



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Central Region Office

1250 West Alder St., Union Gap, WA 98903-0009 • 509-575-2490

February 9, 2023

Allan Gebhard
Barr Engineering
4300 Market Point Drive, Suite 200
Minneapolis, MN 55435

Re: Response to Monitoring Well 101 Replacement Work Plan, Yakima Mill Site:

- **Site Name:** Boise Cascade Mill (aka Yakima Mill Site)
- **Site Address:** 805 N. 7th Street, Yakima
- **Facility/Site No.:** 450
- **Cleanup Site No.:** 12095
- **Agreed Order No.:** DE 13959

Dear Allan Gebhard:

The Washington State Department of Ecology (Ecology) has reviewed the Monitoring Well 101 Replacement Work Plan, Yakima Mill Site (MW-101R Work Plan) that was submitted to Ecology by email from Ryan Mathews of Fulcrum Environmental Consulting (Fulcrum) on February 8, 2023. Please consider the MW-101R Work Plan **conditionally approved**, with the conditions regarding sampling and schedule presented below.

Conditional Approval and Concern Details

On page two of the MW-101R Work Plan, under the heading Background Fulcrum states:

The sampling of MW-101 is required under the Ecology-approved May 2022 Yakima Mill Site supplemental groundwater sampling plan. Barr Engineering Co. (Barr) and Fulcrum Environmental Consulting, Inc. (Fulcrum) have previously notified Ecology of the significant impact that the lack of groundwater sampling at a replacement well for MW-101 (MW-101R) has on the timely completion of the draft Feasibility Study. The third groundwater sampling event under the May 2022 supplemental groundwater sampling plan was scheduled to have been completed in January 2023 but has been postponed until the replacement well can be installed.

Regarding the postponement of the May 2022 sampling event, Ecology has concerns about the four consecutive quarter sampling required, and how that sampling correlates with the sampling of the MW-101 replacement well for four consecutive quarters.

Allan Gebhard
Barr Engineering
February 9, 2023
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Ecology proposes that this concern **does not hold up the MW-101R well installation** but be discussed in a future meeting with Ecology, which will also allow an opportunity to review the updated feasibility study schedule provided by Barr Engineering (Barr) on January 13, 2022.

Note that the MW-101 R Work Plan submittal follows an earlier email exchange between Fulcrum and Ecology and is included as an enclosure to this letter.

In this letter notification, we require a response to the concern stated above. We expect Barr to schedule a meeting with Ecology within the next 30 days to discuss the PLP response.

Future Submittals and Ecology Reviews

Ecology is requesting that the PLP ensure that future submittals are on letterhead and that the PLP plan for a 30-day Ecology review unless otherwise stated in the Agreed Order.

Closing and Contact Information

We look forward to your response to this letter. If you have any questions about this response and these opinions, please contact me by phone at 509-225-0304 or by email at John.Zinza@ecy.wa.gov.

Sincerely,



John Zinza, PE
Cleanup Project Manager
Toxics Cleanup Program
Central Regional Office

Enclosure: Ecology email exchange with Fulcrum from January 31, 2023 to February 1, 2023 regarding the Yakima Mill Site MW-101 Replacement Well Installation Plan



Enclosure

From: [Zinza, John \(ECY\)](#)
To: [Ryan Mathews](#)
Cc: [Allan Gebhard](#); adanielson@barr.com; [Lind, Jennifer \(ECY\)](#); [Bound, Valerie \(ECY\)](#)
Subject: RE: [EXTERNAL] Ecology Email Response. Boise Cascade Mill. FSID: 450. RE: Yakima Mill Site MW-101 Replacement Well Installation Plan
Date: Wednesday, February 1, 2023 9:09:00 AM
Importance: High

Good morning Ryan,

Thank you for your response Ryan. Please consider that a figure and/or adequate description of the proposed MW-101R construction is appropriate for the work plan. Please also note that to ensure we are on the same page on the post construction documentation, that a memo/letter report is appropriate to document the construction, well development, and post construction survey information.

Please let me know when I can anticipate the work plan and please consider my Tuesday – Friday schedule as you prepare the submittal.

Thank you,

John Zinza

John Zinza, P.E.
WA Department of Ecology
Toxics Cleanup Program - Central Regional Office
Cell: (509) 225-0304
Email: john.zinza@ecy.wa.gov
Ecology Internet: <https://ecology.wa.gov/>

From: Ryan Mathews <rmathews@efulcrum.net>
Sent: Tuesday, January 31, 2023 4:22 PM
To: Zinza, John (ECY) <jin461@ECY.WA.GOV>
Cc: Allan Gebhard <AGebhard@barr.com>; adanielson@barr.com; Lind, Jennifer (ECY) <JELI461@ECY.WA.GOV>; Bound, Valerie (ECY) <VDRE461@ECY.WA.GOV>
Subject: RE: [EXTERNAL] Ecology Email Response. Boise Cascade Mill. FSID: 450. RE: Yakima Mill Site MW-101 Replacement Well Installation Plan

John,

Thank you for providing a reply to our request. We are scheduled to survey the proposed MW-101R location tomorrow. We will address your questions in the formal work plan submittal and will include a figure showing the proposed well location.

Ryan

Ryan K. Mathews, CIH, CHMM
Principal | Fulcrum Environmental Consulting, Inc.
509.574.0839 | rmathews@efulcrum.net

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From: Zinza, John (ECY) <jzin461@ECY.WA.GOV>
Sent: Tuesday, January 31, 2023 3:39 PM
To: Ryan Mathews <rmathews@efulcrum.net>
Cc: Allan Gebhard <AGebhard@barr.com>; adanielson@barr.com; Lind, Jennifer (ECY) <JELI461@ECY.WA.GOV>; Bound, Valerie (ECY) <VDRE461@ECY.WA.GOV>
Subject: [EXTERNAL] Ecology Email Response. Boise Cascade Mill. FSID: 450. RE: Yakima Mill Site MW-101 Replacement Well Installation Plan
Importance: High



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January 31, 2023

Ryan K. Mathews, CIH, CHMM
Principal | Fulcrum Environmental Consulting, Inc.
509.574.0839 | rmathews@efulcrum.net

Hi Ryan,

You're welcome on my effort to try to assist with moving along the replacement well for MW-101. Since this is a formal site, we need to be formal, which includes a work plan on letterhead. Please

recognize that an Ecology approval on your work plan is required before installation of the well. Again, this is a formal site and formal processes need to be followed. Please consider the following comments in this email response to your below email.

1. Please submit your work plan on letterhead.
2. Please include an appropriate figure to indicate the location of the well.
3. Regarding the June 2019 Revised Final Remedial Investigation Work Plan (RI WP), my records indicate approval was given to a revised plan in January 2019 (see attached approval letter). Please send a copy of the June 2019 document to allow me to verify the disconnect in the dates.
4. The Ecology effort led by Arthur Buchan regarding preliminary cleanup levels (PCULs) and contaminants of concern (COCs) came after the revised final RI WP. Modify the work plan as necessary to ensure that appropriate consideration has been given to the effort on the PCULs and COCs.
5. Please confirm in your work plan, that you are addressing safety and health per WAC 173-340-350 Remedial investigation and feasibility study (7)(c)(iv) with updated plans as necessary to conform to the requirements specified in WAC 173-340-810 and 173-340-820.
6. Since you are electing to increase the well screen interval, your work plan should support the change with the appropriate justification, including how this increase impacts sampling. Your work plan should indicate that Barr/Fulcrum are proposing the well design, and not just a reference to the Landau Proposal. It should be clear that since Barr is stamping off on the forth coming feasibility submittals that Barr is onboard with this change.
7. At our last meeting Ecology expressed concern sampling for NAPL. Please ensure Ecology that your work plan addresses any concerns Ecology may have about sampling NAPL.
8. The schedule should identify well development and sampling in addition to the installation date.
9. Please confirm that surveying will be conducted for the post well installation to establish horizontal position and elevation.
10. Formal approval from Ecology is required prior to proceeding with the well installation.

I look forward to your revised work plan.

Thank you,

John Zinza

John Zinza, P.E.
WA Department of Ecology
Toxics Cleanup Program - Central Regional Office
Cell: (509) 225-0304
Email: john.zinza@ecy.wa.gov
Ecology Internet: <https://ecology.wa.gov/>

From: Ryan Mathews <rmathews@efulcrum.net>

Sent: Friday, January 27, 2023 3:24 PM

To: Zinza, John (ECY) <jzin461@ECY.WA.GOV>

Cc: Allan Gebhard <AGebhard@barr.com>; adanielson@barr.com; Buchan, Arthur (ECY) <ABUC461@ECY.WA.GOV>; Lind, Jennifer (ECY) <JELI461@ECY.WA.GOV>; Bound, Valerie (ECY) <VDRE461@ECY.WA.GOV>

Subject: Yakima Mill Site MW-101 Replacement Well Installation Plan

John,

Thank you for agreeing to assist with the replacement of monitoring well (MW) 101. Per your request, we are providing this work plan for this element under the Yakima Mill Site Feasibility Study. Given the simplicity of this task and the existing project documentation, we've selected this simple format for a work plan.

As has been discussed with you previously, MW-101 was removed during the City of Yakima's Bravo Parkway project. The City of Yakima agreed that any wells on the project right of way and needed to facilitate work for the Yakima Mill Site would be replaced. We understand that Landau Associates on behalf of the City of Yakima, has requested approval to replace MW-101, but that approval has not yet been provided and the Washington State Department of Ecology (Ecology) is unable to provide a timeline for approval.

Barr Engineering Co. (Barr) and Fulcrum Environmental Consulting, Inc. (Fulcrum) have previously notified Ecology of the significant impact that groundwater sampling at replacement well MW-101R has on the timely completion of the draft Feasibility Study. The third groundwater sampling event under the approved supplemental groundwater sampling plan was scheduled to have been completed this week but has been postponed until the replacement well can be installed.

For these reasons we are moving forward with replacement of MW-101 for our work on the Yakima Mill Site as it is a material impact to the schedule of the YMS Feasibility Study.

Installation of MW-101R will be completed following the methods provided in the June 2019 Revised Final Remedial Investigation Work Plan for the Mill Site. MW-101R will be installed in a manner similar to the original MW-101, consisting of a 26-foot deep well. As proposed by Landau Associates in the Post-Construction Groundwater Sampling Work Plan (Landau, October 2022), the screened interval will be increased from 10-feet to 15-feet. MW-101R will be installed approximately 50-feet southwest of where MW-101 was installed, placing it outside of the roadway corridor and the landfill gas barrier. The location of MW-101R and the adjacent roadway corridor will be surveyed prior to installing the well.

We will install MW-101R on or about February 13th so that groundwater sampling can be carried out as planned.

Please contact Alec Danielson with Barr or me with any questions or comments.

Thank you,

Ryan

Ryan K. Mathews, CIH, CHMM

Principal | Fulcrum Environmental Consulting, Inc.

509.574.0839 | rmathews@efulcrum.net

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