



**Residential Subdivision #1 at the Quarry**  
**Big Sky, MT**

Montana Department of Environmental Quality

Environmental Assessment  
EQ# 22-2120 and 22-2092

February 16, 2023

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## **Residential Subdivision #1 at the Quarry Big Sky, MT**

### **INTRODUCTION**

In 2021, Big Sky Rock, LLC, (“the Applicant”) received Platting and Planning approval for the Quarry Planned Unit Development (PUD) Site Plan from Gallatin County. The Applicant now proposes to construct the first development within the approved Quarry PUD: The Residential Subdivision #1 at the Quarry (“the Project”), which would consist of eight (8) condominium lots. The Applicant has applied to the Department of Environmental Quality (Department) for a Certificate of Subdivision Approval (COSA) for the Project.

The facilities under review by the Department consist of the water, wastewater, and stormwater facilities associated with the development. Water services would be provided by connection to the existing Lazy J Utility Association facilities. Each of the proposed eight lots would have their own wastewater treatment provided by a Level II wastewater treatment facility and drainfield. A Level II subsurface facility is a standard septic system with an added treatment for additional nitrogen removal. The units are capable of discharging at or below the nonsignificance criteria of 7.5 mg/l nitrogen in 75-5-301 (5)(d), Montana Code Annotated. The wastewater treatment would be constructed and operated similar to other residential septic systems.

Lots 1, 2, 3,4, and 8 would each have 12 condominium units with a maximum wastewater flow of 3,000 gallons per day (gpd) per lot. Lots 5, 6, and 7 would each have 10 condominium units with a maximum wastewater flow of 2,500 gpd per lot. Stormwater retention and treatment would be provided by a combination of five (5) on-site retention ponds, swales, roadside gutters, storm sewers and manholes.

In conformance with the approved Quarry PUD Site Plan, Lot A may be used for open space, residential and commercial development, and Lot B may be used for a combination of commercial and residential (multi-family, on second and subsequent stories). Under this COSA application, the Applicant proposes to construct drainfields and retention ponds on both Lot A and Lot B, but no commercial structures or living units. Lot A and open space lot OS-1 are exempt from review under the Sanitation Act pursuant to 76-4-103, Montana Code Annotated, (MCA) as both are greater than 20-acres.

**Name of Project:** Residential Subdivision #1 at the Quarry

**Applicant:** Big Sky Rock, LLC

**Location of Project:** Section 5, Township 07S, Range 04E, Tract 2 of COS

**City/Town:** Big Sky, MT

**County:** Gallatin

**Project Number:** EQ#19-1768

**Purpose and Need:**

The need for Department approval, prior to construction, is prescribed by the Certificate of Subdivision Approval (COSA) review process under the Sanitation in Subdivisions laws in Title 76, chapter 4 of MCA. The Applicant is seeking a COSA from the Department for Residential Subdivision #1 at the Quarry. This Environmental Assessment (EA) has been prepared as required by the Montana Environmental Policy Act (MEPA) to disclose potential impacts from a state action granting the COSA approval for the Project.

**Description of Proposed Project:**

The proposed Residential Subdivision #1 at The Quarry, PUD (“the Project”) is a proposed residential subdivision located near Big Sky, Montana, consisting of eight (8) condominium lots. The Applicant has applied to the Department of Environmental Quality (Department) for a Certificate of Subdivision Approval (COSA) for the Project. The facilities under review by the Department consist of the water, wastewater, and stormwater facilities associated with the development as depicted in Figures 1 & 2.

Water services would be provided by connection to the existing Lazy J Utility Association facilities. Each of the proposed eight lots would have their own wastewater treatment provided by a Level II wastewater treatment facility and drainfield. -. A Level II subsurface facility is a standard septic system with an added treatment for additional nitrogen removal. The units are capable of discharging at or below the nonsignificance criteria of 7.5 mg/l nitrogen in 75-5-301 (5)(d), Montana Code Annotated.

Lots 1, 2, 3,4, and 8 would each have 12 condominium units with a maximum wastewater flow of 3,000 gallons per day (gpd) per lot. Lots 5, 6, and 7 would each have 10 condominium units with a maximum wastewater flow of 2,500 gpd per lot. Stormwater retention and treatment would be provided by a combination of five (5) on-site retention ponds, swales, roadside gutters, storm sewers and manholes.

In conformance with the approved Quarry PUD Site Plan, Lot A may be used for open space, residential and commercial development, and Lot B may be used for a combination of commercial and residential (multi-family, on second and subsequent stories). Under this COSA application, it is proposed to have drainfields and retention ponds located on both Lot A and Lot B, but no commercial structures or living units. Lot A and open space lot OS-1 are exempt from review under the Sanitation Act pursuant to 76-4-103, Montana Code Annotated, (MCA) as both are greater than 20-acres.

The project is located in Section 5, Township 07S, Range 04E, Tract 2 of COS 2450 in Big Sky, Montana (Property) within the Quarry Planned Unit Development at Big Sky (PUD). The Property lies approximately 2800 feet south of the intersection of Lone Mountain Trail (MT-64) and Highway 191, and approximately 1200 feet west of the Gallatin River.

The Property currently contains an active Department-permitted gravel pit (Opencut Permit #3023) within the area of the Property zoned Commercial-Industrial. The permit requires reclamation of the site by 2026, though gravel operations can be reclaimed at any time, according to Department regulations.

The Applicant explains that the Gallatin County conditional use permit for the gravel pit expired in 2022 and the pit may now be reclaimed and developed through development of the commercial zone of the PUD. The applicant proposes that access to the pit would be secured through gates and development activities would be contained within the residential zone to the west and south of the pit.

**Applicable Regulations Related to This Design Application:**

- Montana Code Annotated (MCA)
- Department Design Circulars:
  - DEQ-1, 2018 Edition, Standards for Small Water Systems
  - DEQ-4, 2013 Edition, Montana Standards for Subsurface Wastewater Treatment Systems
  - DEQ-8, 2017 Edition, Montana Standards for Subdivision Storm Water Drainage
- Department General Permit for Storm Water Discharges Associated with Construction Activity (SWC) and associated Stormwater Pollution Prevention Plan (SWPPP)
- County-approved Quarry PUD

**Figure 1 – General Proposed Subdivision Site Location**





## Affected Environment & Impacts of the Proposed Action

[Y] = Impacts may occur.

[N] = Not present or No significant impact expected.

| <b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>   |  |
|--|--|
| RESOURCE   | [Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES  |
| <p>1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?</p>             | <p>[N] No significant impacts to geology and soil quality, stability or moisture are expected.</p> <p>The soil type potentially impacted by the Project is Philipsburg-Libeg complex which is loam, gravelly clay loam, loamy alluvium and gravelly sandy clay loam. (NRCS, Nov 2022) The Project would not impact geology resources as the depth of construction and installation would not impact geology. No fragile, erosive, unstable, or soils susceptible to compaction are present. The applicant engaged Rawhide Engineering, Inc. (Rawhide) to conduct the preliminary geotechnical investigation for the property and conducted onsite investigations in August of 2018. Rawhide evaluated the subsurface conditions of the property for the proposed residential and commercial development contained within the PUD Site Plan. Rawhide performed 11 exploratory test pits based on proposed development locations and reviewed additional information from test pits that were previously done on the property. Samples were taken from bulk samples from the test pits, and moisture content and soil classification tests were performed.</p> |
| <p>2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?</p> | <p>[N] No significant impacts to water quality, quantity or distribution are expected.</p> <p>Area data indicates groundwater levels are around 30 to 60 feet below existing ground.</p> <p>The Project is located within an area that has a FEMA FIRM Map, and a recognized completed flood study for the Gallatin River. In addition, no part of the Project would be located within the Michener Creek Drainage. Therefore, a flood hazard evaluation is not warranted. The Project is not proposed to be located in any wetlands (Montana Wetland and Riparian Framework Layer) and the Storm Water Pollution Prevention Plan (SWPPP) mitigations would minimize any sediment and erosion related impacts to surface water during construction. The Project meets all water quality standards, including the nondegradation requirements.</p>  |

| <b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b> |  |
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| RESOURCE                                   | [Y/N] POTENTIAL IMPACTS AND<br>MITIGATION MEASURES   |
|  | <p>A Wetland and Waterway Delineation Report was completed for the property by Power Engineers, Inc. on September 13, 2018, in accordance with the US Army Corps of Engineers (USACE) Wetlands Delineation Manual. The focus of the study was the approximate 126-acre development area for the property. A routine wetland survey was also completed for this same area. A total of two wetlands (1.32 acres) and one stream (0.39 acre, 2,978 linear feet) were identified and delineated within the development area. To buffer the impacts from the Project, the wetland and the riparian area of Michener Creek are contained within the 29.7 acre dedicated open space (O-S 1) and all infrastructure and improvements for the Project are located outside of the 150-foot setback as required by Section 6(A)(5)(a) of the USACE Regulations.</p> <p>The Applicant proposes a wastewater disposal system using SepticNet treatment systems as required in the Gallatin County Platting and Planning PUD approval. As a requirement of the Platting and Planning PUD approval, the Applicant will monitor the effluent at the end of pipe of each individual septic system for flow rate, Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), Nitrate and Nitrite as N, Total Kjeldahl Nitrogen (TKN) as N, total Phosphorus, and Ammonia. The Applicant will also monitor the groundwater discharge at the east property line for Chlorine, E Coli, Nitrate and Nitrate as N, TKN as N, total Nitrogen as N, specific conductivity, and static water level annually.</p> <p>As part of the Platting and Planning PUD approval, the Applicant must submit a complete design to the Department for review and approval. In addition to the effluent monitoring requirements of the Platting and Planning PUD approval, the Department's COSA would require annual sampling in accordance with the Administrative Rules of Montana (ARM) 17.30.718(8)(b) for the life of the system for the following parameters: nitrate; nitrite, ammonia, TKN, BOD, TSS, fecal coliform, specific conductance and temperature.</p> |

| <b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>  |   |
|---|---|
| RESOURCE  | [Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES   |
| 3. AIR QUALITY: Will pollutants or particulates be produced? Is the project influenced by air quality regulations or zones (Class I airshed)? | <p>[N] No significant adverse impacts to air quality are expected as a result of the Subdivision.</p> <p>During construction, the SWPPP and associated best management practices would minimize dust and soils tracking outside the proposed development area.</p>  |
| 4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present? | <p>[N] No significant adverse impacts to vegetative communities are expected as a result of the Project.</p> <p>Vegetation across the site includes forest land (a mix of conifers), rangeland (sagebrush), and grassland. The Applicant intends to preserve steeper slopes and natural vegetation as a critical part of development. The Applicant states that new landscaping introduced as part of condominium development would include only native plant materials.</p>  |
| 5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?               | <p>[N] No significant impacts to terrestrial, avian and aquatic habitats are expected.</p> <p>A Wildlife Study was completed by Power Engineers, Inc. and listed the wildlife species that may occupy the project area as, "generalist species that are habituated to human disturbance ... chipmunks ... northern racoon, striped skunk and red fox." The Wildlife Study also identified certain migratory birds that may frequent developed areas such as northern chickadee, yellow warbler, and western meadowlark. Ungulate species that may occupy the project area include elk, bighorn sheep, moose and mule deer.</p> <p>The existing wildlife habitat has diminished value due to the existing use of the property as a gravel pit. By keeping developed lots closer to U.S. Hwy 191 and within existing developed areas, maintaining 105.44 acres of open space (protecting Michener Creek, its riparian corridor, and the ponded impoundment), and implementing additional avoidance and minimization measures, impacts to wildlife from the Project are anticipated to be minimal.</p> |

| <b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>   |   |
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| RESOURCE   | [Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES   |
| <p>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?</p> | <p>[N] No significant impacts to unique, endangered, fragile or limited environmental resources are expected.</p> <p>A review of the United States Fish and Wildlife Service Information for Planning Consultation report for the project area which included a one-mile buffer, identified Canada lynx, grizzly bear, and the North American wolverine as having potential to occur on and in the general vicinity of the property. The Wildlife Study found that the project area does not include critical habitat for the Canada lynx and that documented occurrences of species within the project area were not identified through the Montana Natural Heritage Program data search.</p> <p>A Wetland and Waterway Delineation Report was completed for the property by Power Engineers, Inc. on September 13, 2018, in accordance with the USACE Wetlands Delineation Manual. The focus of the study was the approximate 126-acre development area for the Property (Project Area). A routine wetland survey was completed for the Project Area. A total of two wetlands (1.32 acres) and one stream (0.39 acre, 2,978 linear feet) were identified and delineated within the Project Area. To buffer the impacts from the Project, the wetland and the riparian area of Michener Creek are contained within the 29.7 acre dedicated open space (O-S 1) and all infrastructure and improvements for the Project are located outside of the 150-foot setback as required by Section 6(A)(5)(a) of the USACE Regulations.</p> <p>The Applicant also worked closely with the Montana Fish, Wildlife &amp; Parks during the PUD process and adopted covenants to address the protection of wildlife.</p> <p>The Project is in an area that has already undergone disturbance and development. No new adverse impacts are expected.</p> |

| <b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>  |   |
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| RESOURCE  | [Y/N] POTENTIAL IMPACTS AND<br>MITIGATION MEASURES  |
| <p>7. SAGE GROUSE EXECUTIVE ORDER: Is the project proposed in core, general or connectivity sage grouse habitat, as designated by the Sage Grouse Habitat Conservation Program (Program) at: <a href="http://dnrc.mt.gov/divisions/cardd/sage-grouse">http://dnrc.mt.gov/divisions/cardd/sage-grouse</a>? If yes, did the applicant attach documentation from the Program showing compliance with Executive Order 12-2015 and the Program's recommendations? If so, attach the documentation to the EA and address the Program's recommendations in the permit. If project is in core, general or connectivity habitat and the applicant did not document consultation with the Program, refer the applicant to the Sage Grouse Habitat Conservation Program.</p> | <p>[N] No significant impacts to sage grouse habitat are expected.</p> <p>The Department has verified that the Project is not within core, general, or connectivity sage grouse habitat.</p>  |
| <p>8. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological, or paleontological resources present?</p>  | <p>[N] No significant impacts to historical and archaeological sites are expected.</p> <p>The Applicant engaged Metcalf Archaeological Consultants, Inc. to complete the cultural resources inventory for the entirety of the property. In summary, the inventory resulted in documentation of three cultural resources, including a historic prospect pit, a historic earthen ditch, and a historic log cabin. However, none are recommended for eligibility for listing on the National Register of Historic Places, and no further archaeological work is recommended for the Project as defined at the time of the survey (and the defined project scope has not changed since the time of the survey).</p> |

| <b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>   |  |
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| RESOURCE   | [Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES  |
| <p>9. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?</p>  | <p>[N] No significant impacts to aesthetics are expected.</p> <p>The Project is proposed to be located on a prominent bluff above US 191. During construction, the visual impacts would be minimal and occur only during one construction season. During operation, the Project would not be visible as the majority of the Proposed Action is underground except for the stormwater ponds. The stormwater ponds could have visual impacts, but impacts should be minimal to viewers. The Project visual impacts were determined using the Hillside and Ridgeline development regulations of the Gallatin Canyon/Big Sky Zoning Regulation. Local approval of the Quarry PUD required certain conditions be met to minimize any such impacts.</p> <p>The Quarry PUD application addressed compliance with the Hillside and Ridgeline development regulations through Design Standards, Covenants and Landscape requirements. Compliance with the zoning and PUD documents would be assured by the Land Use Permit process.</p> |
| <p>10. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Will new or upgraded powerline or other energy source be needed)</p> | <p>[N] No significant impacts to environmental resources are expected.</p> <p>All utilities would be located underground. None of these resources are limited in the area, no other nearby activities would affect the Project, and no new or upgraded energy source would be needed.</p>  |
| <p>11. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?</p>   | <p>[N] No significant impacts to other environmental resources are expected.</p> <p>At present, there are no other nearby activities that would affect the Project.</p>  |

| <b>IMPACTS ON THE HUMAN ENVIRONMENT</b>   |  |
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| RESOURCE  | [Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES  |
| 12. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?                                | <p>[N] No significant impacts to human health and safety are expected.</p> <p>Water for the Project is supplied from the Lazy J Utility Association. Per the Platting and Planning PUD approval, the Applicant must monitor the effluent at the end of pipe of each individual septic system line for flow rate, BOD, TSS, Nitrate and Nitrate as N, TKN as N, total Phosphorus, Ammonia, and monitor the groundwater discharge at the east property line for Chlorine, E Coli, Nitrate and Nitrate as N, TKN as N, total Nitrogen as N, specific conductivity, and static water level annually. In addition to the effluent monitoring requirements of the Platting and Planning PUD approval, the Department's COSA would require annual sampling in accordance with ARM 17.30.718(8)(b) for the life of the system for the following parameters: nitrate; nitrite, ammonia, TKN, BOD, TSS, fecal coliform, specific conductance and temperature.</p> <p>In accordance with the Platting and Planning PUD approval, the Applicant must connect to the Gallatin Canyon Water &amp; Sewer District once it is constructed.</p> |
| 13. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities? | <p>[N] No significant impacts to industrial, commercial and agricultural activities and production are expected.</p> <p>The property does not contain active agricultural land. By developing a subdivision within non-agricultural land, the Project does not alter agricultural use on other lands within the Gallatin Canyon. Development of an existing industrial/commercial site potentially preserves other lands that are being used for agriculture. The Project would be located on an existing industrial/commercial site whose conditional use permit expired in 2022. The Project would not significantly impact or alter activities on these already commercial areas.</p>   |
| 14. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.    | <p>[Y] Permanent job creation or elimination is not expected, and new jobs created would likely be short term during construction. During operations, the Project could create one part-time job for monitoring and maintenance by a certified operator for the wastewater treatment system.</p>   |

| <b>IMPACTS ON THE HUMAN ENVIRONMENT</b>  |  |
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| RESOURCE   | [Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES  |
| 15. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?   | [Y] The Project could create an increase in tax revenue. The Project is basic infrastructure and would be subject to taxes.  |
| 16. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?                                   | [N] No significant impacts to the demand for governmental services are expected.<br><br>The Proposed Project is septic tanks, associated pipelines, drainfields, and stormwater ponds. These features do not create long term traffic or impact other governmental services.<br><br>No new demands for government services are expected. |
| 17. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?  | [N] No significant impacts to locally adopted environmental plans and goals are expected.<br><br>The Applicant is already required to comply with all applicable federal, state, county, and other local requirements related to zoning, authorizations, permits, and approvals.   |
| 18. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract? | [N] No wilderness or recreational areas would be impacted during construction or operation.  |
| 19. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?   | [N] No significant impacts to population or housing are expected.<br><br>The Project would provide a method for the safe disposal of effluent or stormwater. There would be no addition to population or housing for effluent disposal or stormwater handling.   |
| 20. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?   | [N] No significant impacts to social structures and mores are expected.<br><br>The Applicant engaged Metcalf Archaeology to conduct a cultural resource inventory report for the property and determined that there are no important historic sites or structures on the property.   |

| <b>IMPACTS ON THE HUMAN ENVIRONMENT</b>  |  |
|--|--|
| RESOURCE   | [Y/N] POTENTIAL IMPACTS AND<br>MITIGATION MEASURES   |
| 21. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?   | [N] No significant impacts to cultural uniqueness or diversity are expected.<br><br>Significant new impacts are not expected. See above. |
| 22. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:   | [N] No impacts to other social and economic circumstances are expected.  |
| 23(a). PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.   | [N] No impacts to private property are expected.   |
| 23(b). PRIVATE PROPERTY IMPACTS: Is the agency proposing to deny the application or condition the approval in a way that restricts the use of the regulated person's private property? If not, no further analysis is required.  | [N/A]  |
| 23(c). PRIVATE PROPERTY IMPACTS: If the answer to 23(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions. | [N/A]  |

**Description of and Potential Impacts of Other Alternatives Considered:**

No Action: The Department can deny issuance of a subdivision approval until all deficiencies identified are resolved. If the Project meets the requirements under 76-4, Montana Code Annotated and the rules promulgated thereunder, the Department does not have the authority to withhold approval from the Applicant.

**Summary of Magnitude and Significance of Potential Impacts:**

The Project consists of water, sewer, and stormwater facilities on approximately 26.9 acres within a 168.1-acre plat. Two lots within the plat, totaling 141.2 acres, are exempt from review under the Sanitation in Subdivision Act (76-4, MCA), as each is greater than 20-acres (Lot A is 113.9-acres and Lot OS-1 is 27.3 acres). The full 175.11-acre subdivision was previously approved through Gallatin County's PUD process. Runoff from the site would be regulated by the conditions of the COSA and would be managed accordingly.

The Department has determined that the groundwater discharge from the proposed wastewater treatment system would result in nonsignificant changes in water quality, in accordance with 75-5-301 (5)(d), Montana Code Annotated. The Department has therefore determined that there are no significant adverse impacts to the physical or human environment associated with the Project.

Impacts were assessed with the assumption that the facility will comply with the terms and conditions of the approval. Violations of the approval could lead to significant adverse impacts to state waters. Violations of the approval would not be an effect of the agency action since the authorization itself forbids such activities. If violations of the approval do occur, the Department will take appropriate action under State Laws.

**Cumulative Effects:**

Under § 75-1-208(11), an agency shall, when appropriate, evaluate the cumulative impacts of a proposed project. Related future actions may only be considered when these actions are under concurrent consideration by any agency through preimpact statement studies, separate impact statement evaluations, or permit processing procedures. Here, the entire Quarry project has previously obtained zoning, planning, and platting approvals for its Planned Unit Development from Gallatin County. As required by the Gallatin County PUD approval, which includes the future phases, the Applicant proposes using SepticNet technology to treat wastewater to the Montana groundwater nonsignificance criteria of 7.5 mg/L. The wastewater contributions from all phases were considered at the PUD public hearing before Gallatin County. That information showed a net computed nitrate change in the Gallatin River—when considering the trigger analysis by assuming all the treated effluent from the entire PUD entered the Gallatin River—was nonsignificant. Accordingly, the Department does not anticipate significant cumulative nitrate impacts from future phases of the subdivision.

The Department notes, however, that there are no applications for future phases pending before the Department, and no future phases can occur without review and approval by the Department for the facilities for water, wastewater, and stormwater. To obtain such approvals in the future, the Applicant will have to comply with all applicable statutory and regulatory requirements.

With regard to consideration of the cumulative impacts in groundwater for purposes of the Department's nonsignificance determination under the Water Quality Act, discharges from a septic system using Level 2 treatment with a nitrate concentration of 7.5 mg/L at the end of a mixing zone are

nonsignificant under ARM 17.30.715(1)(d)(iii). The SepticNet treatment system proposed for the subdivision has been approved by the Department as a Level 2 treatment system that discharges a nitrate concentration at or below 7.5 mg/L. With the discharge concentration of the proposed wastewater systems at or below the significance limit, an evaluation of the cumulative impacts of the SepticNet systems to nitrate concentrations in groundwater could not mathematically exceed the concentration identified as significant degradation.

That water is hydrologically connected does not necessarily mean that a discharge will cause degradation, as pollutants will diffuse, dilute, and attenuate as they travel through groundwater. The Department has developed a guidance manual titled “How to Perform a Nondegradation Analysis for Subsurface Wastewater Treatment Systems (SWTS) Under the Subdivision Review Process—October 2015” (“Nondegradation Guidance”) that outlines the requirements for consideration of a facility’s impacts to surface water based on site-specific soil textures and the distance to the nearest downgradient receiving high-quality surface water. The threshold distances in the Nondegradation Guidance provide a conservative classification criterion based on these considerations. Here, based on the proposed drainfield location more than ¼ mile from the closest downgradient high-quality surface water and site-specific soil characteristics, an analysis of the individual, aggregate, or cumulative impacts to surface water was not necessary pursuant to Chapter 5 of the Nondegradation Guidance.

Importantly, as described in section 5 of the Nondegradation Guidance, existing phases of a common development (such as phases of the Quarry) are considered cumulatively in conjunction with applications for any future phases submitted to the Department during the Department’s nondegradation review.

**Preferred Action Alternative and Rationale:**

The preferred action is to approve the COSA as submitted by the Applicant. This action is preferred because the COSA approval provides a regulatory mechanism for protecting water quality by analyzing the project against the nonsignificance criteria in 75-5-301, MCA.

This action is consistent with ongoing efforts by the Department, Gallatin County, and local watershed groups to reduce nonpoint source nitrogen loads in the Big Sky area. These strategies are summarized in the Big Sky Nutrient Assessment (WGM, 2020). This document identifies four recommended mitigation actions to support surface water quality in the Gallatin River:

Mitigation 1: Promote centralized treatment in the Canyon Area, reducing current load and the impact of future developments in the Canyon.

Mitigation 2: Advocate for on-site system maintenance

Mitigation 3: Advocate for Level II treatment in new construction.

Mitigation 4: Fund effluent testing and system support for permitted systems to promote good maintenance, especially for community scale systems.

The Department’s action to provide this authorization is consistent with these recommended mitigations. Additionally, while there is no total maximum daily load (TMDL) document for the Gallatin River south of Gallatin Gateway, the Department’s action is consistent with its recommendations for nonpoint source reductions in other watersheds that have nutrient-impaired streams (e.g., the lower Gallatin River watershed and the Lake Helena watershed).

The EA has identified no significant impacts resulting from this Project.

**Recommendation for Further Environmental Analysis:**

EIS

More Detailed EA

No Further Analysis

Rationale for Recommendation: An EIS is not required under the Montana Environmental Policy Act (MEPA) because the Project lacks significant adverse effects, or adequately addresses such effects, to the human and physical environment as noted above.

**Public Involvement:**

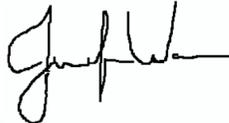
Extensive public comment was provided to the Gallatin County Commission prior to the approval of the Quarry PUD. The Department has determined that, due to public interest in the project among other factors, an additional public comment period is required to inform decision-making on the COSA.

**EA Prepared and Reviewed By:**

Chris Wasia (Genisis Engineering, Inc) - writer  
Jenny Warren (Department) – reviewer  
Eric Regensburger (Department) – reviewer  
Craig Jones (Department) – reviewer  
Aaron Pettis (Department) - reviewer

**EA Approved for the Montana Department of Environmental Quality By:**

**Approved By:**



\_\_\_\_\_  
Jenny Warren, P.E.  
DEQ Engineering Bureau

2-16-23

\_\_\_\_\_  
Date

**Approved By:**



\_\_\_\_\_  
Rachel Clark, Chief  
DEQ Engineering Bureau

2-16-23

\_\_\_\_\_  
Date

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# NONSIGNIFICANCE DETERMINATION



## Memo

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TO: Jenny Warren  
FROM: Eric Regensburger  
DATE: 12/3/22  
SUBJECT: The Residential Subdivision at the Quarry #1 (EQ#21-2020)

The Department has completed its determination of significance for this project based on the information received by the Department on May 26, 2022. This determination is made pursuant to the Administrative Rules of Montana (ARM) 17.30.701-718 and 17.30.501-518. The application for determination of non-significance is approved.

This approval is based on the location, dimensions and orientations of the 8 primary and replacement areas as shown in Figures LL-1, LL-2 and Trig-1 submitted on November 16, 2022. The wastewater treatment for each system is a level 2 system, Setpic Net. Each drainfield and the number of single family equivalents that each one will serve is listed below. Additional details for this nonsignificance determination is provided in the included nondegradation checklist.

| <u>DRAINFIELD #</u> | <u># SINGLE FAMILY EQUIVALENTS</u> |
|---------------------|------------------------------------|
| 1                   | 12                                 |
| 2                   | 12                                 |
| 3                   | 12                                 |
| 4                   | 12                                 |
| 5                   | 10                                 |
| 6                   | 10                                 |
| 7                   | 10                                 |
| 8                   | 12                                 |

**SUBDIVISION SIGNIFICANCE DETERMINATION CHECKLIST  
MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ)**

Subdivision Name The Residential Subdivision at the Quarry #1

EQ Number #21-2020 Date Reviewed December 3, 2022

Reviewer Eric Regensburger 2nd Reviewer \_\_\_\_\_

Determination: Significant XX Non-Significant Incomplete rev. 01/2000

| Part I: Applicability & Exclusions  | YES/<br>NO | Notes & Basis for decision  |
|---|------------|---|
| <p><i>ARM 17.30.701(1) &amp; 75-5-103(9), MCA</i><br/> <b>1. Are any high quality waters affected? (Include downstream and downgradient)</b><br/> <b>If NO, the nondegradation requirements are not applicable.</b></p>                     | YES        |   |
| <p><i>ARM 17.30.702(16) &amp; 17.30.705(1)</i><br/> <b>2. New or increased source of pollutants?</b><br/> <b>If NO, the nondegradation requirements are not applicable.</b></p>   | YES        |   |
| <p><b>3. Activity categorically excluded under ARM 17.30.716 or 75-5-317, MCA?</b><br/> <b>If YES, the Activity is Non-Significant.</b></p>   | NO         |   |
| <p><b>4. Non-Significant under ARM 17.30.715(3)?</b><br/>                     (Public Notice Required)<br/> <b>If YES, the Activity is Non-Significant.</b></p>   | NO         |   |
| <p><i>ARM 17.30 sub-chapter 5</i><br/> <b>5. Is this determination contingent upon granting a mixing zone?</b><br/> <b>If YES, determine if a mixing zone can be granted before going on to Part II. If NO, continue on to Part II.</b></p> | NO         | Wastewater treatment systems used are SepticNet systems that treat nitrogen to 7.5 mg/L, which is the nondegradation groundwater limit. Therefore, groundwater mixing zones are not required although a well setback envelope is required per the Septic Net level 2 approval. The well setback envelope is the same size and shape as a 500 foot standard groundwater mixing zone. Those setbacks are shown on figure LL-1 (dated 11/15/22) and confirms there are no existing/approved wells within 100 feet of the well setback envelope |
| Part II: Significance Determination   | YES/<br>NO | Notes & Basis for decision  |
| <p><i>ARM 17.30.715(1)(a)</i><br/> <b>6. Change in mean monthly flow of the surface water &gt; 15%, or change in 7Q10 flow &gt; 10%.</b></p>  | NO         |   |
| <p><i>ARM 17.30.715(1)(b)</i><br/> <b>7. Concentration of carcinogen or parameter with BCF &gt; 300 in discharge greater than receiving water.</b></p>  | NO         |   |

| Part II: Significance Determination | YES/<br>NO | Notes & Basis for decision |
|-------------------------------------|------------|----------------------------|
|-------------------------------------|------------|----------------------------|

|  |           |  |
|--|-----------|--|
| <p><i>ARM 17.30.715(1)(c)</i><br/> <b>8.</b> Increase in toxics or nutrients &gt; trigger value and concentration after mixing &gt; 15% of lowest applicable standard. For nutrients, if the answer is YES, the criteria in question #10 must also be exceeded for the activity to be significant.</p> | <p>NO</p> | <p>Based on measured groundwater flow from at least 3 of the onsite groundwater measuring points (11, 12, B, C and 6) on 15 different dates between 5/7/19 and 9/7/22, the range of groundwater flow direction is N37.3E to N42.4E. Using that range of groundwater flow and the 5 degree dispersion angle used for standard ground water mixing zones (ARM 17.30.517) provided a range of direction for the effluent plumes from each primary and replacement drainfield from N32.3E to N47.4E.</p> <p>Using that range of the effluent plumes (N32.3E and N47.4E), each drainfield is over ¼ mile from the nearest downgradient surface waters (which are unnamed ponds and the Gallatin River). Based on the soil types and corresponding application rate for each drainfield, the drainfields for this project did not have to address trigger value to surface water (the unnamed ponds or the Gallatin River) if they were at least ¼ mile upgradient of the those surface waters per section 5.0 of the nondegradation guideline (2015). This analysis used the drainfield location and dimensions submitted on Figures: LL-1, LL-2 and Trig-1, that were submitted on 11/16/22.</p> |
| <p><i>ARM 17.30.715(1)(f)</i><br/> <b>9.</b> Increase of a harmful parameter &gt; 10% of applicable standard and existing water quality &gt; 40% of applicable standard.</p>   | <p>NO</p> |  |
| <p><i>ARM 17.30.715(1)(g)</i><br/> <b>10.</b> Measurable effect on a beneficial use or measurable changes in aquatic life or ecological integrity from a narrative parameter.</p>  | <p>NO</p> |  |
| <p><b>11.</b> Increase in nitrate-nitrogen in groundwater at a mixing zone boundary exceeds that allowed in ARM 17.30.715(1)(d).</p>   | <p>NO</p> |  |
| <p><i>ARM 17.30.715(1)(e)</i><br/> <b>12.</b> Increases in phosphorus in groundwater where adsorptive capacity of soils will be exceeded within 50 years and will reach surface water, or the activity does not employ department approved water quality protection practices.</p>                     | <p>NO</p> | <p>The phosphorus breakthrough calculations to surface waters, including cumulative effects, were calculated and all are several hundreds of years. This analysis used the drainfield location and dimensions submitted on Figures: LL-1, LL-2 and Trig-1, that were submitted on 11/16/22. The depth to limiting layer in the calculations was based on the measured groundwater levels which were relatively consistent over the three years and 15 measurement dates.</p>   |
| <p><b>13.</b> Significant under ARM 17.30.715(2)?</p>  | <p>NO</p> |  |
| <p><b>If any answer to Questions #6 through #13 is YES, the Activity is Significant (except for question #8 as applied to nutrients).</b></p>  |           |  |

## COMMENT SUMMARY & RESPONSES

Comment #1: The Department's reliance on several unscientific categorical exemptions to excuse otherwise mandatory and probing reviews of water pollution impacts compounded its flawed MEPA and MWQA review processes.

Response #1: The Department did not use any categorical exemptions in the review and non-significance determination of water quality impacts to groundwater or surface water from the proposed wastewater discharges.

Comment #2: The EA fails to evaluate the potential direct or cumulative impacts of authorizing new nutrient pollutant loads on the Gallatin River and fails to assure those loads will not individually, in the aggregate, or synergistically in combination with other pollution sources, contribute to unlawful degradation. Without such analyses DEQ's proposed nonsignificance finding was arbitrary, capricious, and violates the MWQA.

Response #2: The Department has updated the Cumulative Effects Section of the Final EA in response to comments.

Comment #3: The EA fails to identify or evaluate the potential significance of adding more septic systems in the Canyon Area aside from the conclusory statement that effluent concentrations of < 7.5 mg/L TN at the mixing zone are presumed nonsignificant. However, the EA provides no mass nutrient loading analysis at the watershed scale to provide assimilative capacity and corroborate the proposed nonsignificance finding.

Response #3: The Department performed analysis in accordance with adopted laws, rules, and guidance to determine the potential impacts to high quality waters of the state. The potential impacts to were found to be nonsignificant. See Response #2.

Comment #4: 12-A's numeric nutrient criteria is the relevant criteria for benchmarking and qualifying nutrient concentrations in both surface water and hydrologically connected groundwater that flows downgradient to surface water in the Canyon area as consistently elevated nutrient levels indicate a high likelihood of negative effects in surface waters, such as algal blooms, and therefore violations of water quality standards.

Response #4: Where the standards in DEQ Circular 12-A are applicable, they may be used to assess the quality of surface water. DEQ is currently reviewing and responding to comments from the public on a draft Water Quality Assessment for the Gallatin River, from the Yellowstone National Park Boundary to Spanish Creek, Montana ("the middle segment of the Gallatin River"). In its assessment of the middle segment of the Gallatin River, DEQ compared nutrient monitoring data to DEQ -12A standards according to DEQ's assessment methods. In general, DEQ found that Total Nitrogen and Total Phosphorus levels were low during algal blooms. DEQ is continuing to study algae and casual conditions, including Total Nitrogen and Total Phosphorus levels, to determine all factors that may influence excess algae in the middle segment of the Gallatin River. DEQ has not yet conducted a nutrient source assessment for the middle segment of the Gallatin River.

Comment #5: The EA also fails to evaluate the bacteria/e.coli/fecal coliform efficacy of Septic Net systems, an important criteria given already compromised water quality in downgradient drinking water

supplies. These findings – the propensity of septic systems discharging pollutants to groundwater to negatively affect nearby drinking water supplies and surface water – are corroborated by expert science throughout the Pacific Northwest, not just the Upper Gallatin.

Response #5: Septic system construction and siting requirements in Circular DEQ-4 are specifically designed to treat and remove the bacteria described to protect drinking water and surface water supplies. The 500-foot-long setback envelope to any water wells required for each drainfield provides further protection of groundwater supplies from bacteria.

The comment's reference to septic system's "propensity" to impact drinking water supplies and surface water is a very broad generalization. The Montana Water Quality Act prohibits unauthorized degradation to high-quality waters of the state, which excludes actions that are determined to be non-significant (see MCA 75-5-301). The Department used site-specific information to review the proposed wastewater treatment system's ability to meet applicable standards and rules established to protect drinking water supplies and ensure compliance with the State's Nondegradation Policy.

The nondegradation analysis for this project, performed in accordance with department-adopted laws, rules and guidance, determined that the proposed activities will result in a change to groundwater quality that will be nonsignificant.

Comment #6: Below we also share a graph pulling recent water quality monitoring results from the MBMG GWIC public database for three (3) wells located proximate to the proposed Quarry Project, all of which demonstrate high nitrate concentrations relative to background conditions in local Canyon groundwater. Research of these and other nearby groundwater wells indicates those nitrate concentration trends (above natural background and trending significantly higher towards the 10 mg/L MCL) remain high, particularly during seasonal low groundwater flow.

Response #6: At a total nitrogen discharge concentration of 7.5 mg/L (equal to the groundwater nondegradation limit) and subsequent dilution with groundwater within the 500-foot-long setback envelope required for each drainfield, there is no potential for the discharge to cause any downgradient waters to exceed the groundwater water quality standards for nitrogen.

Comment #7: Last, we remind DEQ that the MBMG is concluding a multi-year study of nutrient loading and fate and transport in Big Sky's Canyon Area. That investigation will produce a report examining many of the key assumptions underpinning the EA's finding of no significance and MWQA nonsignificance finding. Before decision-making DEQ should request a pre-publication copy of that report and, as part of a more robust and complete analysis of the Quarry Project and new public participation opportunity, examine its findings and re-evaluate the conclusions of its EA.

Response #7: The department cannot delay the review of an application to wait for an external study to be completed (76-4-114(3), MCA), and it would be inappropriate to rely on preliminary information.

Comment #8: DEQ has authority and the legal duty to control all point source contributions of nutrients causing or contributing to degradation, including the proposed Quarry Project's new wastewater pollution discharges at issue here. Best available science corroborates the hydrologic reality that groundwater and surface water in the Gallatin Canyon Area as inextricably tied together as one system.

Response #8: See Responses #2 and 4. Groundwater discharges are not point sources.

Comment #9: DEQ failed to consider the totality of septic system nutrient pollution loads from the Quarry Project writ large (e.g., only considering phase 1 of the Quarry Project). In doing so the agency failed to consider the project's phases in relation to other actions, including other phases of development, and failed to evaluate the concept of individually insignificant but potentially cumulatively significant impacts. DEQ specifically failed to evaluate The Quarry Project's significance in light of whether it is reasonable to anticipate a cumulatively significant impact on the Gallatin River. In short, DEQ's process of segmenting the project into phases avoids a valid significance evaluation (e.g., breaking the project down into smaller component parts).

Response #9: The Department did not segment its analysis. The Department has updated the Cumulative Effects section of the final EA in response to comments.

Comment #10: DEQ's EA fails to meaningfully evaluate the severity, duration, or frequency of authorizing new nutrient pollutant loading to the Gallatin River.

Response #10: The evaluation of wastewater impacts did evaluate severity, duration and frequency. The evaluation utilized the maximum allowable concentrations in the discharge, at the full capacity of the proposed development for every day after the application is approved in perpetuity.

Comment #11: The EA fails to meaningfully identify or reconcile the high-quality water resources of the middle segment Gallatin River, the River's sensitivity to anthropogenic nutrient loading, or evaluate the project in context of the watershed's valuable ecological and social setting in the community of Big Sky.

Response #11: In its review of the application, the Department did account for the classification of local groundwater and surface water resources as "high-quality waters" as defined in 75-5-103(12), MCA. As a high-quality water, the applicable sections of the nondegradation rules (ARM 17.30.701 et. seq.) were used to review the application.

Comment #12: Moreover, several independent expert reports have studied the types and quantities of existing nutrient polluting entities in Big Sky's Canyon Area such that DEQ's failure to disclose much less evaluate these other nutrient pollution sources is an egregious oversight.

Response #12: See Response #2.

Comment #13: Judge Ohman of the 18th Judicial District recently found DEQ's evaluation of a groundwater discharge permit for Lazy J South, the neighboring property adjacent to the Quarry Project, deficient and unlawful under the MWQA based on the failure to examine cumulative impacts or synergistic effects. DEQ's proposed authorization of the Quarry Project unfortunately walks down the same path because the agency has again failed to take a hard look at potential cumulative water pollution impacts as part of its threshold MWQA determination of a project's significance and potential to degrade surface water (here, the Gallatin River). At a minimum the Big Sky Interlocal Agreement, much less any other undisclosed, proposed or pending project entailing any wastewater discharge into the same receiving Gallatin watershed, must be examined by DEQ as part of a meaningful cumulative impacts analysis.

Response #13: : Judge Ohman's Order in *Upper Missouri Waterkeeper and Montana Environmental Information Center v. Montana Department of Environmental Quality and Lazy J Utility Association, Inc.* (18th Judicial District Cause No. DV 21-756A) requires DEQ to re-assess Lazy J Utility Association's

("LJUA") Montana Ground Water Pollutant Control System (MGWPCS) Permit renewal under the criteria of ARM 17.30.715, and specifically 715(2)(a), to further consider potential cumulative impacts and DEQ's determination that LJUA's MGWPCS Permit renewal authorizes a nonsignificant impact to state high quality water under the Montana Water Quality Act. Judgment is not yet entered in the case. The Quarry Project is distinguishable because the Department is not issuing or renewing a groundwater discharge permit. See the cumulative impacts section of the final EA for a discussion of the Department's nonsignificance determination and review of cumulative impacts, in which the Department followed existing rules and established agency guidelines regarding the scope of review. With regard to the Big Sky Interlocal Agreement, the Department believes that the commenter is referring to the April 20, 2021, agreement between the Big Sky County Water and Sewer District No. 363 and the Big Sky Resort Area District. That agreement is a funding agreement between those parties concerning expansion of the Big Sky WSD facilities. That agreement does not discuss the Quarry project or provide information regarding discharges that should be considered for purposes of cumulative impacts.

Comment #14: The EA fails to consider reasonable and prudent alternatives. An alternative analysis must evaluate different parameters, mitigation measures, or control measures that would accomplish the same objectives as those included in the proposed action by the applicant. The only scenario examined by DEQ is approving the project as-proposed.

Response #14: The purpose of the Department's review with regard to this application is to review the proposed facilities to ensure that they comply with the requirements of the Sanitation in Subdivisions Act, Title 76, chapter 4, the Montana Water Quality Act, Title 75, chapter 5, and the Montana public water supply laws, Title 75, chapter 6. The Department has reviewed the proposed facilities and has determined that they comply with such requirements.

The Department would not consider an alternative environmentally worse than the proposed systems. The proposed wastewater facilities are SepticNet systems, which are approved as Level 2 systems. SepticNet systems discharge below the nonsignificance threshold and require on-going monitoring and reporting to the Department. See also the Department's Response to Comment #15 below.

The Department also notes that the application was not approved in its original form and that it was changed multiple times over multiple reviews by the Department that altered the development from the original application, including relocation of the proposed drainfields, to comply with the applicable criteria.

The commenter suggested two alternatives that the commenter believes the Department should have considered. In the first, the commenter suggested requiring better levels of wastewater treatment to satisfy end-of-pipe, applicable numeric nutrient criteria capable of protecting downgradient surface water beneficial uses. The proposed project is a private subdivision with septic systems; there is not a point source discharge and there are no "end-of-pipe" criteria.

The commenter also suggested that the Department consider a conditional approval contingent upon hook-up to centralized facilities with the Big Sky County Water and Sewer District. The Department notes first that the agency must approve an application if it complies with the relevant provisions of the Sanitation in Subdivisions Act, the Montana Water Quality Act, and the Montana public water supply laws. The Department also notes that the Department cannot grant a conditional approval within a Certificate of Subdivision Approval (COSA) for facilities that have not been reviewed and approved.

Finally, the Department notes that this proposed alternative has already been accounted for during Gallatin County's platting review, which required the Applicant to support the formation of a centralized water/sewer district for the Gallatin Canyon, to join that district when it is formed, and to install force main piping to allow connection to the district once it is constructed.

Comment #15: The Quarry Project entails new high density residential and commercial development and roughly doubling the volume of existing nutrient-laden wastewater discharges to local water resources of Big Sky's Canyon Area, relies on decentralized community septic systems built in phases, yet somehow avoids default groundwater discharge permitting review.

Response #15: All of proposed sewage systems are below the minimum design flow criteria (5,000 gallons per day) necessary for a Montana Ground Water Pollution Control System (MGWPCS) permit (ARM 17.30.1022(1)). Due to requirements of the Platting and Planning PUD approval and ARM 17.30.718, the proposed sewage systems will be required to conduct effluent monitoring of the same constituents that would be required in a groundwater discharge permit. The Platting and Planning PUD approval requires the applicant to monitor the effluent at the end of pipe of each individual septic system for flow rate, BOD, TSS, Nitrate and Nitrite as N, TKN as N, total Phosphorus, and Ammonia. In addition, the Platting and Planning PUD approval requires groundwater monitoring at the East property line (U.S. 191) for chlorine, E Coli, Nitrate and Nitrite as N, TKN as N, total Nitrogen as N, specific conductivity, and static water level annually. In addition to the effluent monitoring requirements of the Platting and Planning PUD approval, the Department's COSA would require annual sampling in accordance with ARM 17.30.718(8)(b) for the life of the system for the following parameters: nitrate; nitrite, ammonia, TKN, BOD, TSS, fecal coliform, specific conductance and temperature. The nonsignificance criteria for a permitted versus non-permitted are identical.

Comment #16: The PUD approved by Gallatin County contemplated a second phase of development, yet DEQ's analysis segments that review to a single phase. Doing so undermines the validity of the agency's consideration of impacts and significance.

Response #16: See Response #9.

Comment #17: Publicly available data regarding geology underlying the Quarry Project suggest that local groundwater is high, anywhere from 4'-10', contrary to the unsupported EA statement that groundwater is approximately 50' below surface.

Response #17: The site-specific data show that the depth to groundwater beneath the drainfield locations ranged from 30 to 66 feet below ground surface. These depths were based on site topography and measured depth to groundwater from at least 3 of the 5 onsite groundwater measuring points on 15 different dates between 5/7/19 and 9/7/22. Those dates included typical high-water and low-water months to determine the seasonal variation in groundwater flow for use in the non-significance analysis. There were 16 additional shallow groundwater monitoring sites with 11 measurements made from 5/7/19 thru 7/16/19 conducted around the drainfield areas that had no groundwater detected. Shallower depths to groundwater as mentioned in the comment may occur in other portions of the development not designated for drainfields and are not relevant to proper citing of the drainfields.

Comment #18: Further, available soils and geology information suggest that substrate receiving septic discharges from the Quarry Project are highly permeable with a strong potential to quickly transport groundwater laden with septic effluent downgradient into the Gallatin River.

Response #18: A minimum of 3 soil test pits were dug for each drainfield in the application. The soil types and application rates at the applicable test pit locations ranged from a silt clay loam (0.3 gallons per day/square feet) to a sandy loam (0.6 gallons per day/square feet). All soil types are acceptable for drainfield discharges at the appropriate application rate per department circular DEQ-4. For reference, the range of application rates in DEQ-4 (Table 2.1-1) are from 0.15 to 0.8 gallons per day/square feet.

Comment #19: DEQ cannot evaluate the Quarry Project's significance without examining the local site geology and geomorphology. The conclusion that the project's wastewater discharges are nonsignificant based on effluent concentrations at the end of a mixing zone fails to account for the aggregate loading of the project, or cumulative nutrient impacts to state waters. DEQ is without discretion to presume Quarry project discharges will not degrade surface water; wastewater discharges are only nonsignificant if they satisfy mixing zone concentrations and do not degrade surface water. MCA 75-5-301. The MWQA mandates that the Department exercise its discretion to evaluate potential cumulative impacts and synergistic effects.

Response #19: See Response #2.

Comment #20: The EA states that the department determined the project not significant based on allegedly satisfying several categorical exemptions under DEQ's rules. However, as discussed herein those categorical exemptions are either unscientific, contrary to record evidence, and/or not applicable to excuse the department from taking a hard look at water resource impacts. Only through comprehensive consideration of pending proposals with site-specific data can DEQ adequately evaluate different courses of action.

Response #20: See Response #1.

Comment #21: DEQ's rules require consideration of cumulative impacts as necessary to evaluate whether the agency must perform an EIS. Similarly, the MWQA's implementing rules explicitly requires consideration of cumulative impacts or synergistic effects before determining a proposed discharge(s) nonsignificant. See ARM 17.30.715(2).

Response #21: See the Cumulative Effects section of the Final EA and Responses #2 and #13.

Comment #22: The EA states that its nonsignificance determination and limited review is consistent with ongoing regulatory efforts to reduce nonpoint source nitrogen loads. However, this statement ignores the reality that traditional implementation of the MWQA would deem the Quarry Project's aggregate nutrient pollution discharges a new "point source" pollution discharge because they are discharges of pollutants, from discrete conveyances, into waters of the state, because they exceed the 5,000 gpd trigger volume, and because the Quarry Project is a single "project" for MEPA and MWQA purposes. The fact that the Department failed to exercise its discretion to require a discharge permit application for new pollutant discharges from the Quarry Project was arbitrary, capricious, contrary to the MWQA and an abuse of discretion.

Response #22: See Responses #2, #9, #15, and #24.

Comment #23: DEQ's reliance on project drainfields being located a ¼ mi setback or more from the Gallatin River is arbitrary and capricious. Best available science, including the applicant's own

statements, corroborate the hydrologic connectivity of local groundwater underlying the project and the Gallatin River. DEQ has provided no evidence showing why a ¼ mi setback can adequately protect the Gallatin River from degradation as required by the MWQA, particularly in light of existing science showing subsurface wastewater disposal enters local groundwater and travels towards the Gallatin River. DEQ's reliance on drainfield location as > ¼ mi from the Gallatin River as grounds for determining the project nonsignificant without further analysis was arbitrary and capricious and contrary to sound science. Furthermore, DEQ's ¼ mi setback threshold is itself arbitrary, an abuse of discretion, unscientific, and contrary to the MWQA.

Response #23: Hydrologic connectivity does not necessarily equate to degradation, and the Department's review in this case indicated that the proposed facilities would be nonsignificant. For a discussion of agency procedures, see the updated Cumulative Effects section of the final EA.

Comment #24: Recent caselaw from the United States Supreme Court suggests that wastewater discharges from the Quarry Project may be the functional equivalent of a surface water discharge and therefore require a surface water discharge permit. Further, DEQ's MEPA rules require the agency to, in determining a project's significance, evaluate potential conflict with federal law. As explained above the federal Clean Water Act may require the Quarry Project to obtain a surface water discharge permit. The EA fails to consider these salient elements before determining the project not significant under MEPA and nonsignificant under the MWQA.

Response #24: The federal Clean Water Act (CWA) applies to "waters of the U.S." which by definition include "navigable water" and not groundwater. See *County of Maui v. Hawaii Wildlife Fund*, 140 S. Ct. 1462, 1470 - 1471 (2020) (Congress intended to leave substantial responsibility for ground water to the States). There is no evidence the Quarry Project authorizes a discharge that is functionally equivalent to a direct discharge from a point source to navigable water that would require a Montana Pollutant Discharge Elimination System (MPDES) permit. The US Supreme Court ruled in *County of Maui v. Hawaii Wildlife Fund* that a ground water discharge is subject to surface water permitting if it is the "functional equivalent of a direct discharge." The Court provided several criteria that may be relevant to evaluating this equivalency: (1) transit time, (2) distance traveled, (3) the nature of the material through which the pollutant travels, (4) the extent to which the pollutant is diluted or chemically changed as it travels, (5) the amount of pollutant entering the navigable waters relative to the amount of the pollutant that leaves the point source, (6) the manner by or area in which the pollutant enters the navigable waters, and (7) the degree to which the pollution (at that point) has maintained its specific identity. The Quarry Project does not authorize a discharge to state ground water that is the functional equivalent of a point source discharge to surface water. The Quarry Project is a subdivision with several septic systems that discharge to the subsurface and eventually to state groundwater. The wastewater goes through nitrogen attenuation underneath the drainfield and at the riparian zone.

Comment #25: DEQ regulations stipulate that a development project proposing to discharge more than 5,000 gpd must automatically pursue a groundwater discharge permit. Breaking this first phase of the Quarry subdivision development into eight separate pieces to avoid more rigorous scrutiny of a groundwater discharge permitting process is arbitrary, unwarranted and runs contrary to scientific reality.

Response #25: See Response #15.

Comment #26: The evidence provided in the Draft EA and its supporting documents does NOT support the claim of non-degradation to surface waters of the Gallatin River.

Response #26: See Response #2.

Comment #27: No substantive discussion or analysis of a community sewage treatment facility for the Quarry subdivision development is provided in the Draft EA or any other supporting documents. Such a facility does not seem to have been considered. A more rigorous review and analysis of sewage treatment options is needed.

Response #27: See Response #14

Comment #28: No site-specific information relating to the thickness of the alluvium, the depth to fully lithified bedrock nor the depth of anticipated construction excavations has been provided in the Draft EA or any supporting documents.

Response #28: Wastewater drainfield sites are required to have a minimum of 4 feet of adequate soil below the laterals (ARM 17.36.320(3)). The required test pits for each drainfield at the Quarry show more than 4 feet of adequate soil beneath the laterals. The soil types and application rates ranged from a silt (0.15 gallons per day/square feet) to a sandy loam (0.6 gallons per day/square feet). All soil types are acceptable for drainfield discharges at the appropriate application rate per department circular DEQ-4. Beyond the 4-foot requirement below the drainfield laterals there is no requirement for the minimum depth to bedrock.

Comment #29: The draft EA states that a preliminary geotechnical evaluation was conducted in 2018, consisting of eleven exploratory test pits — all of them within 7 to 10 feet of the surface — as well as additional information from other test pits previously dug on the property. Raw soil classification data and moisture content test results are tabulated, but no synthesis of the data or discussion relating to potential impacts from construction activities is provided.

Response #29: See Response #28.

Comment #30: The reader is left with limited information relating to the geology and/or soils present at the Quarry development site with which to determine what if any geologic impacts can be expected from the proposed subdivision development. A more rigorous description of the geology and soils present at the site would be helpful.

Response #30: Two monitoring wells with well logs were completed on-site (GWIC ID 230186 and 230187). The wells are completed to 96 and 100 feet below ground surface (bgs). Both well logs show typical alluvium deposits of interlayered and intermixed silt, sand, clay and gravel deposits to 60 or 70 feet bgs laying on top of shale. The drainfield locations are all located on shallow slopes less than 15%, that combined with the shallow geology indicate little or no potential for adverse geologic effects.

Comment #31: The Draft EA states that “groundwater levels are around 50-60 feet below existing ground” (p. 6, Draft EA). No documentation is provided to substantiate this claim. Direct on-site observations indicated groundwater levels to be considerably closer to the surface.

Response #31: See Response to comment #17. The Department agrees that the draft EA was incorrect in stating groundwater is 50-60 feet below existing ground. At the drainfield locations the depth to groundwater ranges from 30 to 66 feet below existing ground. Section 2 of the Final EA has been corrected accordingly.

Comment #32: Raw data logs describing 26 test pits that were dug in August 2006 state that “no groundwater or limiting layer [was] encountered.” However, groundwater does appear to be visible in at least one of these pits, which was apparently dug to a depth of 14 feet (photo labeled GEI Test Pit C, presumably corresponding to the description log labeled TP-3) (app. p. 13 and 40, *ibid*).

Response #32: Over the course of this project multiple drainfield sites were proposed and later moved due to issues in complying with all the applicable requirements. Many test pits were completed but not applicable to the current drainfield locations. The test pits completed for the current drainfield locations do not show evidence of groundwater.

Comment #33: Groundwater levels fluctuate during a typical year, being at their lowest during the months of late summer, fall and winter (August to February/March) and highest in spring and early summer (April to June). The depth to groundwater measurements reported at the Quarry site, recorded in August and late September, can therefore be considered at or near annual lows. It is reasonable to assume that groundwater levels at the Quarry site, particularly during spring and early summer months, are considerably shallower than 6-8 (or 14) feet and may at times be at or above surface grade, especially in years of unusually high spring run-off.

Response #33: See Response to comment #17. The 15 dates of groundwater measurements showed up to 4 feet of water level variation in the two wells (GWIC ID 230186 and 230187) that were measured on each of the 15 dates between 5/7/19 and 9/7/22.

Comment #34: We would recommend installation of a drainage system at the toe of the berm and slopes to prevent surface and groundwater from reaching the building foundations.” (p. 5, *ibid*).

Response #34: See Response #28.

Comment #35: No groundwater study has been conducted at the site (as stated in the preliminary geotechnical report of Rawhide Engineering, dated December 17, 2018). A better understanding of site-specific rates of fluid migration and nutrient transport would be helpful. A more thorough hydraulic analysis should be completed prior to approval of any wastewater treatment system(s) at the Quarry subdivision site.

Response #35: See Response #2. Additional hydrogeologic studies are not needed to review compliance with the applicable nondegradation requirements for groundwater or surface water.

Comment #36: Selection of a proprietary septic system known as SepticNET for each of the individual sewage treatment units is commendable, as that particular system is apparently able to remove nitrate and phosphorus from effluent discharge better than most other septic configurations.

Response #36: The SepticNET system is approved by the department to treat nitrogen to 7.5 mg/L, but it is not approved to treat phosphorus to concentrations less than that used for other types of on-site wastewater systems (10.6 mg/L). The non-significance analysis used those concentrations.

Comment #37: The first phase of the Quarry subdivision development project is slated to generate approximately 40,000 to 60,000 gpd of effluent. Such volumes of wastewater, carrying nitrate and other nutrient pollutants to the already impaired Gallatin River, must be considered in their entirety. They must not be swept under the proverbial categorical exclusion rug by breaking them into eight smaller volumes to avoid the necessary scrutiny of their impacts.

Response #37: Categorical exclusions were not used in the review of the project. The impacts to groundwater and surface water were evaluated under the applicable criteria in the nondegradation rules (ARM 17.30.701 et seq.). The first phase of the Quarry project will generate approximately 22,500 gpd of effluent. See also the Cumulative Effects section of the final EA. See Response #1.

Comment #38: Full build-out of the Quarry subdivision, as mentioned previously, is slated to include the eight large condominium buildings of the first phase plus at least 14 residential lots, another 7 mixed use lots combining commercial and residential units, a commercial hotel and possibly other as yet unconfirmed constructions. These later phases must also be considered in their entirety, with consideration of their impacts upon the Gallatin River.

Response #38: See Response #9.

Comment #39: Further, the Quarry subdivision development project and its total wastewater load should be evaluated in context with other wastewater discharges from adjacent developments in the Big Sky Canyon area. Only then can the full scope of nutrient pollution into the Gallatin River be objectively evaluated and analyzed. Serious consideration must be given to how the Quarry development project will exacerbate on-going pollution problems for the entire Gallatin watershed.

Response #39: See the Cumulative Effects section of the final EA and Response #2.

Comment #40: The EA fails to examine how authorization of the Quarry Project commits public-private resources to allowing new population growth in the Canyon Area, a potentially significant impact, and commits the agency to future decisions about how to mitigate and control reasonably foreseeable water pollution related to future Quarry Project phases and further wastewater treatment disposal planning efforts under the Big Sky Interlocal Agreement.

Response #40: As discussed in the Cumulative Effects section of the final EA, all future phases of the Quarry and other subdivisions subject to Department jurisdiction must be reviewed and approved by the Department before any facilities may be constructed or used. As such, approval of the Quarry Phase 1 application currently before the Department would not commit the agency to any future decisions. The “reasonably foreseeable” standard mentioned by the commenter applies to federal decisions under the National Environmental Policy Act, whereas this project is being analyzed under the Montana Environmental Policy Act (MEPA). For a discussion of the Department’s consideration of these impacts, please see the Cumulative Effects section of the final EA. For a discussion of the Big Sky Interlocal Agreement, please see Responses #2 and #9.

Comment 41: I am writing in objection to allowing “the Quarry: developers in Gallatin Conty from going forward with any development using a dozen septic systems (SepticNet) - versus connecting to the Canyon via lift-station and hooking it up to our new state of the art \$5.2M Big Sky Water and Sewer Plant. The latter is both scientifically and environmentally the better option. The town even voted on it

in the 2020 ballot. The Gallatin Canyon Sewer District has been formed already and at least \$3M collected from the federal government for this lift-station type infrastructure.

Response #41: Requiring the Quarry to connect to the Gallatin Canyon Sewer District exceeds the scope of the Department's statutory review, which is limited to determining whether the proposed water, sewer, and stormwater facilities comply with applicable laws and rules. Gallatin County, as the local governmental authority, is vested with the power to review zoning, planning, and platting issues. The Department notes that a condition of approval from Gallatin County was that the Applicant support the formation of a centralized water/sewer district for the canyon and join the district when formed.

Comment #42: The potentially adverse effects it could have to the Gallatin as a water resource.

Response #42: The Applicant's Phase 1 meets all statutory and administrative rule requirements and the wastewater discharge to be in an acceptable range. When considering the Applicant's projected cumulative daily discharge of 22,500 gallons per day, the change in water quality on the Gallatin River is not significant. At a total nitrogen discharge concentration of 7.5 mg/L (equal to the groundwater nondegradation limit) and subsequent dilution with groundwater within the 500-foot-long setback envelope required for each drainfield, there is no potential for the discharge to cause any downgradient waters to exceed the groundwater water quality standards for nitrogen. See also the Cumulative Effects section of the final EA.

Comment #43: The project fails to consider the phased PUD as a whole, limiting consideration of the project's significance and falsely portraying the effects on the environment and water resources as "nonsignificant." [88 of the total number of comments submitted to the Department were identical to this comment.]

Response #43: See Responses #2 and #9.

Comment #44: The project proposes the use of dozens of Level II septic systems that each discharge less than the arbitrary regulatory trigger volume of 5,000 gpd, despite the aggregate wastewater discharge from the project being approximately 60,000 gpd. This is an unscientific categorical exemption from what would otherwise require pollution permitting. [88 of the total number of comments submitted to the Department were identical to this comment.]

Response #44: See Responses #1, #2 and #9.

Comment #45: The project relies on water rights traded from Lazy J South to fulfill its water supply needs because all water in the basin has been allocated. The Department of Natural Resources and Conservation's authorization of the water rights trade relies on the fact that treated sewage will be discharged back into the Gallatin River system as proof of no net loss of water. However, DEQ has failed to examine the cumulative impacts of > 60,000 gpd of new waste water into an already degraded river system. [88 of the total number of comments submitted to the Department were identical to this comment.]

Response #45: The project will be served by the Lazy J Utility Association via Water Permit Number 41H 30025398.

The Department's statutory review is limited to the review of the Applicant's proposed water, sewer, and stormwater systems. ARM 17.36.328 requires the managing entity of the Public Water Supply to certify that there the appropriate water rights exist for the proposed connection(s). While further review of water rights criteria exceeds this Department's statutory scope of review for water, wastewater and stormwater facilities, the Applicant has submitted certification from the managing entity of the Lazy J Utility Association that the appropriate water rights exist.

Regarding the Department's assessment of the cumulative effects of the development: see Response #2. Regarding degradation of the Gallatin River, see Response #42. Regarding phasing, see Response 9. The application submitted was for 22,500 gpd.

Comment #46: The project strategically places the septic system drain fields ¼ mile away from the Gallatin River, using another unscientific categorical exemption that deems any Level II septic system discharging at or further than ¼ mile from a surface water insignificant.

Response #46: Established Department procedures specify that if a drainfield is more than ¼ or ½ mile from a surface water, the surface water trigger analysis does not need to be run. This is not limited to Level II systems. See also the Cumulative Effects section of the Final EA

Comment #47: The Quarry Project proposal appears to have been intentionally designed to avoid robust discharge analysis (via use of "phases" of development, multiple septic systems, etc.). Furthermore the DEQ (for what I conclude are obvious reasons) limited public notice and comment period to 20 days ... less than the statutory 30 day notice period. This reduced public notice period coupled with timing to coincide during xmas holiday in a word .... "smells". There appears to be a clear intent to jam this through by limiting the amount of public comment.

Response #47: The Department considered the request to extend the public comment period for the draft Environmental Assessment for the Quarry Project. Upon our review of relevant statutes and rules, the Department did not find a 30-day default public review requirement applicable to Environmental Assessments. Based on the nature of the proposed facilities and the requirements of MEPA, the Department considered the noticed public comment period to be appropriate.

Additionally, the Department notes that the application under consideration is a typical subdivision application made following the local government's (Gallatin County) prior determination that the project meets all necessary zoning, planning, and platting requirements and that Gallatin County provided public opportunities to comment. See Gallatin County Findings of Fact and Order. As for the Department's assessment of phases of development, see the Cumulative Effects section of the final EA.

Comment 48: The project is not holistic. a. By not considering the phased PUD as a whole, it misleadingly portrays the effects on the environment/water resources as "nonsignificant," b. It ignores the aggregate wastewater discharge, as a way to avoid pollution permitting. c. It ignores cumulative and synergistic impacts of nutrient pollution discharge.

Response #48: See Responses #2 and #9.

Comment #49: A classic method to avoid the real effects of proposed development projects is "segmentation." You break a development plan into "separate projects" – like building pieces of a road corridor on either side of a valuable resource, so that the first stages seem legally separate or less

significant – and by the time the cumulative effects become legally evident, “it’s too late now” to prevent the harm to the resource.

Response #49: See Response #9.

Comment #50: A sustainable watershed relies on a multi-faceted, science-based approach. At the very basic level, this involves working to keep excessive nutrients from entering the river. Accelerated growth currently presents one of the most pressing challenges for the Gallatin, and we recognize it is critical to maintain water and sewer infrastructure in a manner that protects our natural assets, and still allows for continued community growth opportunities.

Response #50: See Responses #2 and #4.

Comment #51: Affordable housing project or not, no development should be built without adequate water pollution control systems. Does the Quarry application say each Septic Net system discharges total nitrogen concentrations around 5-7.5 mg/L end of pipe.

Response #51: See Responses #2 and #4.

Comment #52: Among my concerns are that the Project: ignores impacts of septic pollution on local water quality, fails to assess surface water impacts to the Gallatin River, reallocates water rights in a closed basin, fails to consider reasonable and prudent alternatives to dozens of new septic systems for waste treatment and disposal.

Response #52: See Responses #2, #4 and #45.

Comment #53: And, since the river is the drinking water source for many, further water degradation affects their health and wellbeing as well.

Response #53: See Responses #2 and #4.

Comment #54: Based on current real estate trends, this subdivision is likely to completely buildout. Potential impacts should appropriately be considered as a whole.

Response #54: See Response #9.

Comment #55: Big Sky is being expanded at a rate chosen by the builders and profiteers. The water issues are very important to those that live and make their lively hood here. The runoff, the septic, the clean water consumed, the ground water pollution leading to river pollution and algae. The infrastructure does not exist and we would NEVER be able to safely evacuate in an emergency. The canyon has become a highway that cannot be expanded. We work to create community and shared responsibility while respecting the natural habitat we live in.

Response #55: Issues regarding infrastructure and traffic are outside the scope of the Department’s statutory review, which is limited to the review of the Applicant’s proposed water, sewer, and stormwater systems. Gallatin County, as the local governmental authority, is vested with the power to review zoning, planning, and platting issues.

Regarding the proposed facilities' impacts to water quality, see Responses #2 and #4.

Comment #56: Breaking the project in to 4 phases to bypass environmental assessment is duplicitous. Keeping in mind the recent court ruling, ignoring the impact of septic pollution on local water quality appears illegal. The Gallatin River already suffers from too much wastewater pollution and the community favors an impairment designation. This plan reallocates water right in a closed basin, relies on an arbitrary categorical exemption for waste water discharges from pollution permitting, and fails to consider alternatives to dozens of new septic systems for waste treatment and disposal.

Response #56: See Responses #2, #9, #14 and #45.

Comment #57: By numbering this proposal as "Residential Subdivision #1," the promoters implicitly admit that they have a segmentation strategy for a later Residential Subdivision #2 at the Quarry, and maybe a #3? By itself, the promoted Residential Subdivision #1 at the Quarry would have 90 new residence units—using septic sewerage drainage. At Big Sky, there's nowhere for subsurface percolation (or surface-erupted) septic drainage to ultimately go except down into the river and the river's groundwater feed.

Response #57: See Responses #2, #4, and #9.

Comment #59: From my view, the authorization of new septic system pollution will exacerbate ongoing degradation and algal blooms in the Gallatin River, negatively impacting my health and my recreational opportunities on the Gallatin River.

Response #59: See Response #4.

Comment #60: "The Quarry" developers in Gallatin Canyon from going forward with any development using a dozen septic systems (Septic Net) versus connecting the Canyon via lift-station and hooking it up to our new, state of the art \$52M Big Sky Water and Sewer Plant.

Response #59: See Response #14.

Comment #61: Has there been enough analysis on aggregate contributions of dozens of new Septic Net systems? It may be top-of-the-line technology, but it is still septic next to a world class trout river that is already impaired. Will The Quarry project be required to hook into the new Canyon sewer district when it comes on-line?

Response #61: See Responses #2 and #14.

Comment #62: I am commenting in OPPOSITION to the proposed Preferred Action Alternative to issue a Certificate of Subdivision Approval for the Quarry PUD. DO NOT PROCEED with this until more thorough studies can be conducted, and ONLY IF the project is proven fully safe for the Gallatin River. These decisions have multigenerational impacts; they cannot and should not be rushed. [3 of the total number of comments submitted to the Department were identical to this comment.]

Response #62: See Responses #2 and #4.

Comment #63: If you permit the Quarry project to be constructed based on many separate septic systems, the river will be further degraded.

Response #63: See Response #9.

Comment #64: I have watched the quality of our river decrease, algae bloom increase and witness growing challenges with our drinking water and sewage wastewater disposal. There are independent studies revealing the Big Sky meadow will be out of water within 10 years. There are lawsuits in progress to try to stop wastewater effluent discharge reaching the Gallatin. Without any local government (we are unincorporated, and the commissioners only see tax revenue) no one is taking a holistic view of sustainably managing Big Sky, Montana, and our precious water resources. Help. Please do not approve the Quarry project until cumulative analysis ensures no harm to the River and local water.

Response #64: See Responses #2 and #4.

Comment #65: I'm submitting a statement to voice my very serious concerns about the impacts of new projects, in this case specifically the Quarry subdivision, and lax adherence to water quality standards upon the critically important Gallatin River. To make my opposition clear I have added in additional details from several groups. Ultimately the excessive and under-regulated building of new projects both in Big Sky and Bozeman threaten to destroy a critical part of the local ecosystem, an ecosystem and river that draws millions of dollars of revenue from visitors and supports local families. If we don't act intentionally to protect these assets it will be local Montanans that ultimately lose their way of life, connection to home, and are footed the bill to try to fix it after the tourists have left.

Response #65: See Response #4.

Comment #66: In assessing development impacts to the Gallatin River, it seems to me that the DEQ should evaluate a project holistically rather than incrementally, (understanding of the impact of the entire PUD rather than on phase) and should proceed carefully, cautiously and scientifically. I do not believe that there has been sufficient and robust scientific review or adequate consideration of the impacts of septic systems on drinking water supplies or algal blooms in the Gallatin.

Response #66: See Responses #2, #4, and #9.

Comment #67: I oppose the Preferred Action Alternative because as designed, the project creates potentially significant adverse impacts on local water resources.

Response #67: See Responses #2, #4 and #14.

Comment #68: I recommend the "agency" require continued monitoring of water quality in all cases of development, but also to require alternatives to septic systems for wastewater treatment.

Response #68: See Responses #2 and #14

Comment #69: I respectfully request that the DEQ review and resolve these issues by performing further critical review and analysis. I am very concerned the impact of the industrial scale development in Big Sky is having both on fresh water supply for our entire community. I also fear the possible

negative impact of this large wastewater release so close to the already impaired Gallatin River. Furthermore, I find that limiting the comment period to a short 20 days in the holiday season is unacceptable. I believe this comment period should be extended into 2023 and so that the DEQ gives concerned citizens plenty of time to respond. Development in Big Sky has become an increasingly divisive and controversial issue, and the DEQ as well other state government agencies would do well to ensure that they are listening to all concerned citizens as they fulfill their mission to safeguard the state's environment.

Response #69: See Responses #2, #4, #14 and #47.

Comment #70: Is it true that the Gallatin cannot experience ambient river concentrations above .3 mg/L total nitrogen without experiencing algal blooms?

Response #70: The Department has not determined the Gallatin River or its tributaries is impaired from or because of algae blooms. Instead, the Department has offered the public an opportunity to comment on whether a determination of such impairment should be made as part of its biennial update to Montana's 303(d) list of "threatened and impaired waters" for the 2022/2024 Integrated Report Cycle. That public comment period closes on March 13, 2023, and details can be found on the Department's website. See Response #4.

Comment #71: I strongly urge that DEQ perform further analysis and require that alternatives be considered--alternatives that will not result in further degradation of the Gallatin River.

Response #71: See Responses #2, #4 and #14.

Comment #72: It appears to me that the Quarry Project has been divided up into smaller segments, or phases, each of which could pretty easily be approved because it appears that the effects of a single phase are not significant, when DEQ should be looking at the aggregate project and the total effects on the environment.

Response #72: See Response #9.

Comment #73: It uses arbitrary distances (1/4 mile) to skirt rules.

Response #73: See Responses #1, #2 and #4.

Comment #74: Just like us campers who are not allowed to camp close to streams and rivers, or homebuilders not all owed either, you are allowing septic drain fields way too close to the Gallatin and its tributaries. This should be a treatment plant for this size development.

Response #74: See Responses #4 and #14.

Comment #75: One example, algae blooms were essentially never part of the common occurrence in the Big Sky area that we now see. I have read many water quality reports and find it hard to believe that human pressure is not the primary driver of our declining water resources. Aquatic populations cannot sustain this type of detrimental pressure.

Response #75: See Response #70.

Comment #76: One of the common tactics is to claim critical aspects of the project have an “insignificant” impact on the environment or the community’s quality of life. It is typically easy for developers to find consulting engineering firms, who produce supporting documents which are then accepted at face value with little or no real critical review. The Quarry in my opinion follows this pattern. The project is extremely large in scope and located less than ¼ mile from the Gallatin River, one of our communities and the states irreplaceable assets. There can no longer be arguments made that the development in Big Sky is either sustainable or that its impacts are “insignificant”. We know see that the Gallatin River is impaired and suffers from annual algal blooms and have been told by the Big Sky Sewage and Water commission itself that we will run out of water in the first half of the next decade unless development is restricted. Given the impaired state of our river and the further damage done to our quality of life and public safety by the heavy traffic from which Big Sky suffers it is well past time for the application of practical common sense.

Response #76: See Responses #2, #4 and #9. Traffic issues exceed the scope of the Department’s statutory review, which is limited to the review of the Applicant’s proposed water, sewer, and stormwater systems. Gallatin County, as the local governmental authority, is vested with the power to review zoning, planning, and platting issues.

Comment #77: One point, in particular, that demonstrates the illogical and specious arguments presented by the proposal is the attempt to separate this one project into many individual residences. By doing so, the proponents try to hide the true nature and volume of the project’s septic and other wastewaters into the fragile ground water of the Gallatin. Do the proponents honestly think that the Gallatin would only receive wastewater from one residence, in utter disregard of all the other 89 residential discharges in the project. I am aware of the recent court case requiring the DEQ to consider the cumulative and synergistic impacts of nutrient pollution discharges on the Gallatin River.

Response #77: See the Cumulative Effects section of the final EA and Responses to Comments #2, #4, #9, and #15.

Comment #78: Please do your "do diligence" on this project and nail down the cumulative effects. Also, from my experience, very little water quality monitoring is done by the development once it is approved and built out. This monitoring concept would have to be put into the bylaws of the Homeowner's Association, assuming that the development maintains an active homeowners' association, and money appropriated to hire a third party qualified consultant.

Response #78: See Responses #2, #4, and #14.

Comment #79: Please resolve these issues by performing further analysis, including cumulative impact analysis on the individual septic systems' discharge on local water quality and a surface water impact analysis downstream of the Quarry PUD.

Response #79: See Responses #2 and #4.

Comment #80: Proper analysis and cumulative research must be performed before approving projects that could have additional negative impacts on the Gallatin River. Failure to consider the phased PUD as a whole, limits the project’s significance and consideration of appropriate conditions. The baseline for what is “adequate” treatment begins and ends with what’s necessary to protect local water quality and

Gallatin River. To make this determination the project impact must be examined cumulatively with all nutrient sources - including the new wastes proposed by all phases of The Quarry Project plus other Big Sky projects in the approval process such as Flat Iron Mountain, Yellowtail, and Lazy J project.

Response #80: See Response #9.

Comment #81: Reliance on septic systems ¼ mile from the Gallatin River is a bad design - even with the so called "Septic NET" system. This system, which will handle 265 "entitlements" is not sufficient. It will only treat the water to a Level II and currently is noted as being only 70% more efficient than other systems.

Response #81: See Response #2.

Comment #82: Scientific evidence should be required or the project should not go forward. If the septic system does not actually perform as designed, the Gallatin River is the loser as are Big Sky and the beauty of Montana, not to mention the money that the river generates for the Montana economy. And guess what – we will be left with the clean-up coats. Not a good thing for anyone.

Response #82: See Responses #2, #4, and #15.

Comment #83: Septic systems do have an impact to groundwater. Surface run off from development does impact water quality on streams and rivers.

Response #83: Storm water discharges are reviewed in accordance with Circular DEQ-8 to ensure they are adequately treated prior to discharge. Regarding the impact of septic systems, see Response #2

Comment #84: Similarly, the project proposes the use of dozens of Level II septic systems that each discharge less than the arbitrary regulatory trigger volume of 5,000 gpd, despite the aggregate waste water discharge from the project being approximately 60,000 gpd. Again, in order to protect both the population and the river, DEQ should be looking at the aggregate wastewater discharge.

Response #84: See Response #9.

Comment #85: The authorization of new septic system pollution may exacerbate on going degradation and algal blooms in the Gallatin River, negatively impacting my recreational opportunities on the Gallatin River and local drinking water supplies.

Response #85: See Responses #4 and #70.

Comment #86: The concern is the precedent that would be set with a permitted process that does not put the most discerning lens on what the impact(s) to the river would be. If we are asking what the absolute best solution is for the Gallatin River, then all angles must be reviewed and considered, cumulatively or otherwise.

Response #86: See Responses #4 and #14.

Comment #87: The latter [septic of Big Sky vs SepticNet] is both scientifically and environmentally the better option in order to protect the Gallatin River from further degradation. As I'm certain you're

already aware we've already had 5 consecutive years of algae blooms directly downstream from that precise location (Westfork).

Response #87: See Responses #4, #14 and #70.

Comment #88: The authorization of new septic system pollution may exacerbate on going degradation and algal blooms in the Gallatin River, negatively impacting aquatic life and my recreational opportunities on the Gallatin River and local drinking water supplies.

Response #88: See Responses #2, 4 and #70.

Comment #89: The Big Sky Quarry Project will create many problems within the area, but specifically, it will damage the Gallatin River! The river is already impaired and this project will only worsen the situation.

Response #89: See Response #2, #4 and #70.

Comment #90: The caveat to Big Sky Resort Tax District for providing that funding was a requirement that the district work with the new Canyon sewer district to dispose of additional wastewater generated by prospective build out of Big Sky in the Canyon Area. My understanding is the Gallatin Canyon Sewer District commissioned WGM Group to examine where future wastewater discharges could be disposed of in the Canyon, and the Quarry Project's groundwater discharge beds contemplated but its PUD was the largest of several identified locations for future disposal. The big picture problem with this interlocal agreement is the presumption that new treatment offered by the pending upgraded wastewater treatment facility is viable to discharge in massive quantities into ground water in the Canyon Area to allow the future build out of Big Sky? What will this all do to our river? Is the DEQ analyzing ALL phases, ALL projects, the new sewer capabilities, and septic solutions? Where is this analysis?

Response #90: The Department's statutory review is limited to the review of the Applicant's proposed water, sewer, and stormwater systems. Gallatin County, as the local governmental authority, is vested with the power to review zoning, planning, and platting issues. Also see Response #45.

Comment #91: The DEQ Environmental Assessment fails to consider the cumulative impacts of proposed septic systems' discharge on local water quality, despite the recent court ruling which found that DEQ must consider the cumulative and synergistic impacts of nutrient pollution discharges on the Gallatin River.

Response #91: See the Cumulative Effects section of the final EA. See Response #2

Comment #92: The Gallatin River has been experiencing large algal blooms for the last five years, and DEQ itself issued a preliminary determination this year that these blooms violate water quality standards and represent a legal impairment requiring a pollution cleanup plan.

Response #92: See Responses #4 and #70.

Comment #93: The Gallatin River is already impaired by pollution. This river is a major draw to tourism and any further degradation will result in the loss of tourism and jobs. The Big Sky area cannot afford the costs of further pollution of the Gallatin River. Your draft assessment is inadequate and borders on

gross negligence in ignoring the overall costs of incremental damage from the inadequate waste disposal of this subdivision.

Response #93: See Response #4.

Comment #94: The methods used in the EA to determine impacts do not address the cumulative impacts of the entire development: the actual discharge volume will be over 60,000 gpd, twelve times the regulatory trigger volume. In our opinion, this is an effort to find a loophole that would allow less regulatory oversight, which is exactly what is needed to protect the Gallatin River.

Response #94: See Responses #2 and #9.

Comment #95: The plan to rely on water rights traded from Lazy J South to supply their water use needs. This is necessary it seems because all water supply in this basin have already been allocated. It is wrong in my view to consider water usage in our community based on an individual project basis, all Big Sky is dependent on these sources and the assumption that the use calculation appears to rely on the discharge of 60,000 g/d, or more, of treated wastewater into the already impaired Gallatin River. Also, alarming is that the QPDEA appears to be using the categorical assumption that any Level II wastewater discharge ¼ mile or more from the river is acceptable. This results in a claim that the Quarry Project will not have any net loss of water. As already noted, this relies on the further assumption that there is no cumulative effect arising from dozens of parallel septic systems in operation at the same time. The Quarry PUD should not be considered in isolation it should be reviewed for environmental impact with full consideration of the environmental strains on water supply being created by projects both in the canyon area and throughout Big Sky along the Gallatin's tributaries.

Response #95: See Response #1, #2, #4 and #45.

Comment #96: The project ignores the impact of new wastewater into the river and assumes the return of this wastewater to the river is sufficient to assume not net loss of the water.

Response 96: See Responses #2 and #45.

Comment 97: The project relies on water rights traded from Lazy J South to fulfill its water supply needs because all water in the basin has been allocated. However, the water rights trade relies on the fact that treated sewage will be discharged back into the Gallatin River system as proof of no net loss of water. DEQ has failed to examine the cumulative impacts of >60,000 gpd of new wastewater into an already degraded river system.

Response #97: See Response #1, #2, #4 and #45.

Comment #98: The project uses a rule exemption to avoid considering the cumulative impacts of proposed septic systems' discharge on local water quality, despite the recent court ruling which found that DEQ must consider the cumulative and synergistic impacts of nutrient pollution discharges on the Gallatin River.

Response #98: See the Cumulative Effects section of the final EA and Responses to Comments #1 and #2.

Comment #99: The Quarry project is just one example of the growth that the canyon will see moving forward, and I'm not happy with it in its current form. Too many septics and lots of cumulative impact, which recent litigation has shown needs to be considered. As a remedy, I think the Quarry project should be required to hook up to municipal services once they are available (likely 3-4 years). I appreciate and support all efforts to stop new development that is harmful to the river. Ultimately, supporting the Canyon sewer district and requiring folks like the Quarry to hook up will have the best long-term benefit to water quality on the Gallatin.

Response #99: For cumulative impacts, see that section of the final EA and Response #2. For recent litigation, see Response to Comment #13. For connection to centralized services, see Response #14.

Comment #100: The recent algae blooms are of particular concern, prompting the DEQ's preliminary decision to list the Gallatin as impaired. Ongoing water monitoring efforts in collaboration with the MT DEQ indicate that the Gallatin is nitrogen limited, meaning additional nitrogen will cause additional algae growth.

Response #100: See Responses #2, #4 and #70.

Comment #101: The septic system drain fields are located only ¼ mile from the Gallatin River, and there is simply no scientific evidence that this will mitigate the damage to the river.

Response #101: See Responses #2 and #4.

Comment #102: The septic systems planned for the Quarry project do not sufficiently treat wastewater to remove exactly the type of pathogens and nitrates that have been proven to be a large part of the issues affecting the Gallatin's ongoing degradation as a blue ribbon water.

Response #102: See Responses #2 and #4.

Comment #103: They are trying to grandfather in this SepticNet idea they floated a few years ago in order to break ground on The Quarry development early. With plans to later dismantle the SepticNet system and hook-up to the WRRF Plant in the future. That's incredibly unfair and I feel not only the town, but Montana residents have been misled!

Response #103: See Response #2.

Comment #104: This Quarry Subdivision developer has the financial resources to do the right thing with regards to properly managing wastewater. This is a massive development right in the Gallatin River corridor.

Response #104: See Responses #2 and #4.

Comment #105: To oppose the current Proposed Action Alternative for the Canyon Area Quarry Project because it has not adequately addressed the cumulative impacts of adding a large amount of nutrient (nitrogen) rich water into the ground water discharge that drains to the Gallatin River.

Response #105: See Response #2.

Comment #106: Unheralded development in our community is creating serious water issues in Big Sky and our surrounding environment. Of particular concern is the quality of the Gallatin River. This is the canary in the coalmine. We need your oversight to protect the integrity of our greatest resource. The proposed Quarry Project is a serious threat. We oppose this intrusion in our community.

Response #106: See Response #4.

Comment #107: Up until just a few years ago we had very little, if any, algal growth and now it's common place and getting worse by the year. We all know the cause but unfortunately make all kinds of exceptions to accommodate special interests, mean while we're degrading the very pristine resource we claim we want to preserve! How can the Quarry project EA justify what is plain to see? It can't be good for the community and certainly NOT for the Gallatin River.

Response #107: See Responses #4 and #70.

Comment #108: We are asking you to stop and consider the cumulative and synergistic impacts of nutrient pollution discharges on the Gallatin River, which was stated in a recent court ruling.

Response #108: See the Cumulative Effects section of the final EA and Response #2.

Comment #109: We are strongly opposed to the Preferred Action Alternative for the Big Sky Quarry Project because, as designed, the project creates potentially significant adverse impacts on local water resources. Simply, this is unacceptable.

Response #109: See Responses #2 and #4.

Comment #110: When you look at the interaction of groundwater and surface water, it is imperative that you considered the cumulative effects. This means looking at what already exists and its impact, negative or positive, and what is proposed. It is apparent from the algae blooms in the West Gallatin River, that the developments at Big Sky over the last 20 years is having a negative impact on the water quality in the West Gallatin River.

Response #110: See Responses #2 and #4.

Comment #111: While a central Canyon District system is not currently operating, we encourage serious consideration by the DEQ for future groundwater permit renewals, acknowledging the distinct advantage to the Gallatin under the protection of a central sewer / wastewater system.

Response #111: See Response #14.

Comment #112: Will the continued building in the Big Sky area continue until the Gallatin River is unusable for recreation and harmful to the fish and other critters. By breaking the development in to small segments it is death by inches. Please redo your EA in a way that looks to the future. Big Sky simply cannot grow forever without irreversible harm.

Response #112: See Responses #2 and #4.

Comment #113:With the threat of recurrent algal blooms along the Upper Gallatin, we believe that any method that promises the barrier to excess nutrient loading is the only way to ensure a healthy Gallatin in the future; we believe that the central Canyon District is this method.

Response #113: See Responses #2, #4, #14 and #70.

Comment #114:With numerous natural springs, the area directly downstream of the proposed development is one of the most important areas for the continued health of the Gallatin River. With the river's health already in decline. Compromising the area surrounding these clean, cold springs would have an everlasting effect and be seriously detrimental to the Gallatin.

Response #114: See Response #4.

Comment #115:You have not analyzed the full project in its total development and unbelievably state nonsignificant effects on the River and our Planet! We already have a polluted river and you are lucky the EPA has not come down you as it should. In fact the MTDEQ and the EPA are both negligent in enforcement and they both cower to commercial developers, Big Sky ski, Yellowstone Club and all the other super-wealthy that are contributing to the loss of our beautiful, healthy, top-class fishery and aquatics.

Response #115: Thank you for your comments. Some of the issues you raised exceed the scope of the Department's statutory review, which is limited to the review of the Applicant's proposed water, sewer, and stormwater systems. Gallatin County, as the local governmental authority, is vested with the power to review zoning, planning, and platting issues. Also, please see Responses #2, #4, #14 and #45.

Comment #116: Note that the entire subdivision (all phases) treated wastewater contributions, 8,289 ft<sup>3</sup>/d (62,002 gallons per minute) were considered and addressed in the PUD public hearing. The net computed nitrate change in the Gallatin River is 0.0046 mg/L. That concentration change is too low to be detected. In essence, per the rules, and even from a cumulative perspective, that change is considered negligible and insignificant in terms of its effects on surface water.

Note as well that the trigger (non-degradation) analysis assumed a nitrate nutrient concentration of 7.5 mg/L at the treatment system outlet that is assumed to be discharged to the river. A performance review of treated effluent data collected from SepticNET systems, and submitted to DEQ, showed that actual effluent Total N is at 4.78 mg/L. If the 4.78 mg/L concentration had been used for the entire subdivision, the net calculated change in the Gallatin River surface water nitrate would be 0.0029 mg/L. Again, such a change would be non-detectable and considered negligible and insignificant from a cumulative perspective.

Response #116: The Department agrees that the evidence presented at the PUD public hearing showed that the project would pass the trigger value calculation to the Gallatin River if all phases were considered at once. The Department has modified the Cumulative Effects section of the final EA in response to this comment.

Comment #117: The Water Quality Standards Attainment Record (2018 reporting period) demonstrates that the Gallatin River is fully supporting for aquatic life, agriculture, drinking water and primary contact recreation.

Studies by the Gallatin River Task Force demonstrate that it is too simplistic, and in error, to explain the existence of algae (filamentous or otherwise) as being solely due to development activities on the main stem of the Gallatin River.

Response #117: The Department notes that the 2020 reporting period also concludes that the Gallatin River is unimpaired and agrees that the factors contributing to the existing of algae in the Gallatin River are complicated. Currently, DEQ is considering public comments on an amendment to the 2020 assessment report that would list the middle segment of the Gallatin River as impaired for algae. See also Response #70.

Comment #118: There was no need to reallocate water rights as the project service area will be served by Lazy J Utility Association via Water Right Permit Number 41H 30025398. There is no change in overall water demand for the Lazy J Utility Association beyond the permitted volume per 41H 30025398. Hence, there are no issues as it pertains to a basin closure.

Response #118: See Response #45.

Comment #119: There is no categorical exemption. The permit applicant followed the regulatory rules established per Montana laws and the agency concurred appropriately.

Response #119: See Response #1.

Comment #120: The first phase of the development will utilize SepticNET systems. The SepticNET systems are a best available technology (BAT) for effluent treatment involving smaller wastewater systems. There are no comparable "prudent" alternatives for such systems. It is noteworthy however, that the development is designed and being constructed to include dry force mains which will connect to a central sewer system (Gallatin Canyon Water and Sewer District) when it is completed in the future.

Response: #120: See Response #14.

## ADDITIONAL COMMENTS

The following comments were generally supportive of the project, were outside the scope of the Department's review, or were duplicative of comments discussed above. The Department is thankful for the time taken by the individuals in submitting these comments.

- Lower cost housing is imperative in our community in order for it to thrive. This project seems very well thought out and it is imperative to allow it to proceed.
- Also, in case you were unaware, one of the key elements of this proposal of developing the Quarry is supposedly for "affordable housing", (now renamed: workforce housing). The citation below is directly from an article in Explore Big Sky last week on the subject: The Quarry project plans to include 135 single family homes and another 130 apartment units and was designed by Big Sky Rock LLC, a group off our families including local developer Scott Altman. The group saw value in building workforce housing before luxury development happened around the depleted Big Sky gravel pit. All of us have sat and watched businesses struggle because they don't have employees. Altman said in a phone interview with EBS. 'Our mission from day one was not to build 36 big home-its not what Big Sky needs. This parcel [of land] lends itself beautifully to workforce housing.
- As the town grows there is a need for more services and people to support them. I see the balancing act the local business are trying to do while continuing to function. A prime example is the Hungry Moose. They have closed the Deli and only provide premade sandwiches because they don't have enough help. Most restaurants are not open everyday in the height of the season due to lack of staff. If Big Sky is going to prosper additional housing is a must.
- Being very concerned about the lack of affordable housing I am in a difficult position. I want the project to proceed ASAP, but let's not screw one thing up trying to fix something else.
- Regarding advantages of the SepticNet treatment system: Does not require the high capital costs and operation costs associated with large centralized systems.
- The Big Sky community and the Gallatin River need the benefit of a better development model. The Quarry PUD is a huge step forward in this direction.
- I feel the development group has gone over and above to practice responsible development.
- I know these four families. They all have Big Sky and Big Sky's future development Bests interest! We need so much more affordable housing in Big Sky and this project will provide this! I am in full support if the project.
- I recommend DEQ promptly issue the COSA without the need for any additional analysis or impact studies.
- I support this locally developed project which will provide much needed affordable housing, work force housing, and commercial spaces in an area that is already developed and will not require the development of undisturbed ground. I also support this project because as designed,

it has no significant adverse impacts on local water resources and will ultimately be connected to the new Canyon Water and Sewer District when it comes online. This thoughtful and balanced approach to development is just what our rapidly growing community needs.

- I support this project and feel it will benefit the community, help with the housing crisis in Big Sky, and help keep cars out of the canyon.
- I'd love to see Big Sky find a way for environmental, financial, and social sustainability to prevail. This is a step in the right direction.
- In summary, the Quarry Project, by incorporating SepticNET into the design, provides the most effective nitrogen reduction treatment currently available. Based on current regulations and statutes, the design specifies the highest level of treatment available which provides the maximum protection to the Gallatin River from contaminants typically associated with wastewater treatment. We look forward to being part of this project and similar future projects in Montana.
- It is clear to me that DEQ, like Gallatin County before it, has thoroughly examined the potential impacts of this project to our environment and waterways, and has correctly found such impacts to be “non-significant.”
- Regarding advantages of the SepticNet treatment system: Modular system that allows for phased developments to more effectively design wastewater treatment plants.
- Regarding advantages of the SepticNet treatment system: Most efficient on-site treatment available for smaller flow rates (removes 163% more total nitrogen than the next best system).
- New development such as the Quarry PUD is a critical element to implementing central sewer in Big Sky's canyon area. These higher density projects are needed to carry a large percentage of the capital expense and reverse the resource intensive sprawl currently impacting the area.
- Regarding advantages of the SepticNet treatment system: No mixing zones can lead to smaller lot sizes which slow suburban sprawl and effectively removes the need for cumulative effects calculations based on current regulator non-degradation dilution equations.
- Regarding advantages of the SepticNet treatment system: Potential to add contaminant specific treatment modules as regulatory requirements change.
- Regarding advantages of the SepticNet treatment system: Potential to add real-time water quality monitoring as equipment becomes more reliable and affordable.
- Regarding advantages of the SepticNet treatment system: Removes TN to below regulatory limits thus eliminating the need for large nitrate mixing zones.
- The Quarry PUD and local developer leadership is a large reason the Gallatin Canyon Water and Sewer District has made so much progress. As an engineer that has been working on the canyon sewer project for multiple years, one of my primary concerns for successfully implementing is

the potential for anti-development groups seeking to stall development, either not recognizing or ignoring the dynamic that new development is key for paying to reverse the impacts of existing septic systems.

- This project and its owners have engaged in responsible development, rising to the challenge of designing a project that meets community needs, complies with all local, state and federal regulations, and protects our natural areas and pristine waters.
- This project is the result of years of work by four local families who are committed to fostering a balanced approach to development and growth of Big Sky, while maintaining the clean environment, watersheds, and open spaces of our special community.
- This project will create a community for Big Sky families, including connecting this housing and retail development to our existing system of recreational parks and trails and maintaining much needed open space, all within a footprint of previous development. This means no previously undisturbed ground will be developed to create this needed family housing corridor.
- This project will provide much needed affordable, entry level homes for the people who live and work in our community.
- Without projects like The Quarry, my sons may never be able to live full time in our community. The Quarry is one step closer to them achieving their dream of home ownership.
- I support this locally developed project which will provide much needed affordable housing, work force housing, and commercial spaces in an area that is already developed and will not require the development of undisturbed ground. I also support this project because as designed, it has no significant adverse impacts on local water resources and will ultimately be connected to the new Canyon Water and Sewer District when it comes online. This thoughtful and balanced approach to development is just what our rapidly growing community needs.
- Contrary to the messaging being pushed by certain environmental groups, state of the art septic systems will be installed immediately, and eventually when the new Canyon Water and Sewer District comes online, all wastewater in this project will be diverted to the Canyon Sewer District system and transmitted for treatment at the expanded Big Sky Treatment facility.

The following comments were provided in general opposition to the project, addressed issues outside of the Department's regulatory authority, or were duplicative of other comments addressed in more detail below. The Department is thankful for the time taken by the individuals in submitting these comments.

The Department's statutory review is limited to the review of the Applicant's proposed water, sewer, and stormwater systems. Gallatin County, as the local governmental authority, is vested with the power to review zoning, planning, and platting issues. The Department has given much consideration to this project and has analyzed all criteria required of it by Montana statutes, rules, and regulations.

As noted in the Environmental Assessment, the Department finds no significant impacts to water quality, quantity or distribution are expected, nor are significant impacts to terrestrial, avian or aquatic habitats expected nor to other environmental resources from the facilities under review. The Department also

concludes that no wilderness or recreational areas would be impacted during construction or operation of the facilities under review. The Department has determined that the groundwater discharge from the proposed wastewater treatment system would result in nonsignificant changes in water quality, in accordance with 75- 5-301 (5)(d), MCA. The Department has therefore determined that there are no significant adverse impacts to the physical or human environment associated with the facilities under review.

- MCA 75-1-102 states “...it is not the purpose of [the MEPA statutes] to provide for regulatory authority, beyond authority explicitly provided for in existing statute, to a state agency.”
- I am very concerned about anything the developers might do that is interim, substandard or otherwise puts the river at risk. We need the local housing but we need a healthy river far more.
- Could you PLEASE make sure that no environmental short cuts are taken in the process of approval. I am an ardent supporter of affordable housing, but I don't want to see the Gallatin impeded more than it is.
- Do not approve individual septic tanks in this sensitive area. There is already a serious problem. Do not make it worse. Prioritize the Gallatin River, please. Find out the best way to keep the river clean.
- Existing sewage treatment and discharges are outrageous in this day and age, and you are making exemptions! Don't you realize we have a Montana Constitution Article IX Section 1(1) "The state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations. "(2)" The legislature shall provide for the administration and enforcement of this duty."(3)" The legislature shall provide adequate remedies for the protection of the environmental life support system from degradation and provide adequate remedies to prevent unreasonable depletion and degradation of natural resources." Allowing unknown hundreds of septic systems discharging cumulatively with existing sources into our precious Gallatin River is a violation of our Constitution!
- For a developer to be allowed to degrade the river for their personal wealth is disgusting and a detriment to many, many people and irreversible threat to local wildlife.
- Halting this plan is a no-brainer if the DEQ has an understanding of how special Montana is to America's natural outdoors legacy -- and especially this piece of Montana's legacy. At some point the DEQ has to pinch themselves and ask whether they are being pushed into myopia, suborned by the politics of profiteering – whether they really want the Gallatin to ultimately share the troubles of some of the pungent rivers back East.
- I believe Big Sky, other adjacent communities, and proposed communities in the greater area need more thorough analysis of potential problems and solutions before the permitting process. Local economic growth and job opportunity is very important in the Gallatin valley and big sky area.

- I think Big Sky and its attendant developments should have to build a state-of-the-art water treatment facility to handle wastewater. Better yet, I think all development in the Big Sky area should be stopped completely.
- Montanans are concerned about the growth of the area and the potential threat/ecological impact these new developments pose on the Gallatin River and in turn the mighty Missouri River. Environmental and ecological quality of our riverways is paramount for driving healthy tourism and what keeps Montanans staying in Montana.
- Opposed the proposed subdivision, please save the Gallatin.
- Planned growth should be the goal. We live here for the natural beauty and what it provides. What Big Sky is not is a large, densely populated, suburban, urban environment. It is an unfortunate group dynamic as it is hard to believe that residents are being placed in this position.
- Please follow your requirements as it relates the Quarry Project in Big Sky. Do not make the same mistake you made with the Lazy J project!
- Sadly, we see in the Quarry Project Draft Environmental Assessment (QPDEA) the kind of arguments that are typically given only cursory review and then “rubber stamped” by relevant commissions or committees.
- The entire development will be xeriscape with “trout friendly landscape” and will integrate the water conservation program recommended by the Gallatin River Task force into its covenants. This will minimize pollutants to protect the Gallatin Rivers world class fishery.
- The environmental impact analysis is consciously misleading, and should never be thought of as a rational document supporting the permitting of this proposed development.
- The review of permitting for a pending development in the south canyon of Big Sky requires the highest level of consideration by the DEQ to decide what will protect the beneficial uses of the Gallatin. The Task Force does not oppose growth of a healthy community. The Task Force does support the most effective method to keep that growth in line with whatever steps are necessary to limit impact to our watershed.
- The water and sewer concerns for this development are at the forefront of my mind. With the right team and proper systems in place, I am confident that we can make the smart and right decision for our community and our environment that we respect, know and love so much.
- The change in water supply is not a surprise to anyone who lives in this area. The impact has already been documented with a variety of negative outcomes to both human beings, animals, and the natural ecosystem. I frequently access the Gallatin River for fishing. This has been one of my continued outdoor activities for over 50 years. Most spring, summer and fall days are spent on the Gallatin and unfortunately the human pressure has me considering moving elsewhere.
- The increased demand on our water resources is not sustainable. The following is taken from The Montana Bureau of Mines & Geology websites:" As ground water resources are developed,

concerns are related to water availability, water-rights, water-quality, and uncertainties in aquifer capacities and their ability to sustain current use and future growth." There is only so much water to go around.

- The Montana constitution states that all Montanan's have the right to clean water and air. The present administration is going to try and take that away too!
- The present administration has unfortunately taken away the scientific measurement that DEQ used in the past to determine if a development project was going to negatively affect a body of water. The only reason to do this is to allow for more development. Once a development goes in and pollution occurs, there is no turning back. Big Sky and it's wealthy inhabitants are "Loving Gallatin County to Death" and our administration is helping them.
- This development will also require all buildings to install Water Sense fixtures and Energy Star appliances to prioritize water conservation efforts for a more sustainable development which minimizes its impact on the surrounding environment.
- This is not good for wildlife/nature
- This Certificate of Subdivision Approval for the Quarry PUD is fundamentally wrong.
- The question is what level of impact are we willing to accept? I want as little as possible. Our quality of life and our economy rely on a clean Gallatin River. The River has already been impacted, and will continue to be impacted by factors beyond our control. It is critical that we consider the factors over which we do have control.