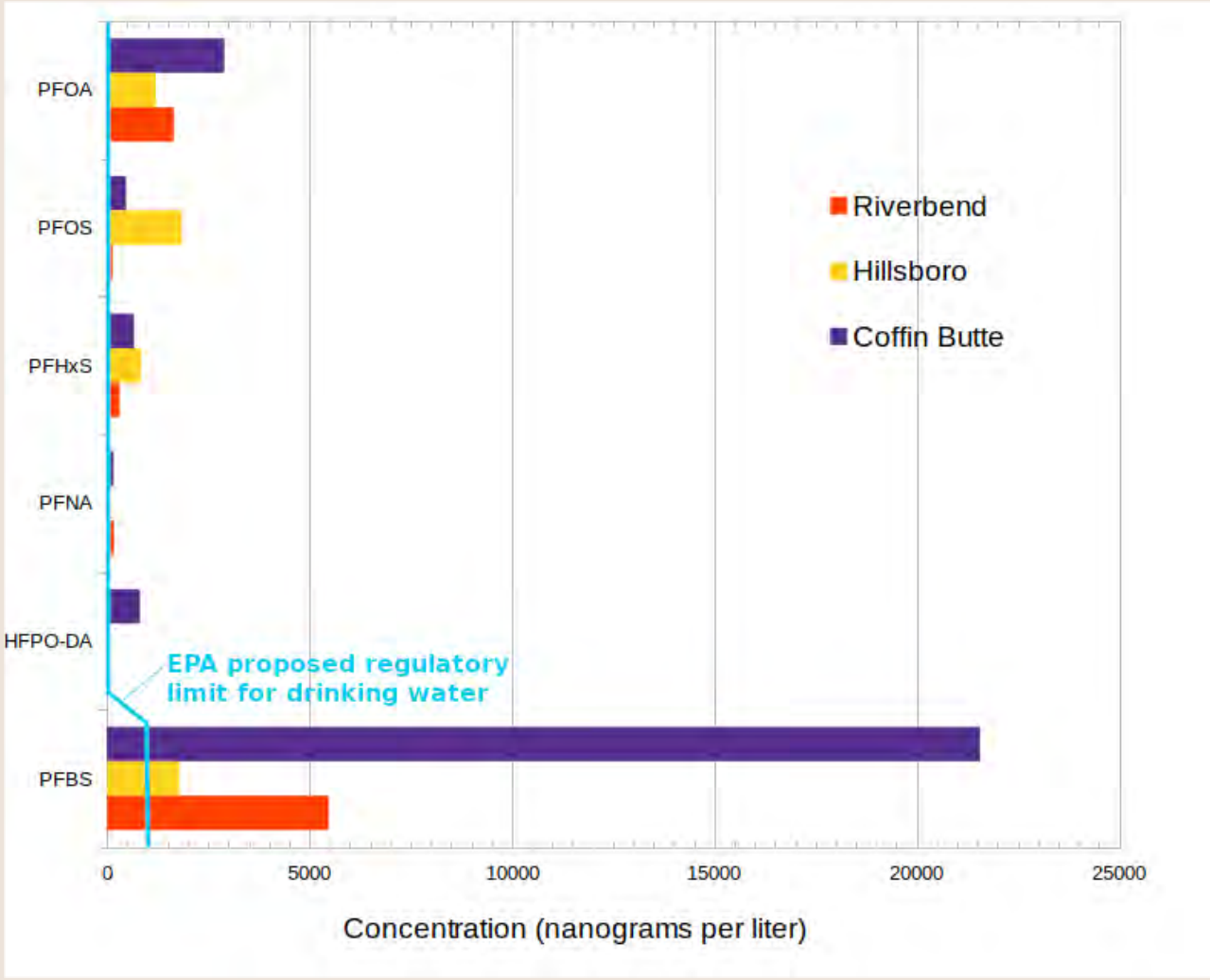
tetrachloroethylene (PCE)
trichloroethylene (TCE)
1,1-dichloroethylene

Only recently tested for: **Per- and polyfluorakyl substances (PFAS)**

PFAS in landfill leachate:

Data for six types now regulated by US EPA as human carcinogens.

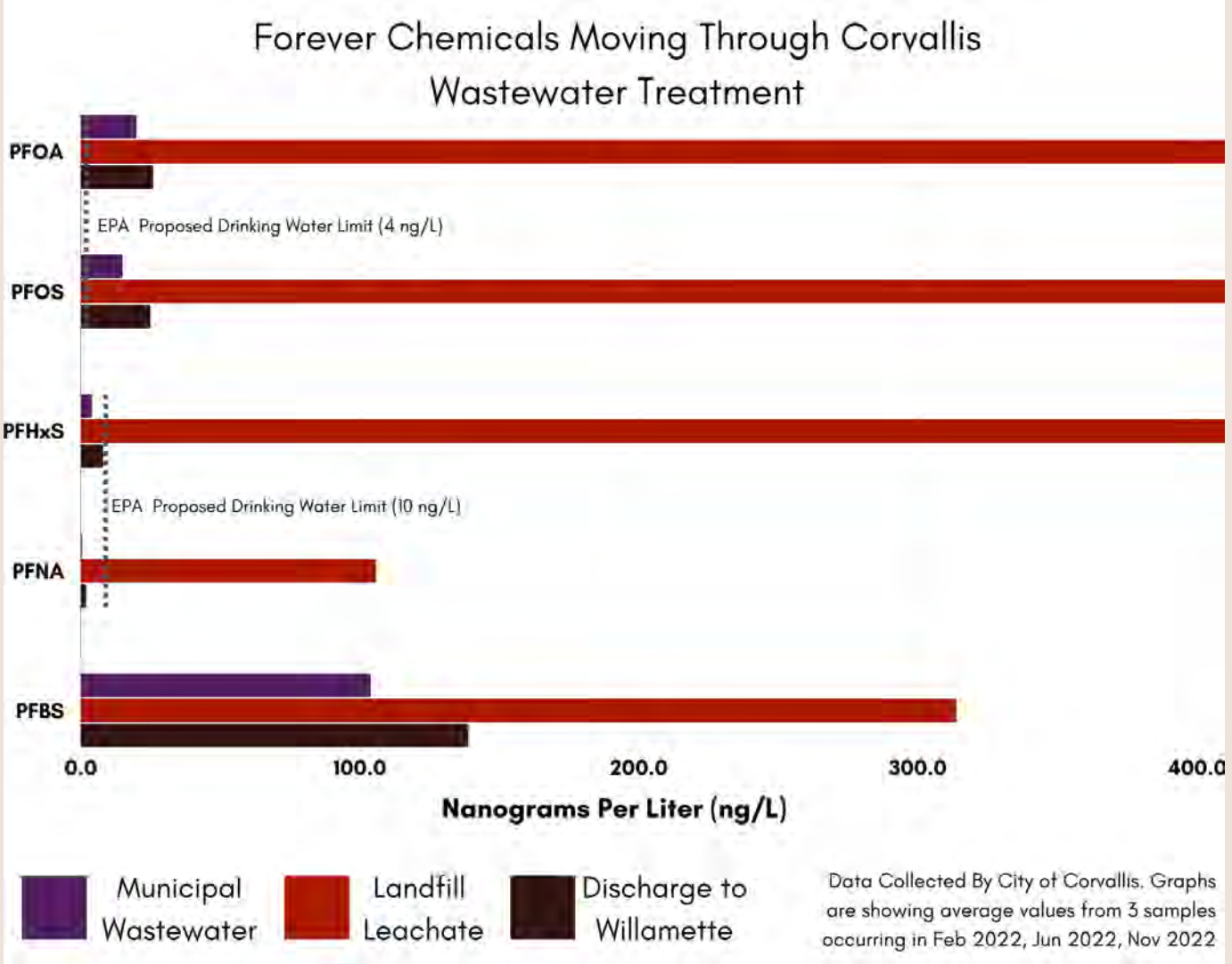
Differences among landfills may reflect different average age of waste, as well as different materials accepted (such as incinerator ash)



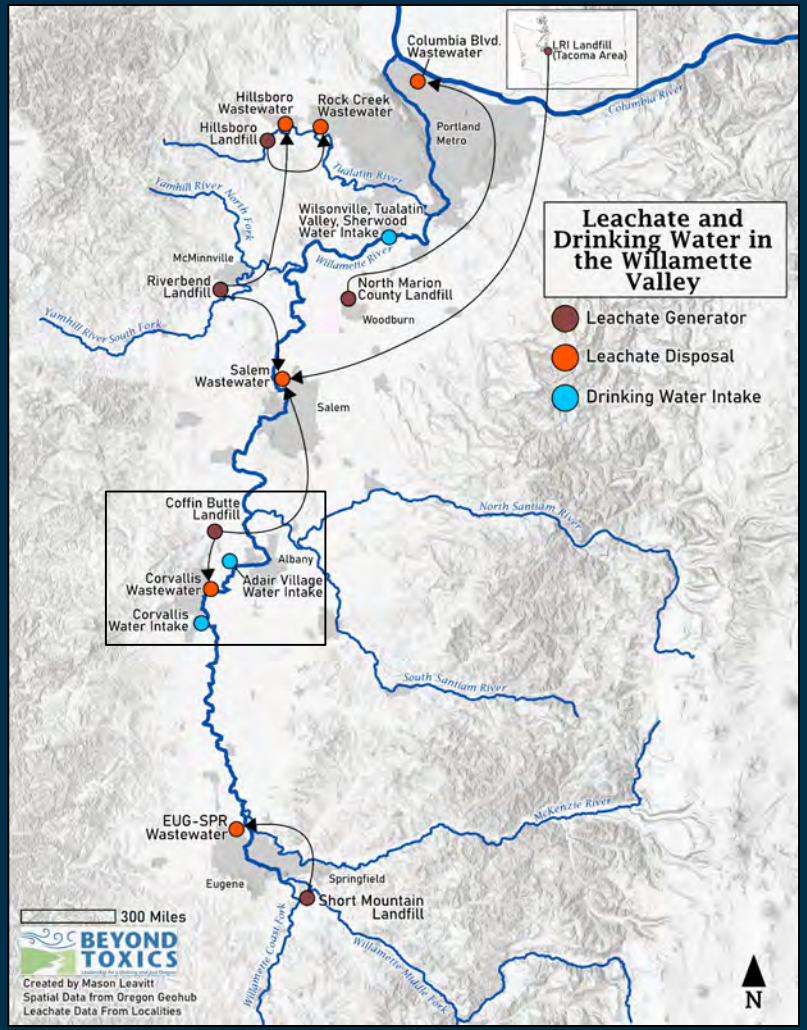
Municipal wastewater plants not effective for removing PFAS

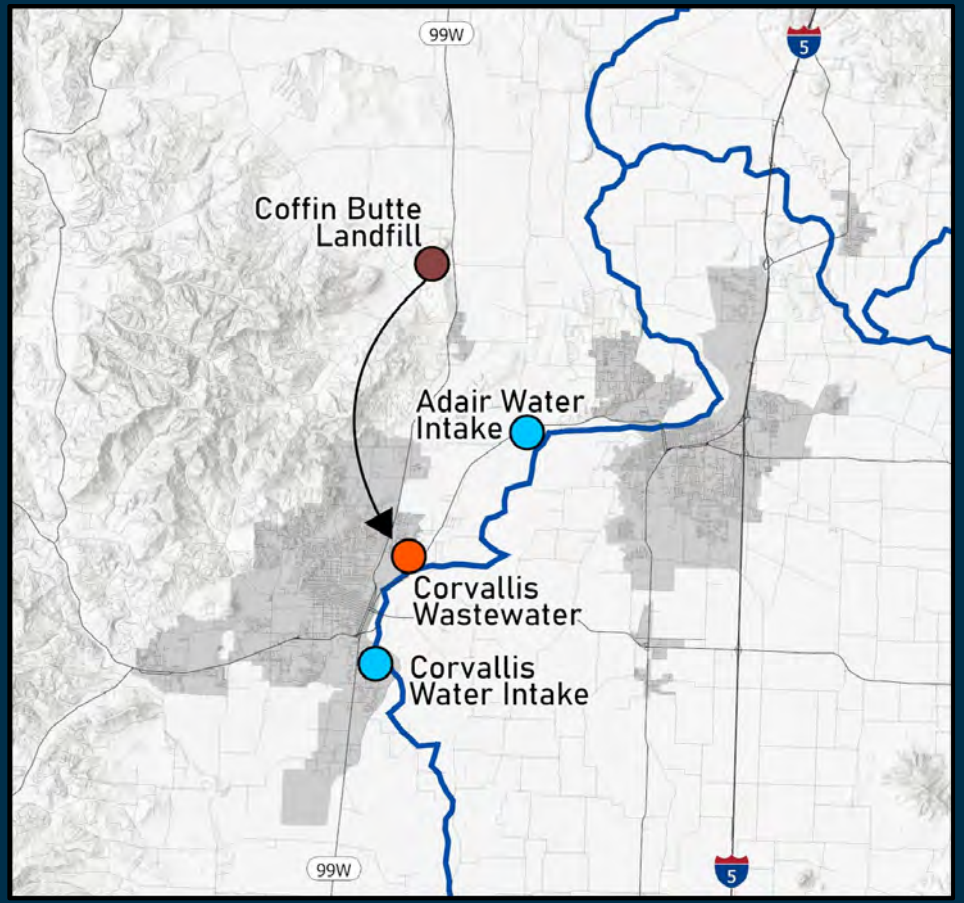
Concentrations in municipal wastewater expected to decline as regulatory changes reduce PFAS in consumer products.

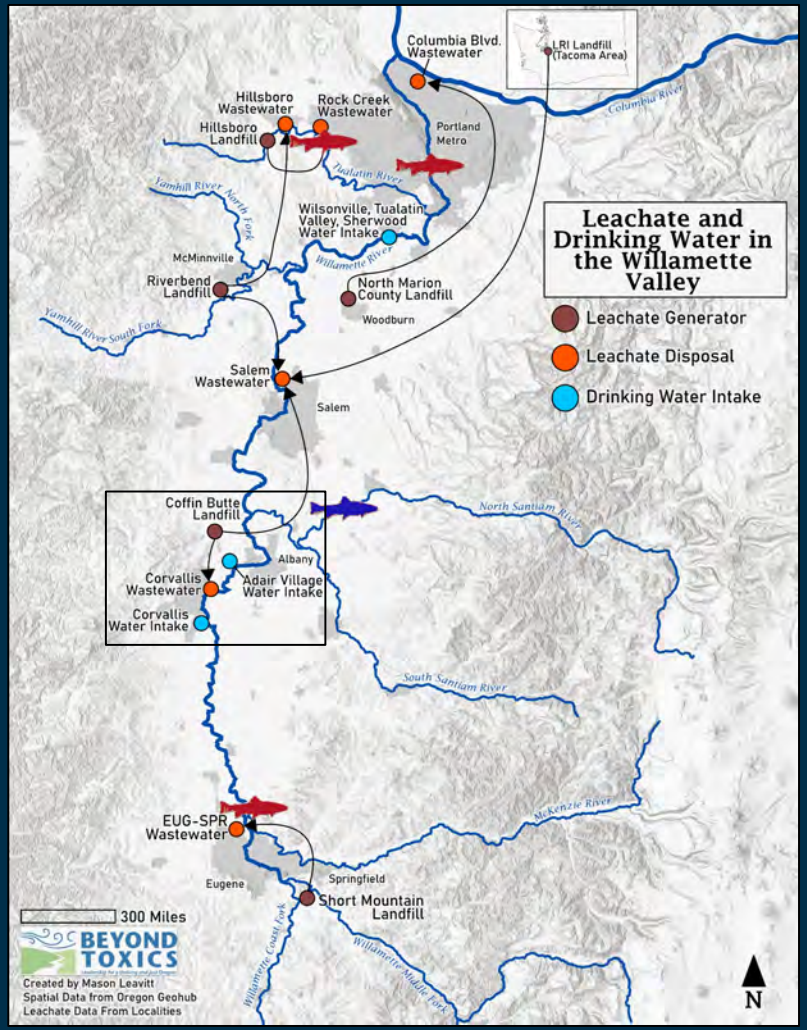
Landfills will continue to produce indefinitely from “legacy” waste.



Leachate Inputs to Willamette







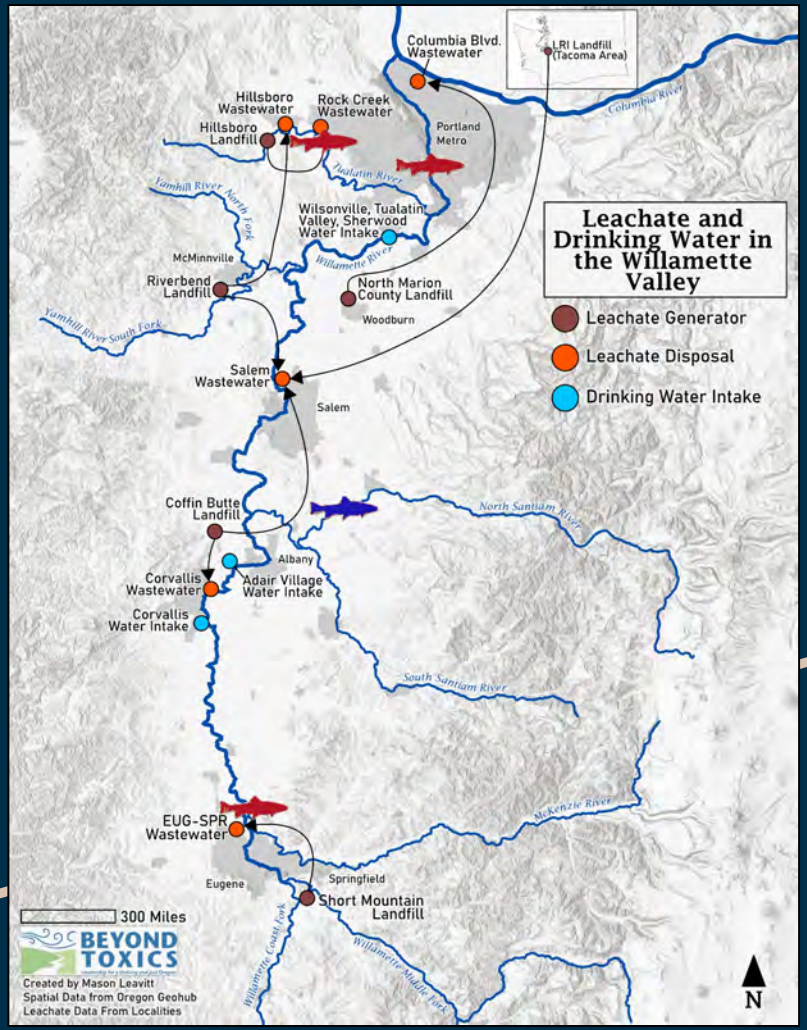
Evidence of bioaccumulation

2008 NRSA fish tissue study: PFAS found at detectable levels in fish in all Willamette Valley locations sampled downstream of WWTPs accepting landfill leachate.

Also found in Rogue River fish sampled below White City WWTP where leachate is piped directly from Dry Creek landfill.

Only “clean” sample was from North Santiam River below Stayton WWTP (which processes municipal wastewater but no landfill leachate).

Fish species: Northern pikeminnow (Eugene), mountain whitefish (Stayton), carp (Oregon City and Hillsboro), cutthroat trout (Rogue Valley)



Discussion?

Any recent efforts to sample PFAS in Oregon rivers?

Any new information about accumulation in biota, river sediments or hyporheic zone?

How much PFAS and heavy metals end up in sludge (“biosolids”)?

Any efforts to understand fate & transport of contaminants from sludge in the environment?

Arsenic issue: Anomalously high concentrations in monitoring wells on south/east side of landfill, fluctuating over time

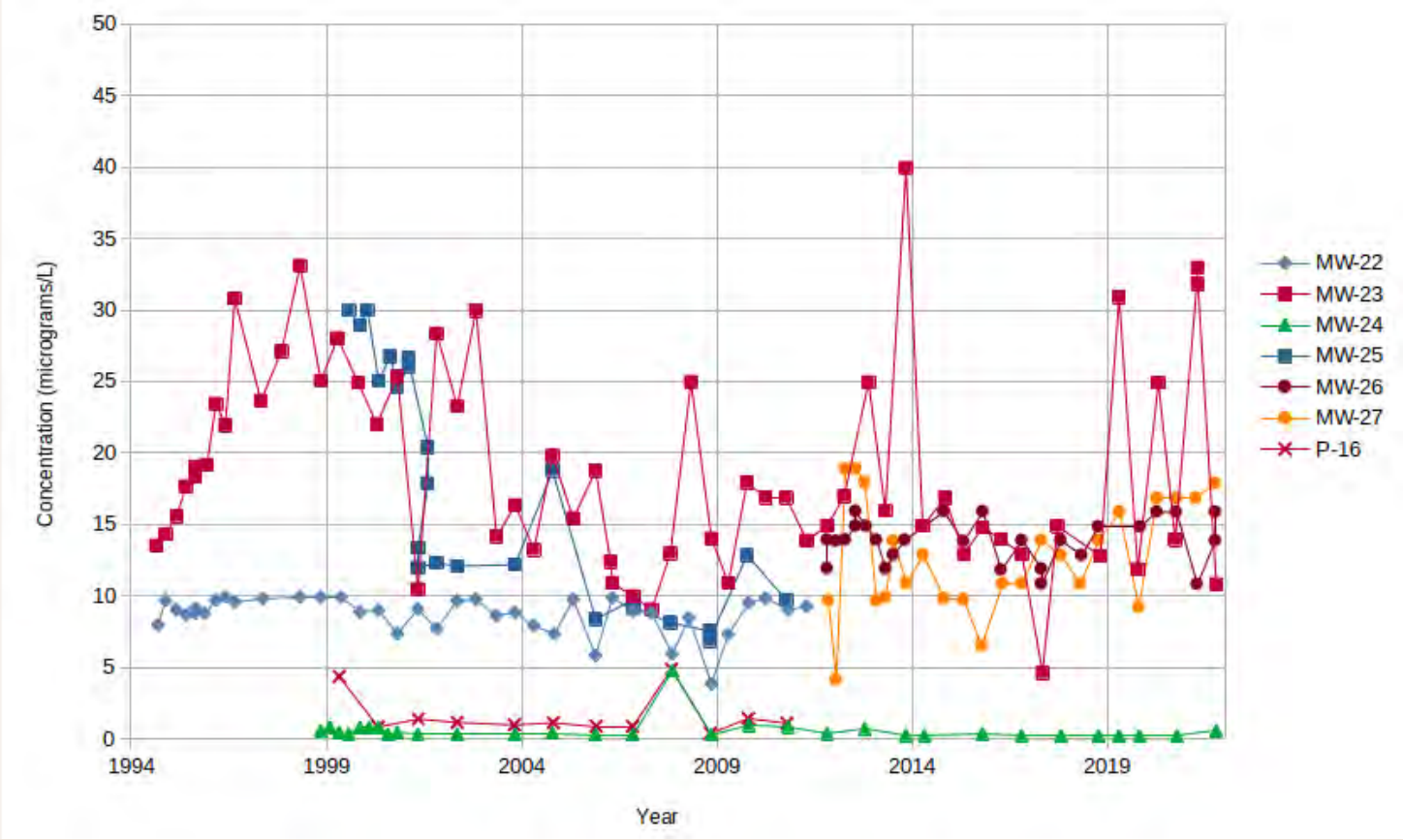


First noted in mid-1990s after acknowledged seepage event.

Arsenic Concentrations East-side wells 1994-2021

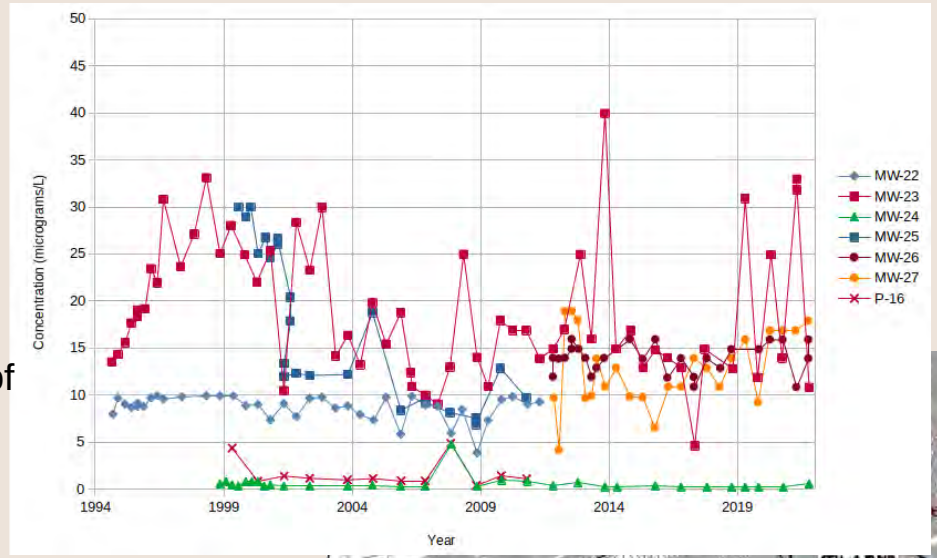
Data from 2021 Annual Environmental Monitoring Report

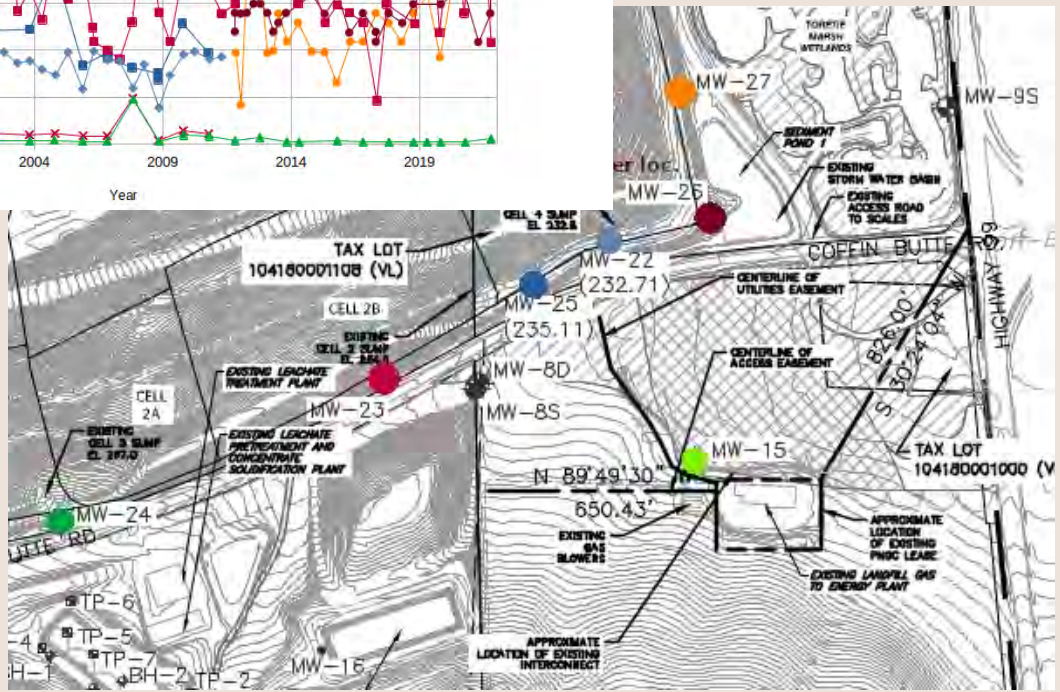
Compliance boundary wells MW-26 and -27 have regularly exceeded MCL of 10 µg/L since installed in 2013.



High arsenic in MW-23 and all wells down-gradient of early/mid 1990s seepage incident.

No problems in:
MW-24 (higher up drainage)
MW-15 (across gradient)
P-16 (across gradient)

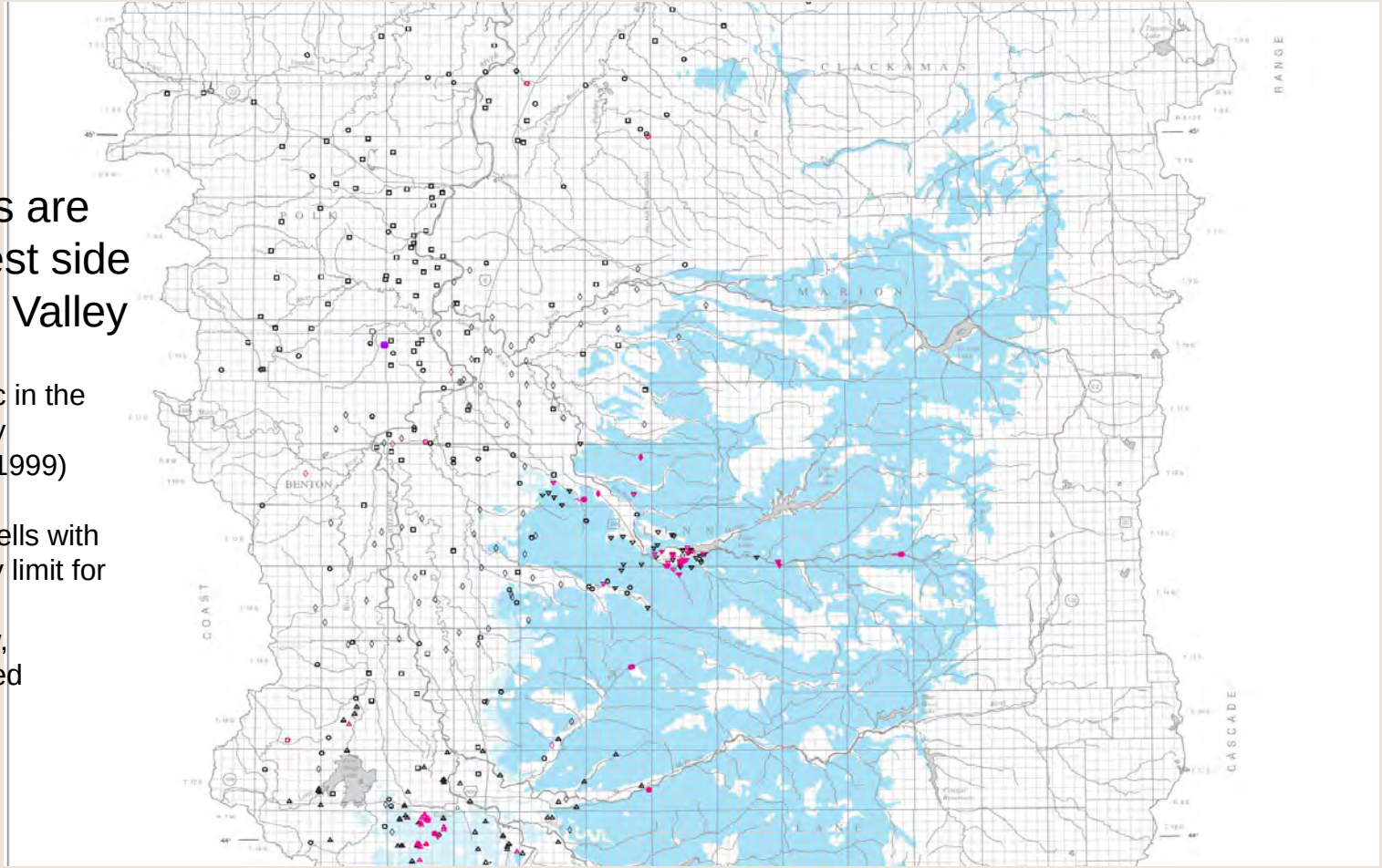




Observed levels are anomalous for west side of mid-Willamette Valley

USGS Study of Arsenic in the Willamette Valley
(Hinkle and Pollette, 1999)

Red markers indicate wells with arsenic above regulatory limit for drinking water:
>10 µg/L if hollow,
>50 µg/L if solid red

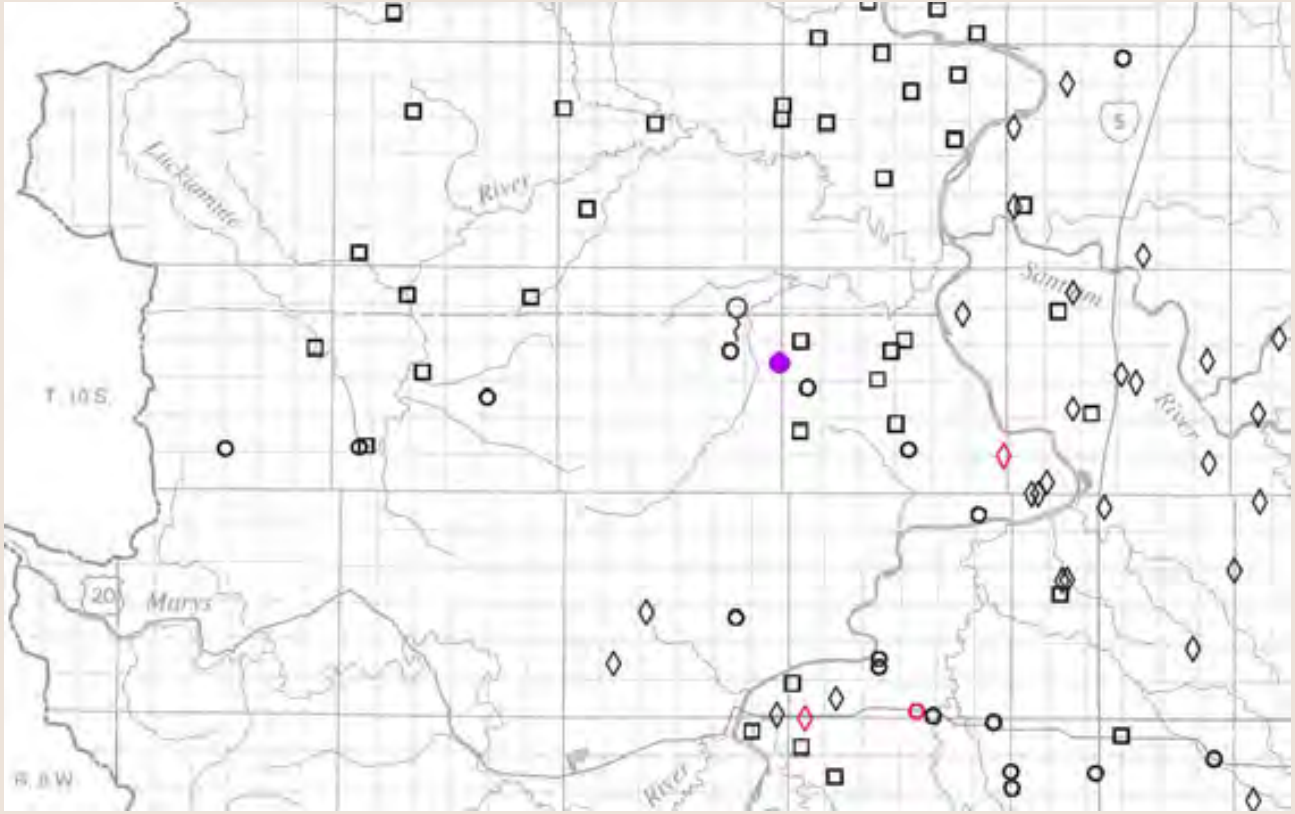


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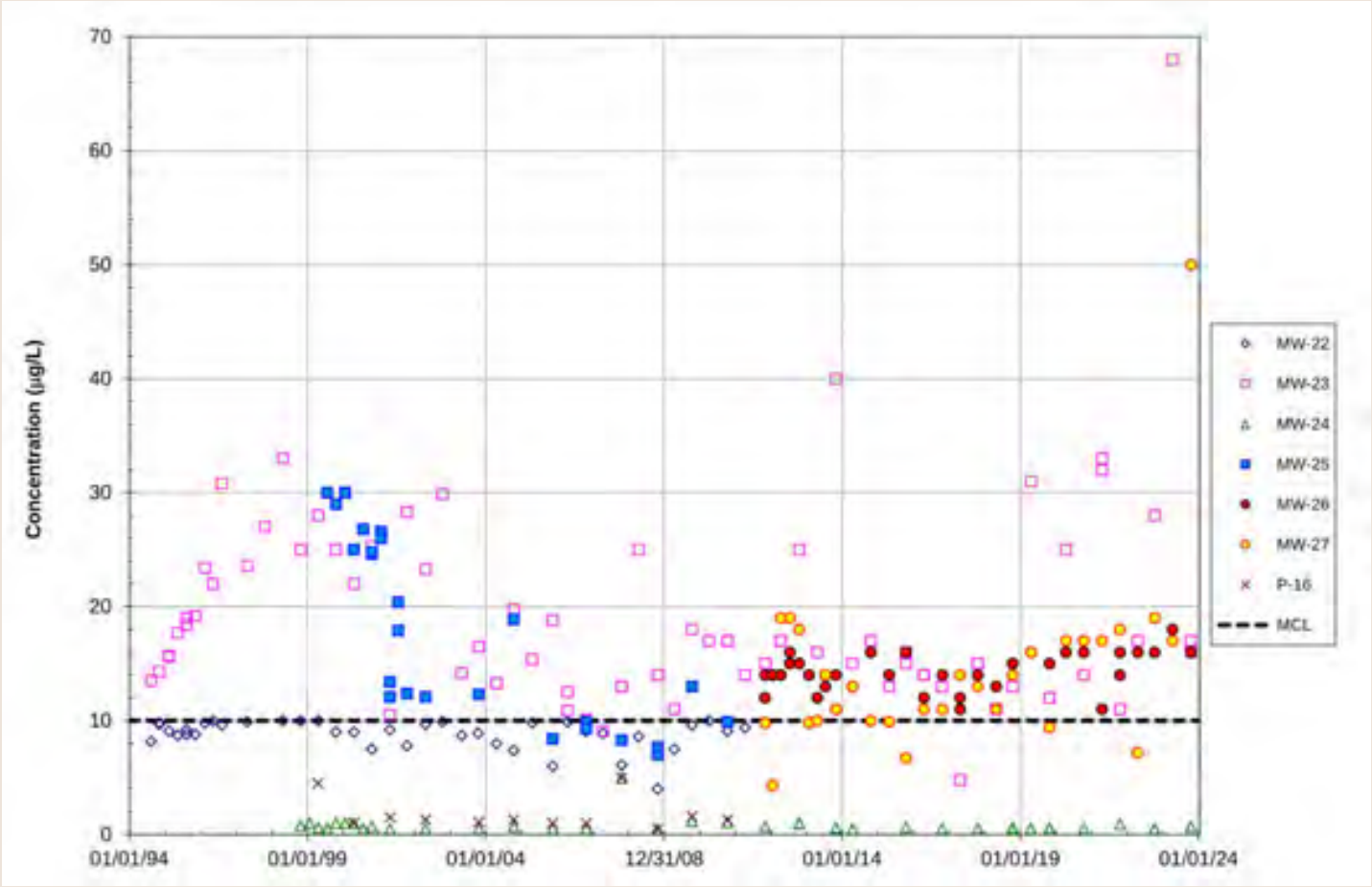
Red markers indicate wells with arsenic above regulatory limit for drinking water (10 µg/L but less than 50 µg/L).

Purple dot shows location of Coffin Butte Landfill.



Most recent data: Arsenic Concentrations East-side wells 1994-**2023**

Data from 2023 Annual Environmental Monitoring Report



Shifting explanations

“These are background levels of arsenic, typical for that part of the site.”
Problem: Values are anomalous for this part of Willamette Valley, and also fluctuate with time.

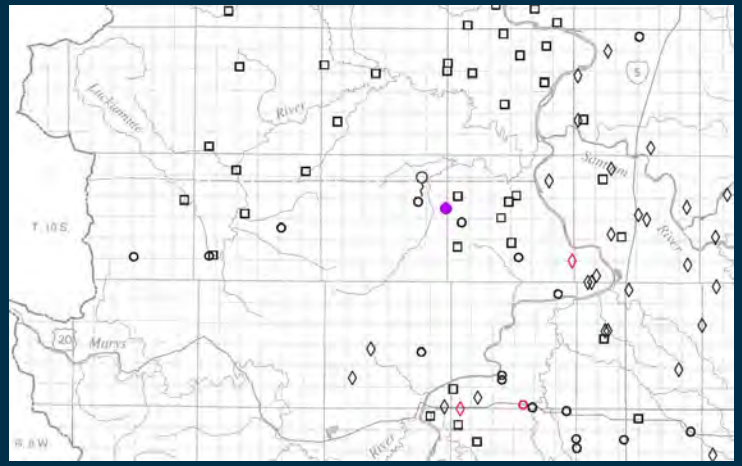
“Arsenic doesn’t normally come out of landfills.”
Problem: Leachate from this landfill has measured As concentrations ~120 µg/L

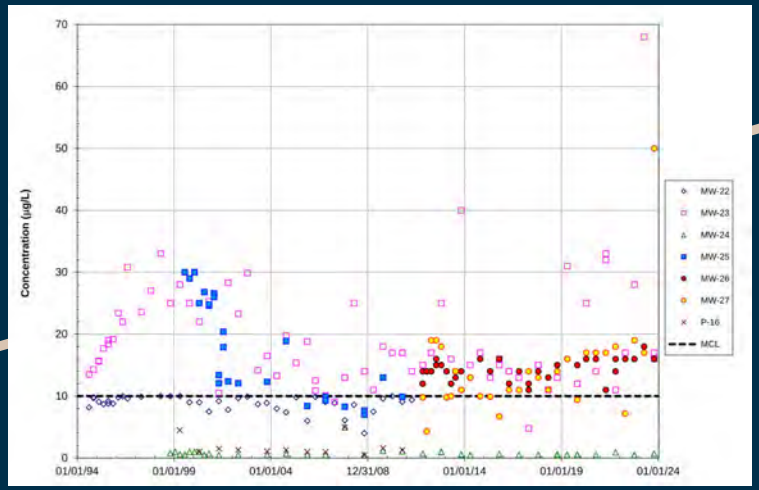
”Higher concentrations are observed in MW-9S near highway”
Problem: MW-9S is in disturbed location (drilled into a former cloverleaf intersection ramp from 1940s), at edge of an artificial wetland that was bulldozed out during the early 1990s seepage event, and filled with runoff from the acknowledged seepage area. So MW-9S was compromised before it was ever sampled for arsenic.
Also new data approaching 70 µg/L in MW-23 exceed highest levels ever measured in MW-9S.

”MW-27 is difficult to sample because it’s screened in a low-permeability layer.”
Problem: This doesn’t explain upward trend in recent years. Might be a good argument for adding another compliance-boundary well.

”Other indicators of leachate (Fe, Mn, and TDS) do not show similar trends.”
Problem: Both Fe and Mn have been trending upward in recent years, and have exceeded the site-specific action limits.

”These are typical values for the southern Willamette Valley”
Problem: Coffin Butte is in the mid-Willamette Valley.





Closing discussion

Alternative hypotheses for high arsenic – direct leakage or mobilization?

Possibilities for off-site measurements?

Precautionary well testing for down-gradient households?

Anything else?

From: Rick Kipper
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Monday, May 5, 2025 10:55:54 AM

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To the Planning Commission:
My name is Richard Kipper. I am writing on behalf of my family's 80-acres located on the east slope of Tampico Ridge adjacent to Oregon highway 99W. This property has been in our family since the 1940's and is an important part of our family history going on four generations now. The property consists of mixed conifer/hardwood forest, oak woodland, and oak savannah. It also includes a persistent natural pond fed by hillside springs that is frequently visited by wildlife.

I am sending this letter to the Benton County Planning Commission in opposition to the Conditional Use Permit (CUP) LU-24-027 application submitted by Republic Services to expand Coffin Butte landfill on to Tampico Ridge south of Coffin Butte. As one of the most adjacent property owners I feel this expansion will irrevocably alter the use and viability of our property enjoyed by generations in our family.

First among the problems I see is that our tax lot 314862 has its NW corner at the 570' summit of the northern portion of Tampico ridge that is proposed to be the basalt buttress for the new landfill cell. When filled it would rise an additional 130' above the ridge to a grand elevation of 700'. This would completely alter the character of our property forever.

Our Douglas fir timber forest continues from the corner down the slope to the east to 99W directly adjacent to the Republic Services' southern Coffin Butte Landfill buffer zone. Several year-round springs flow from the hillside that maintain our persistent pond used by wildlife as documented by our trail camera. Cougar, bobcat, black bear, deer, elk and all species identified in the applicant's wildlife report frequent this area on and between our property and the landfill's conservation zone. We also consider this persistent pond as potentially being used in a fire emergency. Our water right to the pond is recorded with the state water resources department under certificate number 70845 (HB-2153).

This then is the second even larger objection to the proposed expansion of landfill activities on to our ridge. The likely drying out of our year-round springs and loss of the persistent pond would forever alter the traditional use and character of our property. Republic Services' analysis of the hydrology of the water that flows through and out of this basalt ridge is inadequate to have any assurance this expansion on to Tampico Ridge will not destroy our water sources. It is not unreasonable to think the hard rock blasting and excavation of a deep hole necessary to prepare the proposed new cell, and the excavation of larger and deeper leachate retention pond on the north side will inevitably pull water toward these massive holes and away from our northeast side of the ridge, drying out our year-round springs. This I feel is a most unacceptable change to the use and character of our adjoining property [Benton County Code 53.215 (1)].

On behalf of my family and all the generations to come, I request the commissioners recommend a denial of the Conditional Use Permit (CUP) LU-24-027 application submitted by Republic Services to expand Coffin Butte Landfill operations on to Tampico Ridge.

Attached are several photo exhibits to accompany this request for denial:
Exhibit 1 -SpringsTopo.jpg
Exhibit 2 - Retention Pond.jpg
Exhibit 3 - Elk Herd at Pond Exiting Buffer Area.jpg
Exhibit 4 - Two Cougar headed from Pond to Buffer Area.jpg
Exhibit 5 - Buck Deer at Pond.jpg
Exhibit 6 – EagleScoutPondBench.JPG
Exhibit 7 – BitByBitHorseTherapy.JPG
Exhibit 8 – Pond WOU Amphibian Study.jpg

Thank you for your consideration in this matter.

Best Regards,

Richard C. Kipper
Benton County Tax lot 314862
1685 SW Wynwood Ave
Portland, OR 97225
503-526-0201


Seasonal Springs
1 - Valley Ponderosa 1992
2 - Planted 1990
3 - Harvest 1972
4 - Harvest 1989
5 - Grown natural since 1948
Access Paths
Pacific Hwy W
99W
Quinlan Rd
Adair Frontage Rd
Kiwi Ln
Sulphur Springs Rd
NW Soap Creek Rd
NW Blaze Dr
Rogue Dr
Firebird Dr
Tampico Rd
Old Portland and Urn
Brenneman Ln
400'
600'
1
2
3
5
2,4




Bushnell
31F 0C
11-18-2022 07:53:02


Bushnell
52°F 11C
03-28-2022 03:06:40


Bushnell
43F 6C
11-18-2022 12:14:29






Bushnell
70F 21C
03-16-2022 13:24:32

From: Jeffrey L. Kleinman
To: Benton Public Comment
Subject: File No. LU-24-027 (Republic Services/Valley Landfills Inc.)
Date: Monday, May 5, 2025 9:50:37 PM

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

Hello,

Attached for filing and delivery to the Planning Commission in the above matter please find the Memorandum of Valley Neighbors for Environmental Quality and Safety. Kindly confirm receipt.

Thank you very much.

Jeffrey L. Kleinman
Attorney at Law
The Ambassador
1207 SW Sixth Avenue
Portland, OR 97204
Tel: (503) 248-0808
Fax (503) 228-4529
Email: KleinmanJL@aol.com

NOTICE: This communication and its attachments are confidential and may be protected by the attorney-client privilege and/or work product doctrine. If you have received it in error, please advise the sender by reply email and immediately delete the message and any attachments without copying or disclosing the contents. Thank you.

JEFFREY L. KLEINMAN
ATTORNEY AT LAW
THE AMBASSADOR
1207 S.W. SIXTH AVENUE
PORTLAND, OREGON 97204

TELEPHONE (503) 248-0808
FAX (503) 228-4529
EMAIL KleinmanJL@aol.com

May 5, 2025

MEMORANDUM OF VALLEY NEIGHBORS FOR ENVIRONMENTAL QUALITY AND SAFETY

TO: Benton County Planning Commission

FROM: Jeffrey L. Kleinman

RE: File No. LU-24-027 (Republic Services/Valley Landfills Inc.)

I. INTRODUCTION

I represent Valley Neighbors for Environmental Quality and Safety ("Valley Neighbors") in this proceeding. Valley Neighbors comprises a large group of property owners and residents in the area surrounding the proposed landfill expansion site, including but not limited to the Soap Creek Valley and Tampico community. The members of Valley Neighbors will be directly and adversely affected by the proposed expansion.

The comments presented here summarize some of the legal obstacles to approval of this application which the applicant has failed to overcome. A number of the members of the affected community who will testify orally, in writing, or both, have the professional and personal expertise to flesh out the issues in detail. Some will be filing (or attempting to file)

media which we strongly encourage you to view, as county rules apparently do not allow them to be played or displayed during hearings.[1]

For all the reasons set out below and those to be adduced on the record of this proceeding, the applicant has not come close to meeting its burden of proof under the county's approval criteria. Simply stated, this application must be denied.

II. GENERAL COMMENTS REGARDING STAFF REPORT; ADDITIONAL CONSIDERATIONS

Valley Neighbors offer the following comments:

1. What is the applicant's rush? It has just converted the Knife River quarry site on its property to the west of its existing operation to landfill use. The applicant has 12-14 years of capacity at that location.

2. The staff report reflects a diligent effort, with excellent graphics, and a clear understanding of the issues facing the county. Valley Neighbors agree with its ultimate conclusion that this application must be denied.

3. At the same time, staff did not have the benefit of the written and oral testimony of Valley Neighbors and others, which reinforces the grounds for denial and adds others with a similar degree of importance.

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[1]Media containing video and audio are essential to forming an understanding of the impacts of this proposal. Staff has indicated then any media submissions such as thumb drives will be discarded. For the record, Valley Neighbors object to this "rule" and procedure, as they interfere with the substantial rights of parties to present their case. Such materials are necessary to understand the impacts of the proposal before you.

4. It is not just the southward movement of Republic's operation that will cause the increased, adverse impacts in question. Rather, that movement will serve to sustain a dump operation which would otherwise be greatly constrained in scope. Thus, this proposal cannot be characterized as one for a preexisting use, inherently accepted as part of the character of the area. The character of the area entails a large operating landfill north of Coffin Butte Road that is close to shutting down. Its past role in establishing the character of the area cannot be "grandfathered" into the present time, much less the future. To the extent that you may be advised to the contrary, we strongly (but respectfully) disagree. The application must be treated as one for a brand new landfill, because that is precisely what it is.

5. The county can impose as many conditions of approval as it wishes. Unfortunately, the applicant's existing operation has a solid track record of noncompliance with conditions, and the county has a solid track record of failing to enforce conditions.

6. Valley Neighbors have two initial comments concerning the work product of Benton County Talks Trash (BCTT):

(a) Just to be clear, BCTT's report was "accepted"–deemed received–by the county's board of commissioners. It was not *adopted*, much less in a manner which would make BCTT's proposed interpretations of the Benton County Development Code binding upon you, or upon the board itself in any appeal hearing.

(b) The legal subcommittee of BCTT, which recommended certain of those interpretations, included four attorneys. Three of those attorneys were not neutral participants, but have consistently favored landfill expansion. Two work for Republic, its in-house attorney, Holly Doyle, and its local counsel, Mr. Condit. The other is the county counsel, Mr. Croney.

7. If you are inclined to be persuaded that approval of this application would not result in "serious interference," please picture yourselves as homeowners or farmers at or near the expansion site. We can nearly guarantee that you would find that the proposed operation seriously interferes with your use and enjoyment of your property, as well as with the character of the area. Under no circumstances would you move to or wish to live anywhere near it, regardless of depressed property prices. You will hear testimony that the prospect of an expansion causes potential buyers to back out of home and farm purchases in the area. Being unable to sell your property comprises "serious interference."

III. CONDITIONAL USE APPROVAL STANDARDS-BCC 53.215

The general Conditional Use approval criteria provide:

> **53.215 Criteria.** The decision to approve a conditional use permit shall be based on findings that:
>
> (1) The proposed use does not seriously interfere with uses on adjacent property, with the character of the area, or with the purpose of the zone;
>
> (2) The proposed use does not impose an undue burden on any public improvements, facilities, utilities, or services available to the area; and

(3) The proposed use complies with any additional criteria which may be required for the specific use by this code.

A. WHAT IS THE MEANING OF "SERIOUSLY INTERFERE" UNDER BCC 53.215(1)?

This is discussed at pages 18-19 of the staff report. Valley Neighbors agree at least in part with the interpretation propounded there, especially that the proposed use causes "more than an inconvenience or irritation but is a lesser threshold than rendering the uses on adjacent property impossible." *Id.* at 19. Of course, little short of an armed attack would render such uses impossible, so it is important to find a way to draw the line.

The following discussion is a bit lengthy, but reflects our best effort to get there.

For words not otherwise defined in the Code, LUBA and the Oregon courts look to their plain meaning, quite specifically as set out in *Webster's Third New International Dictionary* (unabridged ed 2002). Webster's defines "seriously" as "in a serious manner or vein : to a serious extent * *." *Webster's Third New Int'l Dictionary*, 2073. In turn, "serious" has several definitions depending upon the context in which it is used. The applicable ones are these:

> 4a : IMPORTANT, SIGNIFICANT * * *
>
> **c. : such as to cause considerable distress, anxiety, or inconvenience**
> * * *

Id. (Emphasis added.)

LUBA has discussed the meaning of "significant" in the related context of statutory conditional uses in farm and forest zones. Those uses are subject to the requirements of the "significant impacts" test set out in ORS 215.296(1):

> (1) A use allowed under ORS 215.213 (2) or (11) or 215.283 (2) or (4) may be approved only where the local governing body or its designee finds that the use will not:
>
> (a) Force a **significant** change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; or
>
> (b) **Significantly** increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use.

(Emphasis added.)

In *Stop the Dump Coalition v. Yamhill County* ("*SDC*"), 72 Or LUBA 341, 359 (2015), another case dealing with the proposed expansion of a landfill, LUBA examined the meaning of "significant":

> Because the term "significant" is undefined, and of common usage, it is permissible to consult dictionary definitions. The most pertinent definition of "significant" in Webster's Third New International Dictionary (2002), 2116, appears to be "3 a : **having or likely to have influence or effect : deserving to be considered**[.]" Because ORS 215.296(1) is framed in the negative (the applicant must demonstrate that the proposed use "will not" force a significant change, etc.), it seems appropriate to consider related antonyms such as the term "**insignificant," which Webster's defines in relevant part as "e : of little size or importance**[.]" *Id*. at 1169.

(Emphasis added.)

The above discussion sets out the most accurate and appropriate definition for the Planning Commission to apply. In summary, "SERIOUSLY"=TO A SERIOUS EXTENT. "SERIOUS"=SIGNIFICANT=LIKELY TO HAVE INFLUENCE OR EFFECT : DESERVING TO BE CONSIDERED=NOT OF LITTLE SIZE OR IMPORTANCE.

Regardless of the definition or interpretation of "seriously interfere with," the evidence will be replete with sufficient evidence to show that the applicant has not met its burden of proving the absence of serious interference with "uses on adjacent property, with the character of the area, or with the purpose of the zone." At the same time, it would be a disservice to both the community and the Development Code to artificially constrain the effect of this approval standard.

B. INTERFERENCE WITH USES ON ADJACENT PROPERTY

One can assume for the sake of argument that, as staff states, "adjacent property" includes the adjacent and nearby properties mapped on page 20 of the staff report. It would be nothing short of bizarre for conditional use criteria to be concerned only with directly abutting properties, especially in light of the size, scale, and diverse intense impacts of the use proposed here. At the same time, properties as to which serious interference can be demonstrated should be included within the definition of adjacent property, in order to give effect to the purpose and intent of the conditional use criteria.

The staff report discusses adjacent properties in the Exclusive Farm Use zoning district. Blowing waste, especially plastics, and the attraction of gulls to the landfill who then

root around in and uproot newly planted crops, were found to be a significant impact in SDC. As just one example of such impact, if every speck of plastic is not assiduously removed by a hay farmer, and any amount of it is picked up by their harvesting equipment and thus mixed into the harvested hay, it will render the crop unsaleable. It also takes very little plastic to knock the farmer's equipment out of commission.[2]

Further, owners and residents of adjacent properties will provide evidence of the impacts they would endure under this proposal, especially as the landfill comes ever closer to them and gets much larger–and the more methane is emitted and the more leachate is generated. The impacts include truly intrusive and disruptive noise and odor impacts, and wind-blown garbage which will require constant clean up by property owners. These are impacts which neither the members of the Planning Commission nor attorneys, consultants,

---

[2]Note that BCC 60.220, discussed later in the staff report, addresses this issue directly:

> **"60.220 Conditional Use Criteria.**
>
> (1) A use allowed under BCC 60.205 or 60.215 may be approved only upon findings that the use:
>
> (a) Will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands * * *."

LUBA's holding in SDC is directly applicable to the Planning Commission's analysis under this provision.

county staffers, or BCTT participants would abide for even a single day. When you get right down to it, this is the reality of "talking trash."

Noise

Dump operations are proposed to be conducted from 5:00 AM to 5:00 PM, Monday through Saturday and noon to 5:00 PM on Sunday. (However, movement of heavy equipment regularly starts by 4:00 A.M., to prepare the fill for the arrival of trash.) It would be difficult to overstate the extent to which landfill-related noises will "seriously interfere with uses on adjacent property." Hundreds of heavy diesel trucks hauling waste to the site, climbing the working face of the fill, traveling over the fill itself, and braking down the slope and departing from the site will produce a nearly constant heavy roar and squeal, most intrusive during the warmer months when residents are trying to enjoy being outdoors on their property. The dumping operation itself will produce the regular sounds of vehicle hydraulics and clanging tailgates as loads are dumped. Perhaps worst of all will be the high-intensity chirping of back up beepers (whether or not outfitted to be triggered only by proximity to obstacles[3]), on both the haul trucks and landfill equipment such as bulldozers. Noise impacts alone will render adjacent properties nearly unlivable.

With respect to noise, staff found as follows:

---

[3]The applicant proposes to require proximity-generated buzzers for their own equipment. These devices produce an alarm-clock-like buzzing which is louder than the traditional beeping.

> The applicant identified the closest noise-sensitive properties (residential uses) and evaluated potential noise impacts on these uses. The applicant did not evaluate noise impacts on other adjacent properties at greater distances. Staff concurs with the applicant's reasoning that if noise does not seriously interfere with close noise-sensitive uses, it will not seriously interfere with noise-sensitive uses farther away, as noise diminishes over distance.
>
> As noted by the applicant, the cited DEQ Noise Rule does not appear to be directly and entirely applicable to the proposed application. However, staff concurs with the applicant's use of that DEQ regulation to set a threshold for noise increase to "seriously interfere" with noise-sensitive uses.
>
> However, as noted in MFA findings above, the proposal appears to exceed the DEQ regulatory noise threshold proposed for use by the applicant to evaluate consistency with this standard.
>
> In the absence of a proposed solution to meet identified noise impacts, staff recommends denial of the application due to noise impacts on adjacent noise-sensitive uses.

Valley Neighbors generally agree with staff's findings. However, we would reinforce them with the following modifications:

(1) Even hypothetical compliance with DEQ noise standards, which are effectively unenforceable in any event[4], may seriously interfere with uses on adjacent property. The proposed conditional use and the disturbing sounds it will generate are simply incompatible with adjacent residential uses, and even with the outdoor activities of small farm operators who have placed comments into the record.

---

[4]Sadly, this is putting it very mildly. The applicant's representative testified on May 1 that DEQ no longer conducts enforcement. DEQ in fact stopped updating noise regulations in 1991, which is when it ceased noise enforcement. The applicant is not constrained by DEQ regulations.

(2) The science of acoustics does not lend itself to straight-line calculations. For example, based upon the height of the fill at any given time, varying atmospheric conditions, and the occasionally sheltering effect of the fill itself, properties further away may suffer greater impacts than "the closest noise-sensitive properties." Thus, the applicant did not meet its burden of proof when it only evaluated potential noise impacts on those properties and their uses, and not on other properties within the as-defined adjacent area.

(3) The applicant is only able to exercise some semblance of control over its own vehicles. The vehicles of other haulers and private customers will be entirely out of their control. Assurance of compliance with any relevant or agreed noise standards will be impossible.

Odor

With specific regard to odor impacts, staff found as follows:

* * * Staff has two general concerns with the applicant's analysis:

1. Odor-sensitive uses. The analysis does not appear to identify adjacent uses that are likely to be more sensitive to odor impacts. For example, a residential use is likely to be more sensitive to odor impacts than a farmed field. Locations of odor-sensitive uses are not clearly defined in the odor analysis or mapping, and the potential impact on these uses is not specifically evaluated. Of special note, there may be odor-sensitive uses within the boundary area identified in the applicant's odor analysis.

2. As identified in the MFA engineering response, several technical elements of the analysis appear to be inadequately supported.

Due to these concerns, and the lack of options for conditions to mitigate these concerns, staff recommends denial of the application.

Staff Report at 33. The evidence placed in the record will strongly support your staff's determination.

In addition, commissioners should not assume that some community members would be unaffected by or benefit from this proposal because the landfill and its working face would be further away than before. If the current fill (and the expansion into the quarry to its west) reach full capacity and this application is not approved, then the impacts other than residual fumes and odors (which are supposed to be controlled in the first place) would for the most part disappear. That is the baseline condition you must measure against, not the supposed baseline of an operating dump.

You have been presented with testimony that the applicant and county promised and planned that the landfill use would be temporary ever since the first CUP for a landfill in the Forest Conservation zone was granted in 1973. Afterward, it was to have been capped, and revegetated, so as to return the parcels on which it was located to the original pastoral character of the area. There has never been a provision for the landfill to be an ever-growing, permanent operation. The commitment to fully and permanently cap and close the landfill and restore the site to its original condition reflecting the pastoral character of the area, is part of the county's only duly adopted Solid Waste Management Plan (the 1977 Plan, a copy of which is attached as Exhibit A). This commitment has been made repeatedly but never fulfilled. It was contained in the 1983 zone adoption and change, and revalidated in every single land use decision since that time that addressed landfill operations, in 1994, in

2001, in 2003, and most recently in the 2021 CUP proposals.

One characteristic that can be drawn from the preexisting operation, though, is the applicant's manner of operating a landfill. In this regard, please be aware that the voluminous application materials on file do not disclose that Republic's Pollyannaish description of its methane emissions overlooks an ongoing action by the US Environmental Protection Agency. (Please see the recap attached as Exhibit B.) Simply stated, the EPA does not believe Republic's numbers and has the dump under investigation.

This reflects the way this operator operates. Leaking malodorous, unhealthy methane (that also contains airborne PFAS and many other air pollutants as described by the applicant during its May 1 testimony) onto adjacent properties will interfere with all uses on those properties, and with the character of the area (however "area" is defined).

Visual Impacts

While perhaps not as impactful on its adjacent properties as would have been the applicant's 2021 proposal on its affected properties to the north, the new mountain of garbage will nonetheless have a dramatic visual impact on the nearby properties to the south. . The applicant proposes to plant trees to screen the visual impacts. The main problem with this is that screening the landfill is already a Condition of Development for the zone (as well as a requirement of the 1967 Highway Beautification Act). But the current landfill operator has never been able to adequately screen a 500-foot tall artificial landform with "proposed trees" that might reach 15 feet in height by the time the expansion is full. There is no indication

that this will change. The operator has not capped and revegetated a closed cell since the mid-1990's. Instead, it covers cells with unsightly, deteriorating tarps which can be seen for miles. This conduct too will never change. The applicant acknowledges that even if the proposed vegetative screening is installed and maintained, the new landform made of trash "may be visible." The applicant also states that expanding the landfill will "reduce * * *visual impacts * * * caused by the current operation" which, under prior Conditions of Development, are already required. What are we to make of the applicant's suggestion that it will now belatedly, voluntarily comply, after the passage of 50 years?

Note also that the "artist's rendering" of "visual impacts" depicts the landfill mass in a green color. The landfill mass is in fact the colors of a patchwork of decaying tarps. Thus, the new topology of trash should be depicted in its current unnatural colors.

C. INTERFERENCE WITH THE "CHARACTER OF THE AREA"

The "area" in question covers considerably more territory than "adjacent properties." In spite of alternative characterizations offered by the applicant, the character of the area surrounding the proposed fill site is pastoral and considerably more quiet and free of industrial noises and landfill debris and odors than it would be if this application were approved. There is even a nearby wildlife refuge. the E. E. Wilson Wildlife Area, to the east, and a public hiking trail to the north which will have direct views of the 59-acre parcel. The use and enjoyment of both will suffer interference due to landfill noise and odors. The applicant's tree-planting proposal, even if implemented and duly maintained over time, will not mitigate

these impacts. By definition, moving the fill operation south of Coffin Butte Road will seriously interfere with the character of the area to the south.

You will receive direct first-person testimony and evidence with respect to the proposal's serious interference with the character of the area. The discussion of noise and odor impacts above applies to the surrounding area as well, as those witnesses will explain. Valley Neighbors propose that you rely upon the actual testimony placed in the record to determine the boundaries of the relevant "area" under the Development Code.

Visual Impacts

The applicant first proposes to strip the 59-acre parcel of all its vegetation and topsoil, then dig a 155-foot hole in the side of the geographic feature that is the ridge, fill the hole (below the water table) with garbage, and then pile more garbage atop what previously were the natural contours of the hillside. It is possible that preparing the site to accept trash will actually have more of a visual impact than filling it with trash will (the applicant has not provided Benton County with a timeline for site preparation), so it is appropriate to consider the visual impacts of site preparation in addition to the impacts of the operating fill as well as its impacts after final closure.

The area south of Coffin Butte Road currently lacks the view of the giant trash pile the applicant proposes to erect. Even if the height of that pile is lower than would have been the height of the one proposed for the area north of Coffin Butte Road in 2021, its visual impacts

will nonetheless seriously interfere with the character of the newly affected area. Under your code, this impact cannot be glossed over.

D. FINDINGS OF THE PLANNING COMMISSION IN DENYING THE 2021 APPLICATION (LU-21-047)

The applicant's 2021 conditional use application was different in scope from this one, especially in seeking to close and fill over Coffin Butte Road.[5] However, many of the other impacts would be quite similar and are directly applicable to this application. There are other ways to say the same thing and reach the same result, but the Planning Commission took a great deal of time and care in crafting its findings of denial. We do not feel a need to reinvent the wheel, and thus set out the most relevant ones here:

Uses on adjacent property:

> Many residents of the area testified that the odor and noise has continually gotten worse over the years. Some testified that they have to seek shelter inside to avoid the noise and smell. They warn that the levels expected in the future will affect their rural residential uses. Some farmers have testified that getting workers to work in the stench has been an issue.
>
> Odor: Methane emission rules do not capture the impacts to the character and use of the area because many people testified that the smell inhibits them from going outside and enjoying the use of their property. Property owners within miles of the site stated they could smell the landfill. The current mitigation of an earthen cap over cells does not mitigate smell and smell reflects emissions of other gases such as Volatile Organic Compounds (VOCs) and hydrogen sulfide. The same mitigation is proposed for the

[5]Valley Neighbors believe that may still be the plan. If the proposed expansion is approved, it is not at all inconceivable that the county would apply (to itself) to vacate the road so that Republic would own and could fill over the right-of-way. It is not impossible that this could be carried out without significant public scrutiny or review. Thus, this application could well be a Trojan horse.

expansion and if it currently does not mitigate the odor then it cannot be used as a mitigation for the future and be expected to minimize the concern.

Bad air quality: People living in areas with poor air quality does pose serious interference with livability. Risk of health concerns is likely with the landfill expansion; enough so nearby residents speak out about it. Some residents point to increasing cancer clusters in their neighborhood and suggest that poor air quality may be responsible. One nearby resident pointed to studies in Europe that tied poor air quality in the proximity of landfills to bad health issues. The applicant noted they cannot control all of the releases of VOCs or hydrogen sulfide and these gases are understood to be potent carcinogens. The applicant did not address the long-term effects of those gases in varying concentrations in different weather situations but the Planning Commission certainly heard from people that they can smell these.

Noise: The noise study contracted by the applicant has been criticized as faulty and inadequate. Proposed mitigations do not seem feasible and such conditions couched as "whenever feasible" or "if permitted by safety conditions" are not stringent enough. Further concern of noise from banging truck gates, loud noises from unloading, was not addressed. Point noises are often the most debilitating and background noise is easier to live with. * * *

Much of the applicant's response to these issues is to rely on subsequent review and approval by Oregon Dept. of Environmental Quality (DEQ); however, there is no ability for the Planning Commission to review the situation after DEQ's approval to ensure that DEQ's standards were adequate to prevent the proposed use from seriously interfering with uses on adjacent property.

Conclusion: The proposed use does seriously interfere with uses on adjacent property.

The character of the area:

[We cite only the relevant portion of the findings here, which would be directly related to the southward march of the fill. The evidence presented to you will demonstrate those impacts upon such properties.]

* * * Residents of the area point to the change in the character of the area. * * *

> * * * The livability of the area because of noise, odors, and the visibility of the garbage pile will continue to degrade.

Benton County File No. LU-21-047, Planning Commission Findings at 2-3.

D. SERIOUS INTERFERENCE WITH THE PURPOSE OF THE FC ZONE

The purpose of the Forest Conservation zone is set out in BCC 60.005. The relevant subsection is set out below, with the most directly relevant language italicized:

Forest Conservation Zone.

> **60.005 Forest Conservation Zone.**
>
> (1) The Forest Conservation Zone shall conserve forest lands, promote the management and growing of trees, support the harvesting of trees and primary processing of wood products, and *protect the air, water, and wildlife resources in the zone. Resources important to Benton County and protected by this chapter include watersheds, wildlife and fisheries habitat, maintenance of clean air and water*, support activities related to forest management, opportunities for outdoor recreational activities, and grazing land for livestock. Except for activities permitted or allowed as a conditional use, non-forest uses shall be prohibited in order to minimize conflicts with forest uses, reduce the potential for wildfire, and protect this area as the primary timber producing area of the County.
>
> As staff points out:
>
> The FC zone conditional use criterion BCC 60.220(1)(c) requires consistency with BCC 53.215. As discussed above, staff does not consider BCC 53.215 criteria to be met with respect to noise and odor impacts; therefore, the proposal also is not consistent with the purpose of the FC zone.

Staff Report at 46.

We concur with that portion of staff's findings. We would also point out that the LS classification was created so that landfills would not be located in FC zones. Hence, the

proposed siting on FC parcels of accessory uses which would be part of the landfill operation would subvert the intent of the county's zoning scheme. Note also that landfill "buffers" are not a by-right use in the FC zone, and are not allowed at all in the RR zoning district.

The only parcel in the applicant's ownership that is currently permitted for landfill "buffer" is the 59-acre parcel that the applicant proposes to put a new landfill on. This is the buffer between existing landfill operations, which are slated to continue for the next 12 years, and the RR-10 and FC parcels with residences on them to the east, west, and south. A landfill cannot "buffer" itself. The 59-acre parcel was zoned LS in 1983 to provide visual/noise/odor screening from adjacent parcels, and that is its current function. Without rezoning existing rural residential parcels to LS, or obtaining Conditional Use Permits on FC parcels for landfill "buffering," this use is not compatible with surrounding existing uses.

IV. BCC 53.215(2) AND OTHER CRITERIA RELATING TO TRAFFIC AND THE APPLICANT'S TRAFFIC IMPACT ANALYSIS; DRAINAGE AND LEACHATE MANAGEMENT

Returning to the Conditional Use criteria of BCC 53.215, subsection (2) requires the applicant to prove:

> (2) The proposed use does not impose an undue burden on any public improvements, facilities, utilities, or services available to the area.

In this regard, the staff report discusses both traffic impacts and drainage and leachate management issues.

The applicant's TIA seems to have withstood staff and consultant scrutiny thus far. However, it is not clear that the TIA and its reviewers understood that the Knife River quarry operation on land leased from Republic had ceased. Republic has now prepared that portion of its property for landfill use, and commenced to fill it. That use will have traffic impacts which are substantially different from and more intense than those generated by Knife River. The defects in the applicant's TIA are separately addressed in a submittal from Mark Yeager.

Considerable testimony will be placed in the record with respect to drainage and leachate management. The record will show that the applicant has not demonstrated that it can or will construct and operate a compliant landfill. Additionally, none of the applicant's studies–not traffic, nor noise, nor odor–takes into account the impact of removal of 3,500,000 tons of material from a topographic feature, the relocation of that material to the stockpile across the road, and the eventual removal of the material from the stockpile to some remote location to be determined in the future. (The applicant has not shared the details of this operation with county staff.) The impacts of site preparation and operation must be weighed and considered when the process will be as extensive as is the case here.

V. CONDITIONAL USE CRITERIA UNDER BCC 60.220

BCC 60.220 applies in this case and provides in material part:

60.220 Conditional Use Criteria.

(1) A use allowed under BCC 60.205 or 60.215 may be approved only upon findings that the use:

(a) Will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands; * * *

This is essentially the language of ORS 215.296(1), which sets out the "significant impacts" test and was interpreted by the Oregon Supreme Court in SDC. Again, the Supreme Court interpreted "significant" in this context as follows:

> Because the term "significant" is undefined, and of common usage, it is permissible to consult dictionary definitions. The most pertinent definition of "significant" in *Webster's Third New International Dictionary* (2002), 2116, appears to be "3 a : **having or likely to have influence or effect : deserving to be considered[.]**" Because ORS 215.296(1) is framed in the negative (the applicant must demonstrate that the proposed use "will not" force a significant change, etc.), it seems appropriate to consider related antonyms such as the term **"insignificant," which *Webster's* defines in relevant part as "e : of little size or importance[.]**" *Id.* at 1169.

(Emphasis added.) This provides the definition and interpretation which are binding upon the county here.

The staff report concurs with the applicant's characterization:

> The new or relocated elements that are proposed on the FC-zoned lands are an 1,800-square-foot employee building and parking, access road modifications, the relocation of leachate ponds, leachate loadout, leachate sump, an outbound scale, portions of the perimeter landfill road, cut activities for landfill, and a shop/maintenance area to support the landfill. These elements will slightly reduce the amount of land that is available for farm and forest uses * * *.

Staff Report, 52-53.

Staff then concludes:

> Staff concurs with the applicant that farm and forest uses have operated on and adjacent to an active landfill use on this site for decades. In the absence of contradictory information, as of the writing of this staff report staff sees no evidence the proposal will force a significant change in, or significantly increase the cost of, accepted farm and forest practices.

Id. at 53.

This conclusion fails to take into account the movement of the applicant's operation toward the south, and the farm impacts which will occur there. In fairness, staff did not have "contradictory information" at the time the staff report was prepared. However, farmers will submit contradictory evidence into this record. That evidence is also likely to be highly relevant to your consideration under the general Conditional Use criteria of BCC 53.215. As we have discussed, this would be a new landfill. While it will be closer to some farms than is the fill north of Coffin Butte Road, the Commission must also take into account impacts on other affected farms in light of the fact that the existing northerly site will shrink and then close, which would otherwise eliminate its impacts but for the opening of this new, proposed fill.

VI. BCC 99.225-DEVELOPMENT ACTIVITIES IN WETLANDS

With respect to these criteria, staff states:

> On-site are a Freshwater Emergent Wetland, a Freshwater Pond, and Freshwater Forested/Shrub Wetland. Benton County notified DSL of the complete application on March 20, 2025, following the 58-day extension requested by the applicant (Exhibit BC4). The County did not receive a response from DSL.

Staff Report at 66.

DSL's failure to respond is not the fault of the applicant or staff. Nonetheless, receipt of a response should be required before this application can be approved. Then, if there is somehow an otherwise approvable application, it may (or may not) be possible to craft appropriate conditions based upon DSL's comments.

VI. CONCLUSION

For all the reasons set out above and in the staff report, and adduced in the written and oral testimony before you, the applicant has not met its burden of proof to show compliance with Benton County's approval standards. Accordingly, this application must be denied.

Respectfully submitted,

Jeffrey L. Kleinman

Jeffrey L. Kleinman
Attorney for Valley Neighbors for
Environmental Quality and Safety

Waste Control Systems
INCORPORATED
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CORVALLIS, OREGON 97330
(503) 928-1241

March 16, 1977

Benton County Planning Commission
Benton County Courthouse
Corvallis, OR 97330

Dear Commissioners:

Enclosed is a Solid Waste Management Plan for Benton County.

This report presents a program for developing a systematic, feasible approach to solid waste utilization. We believe the approach presented in this report allows flexibility that will benefit the residents of Benton County now and in the future. Our active participation in solid waste management allows us to keep abreast of new technology and implement them as they become economically worthwhile.

Very truly yours,

Robert E. Bunn
Vice-President

cc: Benton County Commissioners
Ron Minor, Chairman, Benton County Solid Waste Advisory Committee
Grace Phinney, Environmental Quality Commission, DEQ
Elizabeth Frenkle, Benton County League of Women Voters
Ernest Schmidt, Solid Waste Director, DEQ
Russell Fetrow, DEQ
Verner Adkinson, DEQ
Linn County Commissioners
Polk County Commissioners
Marion County Commissioners

EXHIBIT A

SOLID WASTE MANAGEMENT PLAN
BENTON COUNTY, OREGON

Prepared for:

BENTON COUNTY PLANNING COMMISSION

Per Sjogren, Chairman
Jack Gates
Herbert Frolander
Mark McNabb
Jean Nath
Rosetta Venell
John Beardsley
James Park

By

WASTE CONTROL SYSTEMS, INC.
CORVALLIS, OREGON

March 1977

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INTRODUCTION

The purpose of this report is to familiarize the Planning Commission members of Benton County and its residents with our plans, objectives and goals to achieve an efficient and economical total resource recovery program.

The recent awareness of need for the conservation of energy, raw materials and natural resources has led to the conclusion that total resource recovery will soon become an American way of life. To achieve such a goal, an understanding of the solid waste streams involved must be explored. The volumes, densities, compositions and potential market values are of tremendous importance. The areas of collection, transportation, disposal of the putrescible materials, and the processing of the recoverable wastes into a form that is marketable requires a professional understanding of solid waste management.

Therefore, it is hoped the following report will demonstrate Waste Control Systems, Inc.'s program and interest and expertise for better serving Benton County and the surrounding communities in the Willamette Valley.

GOAL

Our long-range organizational goal is to achieve total resource recovery. It is hoped this can be accomplished by expanding our present activities to a comprehensive, flexible, economic program that meets the solid waste needs of Benton County and is consistent with Regional and State plans.

THE PLAN ABSTRACT

As part of the goal, Waste Control Systems, Inc. has completed an engineering feasibility study for a Benton County solid waste resource recovery plant.

Unlike other parts of our country which have been faced with higher cost of fuels, the Benton County area presently has an over-abundant supply of wood wastes. Therefore, the economics of a solid waste processing facility for the recovery of a refuse derived fuel (RDF) is not presently feasible. However, a plan has been developed, based on the present "state of the art" in solid waste management technology. This plan can be adapted quickly to a change in fuel market conditions.

PROGRAMS

Our objective is to implement a resource recovery program in accordance with Local, State and Federal legislation. It will be done within the framework developed by the Chemeketa Region and the new Federal Resource Conservation and Recovery Act of 1976. The following are activities now being accomplished by Waste Control Systems, Inc. (WCSI) in Benton County.

1. Recycling of cardboard, newsprint, paper, glass, tin cans, aluminum, iron scrap, wire and appliances is presently being accomplished. As experience is gained with methods of source separation, collection, transportation and markets, we expect this recycled volume to increase.

2. Landfill operations in Benton County, as well as other WCSI landfills, are considered to be among the better facilities in the entire Northwest region, both environmentally and operationally.

3. Discarded liquid waste for energy recovery is now under study. This waste material will be used as a potential fuel supplement to industrial customers. It will also help solve a serious disposal problem both locally and regionally.

4. The utilization of discarded scrap tires as an additive to 'hog' fuel is now in its final development stages. This is a joint effort between WCSI and the Georgia Pacific Corporation. The project, when fully operational, will save many barrels of valuable fuel oil and solve a serious tire disposal problem for the residents of Benton County and the State.

5. Evaluation of different types of energy conversion systems are also under study. These will utilize various types of wastes which can be economically processed to serve as a fuel supplement to industry. One current study is with the Oregon Field Sanitation Committee to combine waste straw grass with local and regional municipal solid wastes to produce a fuel gas which may replace the dependency on natural gas.

DISCUSSION

To help in understanding how our goal of total resource recovery is to be achieved through the activities presented, the major areas of recycling, landfill management, present projects and services will be discussed in more detail.

RECYCLING in the solid waste industry is not a new phenomenon. It has been occurring for many years. WCSI has been a leader locally, regionally and even nationally in pursuing this goal. WCSI also formed a new subsidiary corporation to pursue the collection of recyclable materials in all areas of WCSI operations. The cardboard baling at our Corvallis facility was the first one in Oregon established by a garbage company. This facility daily bales cardboard that is reprocessed in Oregon into paper products. Eco-Alliance shares part of the Corvallis Disposal facility. This arrangement offers a continuously manned, clean and efficient recycling center for the Corvallis area. Corvallis Disposal provides transportation to markets without duplication of capital costs or overhead. At the present time, approximately 100 tons of cardboard, 45 tons of newspapers, 2 tons of other paper goods, 11 tons of glass, 4 tons of tin and 10 tons of white goods are recycled monthly from Benton County.

At other WCSI operations, including the Lebanon landfill, Woodburn landfill and the Macleay transfer station east of Salem, recycling is taking place. Soon, we will be doing the same at the Polk County transfer station. Presently, WCSI recycles appliances, wire, aluminum, scrap iron, batteries, copper, brass, radiators, electric motors and generators in addition to glass, cardboard and newspaper recovery. This is done not only because of available markets, but also to minimize the waste volume which would be

buried. WCSI operations incorporate recycling not only in Benton County but throughout the Chemeketa Region. This widespread network will greatly affect the economics of transporting these recyclable materials, thus making the project more worthwhile.

A second critical area now receiving a great deal of attention is LANDFILL MANAGEMENT. Presently there is a need for environmentally sound solid waste disposal operations. The majority of the waste stream is now, unfortunately, being buried. There are some items in this stream which most probably will always require landfilling. These landfill items include: stumps, brush, construction waste, demolition, concrete, waste asphalt, broken furniture, mattresses, plastics, rubber, leather, non-returnable containers and other inert materials. Even when a total resource recovery program is implemented, landfills will continue to play a role in that system. In the case of a major market "turn down" or the failure of resource recovery processing equipment, landfills would temporarily be used for disposal.

The Coffin Butte sanitary landfill site in Benton County has a projected life through the year 2000. This projection includes the present growth rate and the addition of Polk County. As resource recovery gains momentum through increased recycling efforts and market availability, the life of the site could be extended almost indefinitely.

WCSI, in accordance with the Chemeketa Plan, is regionalizing its solid waste disposal system. All Benton County residential and putrescible waste goes to Coffin Butte. Waste from the Monroe transfer station also is buried at Coffin Butte. Two years ago, the Albany dump was closed by order of the Department of Environmental Quality and now putrescible waste from Albany is transported to Coffin Butte. Near Corvallis and in

Linn County, WCSI operates a disposal site solely for commercial and industrial waste. This site serves both Linn and Benton Counties. This has become a logical trade-off for both counties.

Two years ago in east Linn County, the Sweet Home dump was closed. Waste is now transferred to the WCSI site in Lebanon. This site is also a regional one serving the entire east Linn County area.

In the north Marion County area, the old Woodburn dump was closed, and now we operate the sanitary landfill facility serving the area. We also operate the Macleay transfer station east of Salem and that waste is transported to our Woodburn site. In October of this year, the landfill site serving most of Polk County will close. WCSI is planning to construct and operate a transfer station to serve the communities of Dallas, Monmouth and Independence.

Normal landfill operations are based on volumetric measurement, so the cubic yard is the basis of all charges and planning. In the areas of recycling and resource recovery, weight measurement is used. Unfortunately, today's weight projections are only guesses as there is little valid data on which to base assumptions. To gather accurate data for planning resource recovery, WCSI will begin a program this spring of weighing garbage trucks to determine actual densities and tons/day presently being disposed of. Essentially, a two-man team will move from site to site weighing trucks in full and then weighing them out empty. We anticipate providing this service to all landfill sites in the Mid-Willamette Valley. The results of this study will provide vital information on which to base assumptions for our resource recovery program.

In developing the concept of total resource recovery, the need for SPECIALIZED HANDLING of certain types of wastes also becomes very important. One such waste classification that cannot be handled using normal

methods is liquid wastes. This includes motor oil, paints, paint thinners and similar type compounds. These wastes could be collected locally and under strictly controlled conditions, then blended with other types of industrial fuels to power boilers and generate steam. These power plants could serve local industrial processors. We anticipate that by collecting these wastes and combusting them at one point source, they can be accurately monitored and controlled. This local disposal solution could reduce costs for special disposal elsewhere in the State and also minimize our area's need for oil or natural gas. WCSI is presently evaluating the sources of these liquid wastes and their composition, amounts and density.

Another area of great concern is the disposal of SCRAP TIRES. It is generally recognized that successful burial of tires is impossible. The tires tend to work themselves up to the surface of the fill due to their composition and shape. WCSI has entered into a joint project with Georgia Pacific Corporation to develop a system to grind up the tires for use as a boiler fuel additive. This particular research and development process has not been without its problems. However, to date some 50,000 tires have been ground and burned successfully at the Georgia Pacific mill in Toledo, Oregon. In fact, the infamous tire pile in Peoria, Oregon has been eliminated. We are very encouraged by these results. This recycling represents a major achievement in this county.

In addition to the other waste materials mentioned, there is a serious problem of GRASS STRAW disposal. This plight of the Willamette Valley grass seed growers has been much discussed by the news media. WCSI has made a commitment to work with the Oregon Field Sanitation Commission to look at alternatives of combining waste straw and municipal waste to produce, possibly, a fuel to supplement local industries. Essentially,

we are exploring the manufacture of methane gas as an ammonia derivative. As a greater demand is placed on energy requirements, the economic feasibility of such projects increases, WCSI is willing to work with others to achieve a satisfactory solution to disposal of these wastes.

As WCSI has become more involved both in Benton County and the surrounding communities, its knowledge and expertise has grown. WCSI now provides consulting services in the field of recycling based on its experience in Corvallis. We help others throughout the State as well as in the State of Washington in the areas of landfill supervision, management, design and feasibility studies concerning resource recovery itself. WCSI services also include locating and designing transfer stations, and marketing and management services in the field of municipal, commercial and industrial waste handling. This, in turn, ends up as being a direct benefit to the residents of Benton County. The professional services offerred by WCSI help in determining how Benton County and the Mid-Willamette Valley can initiate a resource recovery system and take advantage of knowledge being gained throughout the country.

WCSI provides information in the community in the form of talks to service organizations, industries, schools and the University as to WCSI's activities and programs. This also gives us an opportunity to receive input from the community. Tours of our operations are provided to familiarize people with how the sanitation industry operates and serves the community.

WCSI personnel belong to and take active part in community activities as well as serving on County and State advisory committees and belonging to professional organizations.

THE PLAN

The PLAN for a resource recovery plant must take into consideration the recycling, landfill management, specialized handling of certain waste streams, new energy conversion technologies, and new processes for recovery of certain waste streams not presently economical. Therefore, the process must be flexible, economical, and operationally feasible.

Before beginning the project, the proposed system was keyed to comply with:

1. Benton County ordinances
2. The Chemeketa Region Guidelines
3. Department of Environmental Quality Guidelines
4. Environmental Protection Agency Guidelines for "Thermal Processing and Land Disposal of Solid Waste"
5. Federal "Resource Conservation and Recovery Act of 1976"
6. Land Conservation and Development Commission Guidelines
7. Present plans and guidelines as they develop locally, regionally and nationally.

The scope of the investigation included a preliminary feasibility evaluation to:

1. Develop capital and production costs for processing solid wastes for recovery of ferrous, non-ferrous and a refuse derived fuel (RDF)
2. Determine the type, extent and costs of modifications to proposed power generating facilities to receive and burn "RDF"
3. Evaluate the overall feasibility of the proposed system.

In the initial stages of the study, an evaluation of the Benton County and Chemeketa Region solid waste generated in tons per day versus time projections into the future was undertaken. This initial evaluation led to certain conclusions. That:

1. Waste loads in Benton County and the Chemeketa Region will increase

2. Landfill sites can have problems such as leachate, potential air pollution, health factors and aesthetics

3. Later, new landfill sites will be scarce, expensive and politically impossible

4. The economics of such a system can support change based on distance, environmental concerns, and value of the waste products.

In order to evaluate the "Resource Recovery Potential", a good understanding of the solid waste stream must be known. Such an understanding means knowing the general refuse composition on a percent-by-weight basis and relating this to its processing potential. Figure 1 illustrates the "Resource Recovery Potential". It should be noted that the geographical area, atmospheric conditions, social and economical community styles, population density and distances between communities and towns within Benton County can vary refuse composition and this, in turn, affects the potential value of the final products. Figure 1 is typical of a refuse composition and is used as a basis for this study. As more specific data is obtained from ongoing work by WCSI personnel, this plan will be refined.

The recent awareness for conservation has brought up evaluation of two important points that affect resource recovery:

1. The correlation of waste generated per person per year, and

2. The affect of recycling on refuse composition.

Interestingly, when the Ames, Iowa Resource Heat Recovery Project began full operation, the size of the plant was based on a generation design factor of 1.0 tons of waste generated per person per year based on careful solid waste evaluation studies of the area. After one year of operation, 0.85 tons of waste generated per person per year was found to be true. This indicated that less refuse was being received, possibly

"RESOURCE RECOVERY POTENTIAL"

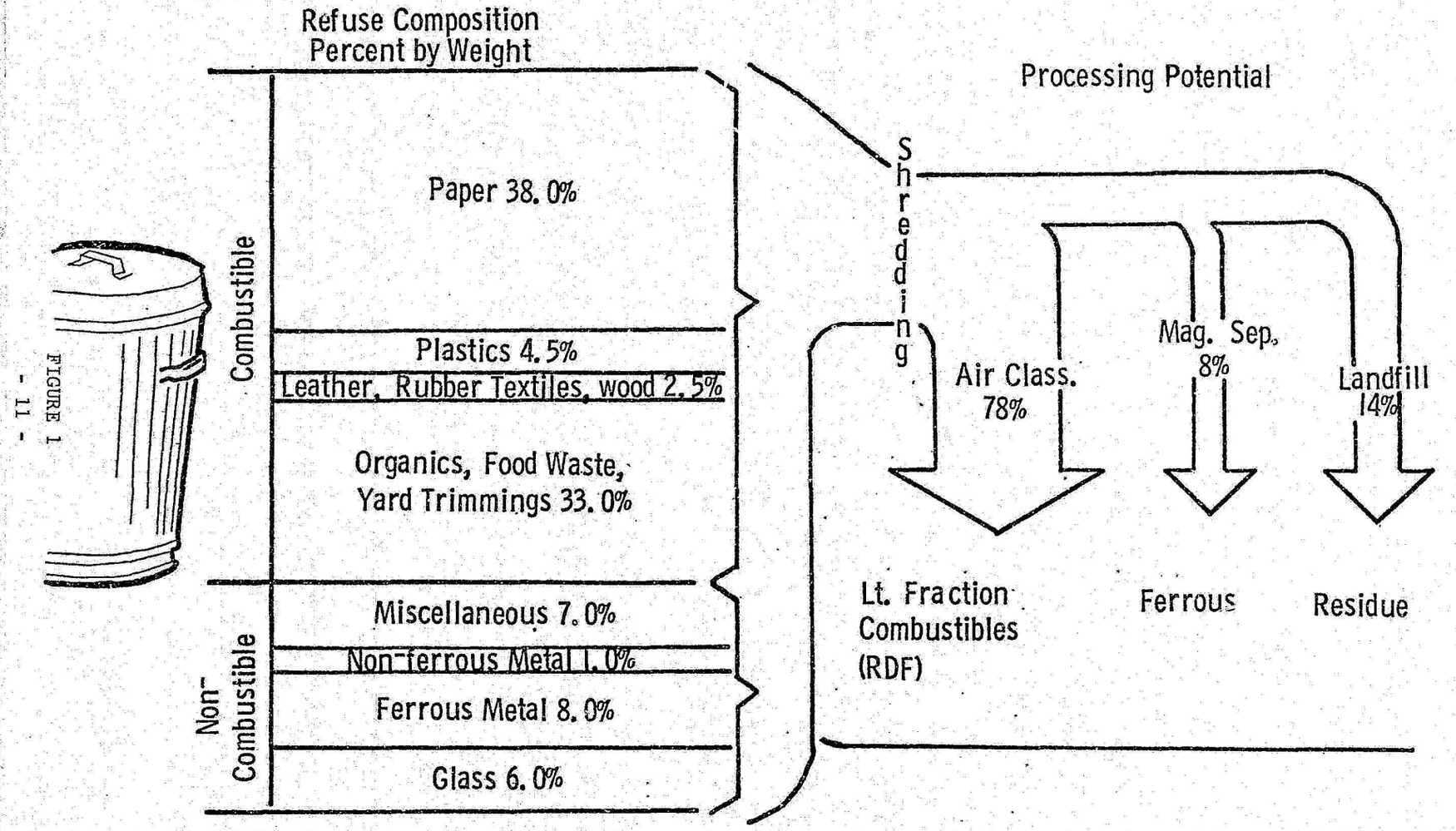


FIGURE 1

due to the effect of recycling. If a certain amount of RDF must be processed to be economical, then more refuse must be available based on the generation rate. Therefore, in this study, WCSI not only had to look at refuse composition but also consider the final fuel characteristics as the volumes and compositions change.

Evaluating the "Resource Recovery Potential", the system must be so designed to be highly flexible in order to produce products that can be used in many types of processes presently available or as they develop in the future. Figure 2 represents an overview of solid waste conversion functions broken down into "front end" and "back end" processing steps. WCSI's plan is to build a "front end" system that meets the criteria of the "back end" requirement for input materials in the most economical and systematic way, whether these input materials go to energy recovery, materials recovery, or both.

Benton County residents may ask: "Why front end processing for ferrous, non-ferrous and RDF?". This question can be answered based on the following:

1. The successes of the pilot plant work done by the City of St. Louis, Union Electric Company, and the Environmental Protection Agency
2. Success of the Ames, Iowa project of processing and converting refuse into kilowatts
3. Many intermediate shredding and ferrous removal facilities now operating across the nation which no longer have landfills available as an economic option
4. Potential energy need markets do exist for RDF, ferrous and non-ferrous materials
5. As these refuse streams are now being utilized, the capital costs and risks are being minimized
6. Growing public acceptance due to energy cost savings, good public relations and proven technology

7. RDF is acceptable to most utility and industrial boilers while meeting the environmental considerations.

This plan's development was based on trip observations to:

1. City of St. Louis facility project
2. City of Ames, Iowa facility
3. Baltimore County facility
4. Great Falls, Montana
5. Union Carbide's process at South Charleston, West Virginia
6. Hamilton, Ontario facility
7. City of Baltimore by Monsanto
8. Navy facility, Norfolk, Virginia
9. Garrett Research's San Diego project
10. National Center for Resource Recovery test facility in Washington, D. C.
11. Bureau of Mines test facility in Washington, D. C.
12. Saugus, Massachusetts
13. Franklin, Ohio

To evaluate and develop a total processing concept for Benton County, the Union Electric-St. Louis front end processing concept had to be understood. This work, in turn, was, and is, the basis for the present success of the Ames, Iowa project. However, unlike the Benton County area, the economics for Story County (where the Ames facility is located) were based on coal which sells for $40 per ton compared to abundant wood wastes selling for virtually transportation cost only. However, as the demand for energy increases in the Northwest, so will the demand for the wood wastes.

A proposed process schematic was developed based on existing operating facilities. Figure 3 is a front end processing schematic plan for preparing a marketable refuse derived fuel and ferrous and non-ferrous by-products.

FRONT END PROCESSING SCHEMATIC

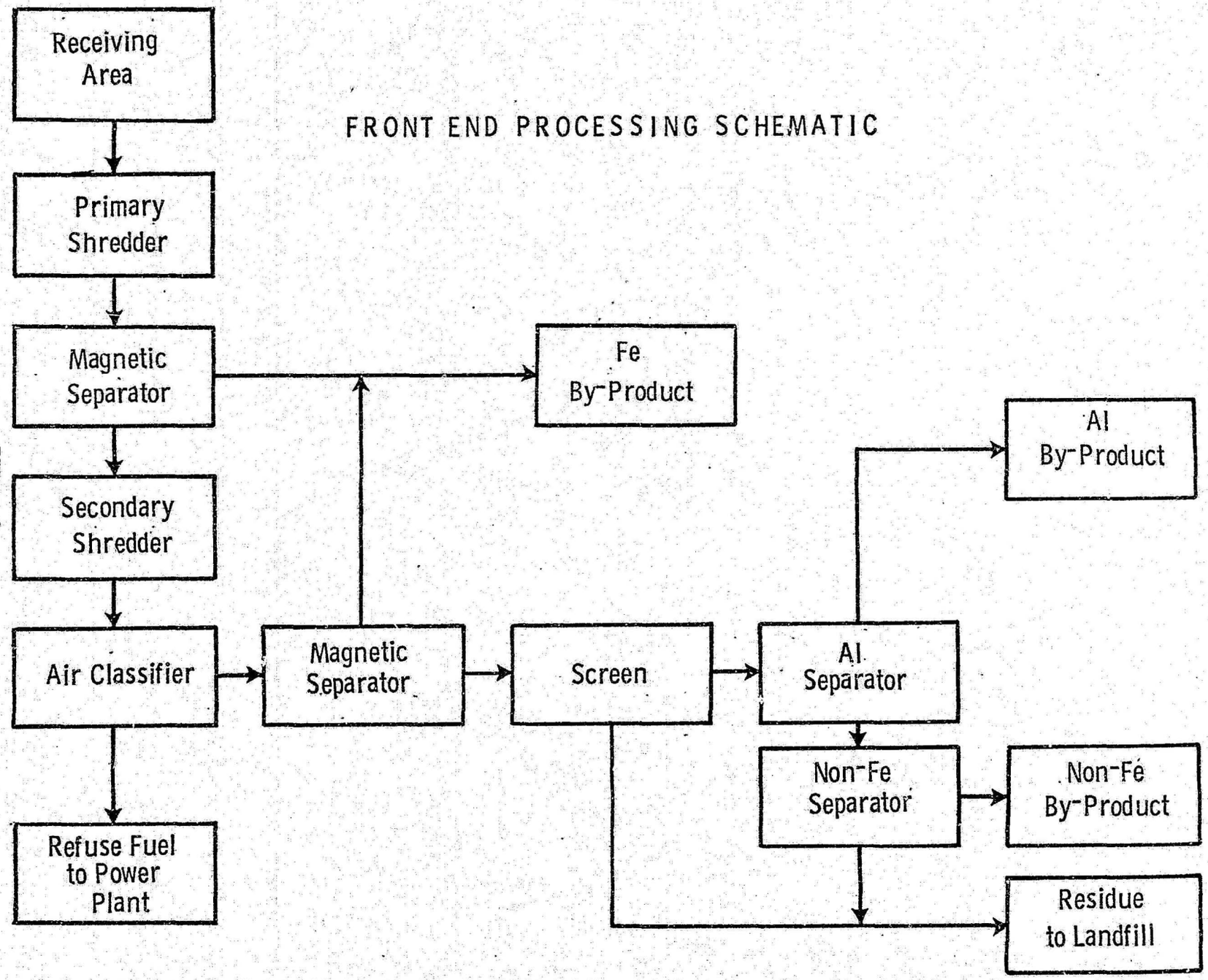


FIGURE 3

In all cases, it should be noted that a properly managed landfill site is a must in case of non-marketable items.

From a processing schematic, a total processing flow diagram has been arrived at (see Figure 4). Here, the raw refuse will be blended and processed in such a manner to produce a fuel that can easily be transported, unloaded, stored and metered as a supplementary fuel along with wood wastes to produce energy while meeting environmental considerations.

RDF is a fuel, and being a fuel it must have certain characteristics. Figure 5 relates to a set of fuel criteria set down in WCSI's feasibility study. The small particle size requirement allows for optimum handling, metering and combustion. The ash content, which is totally inert due to being combusted at very high temperatures, is very safe when disposed of in a landfill.

Thus, looking at the effect of recycling, refuse composition at the processing facility, processing costs, market needs, product worth in relation to distance and amounts transported, appreciation for the fuel user needs and the amounts of refuse available allows for making certain conclusions based on these inputs:

1. Such a proposed system is not now technically and economically feasible due to abundant available wood wastes that, in themselves, pose a serious disposal problem

2. Refuse quantities will be required from sources outside Benton County to make such a project feasible

3. Alternate methods and markets are being actively pursued in the interim.

When markets make implementation feasible for a resource recovery plant, the approach will be:

1. Review the entire Resource Recovery Plan with the Benton County Planning Commission, State and Federal agencies, the public and other concerned individuals or groups to get their ideas and concurrence with the preliminary plan.

Total Processing Concept

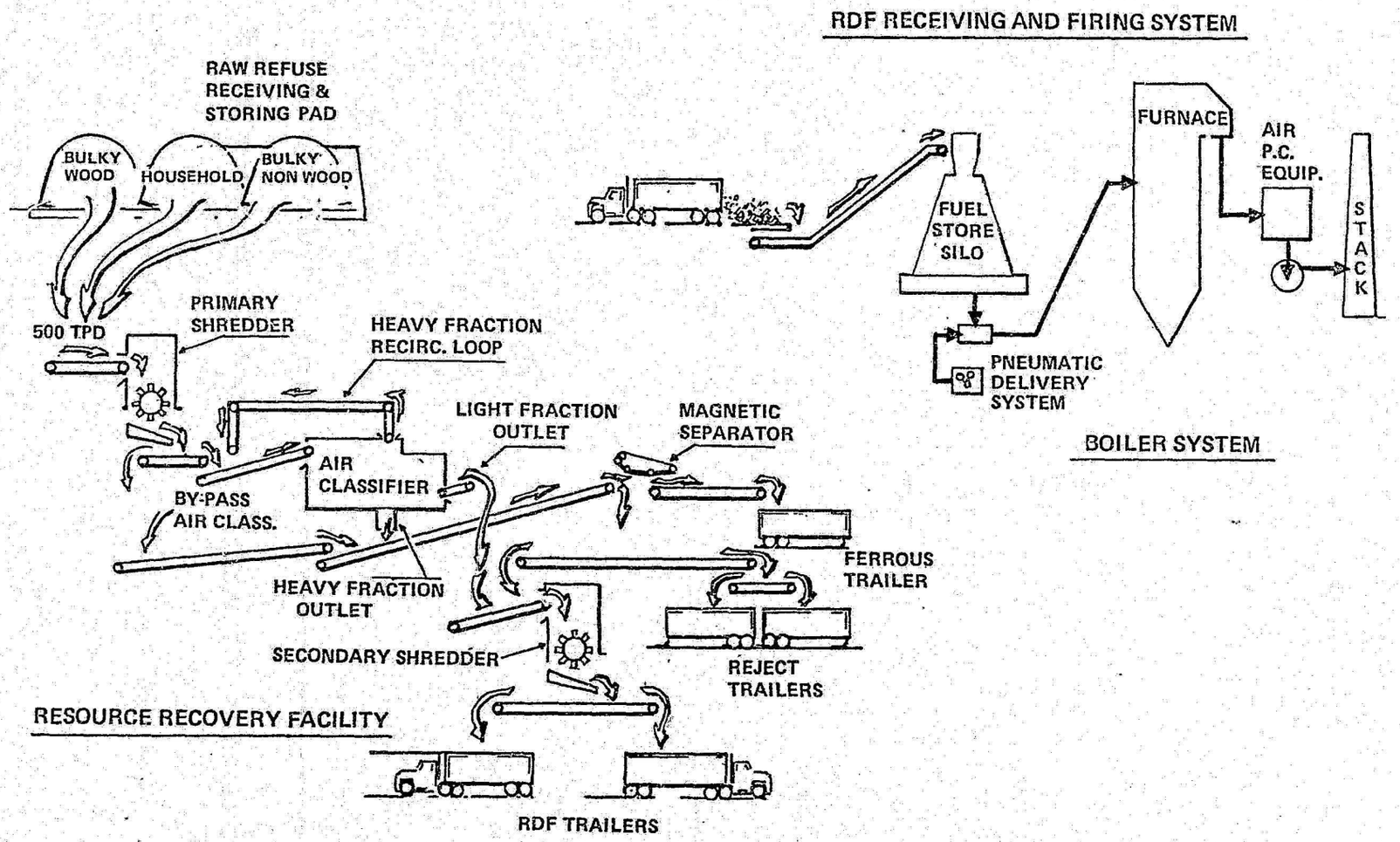


FIGURE 4

C. RACTERISTICS OF RDF SYSTEM

Fuel Criteria	Specification
Particle Size	- 98% less than 2", 90% less than 1"
Ash Content	- Range 8-15%, Average 12%
Moisture Content	- Range 15 - 30%, Average 25%
Sulphur Content	- 0.2% Average
Chlorine Content	- 0.3% Average
Higher Heating Value of Fuel	- 6500 BTU/Lb.
Lower Heating Value of Fuel	- 4875 BTU/Lb.
Peutrescible Content/Odor Characteristics	- Negligible
Delivery	- 20 Ton loads by standard bulk trailers
Residue Disposal	- Negligible

FIGURE 5

2. Refine the engineering analyses and system approach to arrive at a firm base decision to proceed with the implementation

3. Recommend implementation of a final system for a long-term solid waste disposal and resource recovery facility.

TIME SCHEDULE

An update on WCSI's resource recovery plans will be submitted annually to the Benton County Planning Commissioners, or sooner if any significant development occurs with the overall total resource recovery plan herein submitted or any one of its programs.

CONCLUSION

The total resource recovery success depends on economic recovery of each waste material. The economics of each depends on the volumes of waste, its composition, handling and transportation costs, as well as demand for final product. Equipment failures, market changes, and the disposal of the resource recovery residue will always demand the need for landfills. Markets must exist to make recovery of these waste materials economical. WCSI is an organization that has the flexibility to respond to market changes. We possess technical knowledge, management capability, marketing expertise and ability for capitalization. To achieve total resource recovery requires enthusiasm, study, evaluation and active participation in projects which will lead WCSI to this goal.

The EPA investigation of Coffin Butte Landfill has moved into its next phase

EPA Enforcement: a timeline and explainer

Ken Eklund
April 15, 2025

What's happening?

The public has known for a while that the EPA was investigating Coffin Butte Landfill: neighborhood groups brought up concerns about the landfill to Senators Merkley and Wyden in the years 2021 – 2023, and their staffs took the matter to the EPA. In May 2024 Senator Merkley asked Michael Regan, then Head of the EPA, about Coffin Butte Landfill in hearings. Regan confirmed that the EPA had opened a case and was actively pursuing it against the landfill.[1]

That investigation has now progressed to EPA enforcement action against the landfill. On January 16, 2025, the Enforcement Manager for EPA Region 10 served a process on Republic Services, in the form of a Section 114 Information Request.[2] [3]

This process document came to light when Bailey Payne, the Solid Waste Coordinator for Benton County, filed a Freedom Of Information Act request on behalf of the county's Disposal Site Advisory Committee, which was seeking more information about the EPA investigation. Republic Services did not disclose to you, the Planning Commissioners, that the landfill had been served a Section 114 Information Request in their final update to their Application to expand the landfill, which they filed with the County on March 14, almost two months after the EPA served the Request on them.

What does it mean to be served a Section 114 Information Request by EPA Enforcement?

- Technically, it's a "Clean Air Act (CAA) Section 114 Information Request," which is functionally a government subpoena.

- This Section 114 Information Request requires the landfill's Environmental Manager to turn over a comprehensive list of environmental records to the EPA. Air quality regulations require the landfill keep these records of their self-testing and monitoring.

- There are two kinds of Section 114 Information Requests: "rulemaking" ones and "enforcement" ones. This is an enforcement IR: it was filed by by the Manager of the Air and Land Enforcement Branch of Region 10 of the EPA, and the document states it is requiring records so that it can determine "whether any violations of the Clean Air Act have occurred."

- The document requires someone at Republic to certify that the information provided is "true, accurate and complete" under threat of fines or prison.

EXHIBIT B

- The EPA investigation has moved into its next phase: assessing compliance.

What is the implication of the Section 114 Information Request by EPA Enforcement?

It implies that the EPA intends to initiate enforcement action as warranted. The Section 114 Information Request is a crucial tool in the EPA's arsenal for gathering data and ensuring accountability in matters related to air pollution. It's often the first step in enforcing compliance.

It may be useful to think of the Section 114 Information Request as the environmental equivalent of an audit by the Internal Revenue Service. In both cases it's an effective litigation tactic to query the underlying data in a defendant's possession, because that can naturally lead to findings that the defendant (1) is not maintaining data properly, or (2) has altered or destroyed data, or (3) has not been complying with regulations, all of which are offenses. With both the IRS audit and the Section 114 Information Request, the action often represents the initial stage of a process that can end up assessing civil penalties, issuing compliance orders, or initiating legal proceedings.

What are possible reasons EPA Enforcement has taken this step?

The implication is that the EPA has grounds to believe that Republic has committed some infractions and that Coffin Butte Landfill is out of compliance. What's not known at this time is how serious the believed infractions are. Throughout this process the EPA has declined to discuss their investigation, as it is an active legal proceeding.

Here's what we know the EPA knows about the landfill, that may be grounds for or contributing to its Section 114 Information Request:

- The EPA inspected the landfill twice, once in 2022 and again in 2024, and both times found larger numbers of breaches, and breaches much more serious in scale, than what Republic's self-monitoring had reported. The 2024 inspection, for example, found an uncapped landfill gas well leaking at 230 times the actionable amount.[4]
- The EPA required Republic to remediate the 61 breaches identified by the EPA's 2022 inspection, but there seems to be no corresponding remediation log for these breaches in Republic's subsequent reporting to Oregon DEQ. It's possible those leaks were never remediated.
- In September 2024, the EPA widely issued two Enforcement Alerts to municipal landfills such as Coffin Butte. These Enforcement Alerts warned of a series of regulatory infractions that the EPA had noted during recent inspections. This Section 114 Information Request may be a follow-up to these Enforcement Alerts, again because of infractions observed during the EPA's 2022 and 2024 inspections of the landfill.[5]

- Carbon Mapper, a climate science nonprofit, partnered with the EPA to survey hundreds of landfills in 2023, detecting and quantifying their methane leaks from the air. Their survey of Coffin Butte Landfill revealed four super-emitting leaks, all active in different locations on the landfill at the same time, throughout the 10-day survey period.[6]
- Carbon Mapper estimated that during that survey period, Coffin Butte Landfill was leaking methane at a rate of 1.7 metric tons per hour, which is almost twice the average rate for super-emitting landfills as a class. So Coffin Butte Landfill may have been prioritized for enforcement action.[7]
- Oregon DEQ collaborated with the EPA on the 2024 inspection, and may have shared information about its own enforcement action against the landfill happening at that time, regarding Republic's non-compliance with requirements to update its landfill gas collection and control system.
- The EPA has the Community Concerns Annual Reports compiled by Benton County's Disposal Site Advisory Committee for the years 2021-24. These Annual Reports summarize concerns and complaints by members of the public. Each report has hundreds of community concerns, with "odor" and "methane" being the most prevalent issue. The 2024 CCAR summarizes 233 community reports, for example, with odor comprising 59% of total issues raised and methane being an additional 7%.[8]

What effect does the EPA Enforcement action have on Republic's application to expand the landfill?

In my view, EPA Enforcement's action defeats Republic's expansion application, because it causes the application's Burden of Proof to fail. This outcome is apparent when you view this legal landscape from a Planning Commissioner's point of view – your point of view. To approve the expansion application, a Planning Commissioner would have to affirm Republic's proofs as sufficient; they'd have to publicly certify that an expanded dump couldn't pose significant problems – and do so while the EPA is actively investigating the current dump for significant problems. This seems like an impossible position for you as a Planning Commissioner to take.

EPA Enforcement's action can unravel the expansion application so thoroughly because the application's Burden of Proof has been built around a core misdirection all along: it focuses on regulations and regulatory power. The Planning Commission's criteria, however, do not say anything about regulations: they focus on actual harms.

In the world of the applicant's Burden of Proof, it's impossible for these two statements to both be true: (a) "the applicant is complying with environmental regulations" and (b) "the landfill is causing environmental harms." The Burden of Proof attempts to construct a binary world.

In the world of the Planning Commission's criteria, however, it's quite possible for both statements to be true. You regularly make judgments on how land uses will work (or not) in the real world.

Put another way, Republic's Burden of Proof means that their application must show that the landfill expansion won't cause significant harm to nearby properties, character of the area, etc., or it fails. Their proof for this has been "we comply with environmental regulations" – this is said throughout their Burden of Proof. But now that the EPA has said "let's see all your compliance records" explicitly to see if Republic really is complying, the EPA has slapped big red question marks all over Republic's proof. And a proof with big red question marks on it is no proof at all.

What has been Republic's response to the EPA Enforcement action?

- **No disclosure.** Republic did not disclose in their final Burden of Proof that Coffin Butte Landfill had been served by the EPA, nor offer the Planning Commissioners any narrative about it.

- **Misleading statement maintained.** Republic's Burden of Proof includes a letter that states "we have not received notification from the EPA that… Coffin Butte is the subject of any pending enforcement action" dated the day the EPA Enforcement initiated its action.[9]

- **Delay.** You as a Planning Commissioner might reasonably expect Republic to deal with this EPA Enforcement action forthrightly and expeditiously, to "clear the air" for their expansion application. Instead, Republic Services has acted instead to delay the EPA's examination of landfill records by filing two extension requests to date. With these extensions, they have made it impossible for the EPA to take further action until after the public comment period for the application is closed.[10]

Summary.

On January 15 the EPA's investigation of Coffin Butte Landfill moved into a new phase: active enforcement proceedings. The Enforcement Manager for EPA Region 10 served a process on Republic Services, in the form of a Section 114 Information Request. Republic Services did not disclose this development and have no narrative about it for the Planning Commissioners. The EPA Enforcement process would seem to render the applicant's Burden of Proof insufficient, because that Burden of Proof focuses on the lack of enforcement action by regulators as credentials of the applicant. I recommend that the Planning Commissioners deny LU-24-027, the application to expand Coffin Butte Landfill, due to the applicant's failure to make a convincing case for their environmental compliance, and due to the gravity of many questions raised about the accuracy and completeness of its application.

–

#EPAenforcement
#Section114
#explainer

[1]
1:52:32
Senator Merkley: [In my] home state: Coffin Butte Landfill. In June of 2022 the EPA sent out a team to measure the methane coming out of it, because of local concerns. The inspection resulted in recording 61 leaks, including three measurements that maxed out the instrumentation that was being used, at 70,000 parts per million. So: can you give me a short version of what action the EPA is taking? This is now 23 months ago that the field inspection occurred. If we need a longer discussion, I'd like to follow up with you to make sure that there is going to be action regarding landfills like this that are out of compliance.

1:53:10
Mr. Regan: Well, I will say that our enforcement arm has been very aggressive at looking at these methane leaks and opportunities here. This is one that as you said was discovered in 2022. Unfortunately it is an active enforcement situation, so I can't speak to that without betraying the confidence or the legal obligations that I have. But I can tell you that we are coordinating with the State of Oregon – it's an active case, and we are laser-focused on this case.

1:53:43
Senator Merkley: Great, because if you have a landfill which maxes out the instrumentation – which is I think quite rare? – it should probably rise to the top of the list of places to act on. I'll convey to the folks in Corvallis and nearby that you are on the case.

Senate Appropriations Committee Hearings, May 1, 2024 (link)

[2] This Section 114 Information Request has been supplied to the Planning Commission: search testimony for #EPAInfoRequest

[3] The EPA served their Section 114 Information Request upon Republic's registered agent in Oregon, CT Corporation. CT Corporation's legal arm relayed the EPA process on to Republic's legal department with a cover letter that identified the nature of the process as "Subpoena – Business Records" and the Action involved as "United States Environmental Protection Agency vs. Republic Services"

[4] These EPA Inspection Reports have been supplied to the Planning Commission: search testimony for "Heinz" (2022 Inspection) and "Conley" (2024 Inspection)

[5] "EPA Issues Two Enforcement Alerts to Highlight Compliance and Monitoring Obligations for Municipal Solid Waste Landfills," September 25, 2024 (link)

[6] Data publicly available at CarbonMapper.org. See also: Carbon Mapper explainer at #methaneplumes

[7] Data publicly available at CarbonMapper.org. See also: Carbon Mapper explainer at #methaneplumes

[8] These Community Concerns Annual Reports have been supplied to the Planning Commission: search testimony for #CCAR

[9] See Republic's January 15, 2025 update to its Burden of Proof

[10] Emails between Paul Koster, Environmental Manager at Coffin Butte Landfill, and Sara Conley, EPA Air Enforcement Officer, Region 10, obtained through FOIA. At Paul's request, the original deadline for the Section 114 Information was extended 180 days, to May 12.

From: Community Development, Benton County, Oregon
To: Benton Public Comment
Subject: LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date: Monday, May 5, 2025 1:11:47 PM

Subject of Testimony: Coffin Butte

Full Name: James Livingston

Email: jliving517@gmail.com

Street Address: 325 Whitman Street S

Written Testimony:

I have lived in Monmouth for 72 years. This is Monmouth's third landfill in my lifetime.

Garbage has to go somewhere. This seems as good a place as any.

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 47.25.225.151

From:	Lesley Tonna
To:	Benton Public Comment
Subject:	Oppose/Deny LU-24-027
Date:	Monday, May 5, 2025 3:06:24 PM

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

Dear Benton County Planning Commissioners,

My name is Lesley Tonna and I live at 4820 NW Crescent Valley Drive.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application. This not only affects us personally, but it affects our entire community of humans and all other species alike. We live in a fragile riparian zone here in Crescent Valley which depends on clean water and soil conditions in order to proliferate. We don't want to jeopardize the health of this ecosystem with toxic waste and more human-created garbage.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

- Air and water pollution threaten our local ecosystems and community health
- Traffic increases that pose safety risks on nearby roads and pathways
- Odor and noise issues that degrade quality of life for residents and visitors
- Negative impacts on wildlife, recreation, and property values
- Long-term climate and environmental consequences for future generations

The proposed expansion does nothing to align with *Benton County's 2040 Thriving Communities Initiative*. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management.

I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,

Lesley Tonna

4820 NW Crescent Valley Drive

Corvallis, OR 97330

From: Community Development, Benton County, Oregon
To: Benton Public Comment
Subject: LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date: Monday, May 5, 2025 10:47:39 AM

Subject of Testimony: Oppose/Deny LU-24-027

Full Name: Amelia Yeager

Email: amelia.b.yeager@gmail.com

Street Address: 3704 SE Tenino St, Portland, OR 97202

Written Testimony:

Dear Benton County Planning Commissioners,

My name is Amelia Yeager and I live at 3704 SE Tenino St, Portland, OR 97202. I grew up on Helm Drive in the Soap Creek Valley and my parents still live in the house they built there. I maintain strong ties to the community and ecology of the region, and I do not want to see this area negatively impacted. My parents raised me with a strong environmental ethic and I believe that we need to fight to protect our valuable natural resources of land, air, water, and wildlife.

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

The proposed expansion would seriously interfere with the character of the surrounding area and impose an undue burden on public resources, in violation of Benton County Code 53.215 (1) and (2). Specifically, this expansion raises major concerns about:

– Air and water pollution that threaten our local ecosystems and community health
– Traffic increases that pose safety risks on nearby roads and pathways
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– Long-term climate and environmental consequences for future generations

The proposed expansion does nothing to align with Benton County's 2040 Thriving Communities Initiative. This expansion undermines our shared goals for responsible environmental stewardship, prioritizing public health, and sustainable waste management. I believe Benton County should invest in waste reduction, recycling, and circular economy solutions, not expanding landfills that perpetuate pollution and place a long-term burden on local communities!

Please reject LU-24-027. Thank you for your consideration and for protecting the health and future of Benton County.

Sincerely,
Amelia Yeager
Portland, OR 97202

--
This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 97.120.40.85

From: Mark Yeager
To: Benton Public Comment
Subject: LU-24-027 - Landfill Franchise Agreement - Tonnage Cap
Date: Monday, May 5, 2025 3:15:00 PM

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

For the record, I am submitting the 2020 franchise agreement between Benton County and Republic Services.

In my transmittal letter, I refer the Commissioners to a specific section in the attached agreement for clarification on the removal of the tonnage cap upon approval of the conditional use permit to expand the landfill on the parcel south of Coffin Butte Road.

Respectfully submitted,

Mark Yeager

May 5, 2025

Chair Fowler and Members of the Planning Commission

LU-24-027, Letter in Opposition

RE: REMOVAL OF ANNUAL TONNAGE CAP – FRANCHISE AGREEMENT

My name is Mark Yeager, and I live at 37269 Helm Drive in Corvallis. I have lived at this residence since 1987, and I have lived in Benton County since 1981. I am a professional Environmental and Civil Engineer in Oregon as well as a Certified Water Rights Examiner. I have served multiple appointments with the Benton County Solid Waste Advisory Council and the Disposal Site Advisory Committee. I also served on the Benton County Talks Trash workgroup and two subcommittees.

Following up on the many discussions, testimony and questions regarding the 2020 franchise agreement between Republic Services and Benton County, I am entering the entire agreement into the record.

I refer the Planning Commissioners to Section 5(b) on page 7 for the discussion of the tonnage cap limits and expiration upon approval of the expansion application.

Sincerely,

Mark Yeager

LANDFILL FRANCHISE AGREEMENT

This Landfill Franchise Agreement ("Agreement") is made this ___ day of December, 2020, between BENTON COUNTY ("County"), a political subdivision of the State of Oregon, and VALLEY LANDFILLS, INC. ("Franchisee"), a wholly owned subsidiary of WASTE CONTROL SYSTEMS, INC., both corporations duly authorized to do business in the State of Oregon.

RECITALS:

A. The State of Oregon, by statute, has given the County the authority to franchise solid waste management, including solid waste disposal facilities. The County is interested in the continued availability of an economical and environmentally safe landfill, which complies with all federal and state environmental rules, regulations and laws.

B. The County benefits from State authorization to franchise the disposal of solid waste within its jurisdiction by providing the flexibility to meet the changing needs and technology for the disposal of solid waste in the County.

C. Franchisee has operated the Coffin Butte Landfill ("Landfill") under permit from the State of Oregon for more than 45 years.

D. The availability of landfill sites in the State of Oregon has been substantially reduced, and the Coffin Butte landfill is a unique landfill resource to be developed for the primary benefit of the citizens of Benton County.

E. It is to the benefit of the County's residents, industry, and business to maintain the Landfill and continue the ability of Franchisee to operate the Landfill under the terms of this Agreement.

F. The federal, state and local rules, regulations and laws permit and authorize the operation of the Landfill.

G. The County requires periodic reporting and onsite review to ensure the Benton County Board of Commissioners has access to information concerning the operation of the Landfill and to monitor the Landfill's operation for compliance with the Agreement.

THE PARTIES AGREE:

1. Definitions. In this Agreement, capitalized terms are defined as follows:

"Board" means the Board of Commissioners for Benton County.

"County" means Benton County, Oregon.

"Effective Date" means 12:01 AM on January 1, 2021.

"Environmental Trust Fund" means the fund established under the Environmental Liability Trust Agreement ("the Trust Agreement") dated March 3, 1999 between Franchisee as Grantor, and Copper Mountain Trust Corp., as Trustee, for the benefit of the County and Waste Control Systems, Inc., each as a named beneficiary.

"Force Majeure" means acts of God, earthquake, landslides, and sudden soil movements, lightning, forest and brush fires, storms, floods, freezing, civil disturbances, acts of the public enemy, wars, blockades, epidemics or pandemics, public riots, explosions, materials shortages (other than shortage of solid waste), or damage to or destruction of the Landfill or its facilities as a result of events described herein, or other similar causes, events, or occurrences not reasonably within the control of the party whose ability to perform this Agreement is impaired or prevented by the event or occurrence of Force Majeure; provided, however, damage or destruction of the Landfill or its facilities as a result of improper design or negligent operation is not Force Majeure.

"Landfill" means the Coffin Butte Landfill owned and operated by Franchisee and located on property more particularly described on the attached Exhibit A.

"Permit" means the permit or other authorization issued to permit operation and regulating the operation of the Landfill granted by the Department of Environmental Quality, the Environmental Quality Commission, the Environmental Protection Agency or other authorized successor state or federal agency.

"Solid Waste" means all useless or discarded putrescible and non-putrescible materials, including but not limited to garbage, rubbish, refuse, ashes, paper and cardboard, sewage sludge, septic tank and cesspool pumpings or other sludge, useless or discarded commercial, industrial, demolition and construction materials, discarded or abandoned vehicles or parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid materials, dead animals and infectious waste as defined in ORS 459.386. "Solid waste" does not include:

(a) Hazardous waste as defined in ORS 466.005.

(b) Materials used for fertilizer or for other productive purposes or which are salvageable as such materials are used on land in agricultural operations and the growing or harvesting of crops and the raising of animals.

(c) Materials used for the compacted six-inch soil layer required by the Permit (alternative daily cover).

"*Special Waste*" means any waste (even though it may be part of a delivered load of waste) that falls within one or more of the following categories:

(a) Containerized waste (e.g., a drum, barrel, portable tank, box, pail, etc.) of a type listed in (b) through (m) of this definition below.

(b) Waste transported in a bulk tanker, such as a tanker truck hauling leachate.

(c) Liquid waste including outdated, off spec liquid food waste or liquids of any type when the quantity and the load would fail the paint filter liquid (Method 9095, SW-846) test or includes 25 or more gallons of free liquid per load, whichever is more restrictive.

(d) Containers (or drums) that once held commercial products or chemicals, unless the containers (or drums) are empty as provided in 40 CFR 261.7(b)(1).

(e) Sludge waste from septic tanks, food service or grease traps, or wastewater from commercial laundries, laundromats or car washes.

(f) Waste from an industrial process.

(g) Waste from a pollution control process.

(h) Residue or debris from the cleanup of a spill or release of chemical substances, commercial products or wastes listed in (b) through (m) of this definition.

(i) Soil, water, residue, debris, or articles which are contaminated from the cleanup of a site or facility formerly used for the generation, storage, treatment, recycling, reclamation, or disposal of wastes listed in (b) through (m) of this definition.

(j) Chemical-containing equipment removed from service (for example: filters, oil filters, cathode ray tubes, lab equipment, acetylene tanks, CFC tanks, refrigeration units, or any other chemical-containing equipment).

(k) Waste in waste containers that are marked with a National Fire Protection Association identification label that has a hazard rating of 2, 3, or 4, but not empty containers so marked.

(l) Any waste that requires extraordinary management or special handling. Examples of such special wastes are: chemicals, liquids, sludge and dust from commercial and industrial operations; municipal waste water treatment plant grits, screenings and sludge; contaminated soils; tannery wastes; empty pesticide containers; and dead animals or by-products.

(m) Medical waste.

"Uncontrollable Circumstances" means one and/or a combination of governmental action, law or regulations or loss of material municipal disposal contract utilizing the Landfill as of the date of this Agreement, making the Franchisee unable to accept Solid Waste for disposal at the Landfill, or that materially impacts the volume of Solid Waste coming into the Landfill such that Franchisee's revenue is decreased by an amount equal to or more than fifteen percent (15%) of the applicable annual base guaranteed Franchise Fee (as defined below) for a period of two consecutive years. Uncontrollable Circumstances also means Force Majeure.

"Tipping Fees" means any fee, rate, toll or other charge (including, but not limited to, environmental fees) that Franchisee charges for disposal of Solid Waste from customers, haulers, other franchisees or any third parties disposing of Solid Waste at the Landfill.

"*Waste Stream*" means flows of specific waste, from its source through to recovery, recycling or disposal. Together they make up the overall waste treated at the Landfill. Waste streams can be divided into two broad types: streams made of materials (such as metals or plastics) or streams made of certain products (such as electronic waste or end-of-life vehicles) which require specific treatment and ultimately feed into materials-related streams.

2. Grant of Franchise for Services to be Provided. For the consideration and under the terms and conditions of this Agreement, the County hereby grants to Franchisee a franchise ("Franchise") to provide services at and in connection with the Landfill as follows:

(a) Operation of Landfill. Franchisee shall operate and maintain the Landfill as a sanitary landfill for disposal of Solid Waste under the terms and conditions of this Agreement so long as the Franchisee maintains a lawful Permit to do so, or until the earlier termination of this Agreement. Franchisee shall comply with Benton County's solid waste ordinance and all provisions for service as set forth in Exhibit B, which is attached hereto and incorporated herein by reference.

(b) Tipping Fees. Subject to the provisions of Section 2(d), Franchisee will accept Solid Waste for disposal at the Landfill and charge Tipping Fees. All fees collected under this Agreement by Franchisee shall be collectively designated as Tipping Fees for the purpose of calculating the Host Fee set forth in Section 4(b) below.

(c) Pacific Region Composting Facility. Franchisee shall continue to operate and promote the use of a Pacific Region Composting Facility ("PRCF") in order to divert yard debris and compostable material from the Landfill and to maximize recovery of the natural resources inherent in these materials.

(d) Franchisee's Acceptance of Waste. Franchisee shall accept for disposal at the Landfill, Solid Waste created or generated within Benton County. Franchisee shall not accept any Solid Waste which it believes is not allowed under the Permit or that would, upon disposal, violate federal or state laws or regulations. Franchisee retains discretion to reject Solid Waste that it believes may present a significant risk to human health or the environment, or create or expose the Franchisee to potential liability, which Solid Waste does not violate federal or state laws or regulations. All persons holding a franchise to collect and transport municipal Solid Waste in Benton County will be permitted access to the Landfill and Franchisee shall accept such persons' waste for disposal provided that such persons remit the applicable Tipping Fee which shall be set in Franchisee's sole discretion pursuant to Section 2(b).

(e) Dump Stoppers Programs. During the period of January 1, 2021 through July 1, 2021, Franchisee and County will negotiate in good faith to establish a program to promote self-haulers and cease activities by illegal dumpers. The joint creation of a "dump stoppers" program is intended to discourage illegal dumping in the County and allow documented illegal dumps to be disposed of at the self-haul fee set forth below in Section 2(f). The parties shall present a joint report on this program to the Board after three (3) years, at which time the parties may consider alterations to the fee and/or program.

(f) Residential Self-Haul Access. It is the desire of both parties to provide safe and efficient access to the Landfill by self-haulers by promoting safety, reducing congestion at the scales, and imposing a self-hauler fee mutually agreeable to County and Franchisee. Self-haulers shall be charged a residential per-vehicle fee, not to exceed $35.00 and to apply to any residential-sized vehicles. Self-haulers shall not be charged a per-ton fee or any other fee or charge, including any environmental fee or charge. After three years, the rate will increase by the CPI per Section 4(d).

(g) C&D Transfer Facility. It the intention of the parties that Construction and Demolition (C&D) material disposed of at the Landfill eventually be separated and not disposed of at the Landfill. Franchisee and County shall work together to monitor the flow of C&D material to the Landfill, and establish a mutually agreeable schedule during which to engage other stakeholders to discuss establishing a transfer facility that could serve as a regional collection point for C&D waste so that it may be transferred to appropriate recycling facilities in order to divert this material from the Landfill.

(h) Secured Loads/Litter Control. Franchisee shall require Landfill customers to secure loads and shall maintain litter control measures at the Landfill.

3. Term. Unless this Agreement is terminated pursuant to its provisions, the term of this Agreement shall begin on the Effective Date and shall continue until midnight December 31, 2040, at which time the Agreement shall end.

4. Franchise and Host Fees. In consideration of the grant of the Franchise under Section 2, Franchisee shall pay to the County the following:

(a) Franchise Fee. Franchisee shall pay to the County an annual base guaranteed Franchise fee as set forth below ("Franchise Fee"):

Franchise Fee	Calendar Year
$2,000,000	2021
$2,040,000	2022
$2,080,800	2023
$3,500,000	2024

The Franchise Fee shall be paid in twelve (12) equal monthly installments of each year with the first payment due in January 2021, or in installments as may be agreed upon by the parties. The Franchisee shall make a total of Two Hundred Forty (240) monthly payments to the County over the term of the Franchise Agreement. For the calendar year 2025 and all years thereafter, the Franchise Fee is subject to the annual CPI adjustment described in Section 4(d) below.

(b) Host Fee. In addition to the annual Franchise Fee due under Section 4(a), Franchisee shall pay an annual host fee to the County in an amount per ton for each ton of Solid Waste accepted at the Landfill as set forth below ("Host Fee"):

Host Fee	Calendar Year
$2.87 per ton	2021
$2.93 per ton	2022
$2.99 per ton	2023
$3.99 per ton	2024

The Host Fee shall be due on January 15 following the calendar year the Host Fee was collected. The Host Fee set forth in this Section 4(b) shall be a credit against the Franchise Fee paid in Section 4(a) above for any calendar year. By way of example, if the total Franchise Fee paid by Franchisee to the County in 2022 is $2,040,000, and the total Host Fee collected by Franchisee for the calendar year 2022 is $2,600,000, the Host Fee due on January 15, 2023 would be $560,000. Conversely, if the total Franchise Fee paid by Franchisee to the County in 2022 is $2,040,000, and the total Host Fee collected by Franchisee for the calendar year 2022 is $2,000,000, the Host Fee due on January 15, 2023 would be zero. For calendar year 2025 and all years thereafter, the Host Fee will be subject to the annual CPI adjustment described in Section 4(d) below.

(c) Franchise Fee and Host Fee Adjustments Based on Timing of Landfill Expansion. As further referenced in Section 5(b), Franchisee intends to expand the Landfill onto the Expansion parcel by 2024. If Franchisee's Application (as defined in 5(b) below) is approved prior to 2024 or in 2025 or later, the following Franchise Fee and Host Fee adjustments will supersede the Franchise Fee and Host Fee calculations described in Sections 4(a) and 4(b):

(i) Landfill Expansion Occurs Prior to 2024. If Franchisee's Application is approved in 2023 or earlier, the Host Fee for 2023 will be $3.91/ton and the Host Fee for 2024 will be $3.99/ton. The Franchise Fee for 2023 and 2024 will remain as described in Section 4(a) above. For each calendar year thereafter, the Host Fee and the Franchise Fee shall be adjusted pursuant to Section 4(d).

(ii) Landfill Expansion Occurs 2025 or Later. If the Landfill Application is not approved by 2025, the Host Fee for 2025 will be $3.43/ton and the Franchise Fee will be $2,500,000. For each calendar year thereafter, provided that Franchisee's Application is not granted, the Host Fee and the Franchise Fee shall be adjusted pursuant to Section 4(d). If Franchisee's Application is subsequently granted in 2025 or later, the Host Fee for the year the Franchise Application is granted shall be $3.99 and the Franchise Fee shall be $3,500,000 starting in year 2024 plus for each calendar year thereafter, the Host Fee and the Franchisee Fee will be adjusted pursuant to Section 4(d).

(d) CPI Adjustment. The Franchise Fee and the Host Fee (after the first four years of this Agreement) shall be adjusted annually on the first day of January of each successive year. The Franchise Fee and Host Fee shall be adjusted by the same percentage as the increase/ decrease in the annual Consumer Price Index (CPI) for West Region as published by the United States Department of Labor, Bureau of Labor Statistics for the preceding calendar year. If the West Region Consumer Price Index (CPI) is not published in any year, the parties shall meet and agree upon an index to track the consumer price fluctuations and if the parties cannot agree upon

an index the issue shall be submitted to binding arbitration. Notwithstanding this provision, the total applied increase of CPI shall not exceed five percent (5%) in any given year.

(e) Extraction Fees Included. In the event the County enacts a fee, tax or other charge related to extraction of mineral and aggregate from the real property described in Exhibit A, the County acknowledges that the Host Fee includes any such fee, tax or other charge which may be attributable to Franchisee.

5. Impact of Solid Waste Volume; Limit on Solid Waste; Tonnage Cap.

(a) The parties acknowledge that there may be adverse effects to the County's infrastructure and environmental conditions due to increased annual volumes of Solid Waste accepted at the Landfill.

(b) Franchisee intends to seek governmental approval to expand the Landfill on the real property legally described on the attached Exhibit C and incorporated by reference herein ("Expansion Parcel"). The parties agree that until Franchisee's governmental applications to expand the Landfill onto the Expansion Parcel are granted (following any and all appeals to final judgment) (the "Application"), the total tonnage of Solid Waste deposited by Franchisee at the Landfill during any calendar year shall not exceed One Million One Hundred Thousand (1,100,000) tons, of which Franchisee shall limit the total tonnage of Solid Waste received at the Landfill to allow for Seventy-Five Thousand (75,000) tons of Solid Waste from the County exclusively (the "Tonnage Cap"). The County agrees that the Tonnage Cap shall not apply to any Solid Waste generated from fire, flood, other natural disaster or any Force Majeure event.

6. Environmental Trust Fund and Pollution Liability Insurance.

(a) Franchisee will guarantee the Environmental Trust Fund sustains a total balance, including principal, earnings, and interest, of at least $5,000,000.00. As long as the Environmental Trust Fund sustains a total balance, including principal, earnings, and interest of at least $5,000,000.00, no further contributions to the fund will be required. If the Environmental Trust Fund falls below $5,000,000.00, Franchisee shall deposit funds adequate to raise the Environmental Trust Fund balance to at least $5,000,000.00. Accrued earnings and interest will remain in the Environmental Trust Fund and with such earnings the Fund will continue to grow. The signatories to the Environmental Trust Fund will make all necessary amendments to the Trust instrument to implement this Section.

(b) Within 60 days of the Effective Date of this Agreement, Franchisee shall establish and maintain during the term of this Agreement pollution liability insurance and will provide a certificate of insurance coverage in a form acceptable to the County, with coverage of $10,000,000.00 insuring operations at the Landfill and naming the County as an additional named insured. The pollution liability policy of insurance required under this Section 6(b) shall be issued by a company authorized to do business in Oregon, reasonably acceptable to the County. The insurance policy shall provide that it cannot be cancelled or reduced in scope or amount of coverage until 30 days after written notice to the County from the insurer. Not less than 30 days before the expiration of each such policy, a renewal policy or certificate of insurance evidencing the renewal shall be delivered to the County.

If pollution liability insurance is not available or is not available at a reasonable cost, Franchisee shall give County notice of this event and Franchisee shall not be in default under this Agreement. The parties shall meet, review the balance of the Environmental Trust Fund and negotiate a change in the Environmental Trust Fund and/or the pollution liability insurance, if necessary. If it is necessary to contribute an amount to the Environmental Trust Fund, the amount shall not exceed the cost of the pollution liability insurance at the time the last pollution liability insurance policy was in effect. If pollution liability insurance again becomes available, Franchisee may notify County and negotiate the level of the Environmental Trust Fund and pollution liability insurance, with the cost of the pollution liability insurance premium not to exceed the amount of the contribution to the Environmental Trust Fund. When the Landfill receives final regulatory approval for final closure, pollution liability insurance will no longer be required.

(c) If any money in the Environmental Trust Fund is used for Coffin Butte, as provided in the Trust Agreement, a copy of which is marked Exhibit D and attached hereto, and insurance is also available to cover the loss at Coffin Butte, then the parties agree that all insurance proceeds, money or other insurance funds shall be first used to repay the Environmental Trust Fund to the extent possible. It is the intent of the parties to use such insurance proceeds to restore the Environmental Trust Fund to the balance prior to the use of the funds, or as close to the full balance as possible.

(d) The Franchisee and County will meet and discuss whether a change in the pollution liability insurance coverage is required. The parties shall meet to discuss whether such a change is required every four (4) years from the Effective Date, or after each increment of two million (2,000,000) tons of Solid Waste is disposed of at the Landfill, whichever event occurs first. The determination of whether a change in pollution liability insurance coverage is required is only subject to binding arbitration pursuant to Section 10 if the total amount in the Environmental Trust Fund and pollution liability insurance coverage is less than ten million dollars ($10,000,000.00). The contribution limitations specified in subsection 6(b) shall not apply to this subsection.

(e) At such time as the Landfill is closed or this Agreement terminates, County may, at its option, continue pollution liability insurance coverage at its own expense.

(f) Franchisee's general liability insurance duties and obligations are set forth in Section 9 of this Agreement.

7. Reports; Inspections; Annual Meetings of Parties.

(a) Operational Reports. Within 150 days after the first anniversary of the Effective Date, and every year thereafter, Franchisee shall furnish to the Board an Annual Report with respect to the environmental condition of the Landfill, covering air, water, Solid Waste Permits, pollution controls, and related issues as determined by both parties.

(b) Capacity Reports. Within 150 days after the second anniversary of the Effective Date, and every year thereafter, Franchisee shall provide the Board necessary data to

confirm the remaining capacity of the Landfill as determined by both parties. The data shall include the methods and calculations used in making this determination.

(c) Other Reports. Franchisee shall furnish copies of reports and other public information relative to the operation of the Landfill to the County at the time the reports are submitted to the regulating agencies. This information shall include, but not be limited to, reports required by state and federal agencies for Permit compliance.

(d) Inspections. For the purposes of making lawful inspections and determining Franchisee's compliance with this Agreement, Franchisee shall allow employees or representatives or agents of the County reasonable access to the Landfill during normal business hours. The County may perform any such inspections with or without prior notice, but the employees or representatives or agents of the County shall first report to the operations office at the Landfill and announce their presence before entering the Landfill. All representatives of the County shall comply with all applicable safety and other onsite rules of the Landfill.

(e) Other Meetings. Either the Franchisee or the County may request a meeting at any time to discuss how current or proposed changes in technology, public policy or other factors or developments might impact the operation of the Landfill or this Agreement. These discussions are not subject to the arbitration provisions of Section 10.

(f) Document Review and Disclosure. The parties agree that Franchisee's documents will be reviewed and inspected at the Corvallis, Oregon office of Franchisee. The parties further agree that any information submitted by Franchisee relating to Tipping Fees charged at Coffin Butte will be considered confidential business records required by County to be submitted for fee setting purposes and that County will not disclose such information except where required to do so under Oregon law or judicial order.

8. Indemnity. Franchisee shall indemnify and hold the County harmless from and against the following:

(a) Any and all claims arising from any (i) litigation involving the Franchisee's operation of the Landfill pursuant to this Agreement; (ii) negligence of Franchisee or any of its agents, contractors, servants, or employees in the operation of the Landfill pursuant to this Agreement; and (iii) accident, injury, or damage whatsoever caused to any person, firm, or corporation or the property of any person, firm, corporation, including Franchisee, or other entity arising from the operation of the Landfill and occurring during the term of this Agreement on the Landfill; and/or

(b) Any and all costs, including but not limited to attorneys' fees at trial or on appeal, expenses, and liabilities incurred in or about any such claim or action or proceeding that require indemnification pursuant to Section 8(a) above.

Nothing in this Agreement shall require Franchisee to indemnify the County for the negligence or willful conduct of the County's agents, representatives or employees.

9. General Liability Insurance.

(a) Liability Insurance. Franchisee shall pay for and maintain for the mutual benefit of the County and Franchisee commercial general liability insurance against claims for personal injury, death, or property damage occurring upon or in the vicinity of the Landfill or any part thereof, with limits of not less than $10,000,000.00 per single occurrence for bodily injury and $10,000,000.00 per single occurrence for property damage, or not less than the current amount of liability insurance carried by Franchisee, whichever is greater. The insurance shall name the County as an additional named insured.

(b) Policies and Certificates of Insurance. Each policy of insurance required under Section 9(a) shall be issued by companies properly admitted to do business in Oregon and acceptable to the County. The insurance policy shall provide that it cannot be cancelled or reduced in scope or amount of coverage until 30 days after written notice to the County from the insurer. Not less than 30 days before the expiration of each such policy, a renewal policy or certificate of insurance evidencing the renewal shall be delivered to the County. County understands that the parent corporation for Franchisee is Republic Services, Inc. ("Republic"), and Republic may self-insure for liability insurance.

10. Dispute Resolution.

(a) Any controversy or claim arising out of or relating to this Agreement, including the making, performance, or interpretation of this Agreement, shall be settled by arbitration. Unless otherwise agreed, the arbitration shall be conducted in Corvallis, Oregon by Arbitration Service of Portland, Inc., or its successor. Each party shall select an arbitrator within 20 days of the dispute being submitted to arbitration and notify the other party of the appointment. The two selected arbitrators shall meet within 20 days thereafter and appoint a third arbitrator. If either party fails to select an arbitrator or if the two arbitrators cannot agree upon a third arbitrator, then the Arbitration Service of Portland shall submit a list of five (5) arbitrators to the parties. The parties shall meet in person or by telephone (or other agreeable means of communication) within 20 days of the list being submitted and the parties shall select by lot which party shall strike the first name from the list. Then the other party shall strike a name and then alternately the parties shall strike a name until a single name is remaining and that person shall be the third designated arbitrator. If either party fails to act within the time prescribed in this Section, the other party has the right to refer the matter to a court of competent jurisdiction to force the other party to act. The arbitration shall be held before an arbitration panel of three persons (unless otherwise agreed by the parties). If arbitration is commenced, the parties shall permit discovery proceedings of the type provided by the Oregon Rules of Civil Procedure both in advance of, and during recesses of, the arbitration hearings. The arbitration panel may grant or deny an increase in fees. The arbitration panel has no authority to award money damages against either party, but may award retroactive fee increases, fees generated as a result of the fee increases and other contract remedies. The arbitration panel shall have no jurisdiction to consider evidence with respect to or render an award or judgment for punitive damages. At no time during the pendency of an arbitration proceeding shall Franchisee decrease or halt the level of services specified in this Agreement, including but not limited to Exhibit B. The parties shall pay their own arbitration expenses and shall divide equally the cost of the arbitrator and his or her costs and expenses.

(b) Remedies. The parties agree to first submit all disputes to arbitration under Section 10(a) in the first instance. The parties recognize, understand and agree that some disputes may not be included in the arbitration section under Section 10(a). The parties may agree to submit a dispute to arbitration under Section 10(a) or either party may assert to the arbitration panel that the issue is not subject to arbitration under Section 10(a). Both parties may agree in writing the dispute is not subject to arbitration and either party may then seek all other legal remedies available to it. The parties agree the Circuit Court of Marion County, Oregon, is the correct venue for any and all litigation which is not subject to arbitration under Section 10(a).

11. Compliance with Laws, Regulations and Uncontrollable Circumstances.

(a) This Agreement and Franchisee's operation of the Landfill are subject to the Permit and all federal and state laws and regulations as now in effect and as may be enacted or promulgated hereafter.

(b) If either party is, by reason of Uncontrollable Circumstances, force of any applicable law, regulation, court decision or order, including any change therein, required to do any act or made subject to any condition which could prohibit Solid Waste from being disposed of at the Landfill or impact the duties and obligations of either party under this Agreement, the party shall notify the other party. The County and the Franchisee shall meet and negotiate on the continuation of the Agreement and under what terms and conditions the Agreement should or should not be continued. If the Franchisee and County do not agree in writing to continue this Agreement within 90 days after Notice from the Franchisee or such additional time as the parties agree to in writing for negotiations, the Agreement shall terminate.

Nothing in this Section prevents the Franchisee or County (in their sole discretion) from obtaining or seeking modification or repeal of any such law, regulation, decision or order, or shall it restrict either party from contesting the validity thereof. The Agreement shall not terminate under this Section if the Franchisee is in good faith contesting or appealing, any law, regulation, decision or order.

(c) The obligations of Franchisee under this Agreement are subject to Uncontrollable Circumstances. If, as the result of any Uncontrollable Circumstance, Franchisee is unable to meet its obligations under this Agreement, in whole or in part, the Franchisee shall give notice to the County describing in reasonable detail the circumstances. So long as the requirements of this Section 11 are met, Franchisee shall not be considered in default under this Agreement to the extent that performance is prevented or impaired by the occurrence of any Uncontrollable Circumstance. The Franchisee shall use all reasonable efforts to resume its performance at the earliest practicable date and shall notify the County when the effect of the Uncontrollable Circumstance has ceased.

(d) During the period of nonperformance by reason of Uncontrollable Circumstances, Franchisee is not required to pay any fees. As soon as Franchisee resumes disposing of Solid Waste at Landfill, the fees will be required as provided in Section 4. If Franchisee disposes of waste at an alternative landfill for reasons other than those involving Uncontrollable Circumstances, then Franchisee will pay only the Franchise Fee set forth in Section 4(a).

(e) Notwithstanding any contrary provision of this Agreement, the settlement of strikes, lockouts, or other industrial disturbances, and litigation, including appeals, shall be entirely within the discretion of the Franchisee and the Franchisee may make any settlement thereof at any time, and on any terms and conditions, as it deems advisable.

(f) Except as provided in Section 2(d), if during the term of this Agreement the Franchisee is unable to accept Benton County Solid Waste for disposal at the Landfill, Franchisee shall make other permitted landfills available for the disposal of Benton County Solid Waste.

(i) The Tipping Fee for disposal of Benton County Solid Waste shall be no greater than the Tipping Fee charged by Franchisee under this Agreement prior to the Uncontrollable Circumstance that resulted in Landfill being unavailable for the disposal of Benton County Solid Waste.

(ii) If an event under Section 11(f)(i) occurs and has not been resolved within six (6) months of the date of occurrence, and if the Benton County Solid Waste is not taken to a Republic owned or controlled landfill by Republic owned or controlled collectors or haulers, the Tipping Fee charged by Franchisee under this Agreement may be increased to the actual cost to Franchisee for disposal of Benton County solid waste.

(g) In the event this Agreement terminates or the Landfill is unavailable for the disposal of Solid Waste, Franchisee shall notify all franchised haulers of the unavailability of the Landfill to accept Solid Waste. Such notification shall be in writing and shall be made within ninety (90) days of the date the decision is made to terminate this Agreement or from the date Franchisee knows the Landfill will be unavailable for disposal of Solid Waste.

12. Default. The occurrence of any of the following shall constitute a default by Franchisee under the terms of this Agreement.

(a) Failure to Make Any Payments Under Section 4. Payments due under Section 4 of this Agreement are to be made by the twentieth (20th) of each month unless otherwise agreed upon by the parties in writing. Franchisee shall make all payments without County being required to send invoice or notice of the Franchisee's obligation to make such payments.

(b) If Franchisee fails to make any payment due under Section 4 by the twentieth (20th) of each month for more than any two (2) months (consecutive months or nonconsecutive months) in any calendar year, Franchisee shall pay to County one and one-half percent (1.5%) of the payment due.

(c) Except for delays caused by events subject to Uncontrollable Circumstances, the Franchisee shall give County written notice of the failure to perform under any provision of this Agreement. If the failure to perform is not cured within 30 days after written notice of such default has been given by Franchisee, this Agreement shall be in default. If the default cannot reasonably be cured within 30 days, then the Franchisee shall not be in default as long as the Franchisee commences to cure the default within 30 days and diligently and in good faith continues to cure the default. If default cannot reasonably be cured within

six (6) months, the Franchisee and County shall meet and agree upon a termination date for this Agreement or Amendments to this Agreement that will continue the Agreement. If the parties cannot agree, the matter may be submitted to arbitration under Section 10.

13. Miscellaneous.

(a) Amendment. This Agreement may be amended only by a written instrument approved by, and executed by, all parties.

(b) Assignment; Succession. This Agreement binds and benefits the parties and their respective successors and Franchisee's assigns (subject to the following sentence). Franchisee may not sell, convey, transfer or assign the Landfill or any of its rights, interests, or obligations under this Agreement, including to subsidiaries and related parties, without the prior written approval of the Board, which such approval shall not be unreasonably withheld, but may be reasonably conditioned on financial or environmental considerations.

(c) Consent and Approval. Whenever in this Agreement a party's consent or approval is required, the consent or approval shall not be unreasonably withheld or delayed, or made subject to unreasonable conditions.

(d) Counterparts. The parties may execute this Agreement in separate counterparts or copies, each of which when executed and delivered shall be an original, but all of which together shall constitute one and the same instrument.

(e) Negotiated Agreement. The parties recognize, understand, and agree that their own retained attorneys at law have represented each party during the negotiation of this Agreement. Each party has submitted written material to the other. Neither party is deemed to have written this document. It is a negotiated Agreement. If disputes arise concerning the meaning of any word, term, sentence, paragraph, or section, neither party shall be deemed responsible for drafting of this Agreement.

(f) Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Oregon.

(g) Notices. All notices, consents, waivers, and other communications under this Agreement must be in writing and will be deemed to have been duly given when (i) delivered by hand (with written confirmation of receipt), (ii) sent by fax (with written confirmation of receipt), (iii) mailed by certified mail, return receipt requested, or (iv) when received by the addressee, if sent by a nationally recognized overnight delivery service (receipt requested), in each case to the appropriate addresses and fax numbers set forth below (or to any other addresses and fax numbers a party may designate by notice to the other parties):

County: Benton County Board of Commissioners
Attention: Chairman of the Board of Commissioners
P.O. Box 3020
Corvallis, Oregon 97339-3020
Fax: (541) 766-6014

Copies to: Benton County Counsel
P.O. Box 3020
Corvallis, Oregon 97339-3020

Copies to: Kell, Alterman & Runstein L.L.P.
Attn: Thomas R. Rask, III
520 SW Yamhill Street, Suite 600
Portland, OR 97204

Franchisee: Valley Landfills, Inc.
Attention: President
P.O. Box 807
Corvallis, Oregon 97339
Fax: (541) 757-0219

Copies to: Valley Landfills, Inc.
Attention: Corporate Secretary
18500 N. Allied Way
Phoenix, Arizona 85054

(h) Section Headings: Construction. The headings of sections in this Agreement are for convenience only and will not affect its construction or interpretation. Any reference to parties in this Agreement is a reference to the parties named on the first page of this Agreement. All references to "section" or "sections" refer to the corresponding section or sections of this Agreement. All words used in this Agreement will be construed to be of the gender or number circumstances require. Unless otherwise expressly provided, the word "including" does not limit the preceding words or terms.

(i) Severability. If any provision of this Agreement is invalid or unenforceable in any respect for any reason, the validity and enforceability of any such provision in any other respect and of the remaining provisions of this Agreement shall not be in any way impaired.

(j) Waiver of Compliance. Any failure of any party to comply with any obligation, covenant, agreement, or condition in this Agreement may be waived by the party entitled to the performance of the obligation, covenant, or agreement or who has the benefit of the condition, but the waiver or failure to insist upon strict compliance with the obligation, covenant, agreement, or condition will not operate as a waiver of, or estoppel with respect to, any subsequent or other failure.

(k) Entire Agreement. This Agreement (including the documents referred to in this Agreement) constitutes the entire agreement between the parties and supersedes any prior understandings, agreements, or representations by or between the parties, written or oral, to the extent they related in any way to the subject matter of this Agreement.

FRANCHISEE:

VALLEY LANDFILLS, INC.

By Marieke Curley
Vice President

1, Marieke Curley, hereby state and affirm that I have executed the foregoing Agreement for and on behalf of Valley Landfills, Inc., an Oregon Corporation, lawfully conducting business in the State of Oregon pursuant to an order or resolution of the corporation's board of directors to enter into such an Agreement.

M Curley
Vice President, Valley Landfills, Inc.

STATE OF Washington)
) ss.
County of King)

BEFORE ME, the undersigned authority, on this day personally appeared Marieke Curley, known to me to be the person whose name is subscribed to the foregoing agreement as the Vice President of Valley Landfills, Inc., and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed in the capacity therein stated and as the act and deed of the corporation; that he/she executed the foregoing agreement by order or resolution of the board of directors of Valley Landfills, Inc., and that he/she signed his/her name to the agreement by reason of the same order or resolution.

SUBSCRIBED AND SWORN to before me this 21st day of December, 2020.

LESLIE MCALLISTER NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES 09-13-21

Leslie McAllister
Notary Public for King County
My Commission Expires: 09-13-2021
2186 140th PL SE, Bellevue, WA 98007

COUNTY:

BENTON COUNTY
BOARD OF COMMISSIONERS

By: _____
Pat Malone, Chair

By: _____
Xan Augerot, Commissioner

By: _____
Annabelle Jaramillo, Commissioner

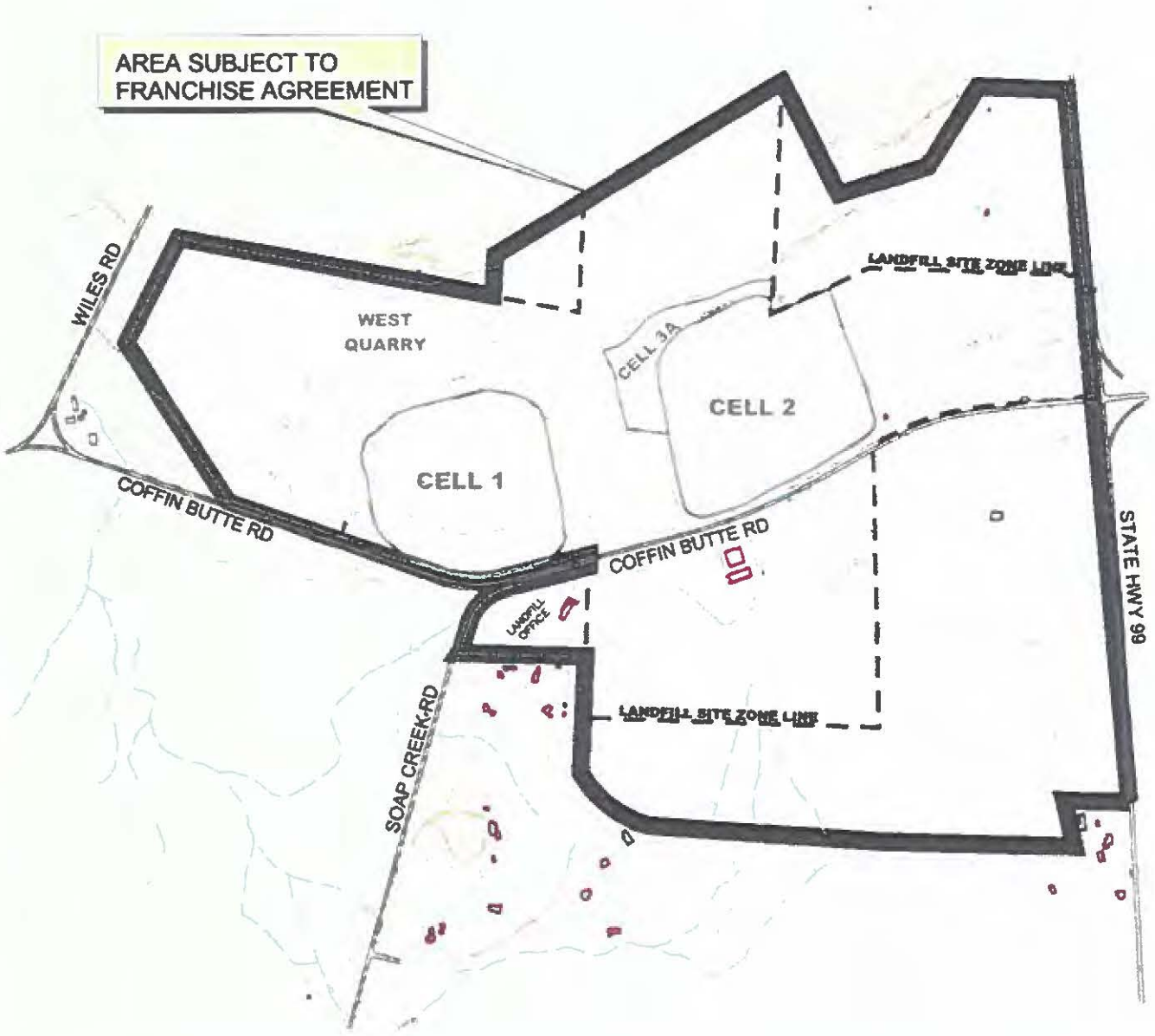
Reviewed as to Form:

_____
Vance M. Croney, Benton County Legal Counsel

Landfill Franchise Agreement

Exhibit A

11/12/00



AREA SUBJECT TO FRANCHISE AGREEMENT

LANDFILL ZONE LINE

CELL BOUNDARY

25' CONTOUR

INTERMITTENT STREAM

PAVED EDGE

BUILDINGS

400 0 400 Feet

CHAPTER 23

SOLID WASTE MANAGEMENT

ADMINISTRATION

23.005 Definitions. As used in BCC Chapter 23:

(1) **"Council"** means the County Solid Waste Advisory Council established pursuant to this section.

(2) **"Uncovered Load"** means a load which is:

(a) not completely covered on all sides and on the top and bottom and such cover is either a part of or securely fastened to the body of the motor vehicle or trailer,

(b) not securely tied to the body of the motor vehicle or trailer so that no piece, article, item or part of such solid waste or recyclable material is not fastened to the body of the motor vehicle or trailer, or

(c) not contained in the body of the motor vehicle or trailer, in such a way as to prevent any part of the solid waste or recyclable material from being deposited upon any private or public property, road, right-of-way or driveway within the County.

(3) **"Department"** means the Benton County Health Department.

(4) **"Discarded Vehicle"** means any vehicle which does not have a lawfully affixed unexpired license plate and is inoperative, wrecked, dismantled or partially dismantled, abandoned or junked. A "discarded vehicle" is a form of "Solid Waste".

(5) **"Disposal Site"** means land and facilities used for the disposal, handling or transfer of, or energy recovery, material recovery and recycling from solid wastes, including but not limited to dumps, landfills, sludge lagoons, sludge treatment facilities, disposal sites for septic tank pumping or cesspool cleaning service, transfer stations, energy recovery facilities, incinerators for solid waste delivered by the public or by a collection service, composting plants and land and facilities previously used for solid waste disposal at a land disposal site.

(6) **"Franchise"** includes a franchise, certificate, contract or license issued by a local government unit authorizing a person to provide solid waste management services.

(7) **"Hazardous Waste"** means any hazardous waste as defined by ORS 466.005 or wastes found by the franchisee to be hazardous to service workers, service equipment or facilities, or to the public. "Hazardous waste" shall also include "hazardous waste" as defined by other governmental units which have legislative or administrative jurisdiction.

(8) **"Holder"** means a person to whom the Board has granted a franchise or permit.

(9) **"Landfill"** means a facility for the disposal of solid waste involving the placement of solid waste on or beneath the land surface.

(10) **"Permit"** means a limited license to provide only specified recycling or reuse services.

(11) **"Person"** means any individual or other legal entity.

(12) **"Resource Recovery"** means the process of obtaining useful material or energy resources from solid waste, including source separation and materials or energy recovery.

(13) **"Service"** means the collection, transportation, and disposal of, or resource recovery from, solid waste. "Service area" is the geographic area in which service is provided.

(14) **"Solid Waste"** means all useless or discarded putrescible and nonputrescible materials, including but not limited to garbage, rubbish, refuse, ashes, paper and cardboard, sewage sludge, septic tank and cesspool pumpings or other sludge, useless or discarded commercial, industrial, demolition and construction materials, discarded or abandoned vehicles or parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid materials, dead animals and infectious waste as defined in ORS 459.386.

(15) **"Solid Waste Management"** means the prevention or reduction of solid waste, management of the storage, collection, transportation, treatment, utilization, processing and final disposal of solid waste, recycling, reuse and material or energy recovery from solid waste and facilities necessary or convenient to such activities.

(16) **"Source Separation"** means the separation of waste materials by the generator in preparation for recycling.

(17) **"Waste"** means material that is no longer directly usable by the source, and which is to be disposed of or may be resource recovered by another person.

(a) The fact some materials have value and may be recovered, reconditioned or resold, does not exempt such materials from the definition of "waste".

(b) Separation of materials from other wastes by the source does not remove the materials from this definition. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035; Ord. 94-0108; Ord. 2000-0165; Ord. 2003-0183]

23.010 Purpose. In order to protect the health, safety and welfare of the people of Benton County and to provide a solid waste management program, it is declared to be the public policy of Benton County to regulate solid waste management to:

(1) Provide for a coordinated solid waste management program and administration with cities within Benton County and with other counties or cities under existing and future regional programs.

(2) Provide for cooperation and agreements between Benton County and cities and other counties involving joint or regional franchising of solid waste service.

(3) Provide standards, regulations and franchising to insure the safe and sanitary accumulation, storage, collection, transportation and disposal or resource recovery of solid wastes and insure maintenance of solid waste collection, resource recovery and disposal service.

(4) Encourage research, studies, surveys and demonstration projects to develop a safe, sanitary, efficient, and economical solid waste management system.

(5) Provide research, development and promotion of and public education for technologically and economically feasible resource recovery including recycling and reuse, by and through the franchisees or permittees and other persons.

(6) Eliminate duplication of service or routes to conserve energy and material resources, reduce air pollution, noise pollution, truck traffic, and increase efficiency, thereby minimizing consumer cost.

(7) Encourage the use of the capabilities and expertise of private industry and encourage volunteer efforts in accomplishing the purposes of BCC Chapter 23.

(8) Provide equitable classes of collection rates to classes or users of solid waste services that are just, fair, reasonable, and adequate to provide necessary services to the public, justify investment in solid waste management systems and provide for equipment and systems modernization to meet environmental service requirements and technology.

(9) Minimize the cost and burden of regulation, administration and enforcement.

(10) Provide for public input in solid waste management.

(11) Carry out the local government responsibility and authority for solid waste management under ORS 459, and carry out the mandate for waste reduction under Chapter 773, Oregon Laws, 1979. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035; Ord. 2000-0165]

23.015 Administration. Administration under the supervision of the Board shall be by the Benton County Health Department under the Administrator or his designee. The following persons and agencies shall assist the Department in carrying out its duties under BCC Chapter 23: The Planning Commission, Development Department (Planning, Zoning and Land Use.); Solid Waste Advisory Council (Solid Waste Management Planning.); Finance Division (Fiscal Management and Rates.); Public Works Department (Public and Private Facilities.); County Counsel, District Attorney and Sheriff (Enforcement). [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035; Ord. 2000-0165]

23.020 Solid Waste Advisory Council Established. The Board shall create a County Solid Waste Advisory Council in accordance with Benton County Code sections 23.025 through 23.035 and may create a Regional Solid Waste Advisory Council or Committee in cooperation with cities and other counties. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035; Ord. 2003-0183]

23.025 County Solid Waste Advisory Council Membership.

(1) The Council shall consist of ten (10) members. All members shall be appointed by the Board and shall be selected as follows:

(a) Three (3) members shall be residents of the City of Corvallis;

(b) One (1) member from each of the cities of Adair Village, Albany, Monroe, and Philomath. Each member shall be a resident of the represented city; and

(c) Three (3) members who reside in the unincorporated areas of Benton County.

(2) The following persons may be appointed by the Board as ex officio members entitled to participate in proceedings of the Council, but not to vote: the Administrator of the Health Department or his designate; a collection franchise holder; a disposal site franchise holder; a person holding a permit; or a person lawfully engaged in providing recycling or reuse service or the promotion or education for such service. The Board may appoint additional ex officio

members as they see fit. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035; Ord. 95-0115; Ord. 2003-0183]

23.030 County Solid Waste Advisory Council Terms. Members shall serve at the pleasure of the Board. The Council shall select its own chairperson and vice chairperson. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 2003-0183]

23.035 County Solid Waste Advisory Council Duties. The Council shall assist the Board in planning and implementation of solid waste management. First priority shall be given to those areas assigned by the Board including maintenance of County roads in the vicinity of Coffin Butte and to recycling and reuse and matters related to those areas. The County Solid Waste Advisory Council shall provide input or recommendations to the Board on the use of the host surcharge. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035; Ord. 2000-0165; Ord. 2003-0183]

FRANCHISES AND PERMITS

23.105 Franchise or Permit Required to Provide Service. No person shall solicit for service customers or provide service in Benton County, without first acquiring a franchise or permit under BCC Chapter 23 unless specifically exempted pursuant to this section. BCC Chapter 23 shall not apply within the limits of an incorporated city, except as may be provided through an agreement with the city. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035]

23.110 Exemptions to Requirement for Franchise or Permit.

(1) The following persons or practices are exempted from the requirements of BCC Chapter 23:

(a) A private charitable organization which regularly engages in the collection and reuse of repairable or cleanable discards, such as the Salvation Army, St. Vincent DePaul, Goodwill, and similar organizations.

(b) A religious, charitable, benevolent or fraternal organization, which organization is not organized for solid waste management purposes, and which is using the activity for fund raising, such as scouts and churches, and which collects and reuses or recycles totally source separated materials, or operates a collection center for totally source separated materials.

(c) The collection, transportation or redemption of returnable beverage containers under the "Bottle Bill" (ORS Chapter 459).

(d) A producer who transports and disposes of waste created as an incidental part of the regular operation of a licensed auto wrecking business or a janitorial service or a gardening or landscaping service, or a septic tank pumping or sludge collection or disposal service. "Janitorial service" does not include accumulation or collection of wastes produced by a property owner or occupant.

(e) The transportation by a person of solid waste produced by the person to a disposal site or resource recovery site or market. In the case of non-owner occupied property, the exemption applies only to waste which is produced and transported by the occupant of the premises and not by the landlord or property owner or his agent.

(f) The collection by the County or other subordinate jurisdiction of leaves, street sweepings or similar wastes, and transportation to a disposal site, resource recovery site or market.

(g) A person engaging in the practice or business of the purchase of totally source separated solid wastes for fair market value, provided, however, that the person shall obtain a certificate from the Department for this service prior to commencing business in the County. Application shall be on forms supplied by the Department, which shall require information sufficient to determine qualifications under this exemption. The application shall be accompanied by a certificate fee. A holder may obtain a certificate under this subsection.

(h) A collection center for totally source separated materials operated by a nonprofit organization which was organized for one or more solid waste management purposes in addition to other purposes of the organization, provided that the operation has been continuous from January 16, 1981. This exemption terminates upon termination of collection center operations following January 16, 1981. The nonprofit corporate operator of an existing collection center shall apply for a permit from the County within 30 days after the effective date of BCC Chapter 23.

(2) The following disposal sites are exempted from the requirements of this ordinance.

(a) A landfill which is used by the owner or person in control of the premises to dispose of rock, soil, concrete or other similar nondecomposable material, unless the site is used by the public either directly or through a collection service.

(b) A portion of land or a facility specifically possessing a waste water discharge permit pursuant to ORS Chapter 468B and in compliance with all Oregon Environmental Quality Commission regulations on solid waste management.

(c) Land on which solid wastes are used for fertilizer or for other productive purposes or which are salvageable as such materials are used on land in agricultural operations and the growing or harvesting of crops and the raising of animals. ORS 459.005(24)(b).

(d) A facility authorized by a permit issued under ORS 466.005 to 466.385 to store, treat or dispose of both hazardous waste and solid waste.

(e) A site operated by a wrecker issued a certificate under ORS 822.110. Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035; Ord. 2003-0183]

23.115 Additional Exemptions Upon Application. In addition to the exemption listed above the Board may grant additional exemptions, as follows:

(1) An applicant shall obtain an application for exemption from the Department. A completed application shall be filed with the Department.

(2) Upon twenty (20) days written notice to the applicant and affected franchisees or permittees, a public hearing shall be held before the Board.

(3) The Department shall review the application and provide information and recommendations to the Board to assist it in reaching a determination.

(4) At the conclusion of the hearing to consider the application, the Board shall make a decision, including written findings, based upon the following factors, among others:

(a) The purpose stated in BCC 23.010.

(b) The ability of the existing franchise holders or exemption holders to provide the required service.

(c) Unnecessary or unreasonable hardships or practical difficulties which can be relieved only by granting an exemption.

(d) Whether the granting of an exemption will be materially detrimental or have a substantial negative impact on service, consumer rates, or the holder of the service area or service.

(e) The ability of the applicant to secure the necessary equipment and personnel to provide the service.

(5) The Board's decision shall be mailed to the applicant and affected holders by first class mail. The Board may attach any conditions or limitations to the granting or exercising of an exemption deemed necessary to carry out the purposes and policies of Chapter 23. The Board also may impose additional conditions on an existing holder in this regard. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035; Ord. 2000-0165]

APPLICATION AND QUALIFICATIONS

23.205 Applications Required for Franchises and Permits. Applications for franchises and permits shall be on forms provided by the Department. In addition to information required on the forms, the Department may require the filing of any additional information it deems necessary to insure compliance with BCC Chapter 23. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035]

23.210 Collection Franchise Requirements.

(1) An applicant for an original collection franchise or for a collection franchise transfer shall demonstrate to the satisfaction of the Board that the applicant:

(a) Has a majority of the service accounts in the service area for which he has applied, as evidenced by a list of customers served; and

(b) Has available collection vehicles, equipment, facilities and personnel sufficient to meet the standards established by BCC Chapter 23, ORS Chapter 459 and applicable administrative rules. If the applicant proposes to serve a service area which is wholly or in part under franchise to another person, or to replace such person upon expiration of the existing franchise, the applicant shall have available on the beginning date of the proposed franchise term collection vehicles, containers and other equipment equal to that presently used in service; and

(c) Has sufficient experience to insure compliance with BCC Chapter 23. If the applicant does not have sufficient experience, the Board may require the applicant to submit a corporate surety bond, in the amount of not less than$500,000.00, guaranteeing full and faithful performance by the applicant of the duties and obligations of a franchisee

under the provisions of BCC Chapter 23 and applicable federal, state and local laws and rules or regulations, and holding Benton County harmless from liability; and

(d) Has in force, or intends to provide for, public liability insurance in the amount of not less than $2,500,000.00 for injury to a single person, or $10,000,000.00 for injury to a group of persons and property damage insurance in the amount of not less than$5,000,000.00, which shall be evidenced by a certificate of insurance or a letter of intent. Upon award of a franchise, any applicant providing only a letter of intent with the application shall provide a copy of a certificate of insurance prior to the effective date of the franchise. The certificate shall name Benton County as an additional insured. The Board may, by order, increase the minimum amount of required insurance to meet inflationary costs; and

(e) When requesting a transfer of franchise, the applicant must submit, as part of the application, a letter from the current franchisee requesting the transfer.

(2) If the applicant is not already serving the area proposed to be served, applicant shall show that:

(a) The defined service area has not been franchised to another person; or

(b) The defined service area is not being presently served by a holder pursuant to any schedule established as part of the franchise in accordance with BCC Chapter 23; or

(c) The defined service area is not being adequately served by a holder and there is a substantial demand from customers within the area for a change of service to that area. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035; Ord. 2003-0183]

23.215 Disposal Site Franchise Requirements. An applicant for an original disposal site franchise or franchise transfer shall demonstrate, to the satisfaction of the Board:

(1) The type of disposal site and the transfer, disposal, processing or resource recovery method to be employed, together with any proposed special regulations dealing with hazardous wastes or concerning the types of waste that will be accepted at the disposal site; and

(2) That the applicant has available land, equipment, management, facilities and personnel to meet the standards established by BCC Chapter 23, ORS Chapter 459 and applicable rules, and has insurance equal to that required for a collection franchise; and

(3) That the applicant has sufficient experience to ensure compliance with BCC Chapter 23.

(a) If the applicant does not have sufficient experience, the Board may either deny the application or require the applicant to submit a corporate surety bond in the maximum amount of$10,000,000.00, which guarantees full and faithful performance by the applicant of the duties and obligations of a franchise holder under provisions of Chapter 23, guarantees compliance with all applicable laws, and which holds Benton County harmless.

(b) In determining whether or not a bond is required and the amount necessary, the Board shall give due consideration to the size and type of the site, the solid waste handling methods proposed, the population or type of customers to be served, alternative sites, availability of the bond, cost to the ratepayer, adjacent or nearby land uses, the potential danger of failure of service and such other factors as the Board deems relevant.

(4) If the application is for a transfer of a disposal site franchise, the applicant must submit, as part of the application, a letter from the current holder requesting transfer. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035; Ord. 2003-0183]

23.220 Recycling or Reuse Franchise or Permit Requirements. The Board shall specify which of the collection franchise requirements, as set forth in BCC 23.210, shall apply to specific permits. In addition:

(1) The Board may include recycling or reuse service or the education or promotion of such service in a collection franchise.

(2) In lieu of a franchise, the Board may issue a limited permit for specified service and subject to such terms and conditions as the Board may impose to carry out the policy, purpose and findings.

(3) Issuance of a recycling or reuse franchise or permit by the Board is discretionary. The grounds for issuance shall be compliance with the requirements specified by the Board. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035]

23.225 Provisions in Addition to Zoning Code. The above franchise requirements are in addition to any provisions of the Benton County Zoning Code that may be applicable. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0002; Ord. 86-035]

23.230 Investigation and Findings for Franchise or Permit.

(1) Generally applications shall be reviewed by the Department, which shall make such investigation as it deems appropriate. The Department shall give written notice of any application to affected holders. In addition, the following specific requirements apply where appropriate:

> (a) Collection Franchises. Upon the basis of the collection franchise application, evidence submitted and results of investigation, the Department shall make a finding on the qualifications of the applicant and shall determine whether additional areas should be included or additional service or equipment should be provided.
>
> (b) Disposal Site Franchises. Upon the basis of the disposal site application, evidence submitted, and results of any investigation, the Department shall make a finding on the qualifications of the applicant, whether additional service, land, equipment or facilities should be provided and what conditions of service should be imposed, including whether the site should be opened to the public and under what conditions, whether or not certain types of wastes, solid wastes or hazardous wastes should be excluded from the site or what types of wastes should be required to be accepted at the site, and shall make findings as to whether or not the site is economically feasible, whether or not the site may be integrated with existing private or County-owned or operated sites, and, further, whether the site complies with all rules and regulations adopted pursuant to BCC Chapter 23 or ORS Chapter 459. The Board may impose any conditions deemed necessary to carry out the purposes and policy of this Section.

(2) On the basis of these findings, the Department shall recommend to the Board whether or not an application should be granted, denied, or be modified. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035]

23.235 Public Hearing on Franchise or Permit.

(1) The Board shall conduct a public hearing to consider an application within 30 days of receipt of the Department's recommendation.

(2) Notice shall be served on the applicant and any affected holder, and shall be published once in a newspaper of general circulation within the franchise area not more than ten (10) nor fewer than seven (7) days preceding the hearing.

(3) The Board's decision shall be supported by written findings. The determination of the Board after conclusion of the public hearing shall be final.

(4) If the Board order rejects all or part of the application for a franchise or permit, the applicant may not submit another application for the same service area, or a portion thereof, or the same disposal site, for a period of six (6) months, unless the Board finds that the public interest requires reconsideration within a shorter period of time.

(5) Upon receipt of the order granting a franchise or permit, the applicant shall enter into a written franchise or permit with Benton County. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-023, Ord. 86-035; Ord. 2003-0183]

TERM; RENEWAL

23.305 Renewal of Franchise or Permit.

(1) Renewal of any franchise or permit shall be based on an application filed with the Department. The procedure for review, renewal, approval and denial shall be as set forth above for the granting of the franchise or permit. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035]

23.310 Term of Franchise or Permit. (1) Unless the Board finds in writing that a longer or shorter term is required in the public interest:

(a) The term of a collection franchise shall be ten (10) years.

(b) The term of a disposal site franchise shall be determined by the Board upon recommendation of the Department. The recommendation shall be based upon site longevity, population to be served, and probable use, and shall not exceed twenty-five (25) years.

(c) The term of a permit shall be determined by the Board upon recommendation of the Department. The recommendation shall be based upon achieving the purposes in BCC 23.010.

(2) The Board or holder may reopen a franchise or permit during its term for a change in provisions, or for negotiation of an early renewal. The change or renewal shall require the mutual approval of both the Board and the holder.

(3) The terms of a franchise or permit shall be binding upon a holder, its heirs, successors or assigns.

(4) A franchise or permit granted pursuant to BCC Chapter 23 shall be inoperative unless the holder files with Benton County a written acceptance within thirty (30) days of issuance. Upon the filing of such written acceptance, a franchise or permit and the written acceptance shall

constitute a contract between Benton County and the holder, terminable only as provided by BCC Chapter 23. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035]

23.315 Transfer of Pledge for Franchise or Permit.

(1) A franchise or permit shall not be sold, transferred or assigned to another person without prior written approval of the Board.

(2) A person desiring a franchise or permit transfer shall submit an application to the Solid Waste Advisory Council on forms provided by the Department. The Council shall review the application at a public meeting and forward a recommendation to the Board of Commissioners. The Board shall then hold a public hearing and vote to approve or deny the request.

(3) A pledge of a holder to secure financing shall be considered to be a transfer of the franchise or permit and shall be reviewed for approval as a transfer.

(4) The term of the transferred franchise or permit shall continue for the same period as the original franchise or permit. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-0035]

DUTIES AND RESPONSIBILITIES OF HOLDER

23.405 Hold Harmless.

(1) The privileges granted to a holder are upon the express condition that the holder shall be liable for all damages or injuries to persons or property caused by the negligence or mismanagement of the holder or any of its employees while engaged in the business under the terms of the franchise or permit. Should Benton County, or any of its officers, agents or employees in the scope of their employment be sued for damages caused wholly or in part by the operations of a holder under the terms of the franchise or permit, the holder shall be notified in writing of such suit and it shall be the holder's duty to defend or settle the suit. Should judgment go against Benton County, its officers, agents or employees, the holder shall further indemnify the County for costs and attorney's fees. The record of judgment against Benton County, or any of its officers, agents or employees, in such a case shall conclusively entitle Benton County, its officers, agents or employees to recover against the holder.

(2) The holder shall covenant to purchase an indemnity insurance policy with a company licensed to do business in the State of Oregon with limits of liability specified in BCC 23.210(d) which policy shall name Benton County, its officers, agents and employees as the additional insured. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-0035]

23.410 Service to be Provided by Holder.

(1) A collection franchise holder shall provide for solid waste collection at least once weekly unless otherwise authorized by the Board or Department. In addition to serving regular customers, the holder shall pick up and haul away all solid waste at the request of any resident of Benton County in holder's service area. The Board may specify when remote, sparsely populated areas will be served and the service frequency. A holder shall not, without good cause, as determined by the Department, refuse to provide service to any person living or conducting business within its area in Benton County; except under one or more of the following conditions:

(a) Upon nonpayment or incomplete payment of a billing for service within the time provided in the bill, provided that holder sends a written ten day (10) notice to the customer that service will be terminated unless full payment is made.

(b) Upon refusal by a customer to pay any required advance payment for service, or, if provided in the rate schedule, a charge for reinstating service after discontinuance for nonpayment; or a charge for starting a new service. A holder may bill up to three (3) months in advance for service to reduce bad debt costs charged to ratepayers and to reduce administrative costs.

(c) Where street or road access is blocked.

(d) Where excessive weather conditions, as determined by a holder, render the providing of service hazardous to the persons actually providing the service or to the public.

(e) Where collection is prevented by an act of God, public enemy or vandal.

(f) Where a customer violates service standards in BCC 23.705.

(2) A holder shall, where applicable: provide, maintain and use adequate equipment to handle and dispose of or resource recover solid waste; handle collected solid wastes in a good and workmanlike manner; transport all liquids in a watertight, drip-proof container; and provide equipment that meets all applicable laws, codes, regulations and standards.

(3) A holder shall resource recover collected wastes or dispose of them in a disposal site approved by the Department of Environmental Quality.

(4) The Board may require a collection franchise holder to contract with a disposal site for the right to dispose of wastes collected during the term of the franchise, including renewals.

(5) Equipment and work supplied by any holder shall meet the reasonable satisfaction of the Department. The Department shall not make any unreasonable or arbitrary demands upon the holder.

(6) The permit holder shall comply with service conditions imposed by their permits.

(7) A disposal site franchise holder shall supply disposal services covered by its permit to those persons who contract for disposal, handling, or recovery of solid wastes collected under a franchise, license or permit; to those local government units and public agencies located within Benton County for wastes generated by activities of such units or agencies; and, subject to limitation by the Board, members of the general public hauling wastes generated by such person and not collected from other persons.

(8) All service under a franchise or permit shall be subject to applicable laws and regulations, and to permit conditions and decisions of administrative, legislative and judicial agencies having jurisdiction.

(9) A disposal site franchise holder shall not discontinue required service without ninety (90) days written notice to the Board and to any collection franchise or permit holders having a contract to use the site. Board approval shall be obtained before such discontinuance. This paragraph does not apply to discontinuation of service pursuant to subsections 1-8 of this section.

(10) No holder is required to store, collect, transport, dispose of or resource recover any hazardous waste. A holder may engage in one or more of those activities apart from BCC Chapter 23 as long as such activity is in compliance with all applicable local, state, and federal laws.

(11) Except as provided in subsection 8 above, where a governmental unit or agency is the landlord of any disposal site, the holder shall comply with all requirements imposed by such governmental unit or agency.

(12) A holder may subcontract with another person to provide service upon obtaining written permission from Benton County; provided, however, that the holder remains responsible for service.

(13) A holder shall make the payments as provided promptly as they become due. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-0035; Ord. 2003-0183]

23.415 Preventing Interruption of Service. Each holder shall agree in writing and it shall be a condition of the franchise or permit that whenever the Board determines that the failure of service, or threatened failure of service, would result in creation of an immediate and serious health hazard or serious public nuisance, the Board may, after a minimum of twenty-four (24) hours written notice to the holder authorize County personnel or other persons to temporarily provide the service or to use and operate the land, facilities or equipment of the holder. The Board may authorize whatever expenses are necessary to operate such land, facilities or equipment consistent with BCC Chapter 23. The Board shall return any seized property and business upon the abatement of the actual or threatened interruption of service. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-0035]

23.420 Fees.

(1) The holder of any franchise or permit granted pursuant to BCC Chapter 23 shall pay the following fees:

(a) Except as provided below, a collection franchise holder shall pay a fee not to exceed five (5) percent of the gross cash receipts from franchised collection service.

(b) A disposal site franchise holder shall pay an annual franchise fee. The franchise fee shall be set by agreement.

(c) A recycling or reuse permit holder shall pay an annual fee. The Board may waive this fee in order to promote reuse or recycling. Where recycling or reuse services are provided by a collection franchise, the collection franchise holder shall pay the same annual fee as for a recycling or reuse permit and such service shall not be included in the percentage of gross receipts established above for a collection franchise.

(2) The collection franchise fee shall be computed and be payable to Benton County quarterly within thirty (30) days from the end of the calendar quarter. The fee shall be accompanied by a sworn statement of gross receipts. Each collection franchisee shall maintain sufficient books and records to disclose the gross receipts from the service area and shall make such books and records available at reasonable times and places for audit by authorized personnel of Benton County. The Board may specify reasonable requirements for keeping such books and records.

(3) Where reasonably required by the Board, the holder of a disposal site franchise or a permit shall maintain books and records disclosing gross receipts at the disposal site or under the

permit, which books and records shall be available at reasonable times and places for audit by authorized personnel of Benton County, subject to the terms of the franchise agreement.

(4) Subject to the requirements of the local budget law and other applicable laws, fees, other than host surcharges, collected under this section shall be used for the administration of BCC Chapter 23, for solid waste nuisance abatement, or for promotion or provision of source reduction, recycling, reuse or resource recovery, or for other solid waste management expenses of Benton County. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-0035; Ord. 2000-0165]

RATES

23.505 Rate Structure.

(1) A holder may charge and collect reasonable compensation from persons to whom it furnishes services. The term "reasonable compensation" may be defined by the Board after a study and consideration of rates for similar service under similar conditions in other areas, and as affected by local conditions, and which allows a holder to earn a reasonable rate of return. This subsection shall not apply to disposal site franchise holders.

(2) Benton County reserves the right to examine the rate structure of a collection franchise holder only, at any time during the period or a franchise/permit and to make rate changes which, in the discretion of the Board, are reasonably required. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-0035; Ord. 2000-0165]

23.510 Procedure for Rate Change.

(1) A holder shall provide the Board with a certified copy of its published rate schedule, setting out the rates for all its operations. A holder shall file with the Board a new or revised rate schedule at least ninety (90) days prior to any contemplated change.

(2) The schedule shall be examined by the Board in a public hearing. The Board may either approve or deny the rate change, or may request additional information from the holder. It shall be approved by the Board thirty (30) days before the effective date, unless the delay is caused by failure of the Board to meet or obtain a quorum to conduct business.

(3) Notification of the decision of the Board shall be made to the holder by certified mail.

(4) In the event of disapproval, a holder shall not put the new rate schedule into effect, but may file with the Board further information to justify the rate schedule changes. Upon the receipt of the new information, the Board shall determine whether it will rehear the request.

(5) The Board may require annual statements and other records to be furnished to the Board to carry out the intentions of this section.

(6) In the event of approval of a revised rate schedule, the revised rate schedule shall not apply to persons and groups who have an advance payment agreement with the franchisee or permittee until the normal expiration of the advance payment agreement.

(7) The maximum approved rates in effect shall be subject to review and change only one time in a calendar year beginning January 1st; provided:

> (a) Upon application and without prior notice, the Board may, by order, grant an interim or emergency rate for new, special or different service. The Board may specify

the duration of the rate or continue it until final determination by the Board on the next overall rate adjustment.

(b) In addition to an annual rate adjustment, a supplemental rate adjustment may be requested when the cost of service is increased due to compliance with governmental regulations; or when there is substantial increase in a single expense that was not anticipated at the time of the last rate adjustment; or when the total cost of service exceeds projected costs by five (5) percent or more.

(8) The Board shall support a decision to revise rates with findings of fact. In making its findings, the Board may consider rates charged by other persons performing the same or similar service. The Board shall give due consideration to current and projected revenue and expense; actual and overhead expense; the cost of acquiring and replacement of equipment; management costs; the cost of providing for future, added or different service; promotion and provision of source separation services; a reasonable return to holder for doing business; research and development; systems to avoid or recover the costs of bad debts; interest payments; and such other factors as the Board deems relevant.

(9) Subsections 1 through 8 shall not apply to disposal site franchise holders. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-0035; Ord. 2000-0165; Ord. 2003-0183]

23.515 Penalty Fee for Uncovered Loads. Disposal sites may apply a penalty fee for uncovered loads. [Ord. 2000-0165]

OVERSIGHT AND ENFORCEMENT

23.605 Accounting Records. The holder shall keep a complete and accurate set of books which shall reflect the gross receipts from service rendered inside Benton County outside the boundaries of incorporated cities. These books shall be balanced at least annually. A statement showing the basis for the quarterly fee payment shall be furnished to Benton County on each payment date. Benton County shall have the right to inspect the books and records of a holder at all reasonable times and places, and a holder shall render all reasonable assistance to Benton County, its officers, agents and employees when Benton County desires to audit or inspect the books and records. This section shall not apply to disposal site franchise holders. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-0035; Ord. 2000-0165]

23.610 Enforcement and Penalties.

(1) If the holder fails to promptly comply with any duty imposed, then Benton County may, after written notice to the holder and a reasonable opportunity to comply, proceed to perform the duty at the cost of the holder, which shall immediately become liable to Benton County for all expenses incurred by Benton County in fulfilling the obligation.

(2) The Board reserves the right to make further regulations as deemed necessary to protect the welfare of the public.

(3) A holder shall at all times be subject to applicable laws of the State of Oregon. A violation of state law if found by the Board to be substantial and material to the policy of this ordinance, may be deemed by the Board as a breach of the franchise or permit.

(4) A waiver by Benton County of a breach of any term of a franchise or permit or BCC Chapter 23 shall not operate as a waiver of a subsequent breach.

(5) If a holder breaches in any of the terms or payments required under the terms of BCC Chapter 23, and such default continues for a period of ten (10) days after receipt of written notification sent by certified mail by the Department, then Benton County may revoke the franchise or permit and the holder shall cease any solid waste service. This subsection shall not apply to disposal site franchise holders.

(6) Where a breach occurs for reasons not within the control of holder, such as lack of specialized equipment, personnel or similar reasons, the Board shall give a holder reasonable opportunity to comply before revoking the franchise or permit. This subsection shall not apply to disposal site franchise holders.

(7) Should a holder become insolvent, or acquire financial or legal encumbrances which materially affect its ability to comply with the terms of its permit or franchise or the requirements of BCC Chapter 23, Benton County may revoke the franchise or permit, and any other agreements entered into concerning solid waste management.

(8) Violation of BCC Chapter 23 shall be deemed to be a violation of County laws and is punishable upon conviction by a fine of not more than $500.00; provided, however, that each day of continued violation is a separate offense and is separately punishable, but may be joined in a single prosecution. In addition, Benton County shall have the right to pursue any other remedy provided to it in law or in equity. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-0035; Ord. 2000-0165]

23.615 Appeals.

(1) An action of a holder under BCC Chapter 23 may be appealed to the Department.

(2) An action of the Department under BCC Chapter 23 may be appealed to the Board.

(3) Disputes arising under a collection franchise or permit or BCC Chapter 23 between Benton County and a holder or applicant shall be subject to judicial review in the Circuit Court of the State of Oregon for Benton County. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-0035; Ord. 2000-0165]

RESPONSIBILITIES OF SERVICE USERS

23.705 Public Responsibilities.

(1) No person shall place hazardous wastes out for collection or disposal by the collection franchise holder nor place it into any solid waste container supplied by the holder without prior notice to, and written approval from, the holder. Prior to the notice to the collection franchise holder, a person wishing to have such wastes collected shall obtain the approval of the disposal site franchise holder. Where required, an additional approval shall be obtained from the local governmental unit having jurisdiction over the disposal site. This disposal approval shall be in writing, signed by the person designated by the disposal site or local government unit affected. Either the holder or the disposal site or the local government unit having jurisdiction of the disposal site may require written authorization from the Oregon Department of Environmental Quality for the handling of hazardous wastes. This subsection does not apply to household waste generated by a single family residential dwelling unit.

(2) No person shall accumulate or store wastes in violation of the Benton County Nuisance Abatement Section or in violation of regulations of the Oregon Environmental Quality Commission.

(3) A franchisee is not required to service an underground container unless the person responsible for it places the can above ground prior to collection.

(4) No person shall, unless permitted by a holder, install or use any container of one yard or greater capacity for pickup by a holder, other than those supplied by a holder. The purpose of this subsection is to insure safe equipment, sizes and weights and facilitate holders utilizing the most efficient collection equipment and methods. Rates for use of a holder's containers and drop boxes shall be included in the adopted rate schedule.

(5) No person shall locate a solid waste container for residential collection service behind any locked or latched gate or inside of any structure unless authorized by the franchise holder. No person shall block the access to a receptacle.

(6) Each customer shall provide safe and reasonable access to the solid waste or solid waste container to a holder's employees.

(7) No container designed for mechanical pickup shall exceed safe loading weights or volumes as established by a holder to protect service workers, the customer, and collection equipment.

(8) No unauthorized person shall utilize, or remove material from, a solid waste collection container without permission of the owner of the container. For purposes of this section, a holder is the "owner" of containers supplied by the holder.

(9) No person shall remove solid waste disposed for collection and resource recovery except the disposer or a holder. This subsection does not apply to the purchase of materials for fair market value under a certificate issued pursuant to BCC 23.110(3), or by a person exempt under BCC 23.110(1) where placed out for collection by such person.

(10) Where a customer requires a large volume or special type of service requiring substantial investment in equipment, a holder may require a contract with the customer to finance such equipment. The purpose of this subsection is to assure that any specialized equipment not become a charge against other ratepayers. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-0035; Ord. 2003-0183]

23.710 Ownership of Wastes. Unless exempted under this ordinance, solid waste placed out for collection by another person is the property of the holder designated by the Board to provide service for that area. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-0035]

23.715 Responsibility for Payment for Service. A person who receives service shall be responsible for payment for the service. The landlord of any premises shall be responsible for payment for service provided to that premises if the tenant does not pay for the service. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-0035]

M 278438-99

AFTER RECORDING, RETURN TO:

Valley Landfills Inc.
P.O. Box 807
Corvallis, Oregon 97339

Until a change is requested,
all tax statements shall be sent to:

Valley Landfills Inc.
P.O. Box 807
Corvallis, Oregon 97339

TICOR TITLE INSURANCE CO. 80-617

STATUTORY WARRANTY DEED

Valley Landfills Inc., an Oregon Corporation, who took title as *Valley Land Fills Inc., an Oregon Corporation* ("Grantor"), conveys and warrants to *Valley Landfills Inc., an Oregon Corporation* ("Grantee") the real property described on the attached *Exhibit A*, free of encumbrances except easements, covenants, conditions, restrictions and encumbrances of record.

The true consideration for this conveyance is the correction of vesting.

THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES AND TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930.

DATED this 16th day of August, 1999.

Valley Land Fills Inc.
By: Duane Sorensen
Name/Title: Duane Sorensen, President

10-4-10 (2)

STATE OF OREGON)
) ss
County of Benton)

The foregoing instrument was acknowledged before me this 16th day of August, 1999, by Duane Sorensen, as President of Valley Land Fills, on its behalf.

George Abele
Notary Public for Oregon

OFFICIAL SEAL
GEORGE ABELE
NOTARY PUBLIC - OREGON
COMMISSION NO.051901
MY COMMISSION EXPIRES MAR. 07, 2000

EXHIBIT C

EXHIBIT A

Legal Description

Beginning at the point of intersection of the centerline of Benton County Road No. 642 and the West line of the Monroe Hodges Donation Land Claim No. 46 in Section 18, Township 10 South, Range 4 West, Willamette Meridian, Benton County, Oregon; running thence South 3°33' East along the West line of said Donation Land Claim No. 46, 1,778.33 feet, more or less, to an iron pipe; thence North 89°52' West 1,897.40 feet to a point which is South 89°52' East, 142.00 feet from the Southeast corner of the Joseph T. Hughart Donation Land Claim No. 61; thence due North 1,003.34 feet to the centerline of said County Road No. 642; thence Northeasterly along the centerline of said County Road No. 642, 1,966.00 feet, more or less, to the point of beginning, in the County of Benton and State of Oregon.

273799

STATE OF OREGON } ss.
County of Benton

I hereby certify that the within instrument was received for record

'99DEC30 PM 1:22

AND ASSIGNED M278438 1999

In the microfilm records of said county

Witness My Hand and Seal of County Affixed
JOHN K. ANDERSON
County Administrative Officer

By _____ Deputy

SB073

M-92809-87

Warranty Deed

KNOW ALL MEN BY THESE PRESENTS, That PHILLIP M. PROPHETT and EDITH B. PROPHETT, husband and wife

, hereinafter designated as grantor

convey to VALLEY LAND FILLS, INC., an Oregon corporation,

all that real property situated in Benton County, State of Oregon, described as:

--Beginning at the point of intersection of the centerline of Benton County Road No. 642 and the West line of the Monroe Hodges Donation Land Claim No. 46 in Section 18, Township 10 South, Range 4 West, Willamette Meridian, Benton County, Oregon; running thence South 3°33' East, along the West line of said Donation Land Claim No. 46, 1,778.33 feet, more or less, to an iron pipe; thence North 89°52' West 1,897.40 feet to a point which is South 89°52' East, 142.00 feet from the Southeast corner of the Joseph T. Hugharts Donation Land Claim No. 61; thence due North, 1,003.34 feet to the centerline of said County Road No. 642; thence Northeasterly along the centerline of said County Road No. 642, 1,966.00 feet, more or less, to the point of beginning, in the County of Benton and State of Oregon.---

SUBJECT TO:

1. Rights of the public in roads and highways.
2. Grant of an easement to construct and maintain an electric transmission line from Jackob Rohner, Bertha Rohner, husband and wife, to Benton-Lincoln Electric Cooperative, Inc., a corporation, recorded August 4, 1941 in Book 98, Page 446(a) Deed Records.
3. Conditions and restrictions, including the terms and provisions thereof, in deed from U.S. of A. to Bernard W. Hanson, recorded February 25, 1949 in Book 125, Page 647, Deed Records.
4. Powerline easement, including the terms and provisions thereof, granted to Consumers Power, Inc., recorded in Book 171, Page 537, Benton County Deed Records.
5. Any encumbrances placed upon or suffered to be placed upon the above-described property after the date of execution of this Deed by any person or entity other than Grantor.

and covenant that grantor is the owner of the above described property free of all encumbrances except as above stated, and will warrant and defend the same against all persons who may lawfully claim the same, except as shown above.

The true and actual consideration for this transfer is $70,000.00

Dated this 27th day of May, 19 77.

Phillip M. Prophett (SEAL)
Phillip M. Prophett

Edith B. Prophett (SEAL)
Edith B. Prophett

STATE OF ~~OREGON~~ CALIFORNIA)
County of San Diego) ss.

Personally appeared before me the above-named and identified PHILLIP M. PROPHETT and EDITH B. PROPHETT, husband and wife,

and acknowledged the foregoing instrument to be their voluntary act.

NOTARY PUBLIC FOR ~~OREGON~~ California
My Commission Expires May 4, 1981

May 27, 19 77.

Until a change is requested, all tax notices concerning the above-described property shall be sent to the Purchaser

THOMPSON SNYDER
ATTORNEY AT LAW
CORVALLIS, OREGON

at: P.O. Box 1
Corvallis, Or. 97330

Valley Landfills, Inc
PO Box 807
Corvallis, Or 97339

STATE OF OREGON } ss. 0853377
County of Linn }

I hereby certify that the within instrument was received for record

'87 AUG 14 AM 8 51

and assigned № 52809 1987

In the Microfilm records of said county
Witness My Hand and Seal of County Affixed
DANIEL G. BURK
Director Of Records & Elections
By Marjorie Chambers
Deputy

EXHIBIT D

ENVIRONMENTAL LIABILITY TRUST AGREEMENT

TRUST AGREEMENT, entered into as of this 3rd day of March, 1999, by and between Valley Landfills, Inc., an Oregon corporation as grantor ("Grantor"), and Copper Mountain Trust Corp. an Oregon corporation, as trustee ("Trustee"), for the benefit of Waste Control Systems, Inc. and Subsidiaries, an Oregon corporation ("WCSI"), as a named Beneficiary; and BENTON COUNTY, OREGON, a political subdivision of the State of Oregon ("Benton County"), as a named Beneficiary.

RECITALS

A. Benton County is the governmental entity that has responsibility and authority to issue a franchise for any solid waste management facilities in Benton County, Oregon, Coffin Butte Landfill ("Facility") is a solid waste disposal site in Benton County, Oregon. Benton County awarded a franchise to Valley Landfills, Inc. to operate Facility, pursuant to BCC (Chapter 23, Solid Waste Management) and ORS 459.017.

B. Grantor desires to establish a trust fund in accordance with the provisions of this agreement for the purpose of providing financial resources to indemnify the Grantor and named Beneficiaries for environmental liability expenses that are not covered by insurance policies held by the Grantor and to assure the continued operation of the facilities for the disposal of solid waste in Benton County, Oregon.

C. Benton County desires to secure by this Agreement, Grantor's agreement to establish and fund an environmental liability trust pursuant to Benton County order of rate increase dated November 22, 1989.

AGREEMENTS

In consideration of the mutual covenants contained herein, Grantor and Trustee agree as follows:

1. Name of Trust. This Trust shall be called the Coffin Butte Landfill Environmental Liability Trust.

2. Establishment of Fund.

2.1 Grantor established this Trust for the purpose of complying with the Benton County order of rate increase dated November 22, 1989.

2.2 Grantor shall pay to the Trust One Dollar ($1.00) per ton for all solid waste received at the Facility, and subject to a disposal fee charge. The amounts received, together with any other property or assets hereafter transferred by Grantor or others to Trustee and accepted by Trustee for administration as provided in this Agreement, the proceeds, investments and reinvestments of such property, and the accumulated income from such property, shall constitute the Fund as that term is used herein. Grantor, in collecting in the form of disposal fees and remitting to the Trust the above per ton amount, is acting as an agent of the Trust, and has no ownership in or right to use such funds for any other purpose. Such funds are due and payable to the Trust within 30 days of collection of such funds as disposal fees.

2.3 It is the intent of the Grantor to accumulate a Fund sufficient to carry out the purposes of this Trust Agreement. Pursuant to this intent, collections by Grantor, (or any successors or assigns) shall continue as prescribed in section 2.2. The Grantor shall provide the Beneficiaries of this Trust Agreement with a summary of the assets and liabilities of the Trust Agreement Fund annually, for the life of the Trust Agreement. If the Grantor, after consultation with the Beneficiaries, believes the Trust Agreement Fund is not sufficient to carry out the purpose of this Trust Agreement, the Grantor shall request an increase in the rate of disposal from the Benton County Board of Commissioners. If the Grantor, after consultation with the Beneficiaries, believes the Trust Agreement is sufficient to meet the purposes of this Trust Agreement, the Grantor shall request a decrease in the disposal rate from the Benton County of Board of Commissioners. If, at any time subsequent to a rate decrease pursuant to this Section 2.3, the Grantor believes the fund is not sufficient to carry out the purposes of this Agreement, the Grantor shall request an increase in the rate from the Benton Board of Commissioners. Nothing in this Section 2.3 shall be construed to alter the duties of the Trustee to maximize the fund at all times, pursuant to the requirements of this Agreement.

3. Purpose of Trust.

3.1 The purpose of this trust shall be to provide financial resources to the extent of the trust net assets solely to indemnify the Grantor and Beneficiaries of the Trust, regardless of fault but excluding intentionally harmful or fraudulent acts by the Grantor or Beneficiaries, from the following:

(1) Sums the Grantor or Beneficiaries become obligated to pay as damages or losses, damages incurred by the Beneficiaries, and sums authorized to be paid by Trustee in mitigation of damages or in settlement of claims made during the term of the Agreement, because of bodily injury or property damage arising out of the actual, alleged or threatened discharge, disposal, release or escape of pollutants at or from the Facility during or prior to the term of this Agreement, which claims are not otherwise covered by any insurance policies insuring the Grantor or Beneficiaries, and

(2) Sums the Grantor or Beneficiaries become obligated to pay as a result of a written order from the Oregon Department of Environmental Quality (DEQ) or its successor, due to actual, alleged or threatened discharge, disposal, release or escape of pollutants at or from the Facility during or prior to the term of this Agreement. Upon the issuance of a DEQ order, this Trust will become the mechanism for Grantor or Beneficiaries to meet any DEQ financial assurance requirements for Corrective Action as defined in OAR 340-94-140, and

(3) Reasonable attorneys' fees, as determined by Trustee, for retained outside counsel and costs, other than the salaries and out-of pocket costs of Grantor and Beneficiaries and their employees, expended to defend any claim or suit for which payment would be required under Section 3.1 (1) of this Agreement, even if the claims or allegations are groundless or fraudulent.

This Trust and the Fund shall not be used to finance any other activities or for any other purpose. This Trust does not constitute, in any regard, an admission of Grantor or any Beneficiary of liability for claims arising out of the actual,

alleged or threatened discharge, disposal, release or escape of pollutants at or from the Facility during or prior to the term of this Agreement.

3.2 For the purposes of the Trust Agreement, the following definitions shall apply:

(1) "Bodily injury" means bodily injury, sickness or disease sustained by a person or animal, including death, for which the Grantor or Beneficiaries are obligated to pay damages by reason of the assumption of liability in a contract or settlement agreement, which has been approved in writing by Trustee, and which is otherwise an expense intended to be covered by this Trust. "Bodily injury" does not include bodily injury for which the Grantor or Beneficiaries are obligated to pay under any judgment or settlement agreement dated prior to the Effective Date of this Trust Agreement.

Damages because of "bodily injury" include damages claimed by any person or organization for care, loss of services or death resulting at any time from the "bodily injury."

(2) "Claim" means a written claim in which damages resulting from bodily injury or property damage to which this Trust applies are alleged, including, without limitation, any written demand, order or instruction from any government entity that Grantor or others test for, monitor, cleanup, remove, extract, contain, treat, detoxify, or neutralize pollutants. Testing and monitoring in the normal course of operations in accordance with Grantor's DEQ disposal permit is excluded from the meaning of claim under this paragraph.

(3) "Effective Date" means January 1, 1990.

(4) "Pollutants" mean any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, odor, dust, vapor, soot, fumes, airborne particles, acids, alkalis, chemicals and waste.

(5) "Property damage" means: (a) Physical injury to tangible property, including all resulting loss of use of that property; (b) loss of use of tangible property that is not physically injured; (c) damage or decrease in value to real or personal property owned by the Grantor or Beneficiaries or others; and (d) any loss, cost, or expense arising out of any governmental direction or request or other independent determination that Grantor or others test for, monitor, clean up, remove, extract, contain, treat, detoxify of neutralize pollutants at or near the Facility, whether or not such action is taken voluntarily or pursuant to an order, and specifically includes property damage for which the Grantor or Beneficiaries are obligated to pay damages by reason of the assumption of liability in a contract or settlement agreement, which has been approved in writing by Trustee, and which is otherwise an expense intended to be covered by the Trust. "Property damage" does not include property damage for which the Grantor or Beneficiaries are obligated to pay under any judgment or settlement agreement dated prior to the Effective Date of this Trust Agreement.

(6) "Suit" means a civil proceeding in which damages because of bodily injury or property damage to which this Trust applies alleged, including an arbitration proceeding, alleging such damages to which the Beneficiaries must submit or submit with consent from Trustee.

(7) "Waste" means all materials specified in ORS 459.005(24) and includes, but is not limited to, debris and materials to be recycled, reconditioned or reclaimed.

(8) "Fund" means the amounts received from Valley Landfills, Inc. pursuant to section 2.1 of this Agreement, together with any other property hereafter transferred by Valley Landfills, Inc. or others to the Trustee and accepted by the Trustee for administration, as provided in this Agreement, the proceeds, investment and reinvestments of such property, and the accumulated income from such property.

4. Beneficiaries.

4.1 The Beneficiaries of this Trust and the Fund shall be:

(1) The Grantor, its present, past and future shareholders, officers, directors, employees, agents, and subcontractors, even though they may not be such at the time of the incident giving rise to a claim for indemnification or at the time of the claim of indemnification, and any company, its present, past and future officers, directors, shareholders, employees, agents and subcontractors, that acquires Grantor and its assets after the Effective Date of this Agreement, even though they may not be such at the time of the incident giving rise to a claim for indemnification or at the time of claim for indemnification.

(2) WCSI, its present, past and future shareholders, officers, directors, employees, agents and subcontractors, even though they may not be such at the time of the incident giving rise to a claim for indemnification or at the time of the claim for indemnification, and any company, its present, past

and future officers, directors, shareholders, employees' agents and subcontractors, that acquire WCSI and its assets after the Effective Date of this Agreement, even though they may not be such at the time of the incident giving rise to a claim for indemnification or at the time of the claim for indemnification.

(3) Benton County, its present, past and future elected and appointed officials, employees, agents, subcontractors and officers, even though they may not be such at the time of the incident giving rise to a claim for indemnification or at the time of the claim for indemnification.

All those identified by this Section shall be referred to collectively as the "Beneficiaries."

4.2 Any rights or duties specifically assigned in this Trust Agreement to the Beneficiaries applies as if each Beneficiary were the only Beneficiary and separately to each Beneficiary against whom claim is made or suit is brought.

5. Insurance Adjuster. Trustee may at it's option employ an insurance adjuster for the purpose of advising Trustee regarding requests for distributions during the term of the Trust. The insurance adjuster shall be experienced in evaluating insurance and/or self-insurance claims of the nature and kind for which this Trust was established. The insurance adjuster shall not be affiliated with or have any beneficial interest in any insurance company or any Beneficiary of this Trust. Trustee shall have sole discretion and authority to determine the amount, type, priority and allocation among the Beneficiaries of distributions made under this Trust Agreement and the Insurance adjuster shall only advise Trustee as to such matters. Trustee shall be fully protected in relying upon the advice of the insurance adjuster on questions concerning requests for

distributions during the term of the Trust and shall not be liable for any loss or damage caused by the insurance adjuster selected by Trustee, if Trustee exercised reasonable care in selecting and retaining such insurance adjuster.

6. Distribution During Term of Trust.

6.1 If any event occurs which gives rise to a claim which the Grantor or Beneficiaries believes are or may be subject to indemnification under this Agreement, such Grantor, or Beneficiaries, shall:

(1) Give Trustee prompt notice of the event, including a description of how, when and where loss or damage, if any, occurred and a description of the property involved.

(2) Take all reasonable steps to protect the described property from further damage. Maintain the damaged property in the best possible order for examination and, if feasible, set the damaged property aside.

(3) Keep a record of the expenses for consideration in the settlement of the claim.

(4) Permit Trustee to inspect the property and records proving the loss.

(5) If requested, permit Trustee to seek information from the Grantor or Beneficiaries, or any elected or appointed official, officer, director, employee, subcontractor or agent of the Beneficiaries, at such times as may be reasonably required about any matter relating to the claim including the Grantor's or Beneficiaries' books and records. If such information is confidential or

privileged, the Grantor or Beneficiaries will not be required to produce such information to the Trustee.

(6) Cooperate with Trustee in the investigation and settlement of the claim.

(7) Provide to Trustee information satisfactory to Trustee regarding any insurance policy held by the Beneficiary which may be applicable to the claim.

(8) Make a good faith claim against any insurer or other responsible third party not a part of this agreement and prosecute such claim to the fullest extent.

(9) Provide to Trustee evidence satisfactory to Trustee that despite the Beneficiary's good faith effort to collect from and prosecution of the claim against the insurer or third party, the Beneficiary has not been indemnified for the claim in the full amount to which the Beneficiary may be indemnified under this Trust.

(10) Present to Trustee an itemized bill setting forth the amounts remaining due under the claim after being indemnified under any insurance policy, if any, along with a written request that such amounts be paid from the Fund.

6.2 Upon receiving the information provided for in Paragraph 6.1, Trustee shall promptly determine, with the advice of the insurance adjuster (if any), whether such claim is in accordance with the purpose of the Trust. If Trustee so determines, Trustee shall disburse to or for the benefit of such Beneficiary amounts from the Fund to pay the

amount of the claim in excess of Two Thousand Five Hundred Dollars ($2,500.00). Claims which arise from third-party suite shall be given priority by the Trustee in distributing payments from the Trust.

6.3 In determining the amount for disbursement to a Beneficiary under Paragraph 6.2 for claims representing the loss of property, the value of such property and the claim shall be the fair market value of the property at the time of the loss of the property as determined by an independent appraiser.

6.4 If any Beneficiary or if Trustee recovers any amounts from any source other than this Trust for damage or loss after payment of Beneficiaries' claims under this Paragraph 6, such amounts must be transferred to this Trust, less any recovery expenses.

6.5 Prior to disbursement from this Trust in accordance with this Paragraph 6, each Beneficiary shall execute an agreement which transfers to this Trust all rights the Beneficiary may have to recover the same amounts from another, including any insurer under any policy of insurance that may be applicable to the Beneficiary's claim.

6.6 Should any party to this agreement disagree with Trustee's determination as to amount, type, priority, and allocation of distributions under this Trust Agreement, which cannot be resolved by the parties and Trustee, the dispute shall be presented to Arbitration, as defined in section 11 of this agreement.

7. Termination.

7.1 This Trust shall remain in effect for thirty (30) years after the closure date of the Facility as evidenced by a DEQ final closure permit ("Termination Date"). No earlier termination of the Trust will be allowed without the mutual written agreement of all parties to this agreement. The Termination Date may be extended upon

mutual written agreement by all parties to this agreement. Any monies in the Trust at the Termination Date which are not subject to existing or pending claims shall be distributed as set forth in paragraph 7.2.

7.2 Any funds or other property remaining in the Trust upon termination under paragraph 7.1 or for any other reason shall revert to Benton County and be used solely to: (a) acquire and develop new waste disposal facilities, (b) reduce waste volumes to be disposed, (c) for any other purposes to which the Beneficiaries mutually agree. Following final distribution of the funds by the Trustee, Trustee will have no further obligation over the funds including whether the funds were used in accordance with this section 7.2.

8. Management of Fund. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single trust fund without distinction between principal and income. In investing, reinvesting, exchanging, selling and managing the Fund, Trustee shall discharge its duties with respect to the Fund solely in the interest of the Beneficiaries of this Trust, and with the care, skill, prudence and diligence under the circumstances then prevailing which persons of prudence, acting in like capacity and familiar with such matters would use in the conduct of an enterprise with like character and like aims, provided that Trustee shall at all times maintain all funds in cash or assets readily convertible to cash to meet the requirements for distribution under the terms of the Agreement.

9. Powers of Trustee. Trustee is empowered to do all things appropriate for the orderly administration of the Trust, subject to Trustee's power and control, unless otherwise specifically provided herein. Without limiting this general power, and without

limitation of other powers hereby granted or otherwise possessed by Trustee, including those specified in the Uniform Trustees' Powers Act in effect in Oregon as it may be amended from time to time, Trustee shall have the following powers and discretion which Trustee shall exercise in such manner and upon such terms and conditions as Trustee shall deem necessary, desirable or convenient:

9.1 To sell, exchange, convert, transfer or otherwise dispose of any property held by Trustee in the Trust, by public or private sale. No person dealing with Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of such sale or other disposition;

9.2 To retain any property for such period, as Trustee may deem desirable, whether or not such property produces any income and independent of any requirement of diversification.

9.3 To receive additions to the assets of the Fund from any source;

9.4 To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

9.5 To borrow, guaranty, or indemnify in the name of this Trust and to secure any such loan or obligation by mortgage, encumbrance, pledge, or other security interest, and to renew, modify, extend or amend any such obligation. No lender shall be bound to see to or be liable for the application of the proceeds of any obligations, and Trustee shall not be personally liable for any obligation;

9.6 To vote a security, in person or by general or limited proxy, to participate in or consent to any voting trust, and to deposit securities with and transfer title to a protective or other committee;

9.7 To register any securities held in the Fund in Trustee's own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of Trustee shall at all times show that all such securities are part of the Fund;

9.8 To insure the Fund, Grantor, WCSI and Benton County, against any risk or liability with respect to third persons, provided such insurance is obtained and purchased with the written consent of Grantor;

9.9 To prosecute, defend, contest, or otherwise litigate actions, suits, claims, or proceedings for the protection or benefit of this Trust; and

9.10 Except as otherwise provided herein, Trustee in the exercise of its duties is authorized to do all acts that might legally be done by an individual in absolute ownership and control of property.

10. Insurance. This Trust is not insurance and as to any Beneficiary does not cover loss or damage for which such Beneficiary is covered by any insurance policy.

If valid and collectible insurance is available to a Beneficiary making a claim under the terms of the Trust Agreement, the Trustee's obligations are limited as follows:

(1) This Trust will be regarded as excess indemnification over any insurance, whether primary, excess, umbrella, contingent or on any other basis, and shall apply only after the amount of the applicable limits of liability has been paid either by the said insurer or by the insured.

(2) This Trust will not pay for the defense of any claim or suit that any insurer has a duty to defend. If no insurer defends such claim or suit, this Trust will pay for the defense, but this Trust will be entitled to the insured's rights against all insurers that had a duty to defend such claim or suit.

(3) This Trust will pay only the amount of the loss, if any, that exceeds the sum of the total amount that all insurance has paid for the loss and the total of all deductible and self-insured amounts under all such insurance.

11. Arbitration. Any controversy arising out of or relating to this Agreement, including but not limited to the making, performance, or interpretation of this Agreement, shall be settled by arbitration between Grantor and Trustee. Unless otherwise agreed, the arbitration shall be conducted in Benton County, Oregon, by Arbitration Service of Portland, Inc. (or its successors or assigns), before a single arbitrator. If arbitration is commenced, the parties shall permit discovery proceedings of the type provided by the Oregon Rules of Civil Procedure both in advance of, and during recesses of, the arbitration hearings. The arbitrator may award the prevailing party reasonable attorney fees, expert and non-expert witness costs and expenses, and all other costs and expenses incurred directly or indirectly in connection with the proceedings. The

arbitrator shall have no jurisdiction to consider evidence with respect to or render an award or judgment for punitive damages (or any other amount awarded for the purpose of imposing a penalty). Judgment on the arbitration award may be entered in any court having jurisdiction over the subject matter of the controversy.

12. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by Trustee in connection with the administration of this Trust, including fees for legal services rendered to Trustee, the compensation of Trustee, and all other proper charges and disbursements of Trustee shall be paid from the Fund.

13. Agents and Attorneys. After consultation with, but not at the direction of Grantor, Trustee may employ such agents and attorneys as Trustee may deem necessary or desirable for the proper administration of this Trust, or in connection with any uncertainty, controversy or litigation which may arise with respect to this Agreement, and pay reasonable compensation to such agents and attorneys for their services, such compensation to be derived from the assets of the Fund. Trustee shall be fully protected in relying upon the advice of legal counsel on questions of law and shall not be liable for any loss or damage caused by any agent or attorney selected by Trustee, if reasonable care was exercised in selecting and retaining such agent or attorney.

14. Trustee Compensation. Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with Grantor, which compensation shall be paid from the Fund.

15. Trustee Selection; Successor Trustee.

15.1 Trustee shall be selected from among those qualified to serve as trustees in the State of Oregon and whose trust operations are regulated and examined by a federal or state agency. No person or entity who is a Beneficiary of this Trust shall be eligible for selection as Trustee. Grantor shall select Trustee in accordance with the terms of this Paragraph 15.1.

15.2 Trustee may resign or Grantor may replace Trustee, but such resignation or replacement shall not be effective until Grantor, and in accordance with the terms of Paragraph 15.1, has selected a successor trustee and the successor has accepted the appointment. The successor trustee shall have the same powers and duties as those conferred upon Trustee hereunder. Upon the successor trustee's acceptance of the appointment, Trustee shall assign, transfer, and pay over to the successor Trustee the funds and properties then constituting the Fund. If for any reason Grantor cannot or does not act in the event of the resignation of Trustee, Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to Grantor and the present Trustee by certified mail ten (10) days before such change becomes effective. Any expenses incurred by Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Paragraph 12.

16. Instructions to Trustee. All orders, requests, and instructions by Grantor to Trustee shall be in writing, and Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of Grantor

hereunder has occurred. Trustee shall have no duty to act in the absence of such orders, requests, and instructions from Grantor, except as provided for herein.

17. Immunity and Indemnification. Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by Grantor issued in accordance with the Trust Agreement. Trustee shall be indemnified and saved harmless by Grantor or from the Fund, or both, from and against any personal liabilities to which Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event Grantor fails to provide such defense, excluding acts by the Trustee which constitute willful misconduct, neglect or fraud.

18. Accounting. Trustee shall maintain adequate accounting procedures to ensure that the monies collected by Grantor and transferred to the Fund, the income, and the amounts paid out pursuant to the terms of this Trust Agreement are accurately recorded and described. Trustee shall provide to all Beneficiaries an annual accounting, on or before January 31st following each year during which this Trust Agreement is in effect, which shall include the status of the Fund and the disbursement history for the prior calendar year. Grantor shall be entitled to audit, and all Beneficiaries shall be entitled to examine, at their expense, all accounting records maintained by Trustee in connection with this Trust and the Fund at reasonable times during normal business hours upon ten (10) days' prior written notice to Trustee.

19. Provision Against Assignment and Alienation. No share or interest shall vest under this Trust until it is actually paid or delivered by Trustee in accordance

with the provisions of this Agreement. No Beneficiary shall have any power to sell, assign, transfer, encumber or in any other manner to anticipate or dispose of his, her or its interest in this Trust or the income produced thereby prior to its actual distribution by the Trustee to the Beneficiaries or to another for the benefit of the Beneficiaries in the manner authorized herein, unless mutually agreed by all parties to this agreement. No share or interest shall be liable for the debts of Grantor or any other Beneficiaries or be subject to the process of any seizure of any court or be an asset in any bankruptcy of Grantor under any circumstances whatever.

20. Merger With Similar Trusts. If at any time and from time to time, Trustee is trustee of two or more trusts under this or any other instrument which are to fulfill substantially similar purposes for Grantor and the other Beneficiaries any two or more of such trusts may, in the discretion of Trustee, be merged if the probable effect of such merger will not be to the substantial disadvantage of Grantor or Beneficiaries or otherwise frustrate the purposes of this Trust.

21. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each paragraph of this Agreement shall not affect the interpretation of the legal efficacy of this Agreement.

22. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Oregon.

23. Bankruptcy or Franchise Termination. Bankruptcy or insolvency of Grantor or the Beneficiaries or termination of Grantor's rights to operate the facility shall

not release the Trustee of its obligation to make distributions under the terms of this Trust Agreement.

24. Abandonment. There can be no abandonment of any real property to this Trust.

25. Amendment. This Trust Agreement may be amended by an agreement in writing between Grantor and Trustee, provided said amendment has been approved as to form and content by WCSI and Benton County.

EXECUTED as of the day and year first above written.

GRANTOR: VALLEY LANDFILLS, INC.

By: _____
Duane Sorensen
President

AMENDMENT TO
ENVIRONMENTAL LIABILITY TRUST AGREEMENT

This agreement is entered into as of the ____ day of _____, 2001, between VALLEY LANDFILLS, INC., an Oregon corporation ("Grantor"), and COPPER MOUNTAIN TRUST CORP., an Oregon corporation ("Trustee").

RECITALS

A. Grantor and Trustee entered into an Environmental Liability Trust Agreement (the "Trust Agreement") dated March 3, 1999, creating the Coffin Butte Landfill Environmental Liability Trust (the "Trust"). The purpose of the trust is to provide financial resources to indemnify Grantor, Waste Control Systems, Inc., an Oregon corporation ("WCSI"), and its subsidiaries, and Benton County, a political subdivision of the state of Oregon, for uninsured environmental liabilities in connection with Coffin Butte Landfill situated in Benton County, Oregon.

B. The Trust Agreement was amended by an Amendment to Environmental Liability Trust Agreement dated 2/19/01, ~~2000~~ (the "Trust Amendment"). The Trust Amendment amended the Trust Agreement to (i) ratify a supplemental agreement between WCSI and Benton County, under which Grantor's obligation under Section 2 of the Trust Agreement to pay to the Trust the sum of $1 per ton for all solid waste received at Coffin Butte Landfill was suspended in favor of a 75¢ per ton payment from WCSI directly to Benton County, and (ii) provide for distributions to Grantor of such amounts as Trustee estimates to be necessary to permit Grantor to pay any federal and state taxes attributable to any Trust income, deductions, or credits directly reportable by Grantor under Internal Revenue Code sections 671 to 677.

C. Grantor and Benton County have entered into a Landfill Franchise Agreement dated December 31, 2000 (the "Franchise Agreement"). The Franchise Agreement provides in part that (i) from December 31, 2000, to December 31, 2002, Grantor will not be required to make additional contributions to the Trust, (ii) by December 31, 2002, Grantor will guarantee that the Trust reaches a total value of $5,000,000, (iii) if the value of the Trust has not reached $5,000,000 by December 31, 2002, Grantor will within 60 days thereafter make sufficient additional contributions to the Trust to bring the total value to $5,000,000, and (iv) after the value of the Trust reaches a total of $5,000,000, no further contributions will be required. The Franchise Agreement also include certain provisions relating to the existence and application of liability insurance. The parties wish to amend the Trust Agreement to ratify the terms of the Franchise Agreement.

D. Under Section 25 of the Trust Agreement, it may be amended by an agreement in writing between Grantor and Trustee, provided that the amendment has been approved as to form and content by WCSI and Benton County.

012219

AGREEMENT

The parties agree that the terms of the Franchise Agreement are hereby ratified, effective as of December 31, 2000, and the Trust Agreement shall be deemed amended consistent with its terms.

VALLEY LANDFILLS, INC.

By: _____
Name: Rick Waldren
Title: Controller

GRANTOR

COPPER MOUNTAIN TRUST CORP.

By: _____
Name: _____
Title: _____

TRUSTEE

APPROVED AS TO FORM AND CONTENT:

WASTE CONTROL SYSTEMS, INC.

By: _____
Name: Jeff Andrews
Title: Vice President

BENTON COUNTY

By: _____
Name: LINDA MODRELL
Title: Commissioner

By: _____
Name: Annabelle Jaramillo
Title: Commissioner

By: _____
Name: Jay Dixon
Title: Commissioner

Approved as to Form:

_____ 7-25-01
County Counsel

COPPER MOUNTAIN TRUST

601 SW Second Avenue • Suite 1800
Portland, Or 97204
(503) 295-3600 • (800) 343-5345 • FAX (503) 229-0561

June 18, 2001

Mr. Rick Waldron
Waste Control Systems, Inc.
P. O. Box 807
Corvallis, Oregon 97339

Dear Rick:

I asked the Miller Nash law firm to prepare an amendment to the Coffin Butte Landfill Environmental Liability Trust that reflects the Landfill Franchise Agreement dated December 31, 2000 between Valley Landfills, Waste Control Systems, Inc. (WCSI) and Benton County.

The purpose of this Trust Amendment is to ratify the 12/31/00 Franchise Agreement. The Trust Amendment is between Valley Landfills, Inc. (Grantor) and Copper Mountain Trust (Trustee). The Trust Amendment should also be signed by WSCI and Benton County reflecting their approval as to its form and content. I have enclosed duplicate originals and request that you obtain signatures from Valley Landfills, WCSI, and Benton County.

I am also sending a copy of the Trust's prior Amendment dated 2/19/01. Please note that it is missing a signature from WSCI. I would appreciate it if you would obtain a signature from WSCI on this amendment as you obtain the signatures on the new amendment?

Once you have obtained the appropriate signatures on each of the documents, please return them to me. I will then add Copper Mountain Trust's approval to the new Amendment and forward one complete set of originals back to you.

I also look forward to finalizing a new Investment Policy and Guidelines that takes into account the new Franchise Agreement terms. Jim Cheadle and I will give you a call next Friday regarding this item. Thank you for your assistance in all these matters. If you have any questions, please give me a call.

Take care,

Kathleen Baker
Enclosures

Memorandum of Understanding
Relating to Land Use Issues

Between: **Benton County (Benton Co.), a Political Subdivision of the State of Oregon**

and

Valley Landfills, Inc. (VLI), an Oregon Corporation

WHEREAS, there is an existing Franchise Agreement and an existing Environmental Trust Fund Agreement between Benton County, hereafter (Benton Co.), and Valley Landfills, Inc., hereafter (VLI); and

WHEREAS, over a period of years Benton County has reviewed various land use and solid waste applications submitted by VLI; and

WHEREAS, Benton Co., by and through its staff, and VLI, have been conducting a review of the operations of the Coffin Butte Landfill; and

WHEREAS, during the last review it became apparent that with the passage of time, there has been numerous changes in the personnel representing each party that has led to an uncertainty of prior Benton County approvals.

WHEREAS, both parties agree that it is in the mutual best interest of all parties and the public to form an understanding of the current status of the relationship and the legal responsibilities of each party;

NOW, THEREFORE, in consideration of the mutual terms, promises and conditions hereafter set forth, the parties agree as follows:

(1) The above recitals are true, and by this reference incorporated herein.

(2) VLI is the owner and operator of the landfill facility commonly known as the Coffin Butte Landfill, and was acquired by Allied Waste Industries in January of 2000.

(3) The Coffin Butte Landfill has operated within the land use laws of Benton County prior to 1974.

(4) In 1974, the Coffin Butte Landfill was operated by Corvallis Disposal Company. In 1974, Corvallis Disposal Company applied for and was

granted a Conditional Use Permit. That permit was finally granted by action of the Benton County Board of Commissioners on May 15, 1974.

(5) One of the conditions of the 1974 approval was that a "Solid Waste Management Plan for Benton County" be submitted for review to the Planning Commission. This condition was met on March 29, 1977. From then until 1983, Coffin Butte Landfill was operated in compliance with the approved Management Plan.

(6) In 1983, VLI applied to Benton Co. for the creation of a Landfill Zone, other amendments to the Comprehensive Plan and the application of the new Landfill Zone to the Coffin Butte Landfill within Benton County. After hearings before the Planning Commission and the Board of Commissioners, the requests were granted.

(7) The 1974 approval had allowed all landfill activities, including but not limited to the placement of solid waste, on 184 acres north of Coffin Butte Road.

(8) The 1983 approval added 10 more acres for landfill activities, including but not limited to the placement of solid waste, north of Coffin Butte Road, or a total of 194 acres. Non landfill activities such as leachate treatment and irrigation were allowed south of Coffin Butte Road. The 1983 approval specifically did not allow for the placement of solid waste south of Coffin Butte Road.

(9) Activities continued under the 1983 approval until 1995. In 1994 and 1995, VLI submitted applications to Benton Co. Those applications would have expanded the allowed activities south of Coffin Butte Road. Because of opposition at that time, VLI withdrew its applications.

(10) Benton County has a Solid Waste Advisory Council (SWAC) which reviews the operations of the landfill, and other matters of public interest. The Solid Waste Advisory Council, hereinafter referred to as (SWAC), has continually monitored the operations of VLI since 1980.

(11) All recommendations of SWAC requiring action by the Benton County Board of Commissioners have been forwarded to and acted upon by the Benton County Board of Commissioners.

(12) SWAC reviews and approves the Annual Operations Report on the Coffin Butte Landfill.

(13) The operations of a municipal landfill are regulated generally by ORS Chapter 459 and the National Resource Conservation and Recovery

Act of 1976. Specific activities within the landfill are governed by other sections of Oregon and Federal law.

(14) Since 1996, Benton Co. has signed the Land Use Compatibility Statements, hereinafter referred to as (LUCS), indicating to DEQ that the landfill was being operated in compliance with Benton County Ordinances.

(15) Based upon the LUCS statement, DEQ has reviewed and found that the operations of the landfill are in compliance with the state law. The last approval from DEQ was granted in 2000.

(16) Based upon the changes in federal, state and local regulations, the inevitable turn over of personnel for both Benton Co. and VLI, the parties now agree that the permits previously granted by Benton Co. to VLI allow the following:

(a) VLI is entitled to conduct all forms of landfill activities, including but not limited to the placement of solid waste, consistent with State and local regulations, within the 194 acres as designated within the Landfill Zone which is north of Coffin Butte Road and further identified as the blue area on *Exhibit "1"* attached hereto.

(b) VLI agrees that it will not conduct, without the prior approval of Benton County and the State of Oregon, the placement of solid waste on the approximate 56 acres, within the landfill zone which it owns south of Coffin Butte Road, and is further identified as the yellow area on Exhibit "1" attached hereto.

(c) Benton Co. agrees that on the 56 acres designated within the Landfill Zone south of Coffin Butte Road, VLI may conduct related landfill activities which include, but is not limited to, the collection of leachate and management of leachate.

(d) VLI and Benton Co. agree that VLI owns 2 parcels of ground which abut the north line of the Landfill Zone but are not included within the Landfill Zone. These 2 parcels of land are identified on the attached *Exhibit "2"*. VLI agrees that within the immediate future, it will file a separate Conditional Use Application to allow landfill activities on each of the 2 parcels described on *Exhibit "2"*.

(e) Benton Co. agrees that the identification on previously filed maps indicating cell areas and locations were specifically for the purpose of identifying the location of the particular cell and was not for the purpose of limiting the area where landfill activities

could take place. The specific exception are for those maps which were filed by VLI in 1994 and 1995 which showed the location of cell 6 and cell 7 south of Coffin Butte Road. VLI withdrew the application. There is no approval for any landfill activity south of Coffin Butte Road except for the related landfill activity which does not include the placement of solid waste.

(f) Benton Co. and VLI specifically agree that the term "landfill or landfilling activity" has the meaning as set forth in ORS Chapter 459.

(g) VLI and Benton Co. agree that the preliminary review of this Memorandum of Understanding was conducted by SWAC during its regularly scheduled meetings held on August 27, 2002 and September 24, 2002.

(h) VLI and Benton Co. agree that this Memorandum of Understanding was signed at the conclusion of a regular meeting of the Benton County Board of Commissioners where this matter will be placed on the agenda for November 5, 2002, for public discussion prior to signature.

VALLEY LANDFILLS, INC., an Oregon corporation

By _____
Merle Irvine
Vice President

BENTON COUNTY BOARD OF COMMISSIONERS

By _____

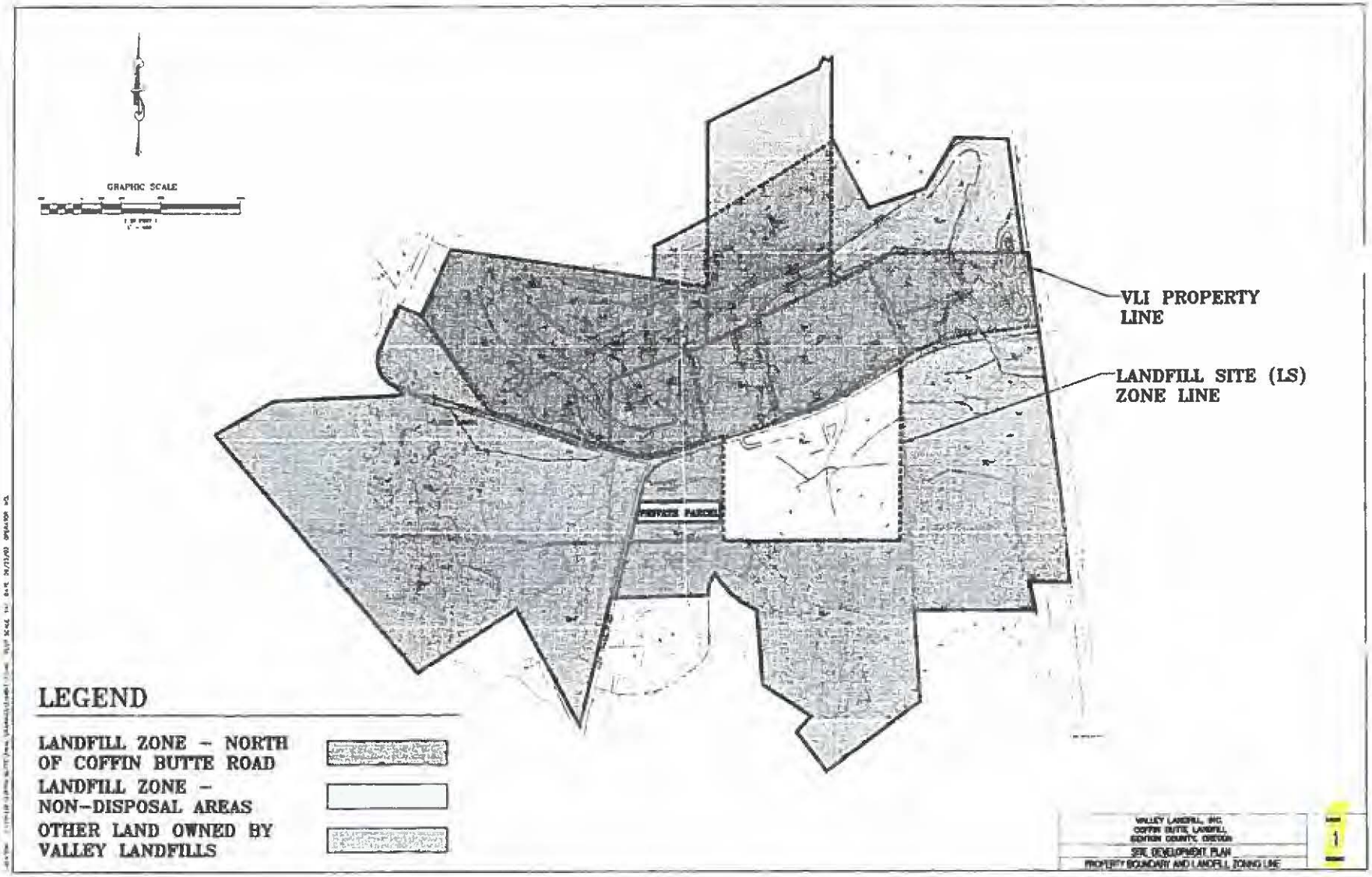
By _____

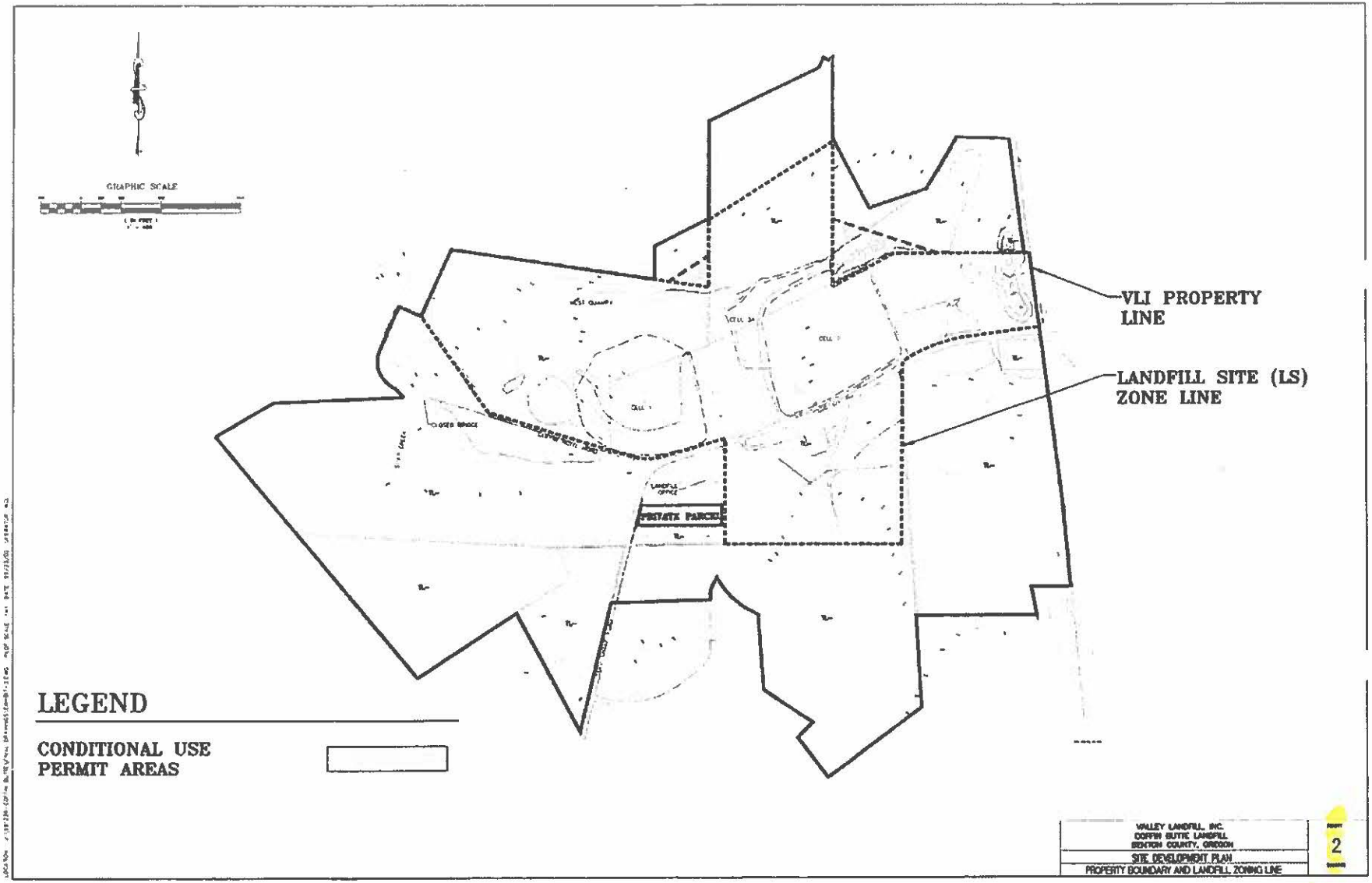
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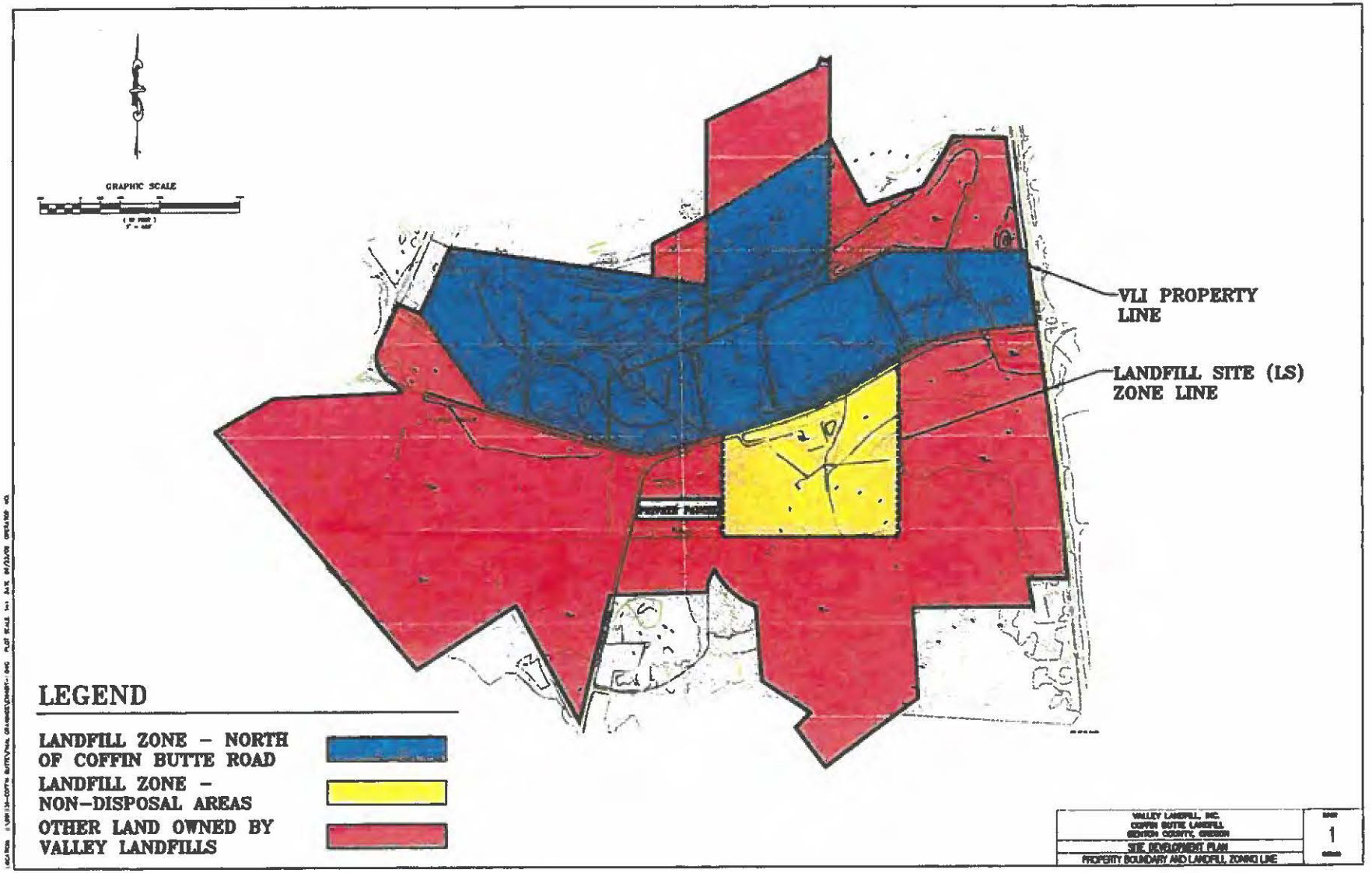
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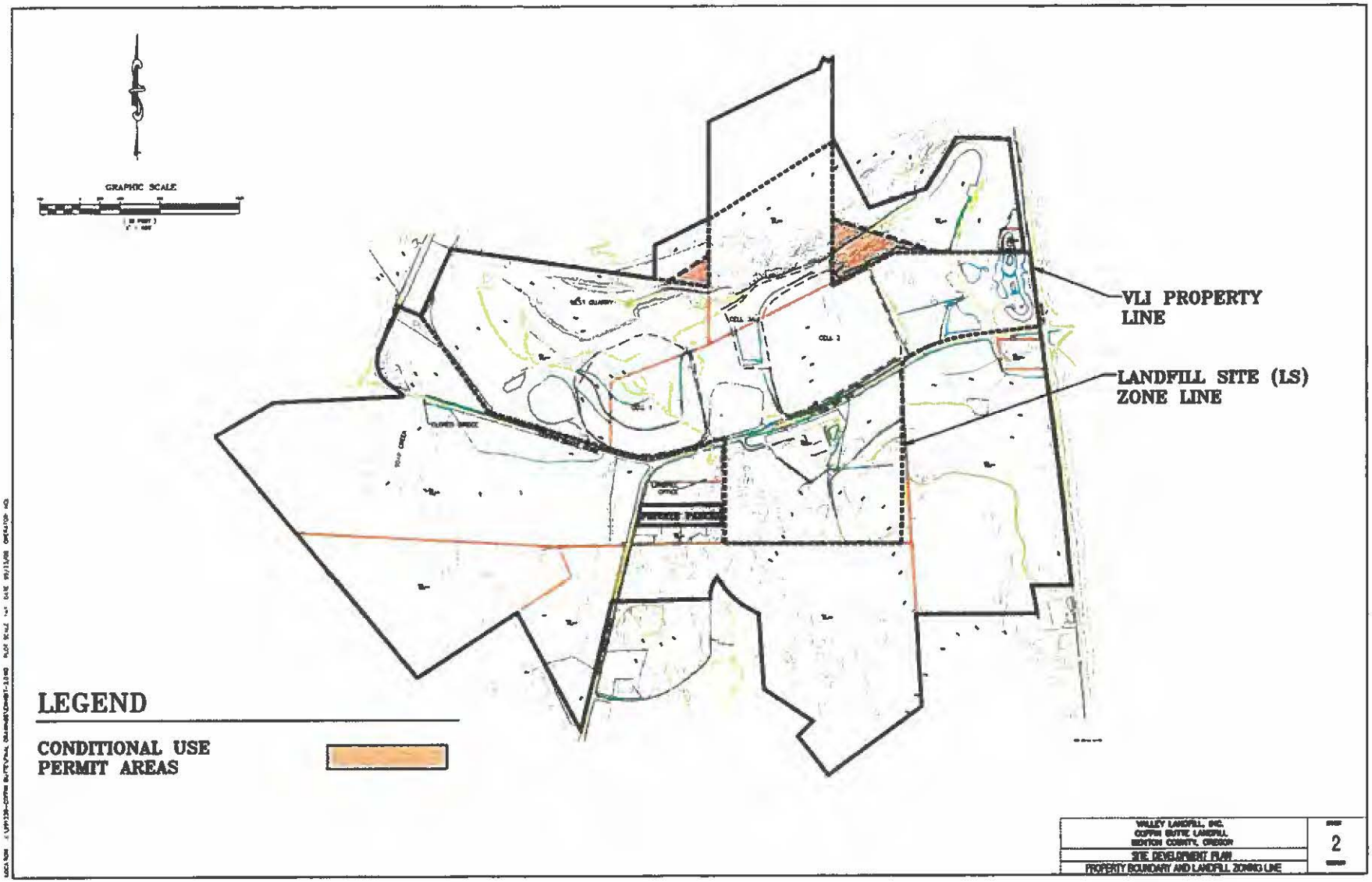
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VANCE CRONEY,
Benton County Legal Counsel

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GRAPHIC SCALE
VLI PROPERTY LINE
LANDFILL SITE (LS) ZONE LINE
PRIVATE PARCEL
LEGEND
LANDFILL ZONE – NORTH OF COFFIN BUTTE ROAD
LANDFILL ZONE – NON-DISPOSAL AREAS
OTHER LAND OWNED BY VALLEY LANDFILLS
VALLEY LANDFILL, INC.
COFFIN BUTTE LANDFILL
BENTON COUNTY, OREGON
SITE DEVELOPMENT PLAN
PROPERTY BOUNDARY AND LANDFILL ZONING LINE
1


GRAPHIC SCALE
VLI PROPERTY LINE
LANDFILL SITE (LS) ZONE LINE
LEGEND
CONDITIONAL USE PERMIT AREAS
VALLEY LANDFILL, INC.
COFFIN BUTTE LANDFILL
BENTON COUNTY, OREGON
SITE DEVELOPMENT PLAN
PROPERTY BOUNDARY AND LANDFILL ZONING LINE
2


GRAPHIC SCALE
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LANDFILL SITE (LS) ZONE LINE
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LANDFILL ZONE – NORTH OF COFFIN BUTTE ROAD
LANDFILL ZONE – NON–DISPOSAL AREAS
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COFFIN BUTTE LANDFILL
BENTON COUNTY, OREGON
SITE DEVELOPMENT PLAN
PROPERTY BOUNDARY AND LANDFILL ZONING LINE
2

From:	Phil Carver
To:	Benton Public Comment
Cc:	Scheppke Jim; Laurie Dougherty
Subject:	350 Salem Comments on Coffin Butte Landfill
Date:	Monday, May 5, 2025 10:37:28 PM

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

To the Benton County Commissioners

350 Salem OR strongly opposes Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. We urge the Planning Commission to deny this application.

Please see attached comments.

Thank you for the opportunity to comment.

Philip H. Carver, Ph.D.
Co-coordinator 350 Salem OR

Dear Benton County Planning Commissioners,

350 Salem OR endorses the recent comments by Jim Scheppke of Salem. We strongly oppose expansion of the Coffin Butte Landfill.[1]

These comments are on behalf of the several hundred Salem members and supporters of 350 Salem. 350 Salem (350salemor.org) is a chapter of 350.org, an international organization fighting against climate change.

Salem is the largest municipal source of waste sent to the Coffin Butte Landfill.

In addition to the concerns raised by Mr. Scheppke, there are large and poorly measured methane emissions from the Coffin Butte Landfill. Landfills in wet climates, such as Benton County, have inherently more methane emissions from wet organic products (paper, waste food, etc.) that are "eaten" by anaerobic archaea. The process is called methanogenesis. It is the primary pathway for breaking down organic matter placed in landfills. In drier climates it is easier to keep water out and substantially reduce methane emissions.

There is an additional concern about the disposal of leachate from the landfill in Salem sewers. A substantial part of the PFAS (a mix of toxic forever-chemicals) in the leachate gets incorporated into the sewage sludge at the Willow Lake sewage treatment plant. This sludge is sold to farmers, without being tested for PFAS, to be spread on non-food croplands. The PFAS then leaks into the soil and groundwater. The City of Salem and the State of Oregon have done little to address this terrible situation.

The methane and leachate problems would be greatly reduced by sending the municipal waste to drier landfill east of the Cascade Mountains.

Thank you for the opportunity to comment.

Philip H. Carver, Ph.D.
Natural Resource and Utility Economics
Johns Hopkins U., 1978

[1] I am writing because 350 Salem OR strongly opposes Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

From: Legrande Johnson
To: Benton Public Comment
Subject: Oppose/Deny LU-24-027
Date: Tuesday, May 6, 2025 8:49:05 AM

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

To: publiccomment@bentoncountyor.gov

Subject: Oppose/Deny LU-24-027

Dear Benton County Planning Commissioners,

My name is Jennifer Johnson and I live at 1730 NW Sulphur Springs Rd Corvallis OR 97330

I am writing because I strongly oppose Republic Services' Conditional Use Permit application LU-24-027 to expand the Coffin Butte landfill. I urge the Planning Commission to deny this application.

Three problems: Odor, noise and lack of a long-term waste solution for Benton County.

Republic Services has NOT demonstrated that they will decrease the noise and odor problems that currently plague the area. The paid specialist for solving the noise problem determined that based on the median noise level they measured the landfill is basically already complying. Median noise may be calculable but it is not the level that humans and animals are at ease with or disturbed by. Less frequent, louder sounds are what disturbs and troubles us. If three gun shots went off just outside of a building during a meeting the median noise level heard in the building would not be what people noticed. They would be disrupted by and remember those 3 momentary sounds. To judge noise by aggregating all the noises, determining where most of the noise level is and determining that is the number that counts does nothing to LOWER the noise level. People live in and seek out the rural parts of our county for it's peacefulness. That is one of the most essential qualities that make up the character of the area.

Difficulties validating and measuring odor because of the quality of public odor complaints does not mean there is not a significant odor problem now. Drive up Hwy 99, on up the north end of Soap Creek Rd, or to EE Wilson and your nose will be all the proof you need that the landfill emits noxious odors. Common sense is enough to understand that wind and heat can move those odors into the surrounding, residential and rural areas easily. Any expansion of the landfill will clearly increase these problems. The area proposed for expansion is currently a barrier to sound and odor entering the valley. If new waste is loaded up and over that hill it will not only remove the barrier that hill currently provides but it will be an additional contributor to these problems.

If Republic Services was committed to partnering with the local community they would have spent the years since their first application SOLVING the current problems with odor and sound. Not paying specialists to try to prove that the community is not seeing and hearing what we are speaking up about.

Benton County residents expect planning that provides us a longer term solution for our waste

than Republic's plan for expansion would allow. If approved and they truck in so much waste from outside the county that it fills up in 17 years where will our waste go then? We should be planning now for OUR county's future waste and for the long term. We need a landfill partner who prioritizes solving Benton County's waste management now and for generations to come. Republic Services has demonstrated they are committed to the county only in so far as they are allowed to truck in outside waste to ensure they are very profitable.

Please deny this application for expansion.

Thank you for your work on behalf of the residents of Benton County.

Respectfully,

Jennifer Johnson
Corvallis, Oregon

From:	Community Development, Benton County, Oregon
To:	Benton Public Comment
Subject:	LU-24-027 Coffin Butte Proposed Expansion Written Feedback
Date:	Tuesday, May 6, 2025 9:21:11 AM

Subject of Testimony: Landfill expansion

Full Name: Becky Legrande

Email: becknjenn@msn.com

Street Address: 1730 NW Sulphur Springs Rd. Corvallis, OR 97330

Written Testimony:

I attended the first 2 hearings on the landfill expansion. Needless to say, Republic hired 8 consultants to plea their case. Lots of data, statistics; even though the information gathering on some was somewhat less than ideal.
Regardless of Republic pleading their case against the current guidelines provided by the county, why are we allowing so much garbage to come to our landfill? Obviously this is the reason they are seeking to expand. What does Benton County do when the expanded landfill fills? Where do we go next to deal with our county's garbage? The quarry that is currently on track to be used in the existing landfill will last approx 10 years. Why isn't republic using this 10 year window to find a place to put garbage that is not a rainy area contributing to leachate? Benton County is small! And magnificent farmland and forest. Benton County could continue to use the current landfill for many, many more years if we did not accept garbage from all over the state.
This seems to me to be the biggest reason to stop the landfill expansion. Republic needs to find a new place for all the garbage not generated in Benton County. It is a sure eventuality

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This is a notification that a contact form was submitted on your website (Community Development, Benton County, Oregon https://cd.bentoncountyor.gov).
Submitter's IP Address: 24.21.19.220

DATE RECEIVED: 4/29/25
FROM: Camille Hall
PHONE OR EMAIL: 541-760-2376

Planning Commissioners and Chair Fowler,

My name is Camille Hall and I have lived at 7175 NW Mountain View Drive, Corvallis, 6 miles south of Coffin Butte Landfill since 1981.

I oppose LU-24-027, expansion of Coffin Butte Landfill.

First, I wish to testify to:

Benton County Code 53.215 (1) "seriously interferes with the character of the area":

The property in question today is a buffer zone, created as a condition of approval for earlier expansions of this landfill, to protect neighboring properties. Both Tampico Ridge and Adair Village are affected by this request.

The most immediate and direct impacts will be around Tampico Ridge. Developing the new landfill will require months of blasting and removing soil and rock from the north hillside, up to the ridge. In that process, Republic Services will "dewater" the hillside, diverting groundwater that feeds local wells. Blasting will create fissures in existing substrate, providing channels for leachate to seep from the new landfill onto neighboring property. This will destroy the livability, property values, wells, airspace and groundwater for property owners along Tampico Ridge. No one will want to buy this land for its intended rural residential, agricultural and forestry purposes.

On the east side of Hwy 99W, the existing landfill, without the expansion, is within 2.5 miles of Adair Village. Residents there already bear the burden of increased activity at the existing landfill. This expansion request will bring the landfill with its traffic and operational impact even closer, making it more visible from town and encroaching on the character, property values and intended use of Adair Village as a residential center.

With or without removal of the annual tonnage cap, an expansion will bring the landfill even closer to residences on both sides of the Highway. An expansion will increase Republic Services' ability to market landfill space to new and expanded customers, creating the demand for future expansions. At the same time, an expansion will impede the ability of rural residents, farmers and foresters to operate and sell their land. This expansion will directly benefit Republic Services at the expense of other local landowners.

In addition, this expansion, per

Benton County Code 53.215 (2) "places undue burden on public activities and infrastructure":

By opening a new working face across Coffin Butte Road from the existing landfill, road use will be dominated by cross-traffic from commercial trash trucks crossing Hwy 99W from Camp Adair Road, turning left across Coffin Butte Road, into the new dump. Heavy equipment and truck traffic will also move between the two dumps, making it dangerous and difficult for other traffic to travel on Coffin Butte Road.

I am particularly concerned about emergencies, whether wildfire, landfill fire, earthquake, or other disaster. In the 2022 Annual Report for Coffin Butte Landfill, Republic Services reports 128,000 commercial vehicles a year, approximately 350 commercial trucks a day, coming into and out of Coffin Butte landfill. This steady influx of trash haulers will be difficult if not impossible to stop during an emergency, impeding evacuation, blocking emergency vehicles and causing trucks to stack up along major evacuation routes. In effect, Republic Services proposes to make Coffin Butte Road unsuitable for public purposes without the formality of closing the road to public use.

This is not acceptable.

Thank you.

Mark Henkels, Ph.D.
7540 NE Pettibone Drive
Corvallis, OR 97330
mphcorvallis@gmail.com, (541) 231-9386



Testimony in Opposition to Coffin Butte Landfill Expansion: Application file number: LU-24-027

April 29, 2025

My name is Mark Henkels. I am a former professor of Public Policy and Administration at Western Oregon University. I participated in the Benton County Talks Trash (BCTT) process and helped write the history section of that document.

History and contemporary experience demonstrates that the expansion will definitely interfere with the character of the area and impose an undue burden on facilities and services available to the area.

The background and history told in the BCTT document show that Coffin Butte became a major industrial facility rather accidentally and reveals many problems in its operation.

Benton County approved the formal creation of the landfill to divert wastes that were previously placed in the forests and rivers without effective control.

Even in the early 1970s Valley Landfill was looking for alternate sites and early expert opinion on the suitability of Coffin Butte can be seen in the BCTT passage that states:

"In the March 19, 1971 Gazette-Times, County Sanitarian Roger Hayden speculated that one day soon Benton County may be barging its wastes down river to a regional site where proper sorting and recycling could take place. Hayden suggested at the time that eventually local solid waste would have to be taken to the eastern side of the state since western Oregon had location, water, and soil condition difficulties."

Even the "Chemeketa Agreement" making Coffin Butte a "regional landfill" envisioned it would close by the year 2000 and that only wastes from specific areas of Polk, Benton, and Linn County would go there. Not Marion County, and certainly not Washington County and beyond where much of the current waste come from. Coffin Butte was never considered ideal, even when receiving much less waste.

The BCTT history section notes that: "*Historically, the interests of landfill owners and operators and those of the neighbors and other Benton County residents have not always coincided.*"

The evolution of the landfill from a small regional facility overseen by local businesses to the second largest landfill in Oregon controlled by a giant out-of-state corporation tremendously magnifies the impact on neighbors and Benton County residents.

Consistent public opposition to expansion reflects the public's awareness of how inappropriate a massive landfill is in that location, and has been consistently reinforced by expert information and scientific studies.

Finally, Benton County residents should not rely on any added "conditions of approval" that appear to mitigate risks.

Consider how the methane leaks found by the EPA and state environmental inspectors just recently far exceeded Republic Services's self-reported leaks. No government bodies consistently monitor and enforce landfill regulations, and we would be fools to rely on Republic Services for this reporting. The expansion will open large surfaces above and below ground for many decades, creating vulnerability to leaks, and health, fire, and the global environmental risks.

Sadly, a USGS publication notes that the EPA has concluded that all landfills eventually will leak into the environment.(https://pubs.usgs.gov/fs/fs-040-03/pdf/fs-040-03.pdf).

I hope you recognize how even the existing operation violates the character of the area and the environmental values stated in our County codes. It's time to draw a permanent limit for the landfill.