

## STAFF REPORT

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**TO:** GALLATIN COUNTY COMMISSION

**FROM:** TOM ROGERS, PLANNER  
GALLATIN COUNTY PLANNING DEPARTMENT

**SUBJECT:** HUTTINGA GRAVEL PIT CONDITIONAL USE PERMIT  
APPLICATION

**HEARING  
DATE:** JANUARY 27, 2008

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### DESCRIPTION / LOCATION:

**Rocky Mountain Engineers, P.L.L.C.**, on behalf of **Richard Huttinga (“Applicant”)** submitted an application for a Conditional Use Permit (CUP) as required by the Gallatin County Interim Zoning Regulation for Operations that Mine Sand and Gravel or Operations that Mix Concrete or Batch Asphalt (“Interim Regulation”). Under the Interim Regulation, approval of a CUP and fulfillment of any pre-operating conditions is required prior to commencing any work onsite which is governed by the Montana Opencut Mining Act. The subject property is an un-zoned portion of Gallatin County.

The property is located on portions of the South Half (S ½) Northeast One-Quarter (NE ¼) and the North One-Half (N ½) Southeast One-Quarter (SE ¼), Section 25, Township Three South (T3S), Range Four East (R4E), P.M.M., Gallatin County, Montana. In general, the property is located at 1750 Little Bear Road. Please refer to the vicinity map on page 3 of this report.

The Applicant’s proposed operation will expand the existing permitted area in a northerly direction in three phases. The current approved 25-acre mine is being amended to add 23.56-acres for a total of 48.56-acres. The history of MDEQ permitting is as follows:

Initial Operation was permitted 5-acres.	(1994)
Amendment #1 – 10-acers for a total of 15-acres	(7/11/03)
Amendment #2 – 10-acres for a total of 25-acres	(12/13/06)
Amendment #3 – 23.56-acres for a total of 48.56-acres	(Proposed)

Phase 1 will mine material in a northerly direction at the existing pit floor depth. Mining into the water table will not occur in Phase 1. The MDEQ permit requires a minimum of three (3) feet separation between high groundwater. Upon completion of Phase 1 mining reclamation will be completed on the existing 25-acres permit area except for the facilities area and the pond. Phase 2 and 3 will continue in a similar fashion. Upon completion of Phase 3 and only within the permitted pond area will mining occur into the ground water. According to the MDEQ Opencut permit the applicant has an approval for a pond totaling 6-acres. The estimated total quantity of mine material to be excavated is 675,000 – 700,000 cubic yards. Post mining will result in a 6-acre pond with the remaining area returned back into pasture. Maximum mining depth will be 50-75 feet and be determined by what a large excavator can reach.

The Applicant has requested an 11-year permit which is scheduled to terminate on October 2020 in conjunction with the approved Montana Department of Environmental Quality (MDEQ) Opencut Mining permit.

The property is owned and operated by Richard Huttinga. The subject property lies within the boundaries of the Interim Regulation, is not subject to any other zoning requirements, and is within the jurisdiction of the *Gallatin County Growth Policy*.

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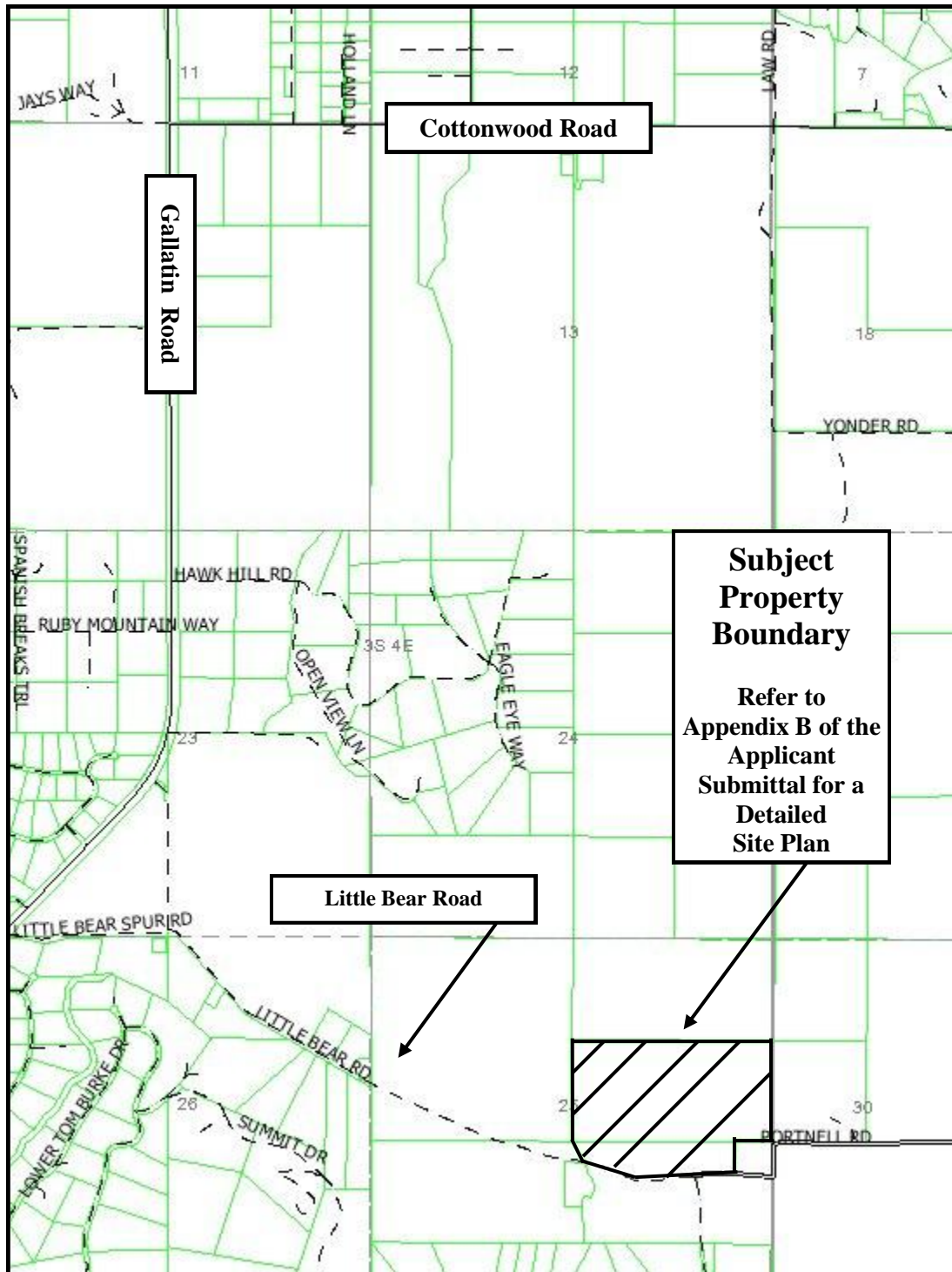
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## Vicinity Map



## INTRODUCTION TO THE INTERIM ZONING REGULATION:

The rapid population increase in Gallatin County during the early part of this decade has resulted in and significant changes to many of the Gallatin's communities. During this period Gallatin County has been the fastest growing county in Montana<sup>1</sup> adding 19,528 residents (or 28.8%) and the 96nd fastest growing county in the United States<sup>2</sup>. This population increase and corresponding increase in residential development undeniably requires the recovery of critical natural resources, such as sand and gravel and the processing of these resources into asphalt and concrete. Up until recently, the recovery of these natural resources and processing generally took place away from residential development and was thus immune from widespread conflicts with adjacent land uses.

Several recent proposals for new sand and gravel operations and the expansion of existing operations in areas of increasing residential development have brought to the forefront conflicts between these operations and environmental and neighborhood quality. Beginning in the fall of 2007, the County Commission began hearing requests by landowners living in close proximity to these operations to impose local land use standards (i.e. zoning) on new and expanding operations. It was these requests, in combination with perceived inadequate state review by the Montana Department of Environmental Quality (MDEQ) that lead to the imposition of interim zoning in all unzoned portions of Gallatin County on May 7, 2008.

These Interim Regulations were adopted by Gallatin County Commission Resolution No. 2008-053 pursuant to authority found in § 76-2-206, MCA. The Interim Regulations require most landowners or operators whose operation is regulated by the Montana Opencut Mining Act<sup>3</sup> to undergo review by Gallatin County for a Conditional Use Permit (CUP).

There are several general purposes and intents underlying the Interim Regulation. These include:

- a. promoting the public health, safety, morals, and general welfare;
- b. implementing the goals and policies set forth in the Gallatin County Growth Policy;
- c. promoting responsible recovery and processing of sand and gravel or other resources into concrete or asphalt by imposing reasonable conditions on sand and gravel operations and concrete or batch asphalt mixing operations within the boundaries of the Interim District including new mines or the expansion of existing mines; and

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<sup>1</sup> Montana Department of Commerce Census and Economic Information Center. <http://ceic.commerce.mt.gov/estimatescntypop.asp>.

<sup>2</sup> US Census Bureau 2007. Population Estimates by County. <http://www.census.gov/popest/estimates.php>

<sup>3</sup> Montana Department of Environmental Quality. <http://www.deq.state.mt.us/opencut/Index.asp>.

- d. requiring sand and gravel operations and concrete or batch asphalt mixing operations to provide adequate mitigation for significant adverse impacts to environmental and community resources caused by such operations.

In addition, there are several specific purposes of the Interim Regulation. These include:

- a. regulating sand and gravel mining operations and concrete or batch asphalt mixing operations and activities resulting from such operations, including the offsite hauling of raw or processed materials;
- b. protecting and perpetuating the taxable property value of the regulated property and adjacent and neighboring properties;
- c. providing for compatible uses on adjacent or neighboring properties;
- d. mitigating significant adverse impacts to state and county transportation facilities and systems resulting from activities regulated under this Interim Regulation in order to provide for the continued safe operation of those facilities and systems for the citizens of Gallatin County;
- e. minimizing health and safety risks to adjacent or neighboring properties and all citizens of Gallatin County resulting from activities regulated under this Interim Regulation;
- f. protecting surface and groundwater quality;
- g. preventing the degradation of soil, water, air and plant life from potential point and non-point pollution sources;
- h. preventing erosion resulting from activities regulated under this Interim Regulation;
- i. preventing the unreasonable depletion and degradation of natural resources including air quality, water quality, wildlife habitat, among others; and
- j. protecting the public from bearing the burden of impacts to public services and facilities by requiring activities regulated under this Interim Regulation to contribute their appropriate share of the costs of impacts resulting from those activities.

With these general and specific purposes and intents in mind, the Applicant's proposal is considered.

## **BACKGROUND:**

Aggregates and gravels are used as base construction materials in many facets of development and construction, including as critical material for structural foundations and roads. Although they are generally fundamental, low-value natural resources, the availability of gravel and construction aggregate is essential to construction, and in many respects, local and regional economic growth. While these resources are critical to development and construction, a major challenge associated with their production is the cost of transportation of the material from the mine and production location to the site for final use. Thus, because aggregate and gravel are low-value materials, and because the net cost of production raises quickly when accounting for transportation costs, these resources should be mined within a certain proximity to the final location of use. Although local market conditions vary, it is generally not cost-effective for the suppliers of these materials to haul aggregate more than 20 miles from its mining and production site.

Many localities nationwide have experienced shortages of construction aggregate. The ultimate reason for this shortage appears to be widespread urbanization, which, on the one hand, increases the demand for construction aggregates, and on the other, tends to remove aggregate-bearing lands from production through land development and zoning decisions that preclude mining. When sources of aggregate are eliminated locally, thus becoming more remote from the final places of use, the costs of construction can rise significantly. In high growth areas with rising land values, this is one factor that leads to potential conflicts between the land development and mining industries. Often these interdependent industries compete for use of the same land.

In Gallatin County, sand and gravel operations can involve many different processes. The degree of processing depends upon the type of finished product the operator is seeking to produce. The more refined the product the greater the on-site processing requirements. All use mechanical equipment, such as front end loaders, to extract the resources and stockpile for processing. Depending on the nature of the deposit and the market the operator is seeking, most operations will process the mined material into several grades of product from “pit run” to “washed” material.

In Gallatin County, not only does the type of product produced vary but also the ownership of these operations is diverse, from family owned operations to corporately owned large scale operations. The length of time the operations are active varies greatly, too. Several individual local operations have been in continual production for decades while others have been in production for only a limited period of time. Essentially, the rapid population increase Gallatin County resulted, until recently, in high demand for these resources and thus increased competition in the market and thus the request for several new operations.

The MDEQ regulates many facets of these operations through the Montana Opencut Mining Act (the “Act”) and associated administrative rules<sup>4</sup>. Currently, there are upwards of a dozen applications for new or expanding operations in Gallatin County before MDEQ. As part of the MDEQ application process, operators are required to obtain local government zoning approval if applicable. Thus, in order for the Applicant to obtain final approval from MDEQ under the Act it must obtain approval from Gallatin County under these Interim Regulations.

In Montana, Applicants for these operations are generally required to complete an Environmental Assessment under the Montana Environmental Policy Act (MEPA) [citation]. The Applicant has completed an EA and is included in the application materials. The EA discusses concerns related to water quality and quantity, traffic mitigation, air quality, and others. In addition to addressing the environmental factors, the Applicant’s submitted provides information on the potential impacts of the operations on property values within the area.

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<sup>4</sup> MDEQ ARM Title 17. <http://www.deq.state.mt.us/dir/legal/Chapters/Ch24-toc.asp>.



## STAFF FINDINGS:

- 1. Proposal Overview.** The application is for an amendment to an existing mining operation. The Applicant's proposed amendment is to mine gravel on an additional 23.56-acre parcel. The estimated total quantity of mine material to be excavated is 675,000 – 700,000 cubic yards. The mining will occur on an existing down gradient Bear Creek alluvial valley and slopes to a maximum depth of approximately 50 - 75-feet. Maximum depth will only occur during phase 3 within the permitted pond area, all other mining will occur above ground water level. The Applicant proposes to conduct mining operations in three phases. The applicant is requesting an 11-year permit which is scheduled to terminate in October 2020 in the MDEQ Permit No. Hut-001. The termination date corresponds with the date of the initial MDEQ Opencut Mining application.

The property is owned and operated by Richard Huttinga. The subject property falls within the boundaries of the Interim Regulation, is not subject to any other zoning requirements, and is within the jurisdiction of the *Gallatin County Growth Policy*.

The site was originally permitted in 1994 for 5-acres and expanded in subsequent amendments as described in the introduction. The addition of the current amendment will increase the permit area to 48.56-acres. The mine area is scheduled to be fully reclaimed back into pasture and a six acre pond.

The Applicant seeks to process the mined material using a grizzly feeder, crusher, pug mill<sup>5</sup>, screen, asphalt plant, and concrete plant. No wash plant will be utilized on site. However, it should be noted the applicant does not own an asphalt or concrete mix plants. Asphalt and concrete mixing will only occur on a temporary basis for specific projects if needed. The asphalt and concrete plants were permitted with the originally MDEQ Opencut permit with environmental review commiserate with permitting requirements during that time.

Currently there is approximately 25-acres of active mining operation. Future operations will be limited to approximately 10 to 20-acres of mining at anyone time.

- 2. General Nature of the Operation.** Generally, the Applicant's submittal documents provide a thorough overview of the project. The description can be found in Appendix B and H of the Applicant Submittal.

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<sup>5</sup> A pugmill or pug mill is a machine in which materials are simultaneously ground and mixed with a liquid. Industrial applications are found in pottery, bricks, cement and some parts of the concrete and asphalt mixing processes.

3. **Phasing.** As stated, the Applicant is proposing to conduct the operation in three phases. Please refer to Appendix E: *Site Inventory Map* the Applicant's submittal binder. A brief discussion of the phasing can be found in Appendix B of the Applicant Submittal.
- **Phase 1** – Phase 1 will commence upon approval and mine material in a northerly direction at the existing pit floor depth. Mining will not enter the ground water and will maintain a minimum of three feet of vertical separation between mining operations and high ground water mark.
  - **Phase 2** – Phase 2 continues in a westerly direction at the existing pit floor depth while maintain a minimum three foot separation between high ground water mark.
  - **Phase 3** – Phase 3 includes 4.09-acres and a portion of the expanded pond. A majority of Phase 3 will not enter the ground water. However, the existing 1.5-acre pond will be expanded by mining into the ground water to complete the mining operation.
4. **Proposed Onsite Equipment.** The Applicant Submittal states the operation will use a large excavator to extract the material and use a portable crusher with grizzly feeder, conveyors, pugmill, asphalt batch plant, and a concrete plant to process the mined material. A scale has been previously installed. The Applicant has submitted the Environmental Assessment (Exhibit D) performed for initial operation and a Supplemental Environmental Assessment which is contained in Appendix A of the Applicant Submittal. According to the Supplemental EA the initial EA stated that all operations were permitted including the asphalt plant. There does not appear to be any reference, discussion or impact analysis the concrete plant will have on the environment. Therefore, it is unclear if sufficient mitigation has been provided to minimize effects on neighboring properties and the natural environment.
5. **Asphalt Batch Plant/Concrete Mixing:** Asphalt and cement mixing facilities are permitted and may be used on site. As stated earlier in this report the operation was originally permitted in 1994. Prior to 2005 MDEQ Opencut permit applications did not request or directly address onsite equipment associated with a gravel mining operation (direct phone interview with Jo Stephen, MDEQ Reclamation Specialist) and, therefore, any onsite equipment is “grandfathered” into subsequent amendments.

The Air Resources Management Bureau (ARMB) evaluates plant emissions, based on accepted emissions inventory factors obtained from Federal and State guidance documents, and establishes appropriate limitations to ensure compliance with National Ambient Air Quality Standards (NAAQS) and Montana Ambient Air Quality Standards for these types of operations. Concrete mixing and Asphalt Batch plants require air quality permits.

### Concrete Mix

The water, sand, and gravel or crushed stone used in concrete production in addition to cement are also abundant (typical proportions of a residential concrete mix are shown in Table 1). With all of these raw materials, the distance and quality of the sources have a big impact on transportation energy use, water use for washing, and dust generation. Some aggregates that have been used in concrete production can be sources of radon gas.

**Table 1: Typical Concrete Mix**

Component	Percent By Weight
Portland cement	12%
Sand	34%
Crushed stone	48%
Water	6%

Source: Based on figures provided by the Ready Mix Concrete Association

### Site Considerations for PCC & Ac Batch Plants

The construction of roads, bridges, retaining walls, and other large structures in remote areas, often requires temporary batch plant facilities to manufacture Portland Cement Concrete (PCC) or asphalt cement (AC). Temporary batch plant facilities typically consist of silos containing fly ash, lime, and cement; heated tanks of liquid asphalt; sand and gravel material storage areas; mixing equipment; above ground storage tanks containing concrete additives and water; and designated areas for sand and gravel truck unloading, concrete truck loading, and concrete truck washout. Proper control and use of equipment, materials, and waste products from temporary batch plant facilities will reduce the discharge of potential pollutants to the storm drain system or watercourses, reduce air emissions, and mitigate noise impacts. On site mitigation include but are not limited to:

- (1) Temporary batch plants should be properly located and designed to mitigate water quality impacts to receiving water bodies. Batch plants should be located away from watercourses, drainage courses, and drain inlets. Batch plants should be located to minimize the potential for stormwater runoff onto the site.
- (2) Construct continuous interior AC or PCC berms around batch plant equipment (mixing equipment, silos, concrete drop points, conveyor belts, admixture tanks, etc.) to facilitate proper containment and cleanup of releases. Rollover or flip top curb or dikes should be placed at ingress and egress points.

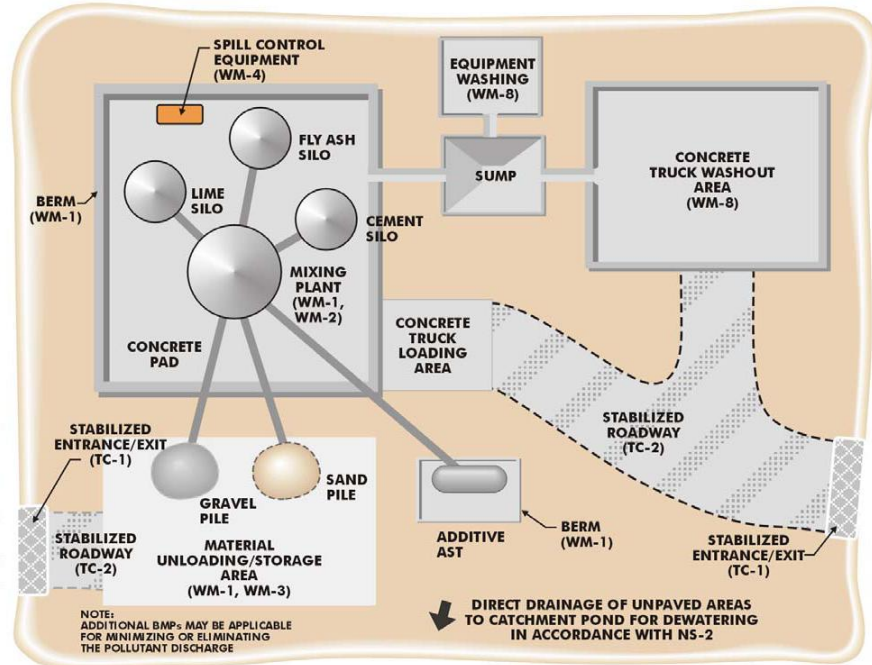


Figure 1: Typical concrete site plan.

If a concrete plant is brought on site, based on the aforementioned considerations, Staff suggests the operator to submit a site plan that substantially meets industry practice to minimize offsite effects of the operation. The Proper control and use of equipment, materials, and waste products from temporary batch plant facilities will reduce the discharge of potential pollutants to the storm drain system or watercourses, reduce air emissions, and mitigate noise impacts (Condition 18).

Additionally, without an on site wash plant the functionality of a concrete mixing facility is limited. The Applicant has stated concrete mix plant would be employed during specific projects that may require concrete based asphalt.

**6. Adjacent Land Use(s).** There is a variety of land uses surrounding the subject property. Current adjacent land use include:

- **To the North** – On the north, the property is dominated by agricultural land.
- **To the East** – This area is dominated by agricultural land and includes the path for Bear Creek.
- **To the South** – Residential land use dominate the area to south. In addition is the confluence of Big Bear and Little Bear Creek.
- **To the West** – Residential and agricultural land characterize the western area.

7. **Proposed Hours of Operation.** The hours of operation were not included with the original application. However, the Applicant submitted proposed hours of operation that mimic the current operation parameters. Those comments are included as Exhibit F of this report. Proposed hours of operation:

**Standard Demand** (normal operations):

Monday – Friday	7 am – 5:00* pm
Saturday	7 am – 5 pm (Loading, hauling, and maintenance)
Sunday	Closed

\* Maintenance is allowed Monday – Friday until 10pm

8. **Hauling of Materials.** All mined material will be hauled from the site with commercial end-dumps, belly or side dump trucks (WB-67), onto Little Bear Road. Please refer to the Traffic Impact Study (Exhibit A) and comments received from the Gallatin County Road and Bridge Department (Exhibit C) for more information on off-site impacts to the public road system.
9. **DEQ Permitting Requirements.** The Montana Department of Environmental Quality (MDEQ) Opencut Mining Program governs all sand and gravel operations in Montana, in accordance with the Opencut Mining Act. An Opencut Mining Permit must be issued by MDEQ prior to operation. The permit addresses location, topography, surface disturbances, land uses, structures and facilities, surface water, water wells, water table levels, soils vegetation, wildlife, access roads, mining facilities and hauling, hours of operation, water protection, and reclamation plans. The reclamation plan must ensure that the applicant/operator will establish vegetative cover commensurate with the proposed land use, will appropriately protect ground and surface water, and will remove or bury metal and other waste. MDEQ will issue a permit only if the reclamation plan, bond, and other requirements of Title 82, Chapter 4, Part 4 are fulfilled.

MDEQ has not approved the applicant amendment to the Huttinga Gravel Pit (HUT-001 Amendment #3) as of the date of this report. A Supplemental EA is in process of being completed. Based on conversations with MDEQ and the available environmental knowledge MDEQ does not anticipate significant changes from the Supplemental EA performed and issued for HUT-001 Amendment #2.

## **Environmental Impact Assessment**

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- 10. Geology/Soils.** The property consists of an alluvial valley deposits from Bear Creek with clay silt loam texture soils averaging 6 to 12 inches in depth. There is approximately two feet of overburden are found between the topsoil and minable gravel deposits. The height existing berm on the southern portion of the property will remain the same but will be narrowed. Topsoil will be used to expand the easterly berm in a northerly direction to the end of the proposed mining area. The remaining topsoil will be stored as a 50 foot wide topsoil stockpile on the northern boundary as described on the site inventory map found in Appendix E of the Applicant Submittal. The removed overburden will be used as a product.
- 11. Topography.** In general, the property forms a low angle valley sloping to the west. Slopes are steeper on the northern edge of the property. Total elevation change of the mining area from east to west is approximately 55-feet. The site plan visually described the topography.
- 12. Surface Water.** The HUT-001 Amendment #1 Environmental Assessment (Exhibit D) list “various irrigation ditches” are present on the subject property. The EA continues stating agricultural water conveyance facilities irrigate land to the north and east and all water rights are owned by the same property. According to the Water Resources Survey, Gallatin County, Montana the referenced facilities are the Armstrong Ditches. In addition to the Armstrong ditches the confluence of Bear Creek and Little Bear Creek is approximately 500 feet to the south of the subject property. There is no known hydrological connection between the mining operation and the creek.
- 13. Groundwater.** With the proposed amendment potential groundwater contamination does not appear to be a significant issue. Information about local wells obtained from the Groundwater Information Center (GWIC) operated by the Montana bureau of Mines and Geology indicated that static groundwater levels are 17 feet below surface level. The applicant stated mining operations will be a minimum of 3 feet above annual high water level and would only penetrate ground water during Phase 3 mining and only in the permitted pond area. Although there will be on site variability of ground water depth the available data suggest a maximum of 11 feet of gravel extraction is permitted. Estimated ground water depth is 17 feet below surface level, approximately 6 – 12 inches of topsoil and 2 feet of overburden and a proposed 3 foot separation between ground water and active mining will allow approximately 11 feet of gravel extraction.

Considering potential water contamination of the pond and the operations proximity to Bear Creek a Spill Prevention and Contingency Plan (SPCP) is recommended. The SPCP explains how Best Management Practices (BMP) would be implemented to protect surface and ground waters, and how spills of petroleum-based products would immediately be cleaned up and disposed of

(Condition 17). Additionally, the Environmental Protection Agency (EPA) regulates the storage of some fuels and requires storage pursuant to federal regulations.

Potential impacts discussed in the ER found that surface water would not be impacted by this operation. Mining would be located above ground water table and would not have the potential to impact drinking water, irrigation, or other groundwater supplies. It is unknown whether or not permanent fuel storage is proposed for the site. Therefore, Condition is suggested to mitigate potential surface and ground water contamination.

Recently, the Montana Supreme Court and the 18<sup>th</sup> Judicial District Court have addressed the investigation and findings of governing bodies in land use decisions as it relates to environmental issues and in particular, water quality. *See Flathead Citizens for Quality Growth, Inc. v. Flathead Bd. Of Adjustment* (2008 MT 1), and *Red Creek Ranch, LLC and Grayling Partners, LLC, v. Hebgen Lake Planning and Zoning Commission* (Op. in Ord. Cause No. DV-06-709AX and DV-06-743C). In these cases the courts noted that if a regulation, such as the Interim Regulation, requires a local governmental land use decision-maker to consider certain environmental issues the decision-maker must adequately address those issues and cannot defer their analysis and findings to a separate decision maker, such as MDEQ, with similar jurisdiction over the issue. As the Montana Supreme Court stated in *Flathead Citizens for Quality Growth*, “it is incumbent upon the Board to provide some level of factual foundation for [its] position.” *See* ¶ 59. Thus, because the Interim Zoning Regulation requires the Commission to review this CUP with impact to water quality and water quantity in mind, among other environmental concerns, the Commission must make specific findings on factors related to water quality and quantity and may not defer completely to MDEQ on these issues.

Considering the above, the Interim Regulation itself requires mitigation of impacts to groundwater. In fact, one of the primary purposes of the Interim Regulation is to protect surface and groundwater quality. Interim Regulation, Section 3.2.f; see also Section 6.1 (County Commission review criteria, provided below). Thus, Staff recommends the Commission directly address the relationship between groundwater quality and mining activity.

However, based on the available information, Staff has not identified any known impacts on ground water. There is, however, potential for degradation of surface water through storm water runoff. Although runoff from precipitation will be controlled on site implementing current stormwater BMPs is critical to maintaining water quality.

As a precautionary measure to protect water quality, Staff suggests conditions that require monitoring of groundwater levels. In addition, Staff recommends a condition that requires the operation to maintain a minimum four feet of vertical

separation between the seasonally high groundwater level and active mining surface in those areas not permitted to enter ground water<sup>6</sup>. (See condition 12). The Commission should be aware that the reclamation requires soil replacement to a depth of 12 inches with no overburden replacement except where described by the reclamation plan. As such, the addition of reclamation soil to the minimum separation between mining and the estimated high ground water depth would create a four-foot separation between post reclamation surface level and ground water.

Staff believes that in order to minimize potential impact to ground water, ground water depth monitoring and variable depth mining wherein sufficient vertical separation between groundwater and lowest mining surface is maintained is a plausible method to sufficiently mitigate impacts. The collection of additional groundwater information, in the form of establishing adequate baseline water quality data and continual water quality and quantity monitoring, will also help to address water quality and quantity concerns.

- 14. Water Consumption.** A limited amount of water may be required for the proposed operation. The pond will require water due to evaporative water loss on the proposed 6-acre pond. The Montana Department of Natural Resources Conservation (DNRC) does not require a beneficial water use permit for the size of the proposed pond. Water may be required to maintain irrigation for berms and buffers. According to the EA the applicant owns water rights for the Armstrong Ditch. However, the applicant has not supplied documentation showing sufficient water rights for the proposed operation. Therefore, Staff has suggested a condition of approval to insure adequate water rights for the operation and mitigate potential impacts on down gradient water users (Condition 4).
- 15. Reclamation.** Based on the MDEQ application and summary of the proposed operation the reclamation plan of the mine will employ rolling reclamation. Reclamation will run concurrently with mining operation. Specifically, reclamation will commence upon expanding the mining activity on the expanded mining area. As the mining operation is extended to Phase 2 and 3 of the current proposal, reclamation will be accomplished on portions of the property not involved in mining.

Upon the completion of mining operations the mined area will be returned into pasture except for the 6-acre pond.
- 16. Air Quality.** Air quality will be impacted through gravel mining. Contributing factors include excavation of topsoil and other soil resources (e.g., subsoil, overburden), excavation of aggregate, processing of gravel (e.g., crushing, screening, loading, and/or hauling), truck traffic to and from the site causing road

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<sup>6</sup> 1-foot loss of mined material equate to an approximate reduction of 26,340 cubic yards of aggregate or a loss of 3.8% in the total volume of the project estimated to be 700,000 cubic yards.



dust, movement of heavy equipment on site, and exposed stockpiles. Particulate matter (PM) is the primary pollutant from mining and rock crushing activities. DEQ maintains three monitoring stations for particulate matter in Gallatin County – City of Bozeman, Belgrade, and West Yellowstone.

There are different impacts to air quality depending on the size and type of material being disturbed. Clay, for example, is quite fine and contains silicates which may pose more of a health concern than coarser materials such as sand. Impacts from excess dust could include respiratory problems, safety concerns associated with driving, and cleanliness of personal property both indoor and outdoor. Adapting equipment and site operating practices can decrease the amount of dust generated by mining operations. MDEQ does not appear to offer dust control best management practice (BMPs) information. Idaho Department of Environmental Quality has published a dust control manual<sup>7</sup>. Other industry mitigation efforts could include the following:

- Enclosing crushers to minimize dust levels;
- Using fine spray or a misting system on crushing machinery;
- Placing a screening system around the crushing equipment and/or on the upwind side of the operation;
- Placing crushers in the excavated area (i.e., best to set up equipment in a low area of the pit to decrease exposure - this also has the benefit of reducing noise);
- Paving roads that have intensive or regular use;
- Watering traffic lanes during dry periods to prevent loss of fines due to vehicle movement;
- Considering material handling practices and shape of stockpiles (e.g., placement of gently contoured topsoil stockpiles on adjacent agricultural land so they can continue to be farmed during mining operations, allow access on top of stockpile for weed spraying and make them cigar-shaped, facing the prevailing wind);
- Considering prevailing wind direction (e.g., move stockpile material from the downwind side and do not have a rough exposed face when working);
- Considering the size and type of equipment for the job;
- Developing and implementing contingency plans (e.g., if there are heavy winds and insufficient control measures in place, shut down operations until the dust level subsides); and
- Consider using dust (particulate matter) monitoring equipment to provide factual information in case of disputes.

Volatile organic compounds (VOC) are the primary emission from asphalt operations (many of which are regulated by the EPA and MDEQ as Hazardous

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<sup>7</sup> Idaho Department of Environmental Quality. Supplemental Fugitive Dust Control Information. [http://www.deq.state.id.us/air/prog\\_issues/pollutants/dust\\_control\\_plan.pdf](http://www.deq.state.id.us/air/prog_issues/pollutants/dust_control_plan.pdf)

Air Pollutants (HAPS). VOCs combine with oxides of nitrogen to produce ozone. There are no EPA approved monitoring sites for ozone in Gallatin County.

Air quality in Gallatin County may be degraded due to the emissions from the proposed site but the activities and ambient air impact would be limited by DEQ's Air Resources Management Bureau (ARMB). DEQ has an EPA-approved air quality program defined in the Clean Air Act of Section 75-2-20, MCA that meets federal standards.

It is anticipated suspended particulate matter will be created through wind interaction with aggregate stockpiles. Mitigation includes dust suppression through Best Available Control Technology (BACT) which typically includes the use of water and water spray water and water spray bars. BACT for asphalt mix and batch mix asphalt plants typically include the use of baghouses, wet scrubbers, and/or condensers.

The MDEQ ARMB evaluates plant emissions, based on acceptable emissions inventory factors obtained from federal and State guidance documents, and establishes appropriate limitations to ensure compliance with the National Ambient Air Quality Standards (NAAQS) and Montana Ambient Air Quality Standards for these types of operations. The NAAQS are set at levels that are protective of human health and the environment. Sources that have potential air emissions above the permitted threshold are required to obtain permits from ARBB. To ensure compliance with these regulations staff has suggested Conditions 13,18.

- 17. Vegetation.** Range grasses and pasture dominate in the main permit area. There are no known rare plants, cover types, or species of special concern on the subject property as found by the Montana Natural Heritage Program. The current operation is covered by an approved weed management plan and is regularly sprayed for control of noxious weeds. However, the proposed expansion does not have an approved weed management plan. An approved weed management plan is required prior to commencing operation in the new area (Condition 38). The potential for weed seeds to be transported to the area and grow on disturbed lands is of concern. A site inspection was performed on June 23, 2003. At the date of the inspection Dennis Hengle, Gallatin County Weed Control District, gave the weed control measures an "excellent" rating.

The operator has submitted an application to obtain a weed free certification with the Gallatin County Weed District. Subsequent site inspection performed by Patrick Lawrence, Greater Yellowstone Coordinating Committee Gravel Pit Inspector, found five noxious weeds on site of concern and made management recommendations. These recommendations are included in Appendix F of the Applicant Submittal.

- 18. Wildlife.** The ER originally produced for the operation in 1995 stated that, “The location for the proposed operation precludes the significant use of wildlife, although it would expected to receive transient use by various avian species and some rodents.” Based on the geographical location and the properties proximity to significant wildlife habitat it is unclear whether or not the location could preclude the presence of terrestrial life on the subject property. However, the EA concludes that no further analysis is required and the supplemental EA performed for amendment #2 found that the previous expansion would not cause any significant impacts on the physical environment or human population. Based on the aforementioned it appears the current expansion would not cause any significant impacts on the physical environment or human population.

## **Community Impact Assessment**

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- 19. Access/Roads/Traffic.** Little Bear Road provides primary access to the property. Little Bear Spur Road provides secondary access to Highway 191 south. Little Bear Road provides access to State Highway 191 (Gallatin Road). Little Bear and Little Bear Spur Roads are County maintained Road and Gallatin Road is maintained by the Montanan Department of Transportation (MDT). Little Bear Road has a surface of pavement millings. The posted speed limit adjacent to the site is 35 miles per hour (mph) set by Ordinance 2006-009.

As required by the Interim Regulation the Applicant performed a Transportation Impact Study (TIS), pursuant to Gallatin County Planning Department requirements, done for the proposed operation and is contained in Exhibit B of this report. Staff required the TIS to undergo a peer review by CDM, Inc. who submitted additional comments found in Exhibit A. In addition, the Gallatin County Road and Bridge Department submitted comments on the proposed operation (Exhibit C). As with previous reviews both the Applicant's Traffic Assessment (TA) and the Applicant's subsequent update to the TA have been completed in accordance with general traffic engineering methodologies and principals. However, future traffic growth and weighted of loaded trucks was are absent from the TA. Conclusions and recommendations of the TA are:

*“The expansion of the Huttinga Gravel Pit is not planned to increase production capacity of the operations and future truck traffic will be at a level equal to past operations. There are no current capacity or safety issues on the existing roadway system and future traffic growth projections indicate that additional; demand on the road system will not have substantial impacts.*

*It is recommended that a stop sign control be instituted on Little Bear Spur road at its intersection with Little Bear Road to alert drivers on the spur road that Little Bear Road is the main roadway and right-of-way should be given to traffic on that road. The unconventional geometry of this intersection could presents future safety concerns if the volume of traffic entering the intersection were to double or triple at some future date. Reconstruction of the Little Bear Spur Road intersection approach may need to be considered if major developments are proposed in the future.”*

The Gallatin County Road and Bridge Department submitted comments and recommendations on the proposed action found in Exhibit C. Specific concerns of the Road and Bridge Department are bridge weight limits and roadway width on Little Bear Spur Road and roadway widths on Little Bear Road. Little Bear

Spur bridges are rated at HS20 capacities<sup>8</sup>, 36 tons or 72,000GVW. Little Bear Road is currently at a width less than 24 feet as required by County Road standard pavement width per §7, Table 2, Gallatin County Subdivision Regulations. To mitigate the effects of the operation and promote the health and safety of the residents in the affected area suggested condition include prohibiting haul truck movement on Little Bear Spur Road, widening travel surface of Little Bear Road to County Standards, and installing signage (Condition – 27).

- 20. Cultural Resources.** There are no known cultural resources on the subject site.
- 21. Property Value.** Economists have found “hedonic pricing models” are useful in isolating the contribution of specific factors on the price of housing. Although the merits of statistical analysis are beyond the purview of this report hedonic pricing models<sup>9</sup> can be characterized as a method of estimating value. The price of a property is determined by the characteristics of the house (size, appearance, features, condition) as well as the characteristics of the surrounding neighborhood (accessibility to schools and shopping, level of water and air pollution, value of other homes, etc.) The hedonic pricing model would be used to estimate the extent to which each factor affects the price.

There is limited geographically proximate research that can be applied in Gallatin County. The most relevant analysis, commissioned by MDEQ, titled, “*Gravel Pits: The Effects on Neighborhood Property Values*” (published in February 1998) did not employ the standard hedonic method<sup>10</sup>. This report employed sales comparison technique. As stated in the Applicants Submittal, this report found that gravel pit operations had limited, if any, negative measurable value effects on surrounding property. Data was culled from 1993 to 1998.

However, the only rigorous study to date measuring the effects of gravel mine on nearby residential values<sup>11</sup> found a large statistically significant effect of distance from a gravel mine on home sale price. Controlling for other determinates the author found a negative impact on home price with respect to distance from a gravel mine. The author found the closer the home to a gravel mine the greater the loss in house value. The analysis suggested the loss in property value results from the negative consequences of the mining operation and reflects the deterioration in the areas quality of life due solely to the operation of the gravel mine.

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<sup>8</sup> June, 1990 . Transportation Research Board National Research Council. *Truck Weight Limits: Issues and Option (Special Report 225)*. 307 pp.

<sup>9</sup> For more information - Hacket, Stephen C., 2006. *Environmental and Natural Resources Economic: Theory, Policy and the Sustainable Society*. M.E. Sharpe. 524 pgs.

<sup>10</sup> Rygg, Philip J., 1998. “Gravel Pits: The Effects on Neighborhood Property Values.” The Montana Department of Environmental Quality.

<sup>11</sup> Hite, Diane, 2006. “Summary Analysis: Impact of Operational Gravel Pit on House Values, Delaware County, Ohio.” Auburn University.

On the other hand, it should be noted the available data and analysis seems to suggest that the loss in property value is temporary. Upon full reclamation and the ceasing of the mining operation the real or perceived loss in property value is regained. As stated earlier the requested duration of the CUP is 11 years. For example, if a catastrophic event occurs to a family member whose home value is negatively affected by the gravel pit operation, and is forced to sell the home prior to end of the operation, the result may be severely impacted during operations. The original mine was permitted in 1999 and is expected to be fully reclaimed by 2028. This amounts to a 29 year life span for the entire operation.

In addition the applicant commissioned an *Analysis of Impact on Momentary Values of Adjacent Properties*. The report was performed by Joel Peterson Appraisal Inc. and is included in Appendix G of the Applicant Submittal. The anecdotal evidence presented in the report suggested the gravel pit operation had little if any negative effect on the Little Bear Subdivision in this scenario.

It is also important to note that many of the mitigation measures required in the conditions of approval related to groundwater quality and quantity, air quality, noise suppression, screening and landscaping etc. may help to alleviate impacts to property values if properly installed and maintained.

**Staff has not included a specific condition of approval to address concerns regarding property values; rather, Staff suggests the Planning Board and County Commission consider this finding in your discussion and decision. If specific mitigation or a condition of approval is required, Staff will be available to assist in drafting this condition during board discussion.**

- 22. Economic Benefit/Degradation.** It is unclear the extent to which Gallatin County receives *direct* economic benefits from the proposed gravel mine. Because of its weight and low-value, gravel is hauled for only short distances and, therefore, does not add significantly to the basic economy of the region. Essentially, economic activity in a region can be broken down into two components: activity which meets local, internal demand and activity which meets non-local demand. The former is non-basic; it serves the area but does not, on its own, cause the economy to grow. The latter category is basic and provides an engine for local economic growth because it is the demand from beyond the area which causes the area to grow.

While the gravel industry as a whole in Gallatin County in 1999 employed 98 people<sup>12</sup>, and provides critical material for the construction industry, the economic value of a proposed gravel mine must also be viewed in relation to the potential environmental impact on Gallatin County, the potential impacts on residential property values in the area. According to the Gallatin County GIS Department there are 52 MDEQ approved or pending gravel pits in Gallatin County.

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<sup>12</sup> Montana Dept of Labor and Industry (ES-202 program).

Currently, there is no data indicating the need for aggregate material needed in Gallatin County nor the number of additional employment the proposed gravel mine will create.

The potential employment of the proposed operation impact would most likely be limited. In a report commissioned by the Richland Michigan Township Planning Commission<sup>13</sup> concluded that a 253-acre gravel mine would add 2 additional new jobs to the area. Due to the low value, non-basic nature of the product the Richland, Michigan activity did not generate any significant new income or employment opportunity to the area (Erickcek 2006).

Therefore, it does not appear the proposed gravel mine would result in any significant direct net benefit to the area from job or income creation.

**23. Fire Mitigation.** The proposed operation is within the Gallatin Gateway Rural Fire District (GGRFD). To promote site safety and minimize the potential of catastrophic events Staff has suggested that the Applicant shall notify the GGRFD District regarding all access, parking, fire suppression, and emergency evacuation plans (Condition 43).

**24. Noise.** During the hearings on the adoption of the Interim Regulation, noise was a particular concern for neighboring residents. Noise contributors in pit operations include heavy trucks, vehicles, machinery (crushers, screeners, backhoes, etc.), conveyer systems, open pumping systems for water activities, and back up alarms. If proper sound control features are incorporated into facility design in the planning stages, sound levels can be kept to acceptable minimums. Methods to reduce the amount of noise generated on a site could include the following:

- Suppression by enclosure of pumps or other systems;
- Enclosure of crushers (e.g., use of a blanket system around the outside of a plant to absorb sound);
- General restriction on operations (e.g., reduce or restrict the use of engine retarder brakes and reduce the amount of heavy gearing);
- Selection of equipment that has taken noise reduction into account;
- Consideration of equipment siting (e.g., crusher set up in low areas, use of stockpiles as sound barriers, and operational design of pit); and
- In instances where pit operations are close to residential areas, the use of sound monitoring equipment is encouraged to provide factual information in case of disputes.

The applicant has proposed topsoil buffers on the west, east and southern edges of the mining area although the height of the buffers is unknown. Noise mitigation would provide added benefit for the onsite employees of the operation. Noise is

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<sup>13</sup> Erickcek, George A., 2006. "An Assessment of the Economic Impact of the Proposed Stoneco Gravel Mine Operation on the Richland Township." W.E. Upjohn Institute for Employment Research.

one of the most pervasive health hazards in mining. Exposure to hazardous sound levels results in the development of occupational noise-induced hearing loss (NIHL). The Mine Safety and Health Administration (MSHA) state that miners and the mining community receive numerous benefits from the reduction of to hazardous sound levels. The greatest benefit is the reduction in the number and severity of cases of NIHL. MSHA expects that implementation of the provisions in a proposed federal rule would reduce the number of cases of noise-induced hearing impairment by about 67%<sup>14</sup>. (See Conditions 28 - 33).

MSHA believes that miners exposed at sound levels exceeding 85 dBA for a working lifetime are at significant risk of developing a material impairment of hearing. The following list presents typical sound levels of some types of mining equipment without noise controls:

<u>Surface Mining Equipment</u>	<u>Sound Levels</u>
Front End Loader	95 – 102dBA
Crushing/Breaking/Screening Equipment	90 – 100 dBA

For example, the Proposed Schlecht Gravel Pit Permit Amendment in Corvallis, Montana employed polyurethane/rubber screen fabric for the screening plant(s) associated with the crusher(s) are currently being equipped with, which demonstrate a drastic reduction of noise generated by the aggregate particles coming into contact with the screens as part of the production process. According to the manufacture’s literature (Polydeck Screen Corporation) report that a noise reduction of 50% or 10 decibels can be expected when utilizing these screens. In addition, the jaw crusher is insulated with blue-board insulation, thereby dampening the noise generated by this piece of equipment<sup>15</sup>.

- 25. Notice.** Legal notice of the Commission hearing was sent to property owners adjacent to and 1,000 feet of the subject property via certified mail. Property owners between 1,000 feet and one mile were notified via US Mail. Notice was also published in the *Bozeman Daily Chronicle* on January 11<sup>th</sup> and 18<sup>rd</sup>, 2008.

Staff has received public comment on the proposed action. All comment received by the date of this report is contained as Exhibits G - L. The Commission hearing must make specific determinations as to whether or not the public comment(s) have been adequately addressed and/or concerns been addressed through compliance with the Regulation, mitigation, or other effort.

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<sup>14</sup> US Department of Labor. Mine Safety and Health Administration.  
<http://www.msha.gov/regs/rea/NFLX1.HTM>.

<sup>15</sup> Blahnik Gravel Pit Permit Amendment. Corvallis, Montana, Ravalli County.  
<http://www.schlechtpitproposal.com/>.



## GALLATIN COUNTY GROWTH POLICY COMPLIANCE:

The *Gallatin County Growth Policy*, adopted April 15, 2003, applies to this application pursuant to §6.1(a) of the Interim Regulation. As stated in Section 1.1 (Scope and Purpose), the *Growth Policy's* principle purpose is to provide general direction for decisions relating to land use. In addition to the specific goals and objectives contained within the *Growth Policy* another primary purpose is to guide those land use decision so that growth occurs in a coordinated, logical, and cost-effective manner that minimizes unplanned, costly sprawl.

The Applicant provided in its submittal a commentary on compliance with the *Growth Policy*. The applicant's commentary highlighted similar goals and objectives of the *Growth policy*.

The findings below are provided by Staff based upon review and with consideration given to suggested conditions of approval. Specific to this Application, the Commission should consider the general intent and purposes of the *Growth Policy* and the following specific goals and policies when evaluating the proposed operation.

### *Policies Related to Environmental Concerns:*

#### **3.1 Water Quality**

GOAL 1: Protect Water Quality

Policy 7: Encourage development to document efforts to protect water quality.

Policy 8: Encourage heavy industrial uses, including animal feeding operations, to document mitigation of adverse impacts on surface and ground waters.

**Staff Findings:** Generally, through adequate mitigation measures, the operation will protect both surface water and groundwater quality. In addition to requirements imposed by MDEQ and identified in the MDEQ EA, this operation will protect surface water quality by containing all surface runoff onsite, provides ample geographic distance from Little Bear Creek, has shown successful mitigation during the life of the operation, and will maintain a separation between mining operations and ground water. These measures, in addition to requirements imposed by MDEQ, will adequately protect surface water quality. Due to site specific considerations potential affects to groundwater will be minimal. However, conditions of approval require the Applicant to monitor groundwater quality throughout the life of the operation and require the Applicant to maintain a separation between the high groundwater level and active mining.

Finally, the enforcement mechanisms in the Interim Regulation provide an adequate remedy for neighbors to request Gallatin County enforce the conditions of approval. Through these mitigation measures, the operation will be ensuring it will protect water quality.

### 3.4 Air Quality

GOAL 1: Protect Air Quality

Policy 2: Require development to demonstrate compliance with local, State and Federal air quality regulations or standards.

Policy 3: Encourage development to protect air quality and reduce particulate matter.

- Encourage development to minimize vehicle miles traveled.

**Staff Findings:** Generally, through adequate mitigation measures, the operation will comply with the above goal and policies to protect air quality. First, the operation is required as a condition of approval to obtain a permit under the Clean Air Act, if required by MDEQ. Second, the operation is required by the conditions of approval to prevent impacts to air quality through the use of tactifiers or other dust control measures on all driving surfaces and stockpiles of material, the seeding and irrigation of topsoil stockpiles, and the covering of all loads leaving the operation. Thirdly, the operator has applied water and magnesium chloride as dust mitigation measures to address rouge particulate matter. Any on-site asphalt batch plants or concrete mixing plants are required to carry approved air quality permits issued through the MDEQ Air Quality Department. Finally, the enforcement mechanisms in the Interim Regulation provide an adequate remedy for neighbors to request Gallatin County enforce the conditions of approval. Through these mitigation measures, the operation will be ensuring it will protect air quality.

### 3.5 Soils

GOAL 1: Minimize Soil Erosion

Policy 1: Ensure development demonstrates compliance with local, State and Federal regulations and standards relating to soil erosion.

Policy 2: Encourage development to comply with re-vegetation and weed control plans as prescribed by the Gallatin County Weed Department through proper weed management plans and memorandums of understanding

**Staff Findings:** Generally, through adequate mitigation measures, the operation will protect soil erosion. Topography of the subject site will be improved for future agricultural production which minimizes water runoff and erosion. First, the operation is required as a condition of approval to obtain a permit under the Opencut Mining Program which, in part, through the MDEQ permit conditions, will mitigate potential negative externalities caused by the operation. Secondly, the Applicant will be required by the conditions of approval to secure an approved Weed Management Plan from the Gallatin County Weed District. The Plan is in force for the duration of the operation. Finally, stormwater management BMPs will be integrated into the operation. These include such measures and seeding of berms and the use of silt fencing.

Moreover, the Phasing Plan for the operation will provide a modicum of protection for soil erosion by minimizing the amount of soils stockpiled. As required by the conditions of approval overburden stockpiles will be revegetated during storage to control for weeds and erosion.

### ***Policies Related to the Location of Commercial and Industrial Development.***

The adoption of interim zoning was done in compliance with several main goals in the *Growth Policy*. The *Growth Policy* includes a goal to “Local Commercial and Light Industrial Development in Areas Planned or Zoned for that Usage” as well as a goal to “Manage Heavy Industrial Development.” Chpts. 3.8 and 3.9, pg. 25. Specific to the goal of locating industrial development in areas planned or zoned for that use the *Growth Policy* states, as a policy, to “prevent the encroachment of industrial uses into residential areas.” Specific to the goal of managing heavy industrial development, the *Growth Policy* states, as a policy, to “locate heavy industrial development in areas that have minimal adverse impact on other uses, and in areas planned or zoned for heavy industrial development.”

Characterizing this geographic area for a determination of whether the area is “residential” is difficult. As described in Finding #6, above, the area is comprised of a mix of agricultural, rural residential and commercial uses north and south of the subject property. Therefore, the proposed use does not appear to directly conflict with goal 3.8 and 3.9 but may not comply in all respects.

## **3.8 Commercial and Industrial – Light**

GOAL 1: Locate Commercial and Light Industrial Development in Areas Planned or Zoned for that Usage.

Policy 1: Encourage development or document and provide adequate infrastructure for new commercial and light industrial development.

Policy 5: Encourage development to document:

- Consistency with the Growth Policy and applicable regulations.
- Mitigation of adverse impacts.
- Availability of adequate local services and public facilities.
- Compatibility with existing uses and natural environment.
- Compatibility with logical expansion of local services and public facilities.

**Staff Findings:** Generally, through adequate mitigation measures, the operation will comply with the above goal and policies to locate industrial development in appropriate areas. The operation will not adversely burden existing infrastructure by its nature. Dispersion of gravel mines inherently mitigates infrastructure demands. *Growth Policy* objectives will be further realized through dust control measures, noise abatement, hours of operation, and monitoring.

### 3.9 Commercial and Industrial - Heavy

GOAL 1: Manage Heavy Industrial Development

Policy 1: Locate heavy industrial development in areas that have minimal adverse impact on other uses, and in areas planned or zoned for heavy industrial development.

Policy 2: Encourage heavy industrial development to document:

- Consistency with the Growth Policy and applicable regulations.
- Mitigation of adverse impacts.
- Availability of adequate local services and public facilities.
- Compatibility with existing uses and natural environment.
- Compatibility with logical expansion of local services and public facilities.

Policy 3: Ensure development demonstrates compliance with local, State and Federal regulations and standards for: soil, water and air contamination.

**Staff Findings:** Generally, through adequate mitigation measures, the operation will comply with the above goal and policies to locate commercial and heavy industrial development in appropriate areas. The operation will not adversely burden existing infrastructure by its nature. Further, the applicant has performed additional mitigation including the application of dust suppression on Little Bear Spur Road. Additionally, dispersion of gravel mines inherently mitigates infrastructure demands. *Growth Policy* objectives will be further realized through dust control measures, noise abatement, hours of operation, and monitoring.

## CRITERIA FOR COUNTY COMMISSION REVIEW:

**Section 6.1 of the Interim Regulation, provided below, contains the required findings for approval. Please note the Applicant's submittal material contains a detailed discussion of the required approval criteria.**

6.1. Conditional Use. A Conditional Use Permit (CUP) shall be obtained prior to commencing work onsite for all new Operations or the expansion of existing Operations following the CUP procedure described below. Granting of a CUP is contingent upon fulfillment of conditions imposed by the Commission pursuant to Section 6.3 and the requirements of Section 6.4.

CUPs shall be issued by the Commission only upon finding:

- a. The Operations conform to the objectives of the applicable growth policy having jurisdiction over the proposed Operations site (Gallatin County Growth Policy or the Belgrade Growth Policy, and the Four Corners Community Plan) and the purposes and intent of this Interim Regulation;
- b. The Operations will not have significant adverse impacts on nearby properties, property values, nearby land uses, or nearby residents;
- c. The Operations will not have significant adverse impacts on groundwater, streams, or wetlands or, if significant adverse impacts are identified, the Applicant shall enter into a written agreement with Gallatin County providing for mitigation, including the provision of financial security, for the identified impacts;
- d. The Operations will not have significant adverse impacts on public services and facilities or, if significant adverse impacts are identified, the Applicant shall enter into a written agreement with Gallatin County providing for mitigation, including the provision of financial security, for the identified impacts;
- e. The Operations meet all other applicable federal, state or local regulations, including the Requirements of section 6.4 below; and
- f. A public hearing, after notice has been given, has been held.

**In addition, Section 6.2 provides the Commission with the ability to specify the time a CUP under the Interim Regulation is approved for:**

- 6.2 Permits, Terms of Issuance. A CUP may be issued for a revocable, temporary, permanent or term period. All CUPs issued for a definite term shall expire at the end of the term. Extensions can be obtained by following all procedures and payment of fees required for the original permitting.

**Finally, Section 6.3 of the Interim Regulation provides authority for the County Commission to impose “reasonable limitations or conditions” on the operation to ensure compliance with the goals and objectives of the Interim Regulation and the Gallatin County Growth Policy:**

- 6.3 Permits, Conditions. The Commission may make the granting of a CUP subject to reasonable limitations or conditions as it may deem necessary to protect the public health, safety, morals, and general welfare, to reduce significant adverse impacts on nearby property or residences, to preserve the character of the area, to mitigate significant adverse impacts, and to give effect to the purposes and intent of this Interim Regulation. The conditions may include but are not limited to the following:

- a. Vehicular ingress and egress.
- b. Right-of-way.
- c. Lighting.
- d. Term of the Operation.
- e. Signs.
- f. Noise.
- g. Dust and other air quality parameters.
- h. Vibrations.
- i. Erosion.
- j. Protection of water quality and quantity.
- k. Regulation of the time of activities, which may include a provision for operating beyond the required hours of operation under special circumstances.
- l. Landscaping and maintenance thereof.
- m. Placement of uses on the property.
- n. Method of water disposal.
- o. Nature and extent of use.
- p. Noxious weeds.
- q. Public safety measures, including fire protection.
- r. Submission of periodic monitoring reports.

## GALLATIN COUNTY COMMISSION DETERMINATION(S):

In evaluating the application, the Commission must make adequate and defensible findings supported by facts on all the determinations listed below. The Commission, at the Commission hearing, may incorporate the staff findings and others in its determinations.

### **The following determinations are required:**

1. Does the proposed operation conform to the objectives of the Gallatin County Growth Policy and the purposes and intent of this Interim Regulation?
2. Will the operation have significant adverse impacts on nearby properties, property values, nearby land uses, or nearby residents or, if significant adverse impacts are identified, has the applicant provided for adequate mitigation, including the provision of financial security, for the identified impacts?
3. Will the operation have significant adverse impacts on groundwater, streams, or wetlands or, if significant adverse impacts are identified, has the applicant provided for adequate mitigation, including the provision of financial security, for the identified impacts?
4. Will the operations have significant adverse impacts on public services and facilities or, if significant adverse impacts are identified, the Applicant provided for adequate mitigation, including the provision of financial security, for the identified impacts?
5. Has or will the operations be required to meet all other applicable federal, state or local regulations, including the Requirements of section 6.4 of the Interim Regulation?
6. Has public comment been adequately addressed and considered?
7. Has a public hearing, after notice has been given, been held?

## SUGGESTED CONDITIONS:

If the Planning Board recommends approval of this application to the Commission, Staff suggests the following conditions:

1. For the duration of the operation, all facets of the operation shall be in substantial compliance with the information, discussion, and proposed mitigation included in the application for this CUP. Any deviation from the proposals suggested in the application materials may be considered a violation of this condition.
2. Unless otherwise authorized by these conditions of approval, prior to commencing any onsite mining or processing operations, Applicant shall demonstrate compliance with any pre-operating conditions of approval contained herein and obtain a Land Use Permit from the Gallatin County Planning Department. No fee shall be charged for the Land Use Permit.
3. The operation shall be permitted to operate for a period of eleven years from the date of issuance of the MDEQ Opencut Permit. However, at the end of the third year, commencing upon the date of issuance of the Opencut Mining Permit from MDEQ, Applicant shall initiate review by the Board of County Commissioners for compliance with applicable regulations and these operating conditions. Upon a showing the operation has been in substantial compliance with all applicable conditions of approval, the Gallatin County Commission may expand the approval for the remainder of the permitted eleven year term. Failure to obtain Commission approval prior to the expiration of the third year shall be a violation of this condition. All other enforcement provisions pursuant to the Regulation shall apply at all times.
4. If the installation of a 35 gpm exempt well is required to satisfy conditions of approval, evidence of the installation and registration of a 35 gpm exempt well shall be submitted to the Planning Department.
5. Applicant shall record with the Gallatin County Clerk and Recorder a waiver of right to protest, approved in form and content by the Gallatin County Attorney, any future Rural Improvement Districts (RIDs) or Special Improvements Districts (SIDs).



## **Hours of Operation**

6. Hours of operation for all facets of the operation, including but not limited to off-site truck hauling, gravel crushing concrete mixing, and asphalt mixing, shall be restricted to the hours of 7:00 a.m. to 5:00 p.m., Monday through Friday.
7. Saturday operations are limited to 7:00 a.m. to 5:00 p.m. for loading, hauling, and maintenance. No crushing, asphalt batching or concrete mixing shall occur on Saturdays. No other operations are permitted.
8. Maintenance shall be restricted to the hours of 7:00 a.m. to 10:00 p.m., Monday through Friday
9. No operations shall commence on Sunday.

## **Environmental Quality**

10. Prior to issuance of a Land Use Permit, the Applicant shall provide adequate on-site sanitary facilities for employees. The Applicant shall make a reasonable good faith effort to screen the facilities from view.
11. Mining shall at all times maintain a four (4) foot vertical separation between annual high ground water level and lowest level of mining activity. Notwithstanding the above the applicant shall install at least two on site ground water monitoring wells in locations to be determined by consultation with Gallatin County Local Water Quality District within the proposed expansion boundary. Applicant shall monitor ground water depth on no less than a monthly basis during the course of the operation.
12. If, at any time during operations any other environmental permit, such as required by the federal Clean Air Act or Clean Water Act, are required by any other federal, state, or local permitting agency, the Applicant shall obtain approval for the appropriate permit and provide a copy of the application and approval to the Gallatin County Planning Department.
13. Prior to commencing active mining operations, Applicant shall install at least two off site monitoring wells in locations to be determined by consultation with Gallatin County to monitor and ensure adequate groundwater monitoring for water quality and quantity. Applicant shall collect adequate baseline data in said wells prior to commencing active mining operations and shall monitor water quality and quantity on no less than six-month basis during the course of the operation. All data collected shall be provided to the Gallatin Local Water Quality District and the Planning Department on a six-month basis.
14. Spill Prevention and Contingency Plan (SPCP) is recommended.

15. Prior to issuance of a Land Use Permit, drainage plans for the operation shall be submitted to the County and approved by MDEQ, if required.
16. The applicant shall not store hazardous materials such as unleaded fuel onsite. Diesel fuel shall be contained in a manner prescribed by MDEQ.
17. If concrete will be mixed on site the applicant shall submit a concrete mixing site plan to the Gallatin County Planning Department for review prior to commencing any onsite processing operations. The plan shall substantially comply with the criteria outlined in finding No. 5.

### **Roadway Improvement and Traffic Safety**

18. All haul trucks shall be prohibited on Little Bear Spur Road. Two “No Trucks” signs shall be installed on Little Bear Spur Road due to its narrow gravel width and three narrow bridges.
19. If haul trucks are allowed on Little Bear Spur Road Applicant shall improve Little Bear Spur Road to County Road Standards pursuant to §7, Table 2 of the Gallatin County Subdivision Regulations from the intersection of U.S. Highway 191 to and including the intersection of Little Bear Road. These improvements shall be determined after random bore hole sampling to determine existing sub-grade and base section of the roadway. An engineering analysis and design shall be performed to establish the proper construction methods to ensure the roadway is improved to current county standards. All section and ¼ corners disturbed due to construction activities shall be raised to finished grade. All utility relocations, drainage improvements, bridge improvements and incidental work needed to accomplish this offsite roadwork shall be included. Plans and encroachment permits for these improvements shall be approved by the County Road department prior to any construction.

The Applicant shall either: a) complete the required access road construction prior to issuance of a Land Use Permit, or b) enter into an improvements agreement with the County for the completion of the required road improvements. The improvements agreement shall comply with all requirements of the Gallatin County Subdivision Regulations.

A pre-construction meeting shall be conducted with the Gallatin County Road and Bridge Department prior to the start of any road construction.

All roadwork shall be built to Montana Public Works Standard Specifications (Current Edition), and shall be inspected and certified by a Montana registered civil engineer. The applicant shall obtain written verification from the County

Road & Bridge Department that all road(s) have been brought to County standards. Final approval will not be given until this documentation is received.

A two (2) year written warranty from the contractor shall be required for all road improvements. The warranty shall be submitted to the County Road & Bridge Department prior to final plat approval.

20. Thirty-feet of Little Bear Road north of centerline shall be dedicated to the public for the entire length of the permitted parcel.
21. All areas within public right-of-ways disturbed by construction shall be sodded and seeded and controlled for noxious weeds.

### **Noise Suppression**

22. Applicant shall to the greatest extent possible enclose all pumps or other noise producing systems within appropriate noise containment apparatus.
23. Notwithstanding any other condition, if audible backup alarms are installed on any on-site equipment all backup alarms shall be Mine Safety and Health (MSHA) – approved and not exceed MSHA approved sound levels.
24. Equipment selection shall be commensurate with geographic location to minimize noise.
25. High-grade mufflers or other sound-dampening devices shall be installed on all diesel powered generators and equipment to reduce noise impacts.
26. Applicant, using a certified specialist, shall measure noise levels at two representative residential locations around the proposed site to establish general ambient noise conditions. One measurement shall be during regular operating hours (7 am – 5 pm) and the other in evening (23:00 – 23:30). During the course of this CUP, Applicant, using a certified specialist, shall continue to monitor noise levels on a monthly basis during active operations at a minimum of two locations on site. Noise levels shall be measured using the same techniques as used to determine the ambient noise levels. Acceptable noise levels measured during active operations shall in no circumstance exceed 10 dBA above the existing day and night average noise level ( $L_{dn}$ ) calculated during the general ambient noise condition measurements. Applicant shall provide all data to the County Planning Department on a routine basis for the term of the CUP.
27. The use of jake (compression) brakes on hauling trucks shall be prohibited on Little Bear or Little Bear Spur Roads.

## **Dust Suppression and Control**

28. Prior to issuance of a Land Use Permit, the Applicant shall complete a Permit Determination process with the MDEQ Air Resources Management Bureau and provide documentation of completion to the Planning Department.
29. Dust abatement shall be performed consistently and conscientiously to limit the impacts to the air quality of surrounding properties and the general air quality of Gallatin County. To comply with the above, the operator may be required to continuously spray water on all materials during the crushing process and use tackifiers on fines storage to minimize dust emanation from any stored materials. Applicant shall spray magnesium chloride (or other dust control measures as approved by the Gallatin Count Road and Bridge Department) on interior roads so that dust emanation from interior roads is minimized.
30. All haul trucks leaving the facility shall be adequately covered or properly loaded to prevent unsafe amount of material from escaping onto public roads.
31. Gravel storage piles shall not exceed 50-feet in height measured from the excavated area grade.

## **Noxious Weed Management**

32. Prior to issuance of a Land User Permit, the Applicant shall obtain an approved Weed Management and Revegetation Plan (“Plan”) from the Gallatin County Weed District (“Weed District”) for the proposed expansion. The approved Plan must address weed control operations for the duration of this CUP. Upon obtaining a Land Use Permit, the Applicant shall immediately begin implementation of the Plan.

Notwithstanding the above, all areas disturbed by construction, including areas on-site and areas off-site, including stockpiled topsoil, overburden berms and roads shall be controlled for noxious weeds and revegetated in accordance with the rules, regulations, standards and requirements of the Weed District.

All areas of stockpiled topsoil and overburden berms shall be adequately irrigated for the duration of this CUP to ensure seeding is successful and plant growth adequately controls erosion and weed growth.

Prior to closure of the mining operation the developer shall fulfill all requirements of the Plan and obtain a Memoranda of Understanding from the Weed District. If the Applicant has failed to complete all requirements of the Plan the Applicant shall enter into an Improvements Agreement with the Gallatin County Board of County Commissioners. The Improvements Agreement shall state that any

revegetation and/or weed control required to be completed prior to closure of the operation shall be conducted during the next season where revegetation and weed control work can reasonably be accomplished.

### **General Operating Conditions**

33. All lighting used on site shall be directed in such a way as to be contained completely within the boundaries of the property and shall not emanate beyond the property lines. All lighting shall be hooded, screened or directed in a manner so that any light shall not be detrimental to the adjoining property owners or the neighborhood. Lights shall be extinguished at the close of business each day, with the exception of limited security lighting.
34. Applicant shall prepare a landscape plan for lot frontage along Little Bear Road and present the plan to the County Planning Department for comment. The landscape plan need not be approved by Gallatin County. The plan should provide the Applicant information on how to landscape the entire frontage to alleviate visual impacts associated with the operation. This plan may include the planting of trees, historic fencing, or other mechanisms.
35. The operator shall enforce safety measures, including preventing overfilled trucks, covering loads, educating truck drivers, and monitoring driver performance.
36. Fuel containment measures shall be utilized as required by the application to MDEQ.
37. Prior to issuance of a Land Use Permit, the Applicant shall notify the Gallatin Gateway Rural Fire District regarding all access, parking, fire suppression, and emergency evacuation plans.
38. Blasting operations may only occur upon a minimum of 24 hour written notice to all landowners within 2,500 feet of the site.
39. All parking areas for employee vehicles and company vehicles shall be provided onsite.
40. Applicant shall notify the Gallatin County Planning Department within 24 hours if any violation of these conditions of approval or any violation of any operating condition required by MDEQ is reported to MDEQ.
41. All conditions of approval imposed by MDEQ under the Opencut Mining Act shall be incorporated herein and constitute conditions of approval of this CUP and shall be enforceable as such by Gallatin County.

42. These conditions run with the land and shall be binding on the Applicant, landowner, and all successors in interest to the Applicant and landowner.
43. Prior to issuance of a Land Use Permit, the Applicant shall record with the Gallatin County Clerk and Recorder a copy of the signed and attested Findings of Fact and Order including these conditions of approval.
44. Nothing in this condition shall prevent the Applicant from stripping and stockpiling topsoil, constructing the access road(s) or making improvements to Little Bear Spur Road prior to obtaining a valid Land Use Permit.
45. Applicant shall obtain a Land Use Permit within one year of approval of this CUP. A single one-year extension may be granted. Failure to obtain a Land Use Permit within this time frame shall result in the approval of this CUP being voided.

**EXHIBITS:**

- A. Traffic Impact Study – Huttinga Gravel Pit, November 22, 2008
- B. CDM TIS Review, December 16, 2008
- C. Gallatin County Road & Bridge Department Comments
- D. MDEQ HUT-001 Environmental Assessment
- E. Water Resources Survey, Gallatin County, MT – (T.3S. – R.4E. pg. 40)
- F. Proposed Hours of Operation
- G. Scotty & Deborah Smith Comments
- H. Susan Rabatin Comments
- I. Jan McGurk Comments
- J. Bob & Muriel Kimberly Comments
- K. Paul & Brooke Trey Comments
- L. Gateway Opencut Action Group Comments

CC: Gallatin County Attorney  
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