

Blackfoot Crossing Environmental Assessment
Comment Summary and Responses to Substantive Comments received from the Clark Fork Coalition

Comment 1: The EA contains no information describing the quality of the receiving groundwater, current nitrate levels, or its uses and classification. Accordingly, it's not possible to determine the direct or cumulative impact of the proposed new discharge. This information is required to be submitted to DEQ as part of the preliminary design report (DEQ Circular 2). Local groundwater depth information is available via well logs. Were these wells tested to determine ambient concentrations of nitrate or other pollutants? We understand that the DEQ is relying on ARM 17.30.1022(d)(4) to determine that the effects of this new discharge system are non-significant and that a MGWPCS is not necessary. However, it is difficult to understand how the agency has evaluated the direct, secondary or cumulative impacts of the proposed discharge without a full understanding of existing conditions in the receiving aquifer

Response 1: DEQ's review of this project included the evaluation of a groundwater non-degradation analysis in accordance with ARM 17.30.715. This analysis characterized existing aquifer conditions and evaluated the potential for the proposed discharge to cause degradation of groundwater quality. As part of the nondegradation analysis, the applicant collected a water sample from a nearby downgradient well to establish background groundwater quality; those results indicated a groundwater nitrate concentration of 0.07 mg/L in December 2025, well below the 10 mg/L Montana groundwater quality standard for nitrate.

Using this background concentration, site-specific hydrogeologic data (including aquifer properties, groundwater flow direction and gradient, and depth to groundwater), the Phase 1 design flow of 20,000 gallons per day (gpd), and the anticipated effluent total nitrogen concentration of approximately 5 mg/L, the nondegradation analysis modeled nitrate concentrations at the downgradient end of the 500-foot groundwater mixing zone. Modeled nitrate concentrations remained below applicable nondegradation trigger values and the 10 mg/L groundwater standard, demonstrating that the proposed discharge would not cause degradation of groundwater quality under Phase 1 operating conditions (see EA Section 2.2). Based on this analysis, DEQ determined that the direct, secondary, and cumulative impacts of the Phase 1 discharge on the receiving aquifer are not significant.

Comment 2: The EA concludes that the project will have no direct impacts on neighboring surface waters because, although the proposed discharge is located 300 feet from the Blackfoot River, groundwater in the area flows northwest away from the Blackfoot River. Nonetheless, it does not appear that the agency analyzed the potential impacts to the Clark Fork River, which is located just northwest of the project area. The groundwater flow direction is closer to parallel with the Clark Fork River, and the possibility of this effluent entering the Clark Fork downstream of the Blackfoot-Clark Fork confluence should be evaluated. The groundwater elevation of around 3240 feet (as described in the EA) is lower than the Blackfoot river adjacent to the WWTF, but the Clark Fork River passes below 3240 feet of elevation approximately 3000 feet from the WWTF, and continues to lose

elevation. Thus, although the groundwater moves away from the Blackfoot River, this groundwater flowpath may rapidly enter the Clark Fork River a short distance downstream.

Response 2: DEQ's review of this project included the evaluation of a groundwater non-degradation analysis in accordance with ARM 17.30.715. As part of the non-degradation analysis, the applicant's consultant measured water levels in nearby wells at two different times of the year (representing seasonal high and low groundwater conditions) to characterize the direction and gradient of groundwater flow beneath the site. These measurements consistently indicated a groundwater flow direction of northwest at a gradient of approximately 0.005 feet per foot. As mentioned in the Environmental Assessment (Section 2.2), this flow direction is away from the Blackfoot River and is approximately parallel with the Clark Fork River for a reach downgradient of the Blackfoot- Clark Fork confluence.

The proposed WWTF is located approximately 300 feet north of the Blackfoot River. As documented in the site-specific hydrogeologic investigation prepared in support of the nondegradation analysis, groundwater beneath the WWTF site flows in a northwesterly direction at a gradient of approximately 0.005 feet per foot—a direction that is away from the Blackfoot River and toward the Clark Fork River. The Clark Fork River lies approximately 1.8 miles from the site in this direction. Conservatively accounting for the potential that the groundwater flow path trends more directly toward the Clark Fork River as it nears the river, DEQ estimates the distance from the rapid infiltration basins to the Clark Fork River along the groundwater flow path to be approximately 5,000 feet. Because this distance exceeds the half-mile threshold under ARM 17.30.715 and Circular DEQ-7 at which a surface water trigger analysis is required, a formal trigger analysis for the Clark Fork River was not required.

Nevertheless, DEQ acknowledges the commenter's concern that groundwater downgradient of the WWTF may eventually discharge to the Clark Fork River. In direct response to that concern, DEQ performed surface water trigger-value calculations consistent with ARM 17.30.715 and Circular DEQ-7 for the reach of the Clark Fork River downgradient of the confluence where groundwater from the project area could reasonably be expected to enter the river. That analysis determined that the incremental contribution to Clark Fork River nitrate concentration from the Phase 1 discharge would be well below the applicable surface water trigger value and is therefore considered insignificant. Accordingly, DEQ concludes that direct impacts to the Clark Fork River from the proposed Phase 1 discharge are not significant.

Comment 3: CFC has concerns with DEQ's cumulative impacts analysis. "Cumulative impacts" means the collective impacts on Montana's environment of the proposed action when considered in conjunction with other past, present, and future actions related to the proposed action by location or generic type.

As noted above, it is unclear what information (if any) the DEQ used to evaluate existing nitrate conditions in the receiving groundwater. The EA states that "No WWTF currently exists on site. Residents in the surrounding area are currently served by on-site individual septic tanks and wells." Did the agency consider the cumulative impacts of adding an additional source of nitrate to the

receiving aquifer in addition to these existing non-point sources? Did the agency consider potential impacts to existing wells?

The DEQ also pays short shrift to the likelihood of growth and development within the project area. Indeed, the treatment facility at issue is clearly slated for future expansion to absorb additional wastewater and serve future phases of development. DEQ states it “considered cumulative environmental impacts of the construction and operation of the WWTF as well as the two new public water supply wells, and found no adverse effects on water quality, quantity or distribution due to the closed-loop design of the WWTF, subsurface disposal method, and regulatory compliance measures in place.” But what of other reasonably foreseeable future actions, such as the planned expansion of the WWTF facility at issue? Were any other impacts considered by the agency?

Response 3: As discussed in Responses 1 and 2 above, background groundwater nitrate concentration was evaluated as part of the non-degradation analysis to establish existing aquifer conditions. Sampling from a nearby downgradient well in December 2025 indicated a nitrate concentration of 0.07 mg/L, which reflects the cumulative impacts of past and present actions in the area, including existing onsite septic systems serving surrounding residences.

DEQ’s cumulative impact analysis (EA Section 2.2) considered the incremental contribution of the Phase 1 WWTF discharge in combination with existing septic systems. Using conservative assumptions about the number, location, and loading rates of nearby septic systems, the applicant’s consultant evaluated cumulative nitrate concentrations at the nearest downgradient existing subsurface systems (existing septic drainfields). The evaluation indicated a non-significant increase in groundwater nitrate concentration attributable to the addition of the WWTF discharge, with cumulative concentrations remaining well below the 10 mg/L groundwater standard.

With respect to impacts on existing wells, the nondegradation analysis identified no domestic wells directly downgradient of the WWTF within the 500-foot mixing zone. The two new public water supply wells proposed for the Blackfoot Crossing development are located upgradient (to the east) of the WWTF and rapid infiltration basins, and therefore would not be affected by the proposed discharge. DEQ concludes that cumulative impacts to groundwater quality and existing wells from the Phase 1 WWTF are not significant.

Regarding potential future impacts, this EA explicitly limits its scope to Phase 1 of the WWTF, which is designed for a maximum flow of 20,000 gallons per day and a total nitrogen loading of less than one pound per day. Consistent with *Montana Wilderness Ass’n v. Board of Health & Environmental Sciences*, 171 Mont. 477, 559 P.2d 1157 (1976), DEQ’s MEPA review is focused on its statutory responsibilities for water supply, sewage disposal, and solid-waste-related water quality, and does not extend to making broad land-use or subdivision planning decisions for the Blackfoot Crossing development as a whole. Any future expansion of the WWTF or additional phases of the Blackfoot Crossing development that would increase total nitrogen loading to one pound per day or more would trigger separate MGWPCS permitting requirements under ARM 17.30.1022(4)(d) and would require additional environmental review under MEPA at that time. As the Court reiterated in *Bitterrooters for Planning, Inc. v. DEQ*, 2017 MT 80, ¶¶ 20–24, 387 Mont. 424, 394 P.3d 1270, MEPA review must be tied to impacts caused by the permitted action within the agency’s jurisdiction and

does not require the agency to assume responsibility for all secondary social and economic effects of private development (such as general traffic growth or commercial build-out) that are regulated by other entities. Broader land-use, traffic, and subdivision impacts associated with future phases of the Blackfoot Crossing development are therefore addressed through separate Missoula County review and permitting processes, and any additional state approvals would undergo project-specific MEPA review at the time they are proposed, consistent with *Park County Environmental Council v. DEQ*, 2020 MT 303, 402 Mont. 467, 477 P.3d 288, and *Water for Flathead's Future, Inc. v. DEQ*, 2022 MT 150, ¶¶ 35–40, which emphasize that MEPA analysis is conducted in connection with concrete agency decisions and may be revisited as future phases and permits become sufficiently defined.

Comment 4: What wells will be used to monitor compliance with the discharge limits associated with the proposed facility? Will these wells be used to monitor other conditions within the receiving groundwater? Will the operator be required to report data on the discharge levels to ensure compliance? If so, how frequently?

Response 4: The applicant's consultant has proposed, and DEQ would require as a condition of plan approval, two monitoring wells: one upgradient of the disposal location (to establish background groundwater quality) and one downgradient at or near the end of the 500-foot groundwater mixing zone (to monitor compliance with groundwater standards and nondegradation trigger values).

Part of DEQ's approval, if issued, would include requirements for regular monitoring of effluent flow rate and total nitrogen concentration. Monitoring of nitrate concentration in the monitoring wells, one upgradient and one downgradient, would demonstrate the impact that the wastewater system has on the underlying aquifer. The approval would also require regular monitoring of effluent flow rate and total nitrogen concentration at the WWTF, with results reported to DEQ at intervals specified in the approval conditions.

DEQ's plan approval, if issued, would include specific requirements for:

- Regular monitoring of effluent flow rate and total nitrogen concentration at the WWTF;
- Periodic sampling and analysis of groundwater from both the upgradient and downgradient monitoring wells for nitrate and other parameters specified in the approval; and
- Reporting of monitoring data to DEQ at intervals specified in the approval conditions (typically quarterly or annually, depending on operational status).

This monitoring program is designed to verify that the WWTF operates as designed, that effluent quality meets applicable standards, and that groundwater quality at the compliance point (downgradient monitoring well) remains below nondegradation trigger values and groundwater standards. Comparison of upgradient and downgradient monitoring well data will demonstrate the actual impact of the wastewater system on the underlying aquifer. If monitoring reveals exceedances of trigger values or standards, DEQ has authority under the plan approval and applicable regulations to require corrective actions or operational modifications.

Conclusion: The EA has been updated in several locations to address this comment letter. Revisions were made in Section 1.3 (Proposed Action) to clarify the scope of DEQ's approval, the applicability of ARM 17.30.1022(4)(d), and the installation and purpose of groundwater monitoring wells. Section 2.2 (Water Quality, Quantity, and Distribution) was expanded to include additional detail on background groundwater nitrate conditions, the nondegradation analysis (including cumulative effects on nearby subsurface systems), and the evaluation of potential impacts to the Clark Fork River. Section 5 (Significance of Potential Impacts and Need for Further Analysis) was also revised to reference this analysis and to clarify why impacts are not expected to be significant.