

STAFF REPORT

TO: GALLATIN COUNTY COMMISSION

FROM: TOM ROGERS, PLANNER
GALLATIN COUNTY PLANNING DEPARTMENT

SUBJECT: STOREY GRAVEL PIT CONDITIONAL USE PERMIT
APPLICATION

HEARING DATE: DECEMBER 2, 2008

DESCRIPTION / LOCATION:

Morrison-Maierle, Inc., on behalf of **TMC, Inc.**, (“**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 property is located in a portion of the West One-Half (W ½) and the Southeast One-Quarter (SE ¼), Section 15, Township Two South (T2S), Range Four East (R4E), P.M.M., Gallatin County, Montana. In general, the property is located approximately one and one-half miles west of Four Corners and south of Norris Road. Please refer to the vicinity map on pg. 3 of this report.

The Applicant’s proposed operation will expand the existing permitted area southeast in two phases. The current approved 52-acre mine is being amended to add 67.5-acres for a total of 119.5-acres (a 129% increase in permitted area). The mining will remove a series of steeper benches resulting in a 6:1 slope. Although mining depth is variable due to the topography and the relative depth of the ground water the maximum depth mining will occur will be 85-feet from the surface. The estimated total quantity of mine material to be excavated is 2,140,000 cubic yards. The Applicant has requested a 20-year permit which is scheduled to terminate on August 2028 in conjunction with the approved Montana Department of Environmental Quality (MDEQ) Opencut Mining permit.

The property is owned by Storey Land Company, LLC, and the parcel will be leased to TMC, Inc. for the duration of the mining operation. 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*.

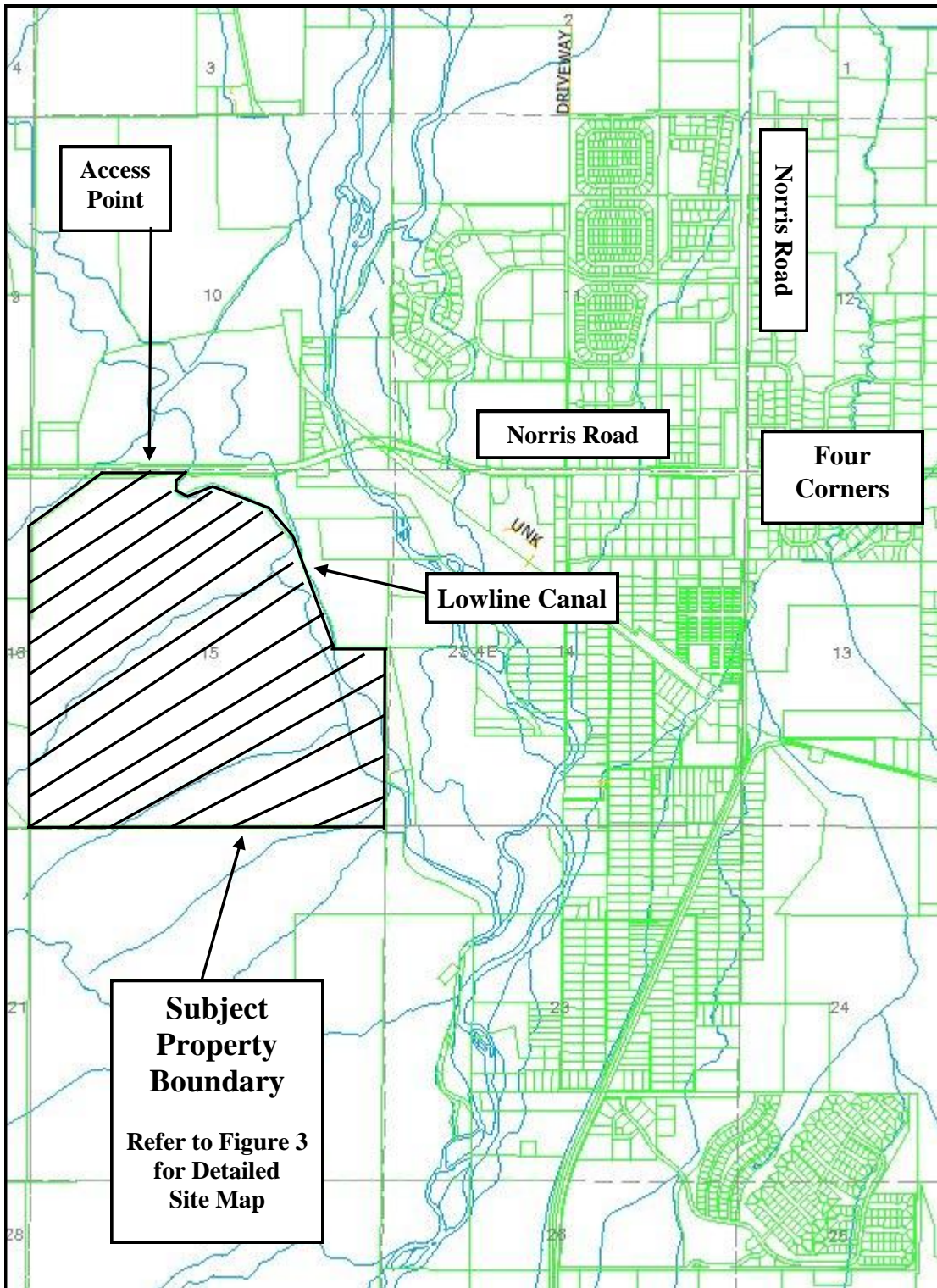
TABLE OF CONTENTS

Location Map.....	3
Introduction to the Interim Zoning Regulation	4
Background.....	5
Staff Findings.....	7
Environmental Impact Assessment.....	9
Community Impact Assessment.....	14
Gallatin County Growth Policy Compliance	18
Planning Board Recommendation	21
Criteria for County Commission Review	23
Gallatin County Commission Determination(s)	25
Suggested Conditions	26

EXHIBITS

CDM TIS Review.....	A
Summary of Analysis: Impact of Operation Gravel Pit on House Values	B
Paul Shennum & Sandy McManus Comments	C
Water Table Separation.....	D
Michael Sidder Comments.....	E
Gate Opencut Mining Action Group Comments.....	F
Bowlby & Associates, Inc. Comments	G
MDT Approach Permit.....	H
Susan Hellier Comments.....	I

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 Montana¹ adding 19,528 residents (or 28.8%) and the 96nd fastest growing county in the United States². 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 Openpit Mining Act³ 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
- 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;

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

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

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

- 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 rules⁴. 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.

⁴ 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 approximately 67.5-acre parcel. The estimated total quantity of mine material to be excavated is 2,140,000 cubic yards. The mining will occur on an existing alluvial terrace/bench to a maximum depth of approximately 85-feet. The Applicant proposes to conduct mining operations in two phases. The applicant is requesting a 20-year permit which is scheduled to terminate in August 2028 in the MDEQ Permit No. TMC-001. The termination date corresponds with the date of the initial MDEQ Opencut Mining application.

The property is owned by Storey Land Company, LLC and the entire parcel will be leased by TMC, Inc. for the period of the mining operation. The subject property falls under the Interim Gravel Pit Zoning Regulations and is subject to the Gallatin County Growth Policy.

The Applicant seeks to process the mined material using a crusher, pug mill⁵, part time asphalt plant. A wash plant will not be used on site.

The site was originally permitted in 1999 for 5-acres, to be reclaimed in 2010 to rangeland. In 2001, an amendment was approved to extend the final reclamation date to 2010. In 2000 the permit was assigned to TMC. In 2002, TMC applied and was granted an amendment to increase the permit area to 35.4-acres. In May 2004, TMC received Amendment #2 for expansion to 52.2-acres and to extend final reclamation to 2028 (DEQ 2004). TMC has reclaimed inactive areas. As such, the average area in active mining has not exceeded 10-acres during the life of the pit.

- 2. General Nature of the Operation.** Generally, the Applicant's submittal documents provide a thorough overview of the project. The description can be found on page 1 – 2 of the Submittal.
- 3. Phasing.** As stated, the Applicant is proposing to conduct the operation in two phases. Please refer to *Figure 3: Overall Site Layout* in the Applicant's submittal binder. A brief discussion of the phasing can be found on page two of the Applicant's Overview.
 - **Phase I** – Phase I will continue for approximately two years from the date of permitting. Initially, material from Phase I will be transferred via feeder and conveyer and allow construction of a haul road for the removal of additional materials from Phase II as shown in Figure 4 of the Applicant's Submittal.
 - **Phase II** – Phase II is projected to operate from 2009 – 2028. The crusher and some stockpiling will be moved to the Phase I area to service the active mining areas.

⁵ 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.

4. **Proposed Onsite Equipment.** The Applicant Submittal states the operation will use front end loaders to extract the material and use a portable crusher with grizzly feeder, conveyors, pugmill and an asphalt batch plant to process the mined material. A scale for weighing trucks will be positioned near the entrance to the site. Please see the Environmental Review for more details on the equipment that will be onsite.

As ordered by Montanan District Court Judge, Dorothy McCarter, Amendment 3, Permit TMC-001, was approved by DEQ on May 27, 2008 prior to the completion of the Environmental Assessment. As a result no further public comment or cumulative impacts will be performed. Therefore the Montana Department of Environmental Quality issued a Environmental Review (ER).

5. **Asphalt Batch Plant/Concrete Mixing:** The CUP application does not address cement or asphalt batch plant facilities though the Applicant's submittal to MDEQ and the ER recognizes an asphalt batch plant will be in operation on site. The Storey Pit Amendment #3 ER Impacts on the Physical Environment #3: Air Quality addressed asphalt batch plant on the site. 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. Asphalt Batch plants require air quality permits.

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 bounded by Highway 85 (Norris Road). Directly across Norris road is the Cottonwood Golf course. Agricultural and residential uses are beyond the golf course.
- **To the East** –The Lowline canal geographically forms the east property line. However, mining activity does not encroach on the canal. Large lot residential development and the Gallatin River are further to the east.
- **To the South** – Agricultural uses are preeminent on lands adjacent to the southern boundary.
- **To the West** – Immediately to the west are large lot (20-acre) residential lots overlooking the subject property.

7. **Proposed Hours of Operation.** The Applicant proposes to conduct operations during the following hours:

Standard Demand (normal operations):

Monday – Friday	7 am – 5:30 pm
Saturday	Closed*
Sunday	Closed

* “Extraordinary maintenance” such as major crusher repairs could be conducted during extended hours or on a Saturday.

Peak Demand (times where specific construction projects require rapid processing):

Monday – Saturday 7 am to 7 pm

8. **Hauling of Materials.** All mined material, except for material used to construct the access roads and internal roads, will be hauled from the site with commercial end-dumps, belly or side dump trucks. Please refer to the Traffic Impact Study (Appendix H to the application materials) 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 approved the applicant amendment to the Storey Gravel Pit on May 27, 2008 as a result of litigation against MDEQ for delays in conducting the environmental review and issuing the permit (Permit No. TMC-001 Amendment #3). The permit does contain conditions of approval. The approved MDEQ Opencut Mining Permit and conditions of approval are contained in Appendix B of the Applicant Submittal.

Environmental Impact Assessment

10. **Geology/Soils.** The property consists of tertiary valley fill sands and gravel terrace bench with soils averaging 6 to 12 inches in depth. Several feet of overburden are found between the topsoil and minable gravel deposits. Topsoil and overburden will be stored as buffers in a “U” shape covering the east, south and western edges for the active mining operations as described in Figure 5 of the Applicant Submittal. Specific soil types are described on page six of the Draft ER.
11. **Topography.** In general, the property slopes from west to east towards the Lowline Canal. Slopes are steeper on the eastern edge of the property where the bench descends quickly to the east toward the Lowline Canal. Total elevation change from east to west is approximately 100-feet. The Applicant has included cross sections of the subject property that visually described the topography that are contained in Appendix C of the Submittal.
12. **Surface Water.** There are three surface water features on the subject property: the Lowline Canal on the eastern edge of the property and two private irrigation ditches on

the north and south ends of the proposed expansion area. No other water features are known to be present on the subject property.

Lowline Canal

The Lowline Canal is approximately 1,800 feet east of the current active mining operations. The private irrigation ditches discussed below do not hydrologically connect to Lowline Canal; therefore no adverse effects on the Canal will result from the proposed operation.

Two Private Irrigation Ditch

There are two private irrigation ditches on the north and south ends of the proposed expansion area. According to the ER, flow and runoff from precipitation would be controlled on site. A haul road would be extended to access the amended operation. The haul road will cross the two forks of the irrigation ditch by new culverts to be installed. According to the ER the culverts would prevent impacts to the ditch when crossing the swale. Additionally, because the site is designed to contain all precipitation, a storm water permit is not required.

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 groundwater levels would be 50 – 100 feet below the lowest depth of mining.

The Plan of Operation includes a Spill Prevention and Contingency Plan (SPCP). 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.

Potential impacts discussed in the ER found that surface water would not be impacted by this operation. Additionally, the Gallatin River is well outside of the proposed addition and would not be impacted. Mining would be located above ground water table and would not have the potential to impact drinking water, irrigation, or other groundwater supplies. No permanent fuel storage is proposed for the site. A wash plat would not be installed at the location.

Recently, the Montana Supreme Court and the 18th 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 continual monitoring of groundwater levels. In addition, Staff recommends a condition that requires the operation to maintain a minimum ten feet of vertical separation between the seasonally high groundwater level and active mining surface. Based on the data supplied it appears that no mining will occur within the ten foot separation (Exhibit D). In addition the applicant has stated that the suggested condition is acceptable. (See condition 13).

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.** No water will be required for the proposed operation. Material removal, handling, and crushing will occur on site. No wash plant is planned. Therefore, no additional mitigation is required for water consumption.

Water will be required to maintain irrigation for berms and buffers. At this time, it unclear where that water will come from.

- 15. Reclamation.** Reclamation of the mine will run concurrently with mining operations as described in Section I of the MDEQ ER contained in the Applicant Submittal. The operation will employ rolling reclamation and will return the mined areas to pre-mined soil and overburden thickness and a farmable 6:1 slope from the existing barley fields to the west down to the fields on the east.

- 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 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 – Bozeman City Building, Belgrade ConAgra, 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 manual⁶. 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 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). (Draft EA, pg. 11). DEQ has an EPA-approved air quality program defined in the Clean Air Act of Section 75-2-20, MCA that meets federal standards.

⁶ Idaho Department of Environmental Quality. Supplemental Fugitive Dust Control Information. http://www.deq.state.id.us/air/prog_issues/pollutants/dust_control_plan.pdf

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 (Condition 14).

For more information on air quality impacts, please refer to the DRAFT ER, pg. 7 -10.

- 17. Vegetation.** Range grasses and cropland predominate in the main permit area. No rare plants, cover types, or species of special concern were discovered by the Montana National Heritage Program. The site is covered by an approved weed management plan and is regularly sprayed for control of noxious weeds. The potential for weed seeds to be transported to the area and grow on disturbed lands is of concern. The site has a certification of inspection which complies with MINIMUM requirements of the Greater Yellowstone Area to prevent and slow the spread of invasive plants by providing gravel/borrow material that is free of the potential for transport and dispersal of listed weed species. Additional information can be found in Appendix I of the Applicant Submittal.
- 18. Wildlife.** The ER provides a summary of wildlife observed near the property and indicates little wildlife habitat is present on site and there are no aquatic resources. The Gallatin River is located east of the subject property and well outside the proposed project area. The current use of the proposed amendment site is pastureland. Wildlife species that may be present include white-tailed and mule deer, red fox, coyote, striped skunk, Richardson's ground squirrel, mice, voles, raptors, and songbirds.

According to the Section 5 of the ER the proposed action will not significantly affect wildlife. The proposed action will not affect flows of the irrigation ditch as the project limits are 75 feet or more from the canal on either side. The proponent's plan includes sediment control measures to reduce the potential for fine sediments to enter the canal. There are no irreversible or irretrievable impacts to fish or wildlife resources as a result of the proposed action.

Community Impact Assessment

- 19. Access/Roads/Traffic.** State Highway 84 (Norris Road) provides access to the property. The posted speed limit adjacent to the site is 70 miles per hour (mph) during the day and 65 mph at night for passage vehicles and 60 mph during the day and 55 mph at night for trucks. The mine would be served by a single roadway. Hwy 84 is maintained by the Montana Department of Transportation (MDT). 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 Appendix H of the Applicant Submittal. Staff required the TIS to undergo a peer review by CDM, Inc. who submitted additional comments found in Exhibit A.

The current operation does not have an approved Approach Permit from MDT (Exhibit H). An approved approach permit is required. Staff has suggest a standard Condition of approval which would bring the proposed operation into compliance with MDT's requirements (see Condition 17).

Peer Review Comments (paraphrased – full discussion can be found in Exhibit A):

- 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. CDM found no flaws in the trip generation, distribution, assignment and/or technical analysis of the material.
- The County's TIS requirements imply that the TA needs to assess operations at the 5-year and 1-year increments into the life of the project. The only "study time frame" observed in the report was for the current, existing year (year 2008). This would require a modification to the traffic volumes along Gallatin Road by adjustment of the existing traffic by an appropriate growth factor.
- The County's TIS requirement implies for mining and/or related processing operations, that the "weighted of loaded trucks" be considered with the TIS. This is absent from the TA. However since the main access point is onto Gallatin Road, a rural principal arterial, we do not believe the extra loading associated with this type of vehicle usage will have a direct impact on the adjacent facility.

Conclusion and Recommendation

Based on the analysis include with the TIS, the expansion of the Storey Gravel Pit would not require any specific improvements to mitigate traffic related impacts. Auxiliary turn lanes are not necessary and the geometry of the existing access accommodates truck traffic.

- 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 models⁷ 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 method⁸. 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 values⁹ 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 (Exhibit B). 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.

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 20 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 a 29 year life span for the entire operation.

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

⁷ For more information - Hackett, Stephen C., 2006. Environmental and Natural Resources Economic: Theory, Policy and the Sustainable Society. M.E. Sharpe. 524 pgs.

⁸ Rygg, Philip J., 1998. “Gravel Pits: The Effects on Neighborhood Property Values.” The Montana Department of Environmental Quality.

⁹ Hite, Diane, 2006. “Summary Analysis: Impact of Operational Gravel Pit on House Values, Delaware County, Ohio.” Auburn University.

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 people¹⁰, 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. 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 Commission¹¹ 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 subdivision 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 39).
- 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;

¹⁰ Montana Dept of Labor and Industry (ES-202 program).

¹¹ 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.

- 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. No buffers and other mitigating efforts have been proposed on the northern boundary. Noise mitigation would provide added benefit for the onsite employees of the operation. Noise is 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%¹². (See Conditions 21 - 27).

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 equipment¹³.

- 25. Notice.** Legal notice of the Commission hearing and Planning Board meeting and recommendation 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

¹² US Department of Labor. Mine Safety and Health Administration.
<http://www.msha.gov/regs/rea/NFLX1.HTM>.

¹³ Blahnik Gravel Pit Permit Amendment. Corvallis, Montana, Ravalli County.
<http://www.schlechtpitproposal.com/>.

notified via US Mail. Notice was also published in the *Bozeman Daily Chronicle* on November 16th and 23rd, 2008.

Staff has received public comment on the proposed action. All comment received by the date of this report is contained in Exhibit C. The Commission hearing and Planning Board 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.

- Note(s):
1. Attachment #2 of Paul Shennum & Sandy McManus comment has been replaced as Exhibit B.
 2. Attachment #5 (Rygg Study) has been omitted. You have a copy. If you need another copy please inform the Planning department.

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 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 DRAFT ER, this operation will protect surface water quality by containing all

surface runoff onsite, ensuring a 75-foot setback from the irrigation canals and distance from the Gallatin River. 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 ten-foot vertical 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. 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. 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.

GALLATIN COUNTY PLANNING BOARD REVIEW:

The Gallatin County Planning Board (“Board”), during a regularly scheduled meeting, met on Tuesday, November 25, 2008 to review and comment on the Storey Gravel Pit CUP application. The Board took public testimony.

Staff provided a synopsis of the salient points concerning the proposed operation and presented additional information which is included in this report. The Applicant presented a summary of the project and submitted a list of modifications and suggested changes to Staff conditions.

Public Comment

The Board took public comment. Similar to written testimony included as exhibits to this report, comments focused on seven primary issues including noise, traffic, property values, permit duration, land use, vehicular safety standards imposed by MDT and company overview.

Specific noise concerns relate to the relationship between truck speed and sound intensity on Norris Road, the use of compression brakes and the ability to impose limitations on their use by a pit operator, on site machinery, and site design to mitigate excessive noise.

Comments were presented noting that there are no restrictions to the volume of materials that can be moved from the site at any given time. DEQ environmental review has traditionally extrapolated potential effects over the life of a permit, in this case 20 years and, therefore, may conclude that there is less traffic generated noise than in reality. Although there may be some benefit to reducing the length of the operation increasing truck volume well beyond the analysis performed by the TIS would be detrimental to the public.

Additional concerns on the affects of gravel pit operations on property values were presented. Those concerns relate to the term of the CUP and the analysis available to define and measure potential effects. Public comments continued by addressing land use and the intended outcome of reclamation to improve the agricultural productivity of the parcel.

It was also noted that TMC Inc. is a relatively small company with local roots and has a long history in the County of being a “good neighbor.”

Board Discussion

Board discussion focused on a number of points including ground water quality, air quality, noise mitigation, traffic safety, Growth Policy compliance, and the need for gravel resources for the benefit of the County. Board Member Amsden made a motion to approve the CUP application with Staff suggested condition and Applicant condition changes. Board member Dormire seconded the motion. The Gallatin County Planning Board voted (4:2 with 1 abstention) to recommend approval of the Storey gravel pit to the County Commission.

A lengthy and detailed discussion ensued focusing on the efficacy of suggested conditions and the relationship between the local, state, and federal agencies and whether or not the available data is sufficient to base findings upon.

In conclusion, however, the Board adopted the findings in the Staff report and found the proposed gravel pit met the minimum requirements of the Interim Zoning Regulations, was found to be compliant with the Growth Policy, and through mitigative measures sufficiently addressed public health and safety of the County. Additionally, the Board found through the cumulative effects of the suggested conditions that all federal, State, and local regulations were addressed.

Board member’s Anderson and Richardson voted in opposition of the proposed gravel pit. In their dissenting opinion they sited the proposed operation was inconsistent with the intent of the Growth Policy, did not provide sufficient measures to address the negative impacts the gravel pit will have on the environment and argued the location of the proposed gravel pit was inappropriate.

The Boards suggested changes are represented as ~~strike-out~~ for deletions and underline for additions. The suggested changes are embedded in Staff Suggested Conditions. The Applicant can provide reasoning and justification for the suggested condition changes and additions.

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. To assist the Commission in doing so, the Planning Board should also make the same findings, using all facts available in the record, on all the determinations listed below. Then, at the Commission hearing, the Commission may incorporate the staff findings, those of the Planning Board, 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 twenty 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 ~~ten~~ twenty 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. Prior to issuance of a Land Use Permit, the Applicant shall submit an executed copy of the Lease Agreement between landowner and Applicant with an attached legal description to the Gallatin County Planning Department for a determination of whether the Lease constitutes a “subdivision by lease”. If the Lease is determined to constitute a “subdivision by lease” the Applicant shall obtain approval for the subdivision prior to commencing operations. Should the legal description for the leasehold or the terms of the lease change during the course of this CUP, the Applicant must submit any changes to the Gallatin County Planning Department.
5. No concrete processing facilities shall be installed on the site without a change to these conditions of approval.
6. 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.

Hours of Operation

7. Hours of operation for all facets of the operation, including but not limited to off-site truck hauling, gravel crushing and asphalt mixing, shall be restricted to the hours of 7:00 a.m. to 5:30 p.m., Monday through Friday only unless adjacent property owners are adequately notified of temporary extended hour demand periods. Extended demand hours for special projects are: 7:00 a.m. to 7:00 p.m., Monday through Saturday. Extended hours cannot exceed more than four consecutive weeks or more than eight weeks in any six month period excepting public projects where extended hours may be allowed for up to 12 weeks in a 6 month period. Prior to commencing temporary extended hour operations operator shall notify adjacent property owners within 1,000 feet from the edge of the permitted area at least seven (7) days but not more than (15) days prior to commencing addition operations. Notification shall be in writing and via certified mail.
8. Saturday operations for temporary extended demand times are limited to material hauling and equipment maintenance only. No other operations are permitted.
- ~~9. No operations shall commence on Saturdays.~~
10. No operations shall commence on Sunday.

Environmental Quality

11. Prior to issuance of a Land Use Permit, the Applicant shall provide adequate on-site sanitary facilities for employees. The facilities shall be screened from view.
12. Mining shall at all times maintain a minimum of a ~~ten~~ four foot vertical separation between annual high ground water level and lowest level of mining activity.
13. 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.
14. Prior to commencing active mining operations, Applicant shall install at least two ~~off on~~ off on site monitoring wells in locations to be determined by consultation with Gallatin County to monitor ~~and insure adequate groundwater separation for water quality.~~ Applicant shall collect adequate baseline data in said wells prior to commencing active mining operations and shall monitor ~~water quality groundwater separation~~ water quality groundwater separation on no less than a monthly 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.
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.

Roadway Improvement and Traffic Safety

17. Prior to issuance of a Land Use Permit, the Applicant shall provide the Planning Department a copy of the approved MDT approach permit.
18. Prior to issuance of a Land Use Permit, road signage, approved by the Gallatin County Road and Bridge Department and/or the Montana Department of Transportation in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), shall be installed along all main travel routes to alert vehicular and pedestrian traffic to the presence of heavy trucks.
19. If required by MDT, and prior to issuance of a Land Use Permit, the Applicant and the Montana Department of Transportation shall enter into a Memorandum of Agreement (MOA) for future highway and intersection improvements on U.S. Highway 84 (Norris Road) and submit a copy of the executed MOA shall be submitted to the Gallatin County Planning Department. Notwithstanding the above, all improvements required by MDT shall be completed prior to issuance of a Land Use Permit.

Noise Suppression

20. Applicant shall to the greatest extent possible enclose all pumps or other noise producing systems within appropriate noise containment apparatus.
- ~~21. Applicant shall employ a polyurethane/rubber screen fabric for the screening plant(s) associated with the crusher to absorb sound.~~
22. 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 be of a type utilizing a manually adjustable, ambient-sensitive, direction sound technology, or utilize strobe light alarms to ensure a backup alarm does not sound unless and until an object in motion behind or to the rear of the equipment is detected.
23. Equipment selection shall be commensurate with geographic location to minimize noise.
24. High-grade mufflers or other sound-dampening devices shall be installed on all diesel powered generators and equipment to reduce noise impacts.
25. Applicant shall, using a certified specialist, measure noise levels on a monthly basis during active operations at the same locations as depicted in Figure 3 of the Applicant's Environmental Review (ER). Noise levels shall be measured using the same techniques as used to determine the ambient noise levels summarized in Table 2 and discussed on pg. 15 of the ER. Acceptable noise levels measured during active operations shall in no circumstance exceed 10 dBA above the existing day-night average noise level (L_{dn}) or as reported on Table 2 of the Applicant's Environmental Review (EA, pg. 15). Applicant

shall provide all data to the County Planning Department on a routine basis for the term of the CUP.

26. The use of jake (compression) brakes on hauling trucks shall be prohibited between the site and Shedd's Bridge)Gallatin River).

Dust Suppression and Control

27. 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.
28. 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 tactifier on fines storage ~~so no dust emanates~~ to minimize dust emanation from any stored materials. Applicant shall spray magnesium chloride (or other dust control measures as approved by the Gallatin County Road and Bridge Department) on interior roads so that ~~no dust emanates from interior roads~~ dust emanation from interior roads is minimized.
29. All haul trucks leaving the facility shall be adequately covered or properly loaded to prevent unsafe amount of material from escaping onto public roads.
30. Gravel storage piles shall not exceed 24 50 feet in height measured from the excavated area grade.

Noxious Weed Management

31. Prior to issuance of a Land Use Permit, the Applicant shall obtain an approved Weed Management and Revegetation Plan ("Plan") from the Gallatin County Weed District ("Weed District"). 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

32. 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 that it 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.
- ~~33. Applicant shall prepare a landscape plan for the frontage along Highway 84 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.~~
34. The operator shall enforce safety measures, including preventing overfilled trucks, covering loads, educating truck drivers, and monitoring driver performance.
35. Fuel containment measures shall be utilized as required by the application to MDEQ.
36. 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.
37. Blasting operations may only occur upon a minimum of 24 hour written notice to all landowners within 2,500 feet of the site.
38. All parking areas for employee vehicles and company vehicles shall be provided onsite.
39. 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.
40. 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.
41. These conditions run with the land and shall be binding on the Applicant, landowner, and all successors in interest to the Applicant and landowner.

42. 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.
43. Nothing in this condition shall prevent the Applicant from stripping and stockpiling topsoil, constructing the access road(s) or making improvements to US 84 prior to obtaining a valid Land Use Permit.
44. 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. CDM TIS Peer Review, September 30, 2008
- B. Hite, Diane. *Summary of Analysis: Impact of an Operational Gravel Pit on House Values Delaware County, Ohio.*
- C. Paul Shennum 7 Sandy McManus Comments
- D. Water Table Separation Sheet
- E. Michael Sidders Comments
- F. Gateway Opencut Mining Action Group Comments
- G. Bowlby & Associates, Inc. Comments
- H. MDT Approach Permit
- I. Susan Hellier Comment

CC: Gallatin County Attorney
Mr. Jerry Rice, TMC, Inc., P.O. Box 69, Belgrade, MT 59714
Mr. Bob Lee, Morrison-Maierle, Inc., P.O. Box 1113, Bozeman, MT 59771

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