

APPENDIX H

**DESCRIPTION OF ENVIRONMENTAL AND COMMUNITY
IMPACTS OF EXPANSION OF THE EXISTING GRAVEL PIT**

(Gallatin County Interim Zoning Regulation, Sec. 6.1.a-d)

Huttinga Gravel Pit

Section 6 of the Gallatin County Interim Zoning Regulation for Operations that Mine Sand and Gravel, discusses the Conditional Use Permit procedure to be followed in requesting a new operation or expansion of an existing gravel mining operation. The four major findings are listed in Section 6.1.a-d of the regulation. These four items are discussed below.

Finding A. *Does the operation conform to the objectives of the applicable growth policy?*

Discussion. The Huttinga gravel pit is within the jurisdiction of the Gallatin County Growth Policy. The Growth Policy does not specifically address the operation of sand and gravel mining operations. However, it can be argued that many of the goals and policies of the Growth Policy are met by these types of operations. The property is also within the boundaries of the proposed Gallatin Gateway Community Plan area. This plan has not been adopted by Gallatin County, therefore, this discussion will relate to the operation of the Huttinga gravel pit in relation to the County Growth Policy. The following goals are taken from Chapter 3, County-Wide Goals and Policies, of the Gallatin County Growth Policy.

Protect Water Quality

The Huttinga gravel mining operation is an existing operation that has been permitted by the Montana Department of Environmental Quality since 1994. There have been no violations of the permit in that time. Ground water levels and water quality parameters have been monitored at the Huttinga well immediately south of the gravel pit by the Bureau of Mines and Geology since November, 1992. A copy of the data accumulated by the Bureau of Mines and Geology is presented in Appendix I. No indication of ground water levels dropping due to the operation, or water quality concerns have been noted. The extension of the mining operation to the north will be done in phases, with the pit floor remaining above the high ground water level. The Plan is not to mine into the ground water, and to leave the reclamation at the required 3 feet above the high ground water level.

The site is, and will continue to be graded so that storm runoff will be contained within the permit boundary. This will protect nearby properties and Big Bear Creek from the effects of sedimentation.

There are no wetlands within the site. Site grading to keep storm runoff on-site will protect any nearby wetlands.

The operation will continue to comply with local, State and Federal water quality regulations and standards.

Assure Sustained Water Quantity

Water quantity will be unaffected by the continued operation of the gravel pit. The monitoring of the Huttinga well shows no indication that ground water levels have been lowered during the time of operation of the pit. In fact, the monitoring seems to show the direct affect of the drought years to the ground water levels observed in the well.

Conserve Important Habitat

The additional land area proposed for extension of the mining operation to the north is 23.5 acres. The total land area under permit would then be 48.5 acres. This is a small area, compared to the habitat available in the vicinity. The residential subdivisions in the area have impacted far more land than this small extension of an existing operation.

The property is not considered to be critical wildlife habitat. The deer and elk currently migrate through the property without any apparent affect. In fact, the owner's grandson took a deer this fall from the hillside immediately north of the existing gravel pit. When the mining operation is finished, and the land is reclaimed, the wildlife that currently uses the area will find forage on the reclaimed slopes and water in the pond that will remain.

There are no fisheries on the property. Extending the operation to the north will not impact access to nearby streams.

A noxious weed management plan has been prepared and approved for the property. A copy of the plan is provided in Appendix F. The owner has controlled weeds on the property to the extent that the County Weed District asked if he was interested in becoming a weed-free supplier of gravel.

Protect Air Quality

The existing gravel pit has consistently operated within the limits of the Montana Air Quality Permit. Please refer to the comments made by the inspector in the second paragraph of the August 2, 2007, inspection report regarding fugitive emissions. The extension of the mining operation to the north will not increase the volume of the operation over that done in past years. The owner intends to continue the current practices, thereby continuing to meet the applicable regulations.

In the past, the owner has applied water as well as magnesium chloride to surrounding roads to mitigate any potential for dust off-site. It is the owner's intention to continue this practice upon approval of the present permit amendment. It should be noted that dust emissions from sand and gravel operations have been found to be similar to those that result from agricultural activities such as the use of plows, discs, seed drills, swathers, combines, and balers. Water is also used for dust control within the pit, and is available from the pond at the west end of the gravel pit.

Minimize Soil Erosion

Reclamation of the existing pit as the area to be mined is extended to the north will help minimize soil erosion within the property. As the mining operation is extended to Phases 2 and 3 of the current proposal, reclamation will be accomplished on portions of the property no longer involved in mining. By utilizing this method, the topsoil stockpiles will be re-deposited and re-seeded so that erosion is minimized. Topsoil berms and stockpiles will be re-seeded to control erosion as well. Because the storm runoff is retained within the property, sediment will not extend onto adjacent properties.

Conserve Open Space

After the mining operation is complete, it is expected that the land will return to pasture or other agricultural use. Thus, open space will be preserved by the temporary use of the land as a sand and gravel mining operation.

Encourage Residential Development in Areas Planned or Zoned for Residential Use

The recent policy of the County Commission is to restrict residential land use to areas close to existing development. The proposed use is consistent with this policy, as it is a continuation of an existing use, and does not propose residential development.

Locate commercial and light Industrial Development in Areas Planned or Zoned for that Use

This item is not applicable as the proposal under consideration is for the extension of an existing use. Also, at the current time there is no zoning in this area of the County.

Manage Heavy Industrial Development

The Huttinga gravel mining operation has been in operation since 1994. The immediately adjacent land uses are primarily agricultural, and a log home construction business. The extension of the mining operation to the north is not intended to increase the rate at which gravel is mined or transported from the site above the historical rates. Trucks hauling material from the pit travel on county road (Little Bear Road) for only 1½ miles to its intersection with U.S. Highway 191. This is a paved road with minimal traffic. Huttingas have applied dust suppressant on Little Bear Spur Road, on an as-needed basis. They have worked through the County via the cost share program, and have paid the homeowner's share of the expenses on this short length of gravel road.

The mining operation is regulated by the Montana Department of Environmental Quality, Open Cut Mining Act. The Huttinga gravel pit has a DEQ permit for the existing operation. Compliance inspections have not had any issues with the performance of the

operation during the 14 years the pit has been open. Therefore, the impact on neighboring properties will not change with approval of the conditional use permit.

Local services and public facilities are rarely needed by this type of operation. Logical expansion of any of these services would not be impeded by the continued operation of the gravel pit.

Protect Historic and Pre-Historic Features

There will be no known impact as a result of continuing this operation. There are no known historic or pre-historic sites on the property. The property had been farmed for over 100 years prior to the gravel pit being opened in 1994.

Conserve Scenic Resources

Any impacts to scenic resources will be temporary. Following reclamation of the property, visual resources will be unchanged.

Provide a Safe and Efficient Transportation System

The CUP application is consistent with this policy. A Traffic Impact Study is being prepared at this time to assess the impacts of the continued operation of the gravel pit on the surrounding area, and recommend improvements, if necessary, to mitigate those impacts.

Provide for Local Services and Public Facilities

Local services and public facilities will not be adversely impacted by the continued operation of the Huttinga gravel mining operation. Emergency services have not been required at the site during the 14 years of operation to date. Water and sewer facilities for workers are available on the property. Solid waste is disposed of at approved facilities. Parkland is not required, nor proposed.

Provide Cost Effective Extension of Public Facilities

No extension of public facilities is needed for the continued operation of the pit.

Protect Human Life and Property from Natural Hazards

The continued operation of this gravel mining operation will be done in accordance with all applicable regulations and codes.

Preserve Productive Farm and Ranch Lands

The property has been in agricultural production in the Huttinga family for generations. The gravel pit is a small portion of the larger property. Income from the gravel pit allows the family to continue their agricultural operation. After the mining operation is completed, the land will be reclaimed and re-seeded. It is intended that the land return to pasture for the agricultural operation.

Protect the Right to Farm and Ranch

The right to farm and ranch is protected by utilizing a portion of the larger property for temporary use as a gravel pit. As noted above, the income generated by the gravel mining operation supplements the income from the agricultural operation, allowing the family to remain in agriculture.

Finding B. *Show that the operation will not have significant impacts of nearby properties, property values, land uses or residents.*

Discussion. Continued operation of the Huttinga gravel mining operation will not have any significant impacts on adjacent land uses and property values. The adjacent lands are in agricultural production, or commercial log home construction (including sawmill), and are not impacted by the operation. Nearby residential land owners are separated from the operation, so the impacts are less. Mitigation measures are outlined in the existing open cut mine permit.

It has been the intent of the applicant to limit the impact on the neighboring properties since the gravel pit began operation in 1994. The operation has consistently operated within the DEQ permit requirements in regard to hours of operation, airborne particulates, noise, etc. The owner has maintained nearby county roads, at his own expense, to minimize dust. Dick and Kathy Huttinga met with the Little Bear Subdivision Homeowner's Association in April, 2008 to discuss the extension of the mining limits within the gravel pit. The minutes of the homeowner's association meeting are provided in Appendix K. The Huttingas have expressed their willingness to work with the neighbors on reasonable mitigation of the impacts the operation. Dick Huttinga suggested using the pond in the gravel pit as a source of water for fire protection. He also said that he could use left-over materials from job sites to build a berm on the north side of one of the homes to reduce sound levels coming from the gravel pit. Sound levels have been monitored around the gravel pit and on adjoining properties since April, 2008. The results of this monitoring indicate that the sound levels experienced at the nearby residential lots is not excessive. The sound levels recorded at nearby residences are in the range of 52 to 68 dB. In contrast, walking through crusty snow gave a reading of 83dB, the calls of nearby Killdeer peaked at 85dB. When readings were taken around the existing gravel pit, when the crusher was *not* in operation, and the adjacent log home construction business was not running their sawmill (May 8, 2008), the ambient sound levels around the pit were in the 61 to 68 dB range. Copies of the sound level readings are presented in Appendix J.

A report regarding the impact associated with this gravel mining operation on the adjacent property values was prepared by Mr. Joel Peterson, of Joel Peterson Appraisal, Inc. His report is reproduced in Appendix G. Mr. Peterson reviewed the number and types of existing properties in the vicinity of the existing gravel pit. He also reviewed historic data regarding sales prices for property in the vicinity, and the entire Gallatin Valley. Mr. Peterson determined that the best comparability analysis is in comparing the subdivision statistics against each other and the overall county data. After completion of his review Mr. Peterson states that he believes that the Huttinga gravel pit has not adversely affected the surrounding real property values.

Finding C. *Show that the operation will not have significant adverse impacts on ground water, streams, or wetlands.*

Discussion. The existing gravel pit has been operated for the past 14 years without significant impacts on ground water or surface waters. There is no reason to believe that the extension of the area to be mined will have any impacts on water quality.

The site inventory map, reproduced in Appendix E, shows the depth of the existing gravel pit is approximately 20 feet below the natural ground elevation. The expanded area for the gravel operation will be similar in depth, and will not exceed the maximum mining depth of 30 feet stated in the existing permit. The floor of the pit is above the static water level, except for the pond at the west end of the pit. There is no fuel storage, other than fuel for the crusher, stored on site. Fuel for the crusher is stored in a 1,000 gallon tank, in a bermed area, in accordance with EPA regulations. No other harmful chemicals are stored within the limits of the gravel pit. Continued operation of the gravel pit in accordance with the Plan of Operation will minimize the potential for pollution of ground water.

Ground water characteristics in the Huttinga well, immediately south of the gravel pit, have been monitored by the Montana Bureau of Mines and Geology since November, 1992. The data show no significant change in the ground water over the period of monitoring, that began more than a year before the gravel pit began operation. The static ground water level has remained consistent over this time, especially in light of the recent multi-year drought. The water quality report for the well shows no indication of impact by the gravel operation. The ground water data from the Ground Water Information Center (GWIC) database at the Bureau of Mines and Geology is reproduced in Appendix I of this application.

There are no surface waters flowing through the permit area. The nearest surface water is Big Bear Creek located between 275 and 700 feet south of the permit boundary, south of Little Bear Road, the Huttinga residence, and Little Bear Log Homes sawmill and construction yard. The area of expansion is on the north side of the existing pit. The existing portion of the pit will be reclaimed as the mining operation progresses into the new areas of the pit. Therefore, the distance to surface water will become greater as the area of operation in the pit is extended to the north.

Surface runoff from the site is contained within the boundaries of the permit.

There are no wetlands on the property. All drainage and surface runoff will be contained within the property, minimizing the potential for sediment on adjacent properties. Wetlands will not be affected by extension of the mining operation to the north side of the property.

Finding D. Show that the operation will not have significant impacts on public services and facilities.

Discussion. The existing gravel mining operation has had little impact on public services and facilities. It generates few demands for public services, and adds to the overall economy in terms of providing jobs, increased tax revenues and creating an important building material. Costs for building materials are kept at a reasonable level by providing options to the buying public in regard to location as well as price.

Roads and Access. Access to the property is via Little Bear Road and U.S. Highway 191. The existing gravel pit is approximately 1½ miles east of the highway on Little Bear Road, or Little Bear Spur Road. No other local roads are impacted by the operation. Trucks to and from the gravel pit have been using this access for the last 14 years without any major incidents. A traffic report is being prepared by Marvin and Associates, and will address the existing and future traffic impacts of the operation.

Water Supply and Sewage Disposal. Water supply and sewage disposal for employees is available on the gravel pit property. Water for fire protection is not needed.

Solid Waste Disposal. Solid waste is removed from the property and disposed of in approved locations.

Utilities. Electrical power is supplied by the existing power line along Little Bear Road. No telephone, or other utilities are required.

Emergency Services. There have been no impacts on emergency services over the past 14 years of operation, and no impacts are expected in the future. The site is within the Gallatin Gateway Rural Fire District. Fire protection can be provided from the fire station located approximately 3¼ miles to the north. The Gallatin County Sheriff's Department, located approximately 16 miles away in Bozeman, provides police protection. Emergency medical response services are provided by American Medical Response, also located in Bozeman. Hospital facilities are located in Bozeman, approximately 18 miles away.

Schools. Extension of the limits of the gravel pit will have no affect on local school.