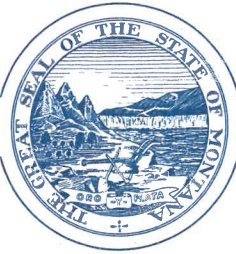


DEPARTMENT OF NATURAL
RESOURCES AND CONSERVATION
MISSOULA WATER RESOURCES REGIONAL OFFICE



GREG GIANFORTE
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MISSOULA, MONTANA 59806-5004

January 17, 2023

Montana Dept. of Environmental Quality
Attn: Mathew Kent
PO Box 200901
Helena, MT 59620-0901

Re: Petition to Modify CGWA 76H 30154868

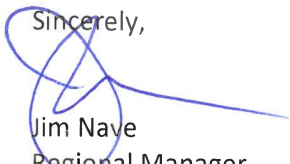
Dear Mathew:

The Department of Natural Resources and Conservation (Department) has determined to proceed with the Petition for the Bitterroot Valley Sanitary Landfill (BVSL) Controlled Groundwater Area filed on February 22, 2022.

As detailed in the enclosed materials, the Department finds that modifying the current controlled groundwater area boundaries is justified. Enclosed with this letter please find the Department's Determination to Proceed with Rulemaking on Petition for Controlled Groundwater Area and a copy of the proposed modified Administrative Rule. As the petitioner, you have until February 1, 2023, to provide comments on the enclosed draft rules.

If you have any questions or concerns, please feel free to contact me at 406 542-5889.

Sincerely,



Jim Nave
Regional Manager

**BEFORE THE DEPARTMENT OF
NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA**

* * * * *

**PETITION FOR CONTROLLED
GROUNDWATER AREA NO. 76H 30154868
BY MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY**) **DETERMINATION TO PROCEED WITH
RULEMAKING ON PETITION FOR
CONTROLLED GROUNDWATER AREA**

* * * * *

On February 3, 2022, the Montana Department of Environmental Quality (DEQ) submitted Petition for Controlled Groundwater Area No. 76H 30154868 to the Missoula Water Resources Office of the Department of Natural Resources and Conservation (Department or DNRC) to modify the existing Bitterroot Valley Sanitary Landfill Controlled Groundwater Area (CGWA). The Petition was forwarded to the DNRC Water Management Bureau for technical review on February 8, 2022. The Department sent DEQ a deficiency letter on July 25, 2022, requesting additional information including groundwater modeling to demonstrate that behavior of the contamination plumes will not be affected by modification of the controlled groundwater boundaries. DEQ responded with information addressing the deficiencies on October 21, 2022. The Petition was determined to be correct and complete on December 19, 2022. On December 19, 2022, the Department informed the petitioner that it would proceed under MCA § 85-2-506(4)(a)(ii), which allows the Department to study the information presented in the petition for a period not to exceed 90 days before denying or proceeding with said Petition.

The original CGWA was established due to water quality concerns, with eleven contaminants of concern being identified in the local groundwater aquifer. The original petition requested the CGWA because it was determined that excessive groundwater withdrawals would cause contaminant migration and that the water quality within the groundwater area is not suited for a specific use defined by MCA 85-2-102(2)(a) (statute reference has changed to MCA 85-2-1029(5)). Section 16 of the Order designating the CGWA, dated February 9, 2004, states the following: “when groundwater within the controlled groundwater area has been restored to acceptable conditions the controlled groundwater designation can be lifted or reduced in size.”

The Petitioner proposes to modify the existing CGWA near the community of Victor, MT, by reducing the size from the original 328 acres to an area that is approximately 80 acres. Figure 2 below identifies the location of the proposed modified CGWA boundaries. The proposed new boundaries of the CGWA are located entirely within the original Zone 1. The modification to the CGWA was requested to prevent exposure to contaminants of concern (COCs) in groundwater where the January 2002 Record of Decision (ROD) (DEQ 2002) and Amendment to the ROD (DEQ, 2022) remedial goals for the site are exceeded. The provisions of the modified CGWA reduce the migration of COC above the Circular DEQ-7 Montana Numeric Water Quality Standards (DEQ-7) (DEQ, 2019). The provisions include closing the CGWA boundary to new wells drilled and that groundwater within the CGWA may not be used for any purpose other than sampling. Exceptions to these provisions are allowed with written approval from DEQ. Additionally, the existing wells must be maintained and there will be no alteration to abandoned wells within the modified CGWA boundaries. The proposed modified CGWA boundaries contain fifteen landowners who would be exposed to water quality above DEQ-7 standards. Within the modified CGWA boundaries there is no suitable beneficial use for groundwater.

Figure 1

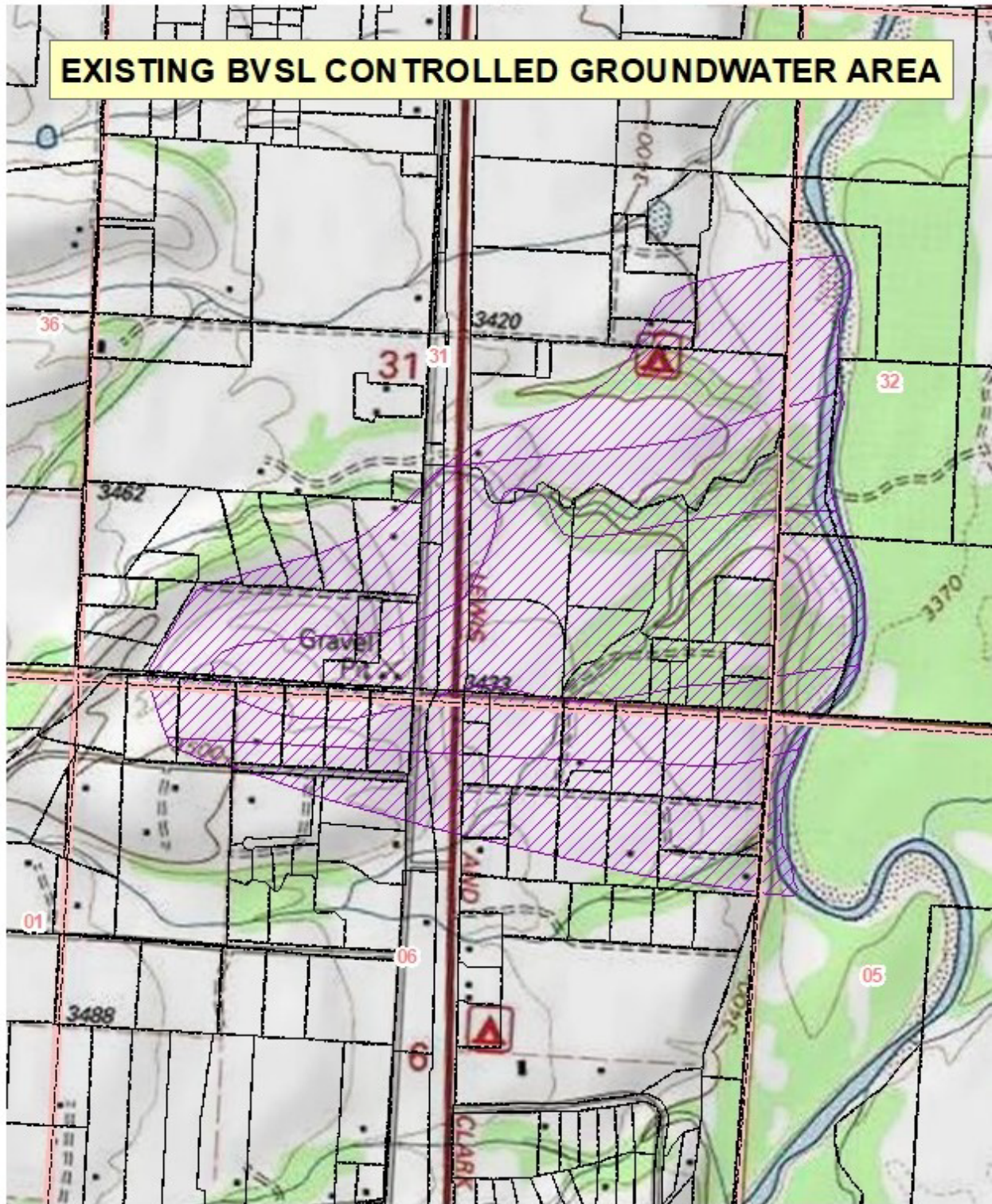
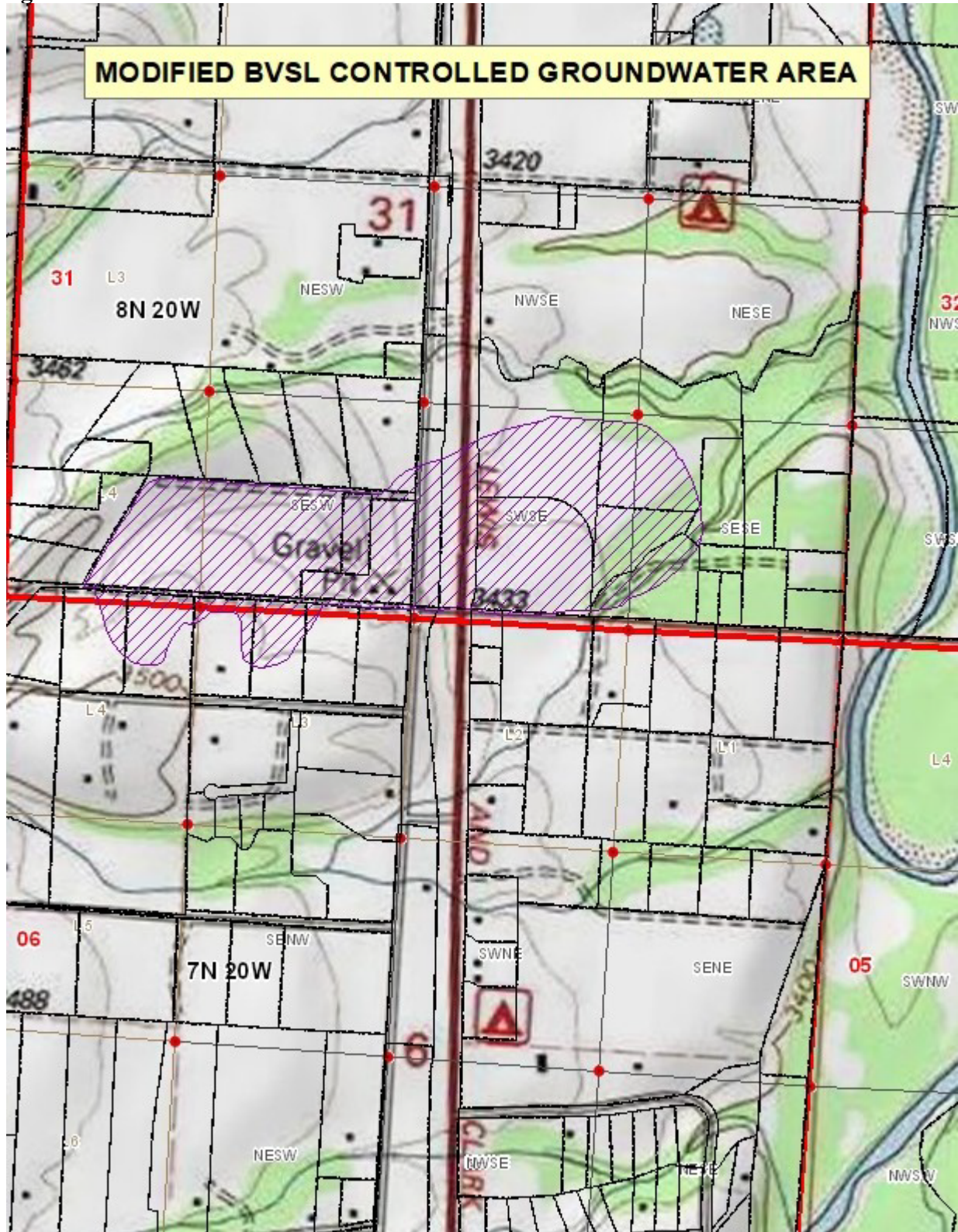


Figure 2



Department Hydrogeologist Norman Evan was assigned by the Department to review the information provided in the Petition and issued a memorandum of his findings and opinions on December 13, 2022. Mr. Evans found that DEQ's groundwater modeling demonstrates that projected groundwater withdrawals in the basin-fill aquifer will induce or alter the existing contamination plume to the extent of the modified boundary. Within the modified boundary there is evidence of groundwater contamination presenting a public health risk due to elevated concentrations of COCs. The groundwater model presented by DEQ provides a reasonable basis for delineating the boundary of the modified CGWA where concentrations of vinyl chloride and chloroform are predicted to be above the DEQ-7 cleanup level, and that the provisions of the modified CGWA will prevent exposure to the COCs.

FINDINGS

DEQ's 2002 Record of Decision (ROD) documented a remedial alternative that included a community water supply system, implementation of institutional controls, natural attenuation of remaining groundwater contamination, and groundwater monitoring. The community water supply system was never constructed, and implementation of institutional controls was not fully implemented. Institutional controls consisted of restrictive covenants on the parcels making up the historic landfill footprint that restrict well installation and groundwater use. All but one of the landowners of the parcels requiring institutional controls have complied.

With the designation of the original CGWA, water quality monitoring occurred continuously by the National Institute of Health (NIH) throughout a network of monitoring wells until their obligation ended in 2017. In addition to water quality monitoring, a pump and water treatment system was established and operated until 2012, when it was determined that the treatment system was no longer required due to reduced concentrations of contaminants. In 2017 when the NIH's monitoring obligations ended, only two of the original eleven contaminants of concern exceeded Circular DWQ-7 Montana Numeric Water Quality Standards (DEQ-7) (DEQ 2019). The two contaminants of concern remaining consisted of vinyl chloride and chloroform. The location of the exceedances were isolated to the area of three monitoring wells near the southeast corner of the original landfill footprint.

DEQ has monitored the three wells that continued to exhibit COC exceedances since 2019 and now only two wells contain contamination exceeding DEQ-7 standard. DEQ will continue to perform annual groundwater monitoring on the wells that continue to demonstrate exceedances of DEQ-7 standards. DEQ expects the remaining contamination will continue to naturally attenuate until all locations are below DEQ-7 standards.

DEQ determined that due to the significant reduction in area of the groundwater plume where contaminants exceed DEQ-7 standards and because the community water supply system component of the selected remedy was never implemented and no longer needed, and since the entire area of exceedance is not covered by institutional controls, the 2002 Record of Decision for the Bitterroot Valley Sanitary Landfill State Superfund Facility (Facility) required amendment. DEQ developed a proposed plan for the ROD Amendment and held a 30-day public comment period and public meeting in Victor near the end of 2018. Part of the proposed amendments to the 2002 ROD was modification of the CGWA to reduce its size from approximately 328 acres to the approximately 80 acres proposed in this petition.

DEQ contracted with NewFields Companies, LLC, to perform groundwater modeling to comply with deficiencies identified by DNRC in the original petition. DNRC determined the point measurements alone were not sufficient evidence to demonstrate that behavior of the contamination plumes will not be affected by modification of the CGWA boundaries, and that groundwater modeling was required. The groundwater modeling provided in response to DNRC's deficiency letter built upon and updated the original model used to develop the boundaries of the original CGWA. This modeling included predictive simulations run for a 30-year timeframe that varied pumping rates from 20-300 gallons per minute in wells placed at multiple distances from areas of remaining contamination. This simulated pumping determined where contamination levels would drop below DEQ-7 standards for chloroform and vinyl chloride, and the results were used to develop a revised boundary for the CGWA.

Based upon groundwater sampling data and groundwater modeling presented in the petition, the Department finds that a preponderance of the evidence establishes that groundwater within the

proposed modified CGWA boundary is not suited for beneficial use and public health is potentially at risk from pumping water within the proposed CGWA. § 85-2-506(5)(e) and (f), MCA.

The Department determines that it will proceed with the Petition for Controlled Groundwater Area and initiate rule making proceedings for the proposed modification to the Bitterroot Valley Sanitary Landfill CGWA site.

RULEMAKING TIMELINE

The Department will provide the petitioners with a draft copy of the Administrative Rule with this determination to proceed. The Petitioner has until XXXX, 2023, to provide any comments. The Department will then finalize the rules and proceed with formal rulemaking proceedings in accordance with Title 2, Chapter 4, part 3, MCA. Any comments provided on the draft rule does not preclude the petitioner from submitting comments during the comment period provided for in the formal proceedings.

DATED this 17th day of January 2023.

/s/ Jim Nave
Jim Nave, Regional Manager
Missoula Regional Office
Department of Natural Resources and Conservation