

FINAL ENVIRONMENTAL IMPACT STATEMENT

**BARRETT PAVING MATERIALS INC.
KNAPPS STATION ROAD QUARRY
NORFOLK, N.Y.
MLF # 60832**

Lead Agency:

**New York State Department of Environmental Conservation
Region 6 Headquarters
317 Washington Street
Watertown, NY 13601**

Contact Person:

**Mark Wiggins
New York State Department of Environmental Conservation
Division of Environmental Permits
(315)785-2245**

Project Sponsor:

**Barrett Paving Materials Inc.
Mr. Sylvain Gross
Regional Manager**

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1.0 INTRODUCTION

On January 8, 2009, the New York State Department of Environmental Conservation (NYSDEC) completed its review of the Barrett Paving Material Inc.'s mine permit application to modify their Norfolk Quarry #2 mine permit (MLF# 60832). What follows is a brief history of the application process and a listing of the documents created as a result of the process. The Mined Land Use Plan, including NYSDEC permit applications, and the Draft Environmental Impact Statement (DEIS), are not appended to this document. However, the DEIS and the Mined Land Use Plan are specifically incorporated by reference into this Final Environmental Impact Statement (FEIS). All other documents referenced below are contained in the Appendix (with the specific Appendix number shown next to the reference below).

The NYSDEC's review concluded a process that started with Barrett's Mine Permit application for modification (Mined Land Use Plan) submitted to the NYSDEC on June 21, 2007. On August 15, 2007, the NYSDEC issued a positive declaration (Appendix 1) requiring Barrett to prepare a DEIS. The purpose of the DEIS is to analyze the potential significant impacts that could be created by the actions of the proposed project. If potential significant impacts would be created by the proposed project, then mitigation of those impacts to the greatest extent practicable would need to be proposed as part of the design of the proposed project.

As requested by the NYSDEC in its positive declaration on August 15, 2007, a DEIS was prepared by Barrett and submitted to the NYSDEC on October 12, 2007. On December 21, 2007, the NYSDEC issued a notice of complete application and commenced the technical review of the DEIS (Appendix 2). As requested in the Notice of Complete Application, a public notice was published in the Watertown Daily Times and Daily Courier-Observer newspapers during the week of January 4, 2008 (Appendix 3).

On February 6, 2008, the NYSDEC concluded its review of the DEIS and prepared a letter summarizing its comments as well as public comments raised in local correspondence. The NYSDEC requested that the comments be reviewed and addressed. A copy of all letters received by the NYSDEC regarding Barrett's application and DEIS was attached to the comment letter (Appendix 4).

A draft responsiveness summary was prepared and submitted by Barrett to the NYSDEC on May 20, 2008. The responsiveness summary contained Barrett's review, evaluation and response to the comments raised in the February 6, 2008 letter. Attached to the letter was a summary of the public comments indexed to the original correspondence (Appendix 5).

On June 5, 2008, the NYSDEC sent Barrett a comment letter indicating that it had completed its review of the draft responsiveness summary (Appendix 6). The NYSDEC requested that three areas of concern (blasting, hydrology, and traffic) be further evaluated and that additional information be submitted regarding those areas. On June 20, 2008, on behalf of Barrett, Alpha Geoscience (Alpha) submitted a letter to the NYSDEC addressing the hydrogeologic comments in NYSDEC's June 5 comment letter and proposing an expanded well survey (Appendix 7). On

June 26, 2008, the NYSDEC sent Alpha a comment letter in response to the June 20 letter stating that the DEIS would not be approved until the proposed expanded well survey was complete (Appendix 8).

On October 1, 2008, Barrett submitted a letter to the NYSDEC in response to the June 5 comment letter (Appendix 9). The letter addressed the additional concerns raised by NYSDEC regarding blasting, hydrology, and traffic. Alpha's supplemental hydrogeologic analysis of the Knapps Station Road mine was included as an attachment (Appendix 10). A summary of the hydrogeologic analysis is included in section 3.0 of this FEIS. On October 31, 2008, Alpha sent a letter to update the NYSDEC on additional information that had been obtained since the issue of Alpha's October 1 supplemental report (Appendix 11).

On January 8, 2009, the NYSDEC finalized its review of the DEIS and responses to public comments (Appendix 12). Restated below are excerpts from the Executive Summary from the DEIS and submitted to the NYSDEC on October 12, 2007. The Executive Summary explains the purpose of the modification to the existing mine permit and an overview of the proposed project, potential impacts created by the proposed project, and proposed mitigation designed as part of the proposed project.

2.0 DEIS EXECUTIVE SUMMARY

The DEIS was prepared to support the Barrett Paving Material Inc.'s mine permit application to modify the mine permit MLF# 60832. This permit is for an existing dolomite sedimentary rock (dolostone) quarry known as the Norfolk Quarry #2, located in the southwestern portion of the Town of Norfolk, St. Lawrence County, New York. The proposed modified mine operation will be called the Knapps Station Road site. The DEIS presented and discussed the potential impacts of the modification, proposed mitigation measures, and alternatives considered in the development of the mine plan. The DEIS was developed in accordance with the New York State Environmental Quality Review Act (SEQR) regulation 617.9 at the request of the NYSDEC, which is the lead agency. The DEIS was prepared on behalf of Barrett Paving Materials Inc. by Dean H. Herrick Consulting Geologists.

The site is located on the north side of County Route (CR) 47 (Knapps Station Road), southeast of the hamlet of Norfolk, northeast of the Village of Norwood, east of Regan Road and west of the CSX Railroad. The proposed modification would extend the existing 37.8-acre dolostone operation to include approximately 10.5 acres of Barrett land to the west of the existing quarry and 121.6 acres of a 154.0-acre Barrett property on the south side of CR 47, directly across the road from Norfolk Quarry #2. The southern portion of the proposed site includes a 36.5-acre topsoil mine once operated under a second existing mining permit (MLF# 60903) and known as the Barrett Knapps Station Materials site. This topsoil operation is now included under the Norfolk Quarry #2 permit (MLF# 60832). The site primarily lies in a lowland area between drumlinoid hills. The target formation of the mining operation is the uppermost bedrock at the site which is the Ogdensburg Dolostone Formation of the Lower Ordovician Beekmantown Group.

The purpose of the modification to the existing dolostone mining permit is to increase the permitted area of the Life of Mine area by approximately 132.1 acres; to increase the permitted dolostone excavation area by approximately 87.6 acres; to add a stationary processing plant, office/scale, stockpiling, and settling pond area measuring approximately 29.5 acres; to add about 10.5 acres to the northern portion of the site for storage; and to increase production to approximately 700,000 tons per year. Barrett proposes to mine approximately 24.3 million cubic yards (or 54.1 million tons, based on 2.23 tons per cubic yard) of rock from the proposed 121-acre quarry. At an average processing and sales rate of approximately 700,000 tons per year, the modification would permit the mine to operate approximately 77 more years. Actual annual mining rates will vary based on market demand. The maximum mining rate will be limited by the plant processing capacity and the weather.

Phased excavation, topsoil and overburden stripping, and reclamation will minimize the area of impacted land at any point in time. Excavation will begin near the center of the southern portion of the site, west of the southernmost portion of the plant and stockpile area, and will proceed to the west and south. This 36.4-acre area and a 26.8-acre area at the original site are the 2007-2012 Excavation Areas. Necessary topsoil stripping will be performed prior to dolostone excavation. Excavation is planned to progress in the order of the numbered areas on Sheet 1 of 6. Water in actively mined southern areas will be pumped to the detention basins south of CR 47, and water in the northern quarry will be pumped to the existing settling ponds.

Final mine faces will be approximately 50 feet high. The width of the working benches will range from 40 to 65 feet. The final floor and benches will be flat and the mining faces will be vertical. The mining faces will be pre-split to create a more stable rock face as they approach their final position. The final north quarry floor will be at an elevation of approximately 165 feet amsl. The south quarry floor will be at a higher elevation of approximately 180 feet amsl.

The processing, stockpiling, and retail operations will occupy an area 29.5+/- acres in size along the eastern edge of the southern portion of the site. A 12.5-acre area parcel west of the original dolostone quarry includes the existing settling ponds, the northern diversion channel, and the northern storage area. These two areas will not be excavated.

Potential Impacts Associated with the Proposed Project

As with any mining and processing operation, there are potential adverse impacts associated with the Knapps Station Road site. While geology, water, ecology, and traffic at and around the site will be unavoidably impacted to some degree, the potential significant environmental impacts are restricted to noise and dust generation, visual impacts, and land use changes. The Mined Land Use Plan and Reclamation Plan have been developed to mitigate the potential impacts to the greatest, practicable extent. Brief summaries of the potential significant impacts and proposed mitigation measures are provided below.

Air Impacts: Dust generation creates a potential for significant impacts to air resources. Mining and processing activities which produce dust include drilling, blasting, removal of shot rock,

driving on haul roads, and crushing, screening, and stockpiling the aggregate. Vegetation and overburden stripping also produce dust. These activities, however, are intermittent and will not be site-wide, as much of the site was cleared by previous activity.

There may be new point sources of air emissions on-site. In the long term, the new plant will be run using line power, as opposed to generators. Generators, however, will likely be used before line power is brought in for the new plant. The diesel-powered generators will be temporary point sources.

Air impacts from particulate matter will be kept to a minimum by using water spray on roads and processing equipment, blasting efficiently, constructing vegetated berms, and planting rows of offset trees at site perimeters. Minimal stripping in advance of working faces, retaining buffer vegetation, and controlling vehicular speed will also minimize dust generation.

Noise Impacts: The activities associated with the modification will be a continuation of the same activities that are permitted at the existing mines. There will be an increase in the duration of the noise generated because aggregate production will be increased and moved across the road. Also, the distance to current receptors will change.

The baseline noise level used for the assessment is the permitted ambient sound level for both currently permitted mines on the Project Site (MLF# 60832). It was determined that the worst-case sound levels produced by the proposed modifications will not significantly increase the sound levels above the levels that are currently permitted. The projected sound level is actually lower than the level that is currently permitted at four locations. The worst-case sound level would increase over the permitted ambient level by 0.1 to 5.6 dBA at the other seven locations.

The noise impact assessment was performed using the most conservative (worst-case) methodology. Noise factors were maximized while attenuation factors were minimized. Every piece of mining equipment was assumed to be operating simultaneously at the loudest noise levels possible. Attenuation factors including distance, barriers, and vegetation were considered at the lowest realistic levels, and attenuation caused by soft ground and atmospheric absorption was not considered.

Mitigation and best management practices and Barrett's standard noise minimization measures are recommended although there is no significant potential for increased impacts at receptor locations. The recommended mitigation measures are as follows:

- The perimeter berm should be vegetated and a minimum of 10 feet high;
- Operators should not slam tailgates or use jake brakes unnecessarily;
- Whenever practicable, stockpiles will be located between operating equipment and nearby off-site receptors;
- Mufflers and other noise suppression equipment will be used on all mobile equipment, as required by MSHA (mine safety and health administration); and
- Perimeter barriers should remain in place until the last parts of mining and reclamation to provide the maximum screening practicable for as long as possible.

Additionally, the substantial distance between the noise sources and receptors, the natural vegetation around the Site, natural topographic barriers, and the increased noise attenuation that occurs as the quarry deepens will lessen the noise reaching the receptors.

Land Use: The site is zoned Residential-Agricultural by the Town of Norfolk. Aggregate mining and processing is allowed in this zone with a special use permit. Additional mining at the Project Site will not necessitate a zoning change, so the zone distribution of the Town of Norfolk will not be impacted. The use of the site for production of natural resources is only a partial change from its current status. Much of the acreage is currently idle while two large portions (44 percent) of the Project Site are currently permitted and operated as mines. All of the land, however, is classified as industrial. The ratio of the land classified as industrial to the recreational and open lands will not change with the approval of the modification.

No direct mitigative measures are required or possible, because the focus of the proposed action is a partial land use change. The temporal nature of the proposed mining and the capacity of the project site to accommodate secondary land uses, such as recreation or open space, are considered indirect mitigation.

Evaluation of Alternatives

Barrett has considered several alternative categories. The alternatives in these categories are discussed below.

Alternative Design: Possible quarry layouts and bench configurations have been considered. The most environmentally friendly layout (with the least significant potential impacts) has been chosen.

Alternative Technology: These alternatives are limited to surface mining and underground mining. Surface mining is the preferred and less expensive technique of extracting deposits within 500 feet of the surface. Approximately 150 feet of Ogdensburg Dolostone will be extracted from the Site, and there is little overburden at the site to be removed. Surface mining, therefore, is a far more economical technique than underground mining in this case. Furthermore, typical underground mining leaves 40 to 60 percent of the reserves for mine support. The underground mining alternative is not economically feasible.

Alternative Size: From this maximum size of 235.7 acres (the combined size of the parcels owned by Barrett), the proposed site was reduced to 169.9 acres to exclude major streams and wetlands. Further reducing the area of the proposed operations would not significantly reduce the impacts off-site, and the losses would outweigh the benefits. Traffic, noise, and air impacts will not be lessened on a daily basis, because production rates are not dependent on the site size. Impacts on surface water, vegetation, and wildlife would be decreased with a size reduction, but these impacts are already small. Only a size change large enough to make mining uneconomical at the site could change these impacts significantly. A reduction in site area would result in a

loss of usable resources but not a decrease in demand. As a result, additional aggregate sources (i.e., new or enlarged quarries) would be tapped to meet local and regional demands.

Alternate Development Schedule: Ultimately, the extraction and processing rate at a mine depends on market demand, though limited by the maximum capacity of the processing plant and the weather. It is not economically feasible to increase or decrease the production rate independent of market demand. Additionally, a reduction in development rate will not necessarily reduce the visual, noise, or dust impacts overall.

Alternative Land Use: Barrett's objective is to continue to excavate and process aggregate. Any alternative land use would render Barrett's objective infeasible at the proposed site. Alternative, post-reclamation land uses other than meadowland/open space and lakes are not part of the proposal, as they are beyond the project's scope; however, the reclamation as proposed will allow the flexibility for future land uses in accordance with the site's Residential-Agricultural zone designation.

Alternative Site: The applicant does not own, or have under option, an alternative site that is suitable for the proposed action within the market area. An alternative site, therefore, cannot be considered.

No Action: The no action alternative means that the mine would not be developed. The proposed project will supply a valuable resource, and demand for construction aggregates will remain unchanged. This demand would create activity at other sites and would thereby only shift impacts to those sites.

Benefits Associated with the Proposed Project

The community will realize several benefits from the Knapps Station Road Quarry, including the local availability of quality construction material, reduced construction costs, and additional employment opportunities. Studies have demonstrated that the need for aggregate, on both state and national levels, will continue to grow, mainly to meet the demand for road and bridge construction and, especially, maintenance and repair. As actively mined reserves are depleted, new deposits will need to be accessed. The proposed modification to the Norfolk Quarry #2 will allow the aggregate excavation and processing operations at the nearby Norwood Quarry to be phased out. The site is well-suited to supply aggregate to meet the needs of the region presently met by the concurrent operation of the Norwood and Norfolk #2 quarries. The phasing out of aggregate operations at the Norwood Quarry is an offset to the impacts produced by the proposed modification.

This modification would attenuate costs of road construction by minimizing or eliminating the need to import stone from quarries outside the region. Communities with a local source of aggregate realize a financial benefit by keeping transportation costs to a minimum when repairing area roads. The cost of aggregate doubles for approximately every 30 miles that it is transported. A community without local aggregate resources can experience adverse effects of increased emissions and additional wear on equipment and highways if materials must be

transported into the area. These effects are in addition to the increased material and transportation costs.

3.0 SUPPLEMENT TO THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

On October 1, 2008, Alpha submitted a supplement to the DEIS entitled Supplemental Hydrogeologic Analysis of the Knapps Station Road Aggregate Mine of Barrett Paving Materials Inc. This report is included in this FEIS as Appendix 10. A summary of the Report follows.

3.1 Introduction to the Supplemental Hydrogeologic Investigation

This report presents the results of an expanded residential water supply survey, which was conducted to further develop the hydrogeologic assessment for the proposed Knapps Station Road dolostone aggregate rock quarry in the Town of Norfolk, St. Lawrence County, New York (the site). Alpha Geoscience (Alpha) performed the survey in response to NYSDEC's request. More specifically, the survey was designed to address the hydrogeologic concerns listed in item 2 of Mr. Wiggins' letter, and it was conducted as outlined in a letter from Mr. Steven Trader of Alpha to Mr. Wiggins, dated June 20, 2008 (Appendix 7).

The DEIS contained a report entitled "Hydrogeologic Analysis of the Knapps Station Road Aggregate Mine of Barrett Paving Materials Inc." by Alpha that is dated June 1, 2007. Conclusions in the June 2007 report, that pertained to drawdown impacts at residential wells, were based upon the following sources: a door-to-door residential well survey that was conducted on December 7, 2006 and on January 12, 2007; USGS Bulletin GW-47; well completion reports filed with the NYSDEC; and water level data from the site wells collected by Barrett and Alpha. The October 1, 2008 report supplemented the Alpha report contained in the DEIS based on the expanded well survey conducted in 2008.

The primary objective of the expanded residential well survey was to gain information necessary to further address potential drawdown impacts to wells within the projected zone of drawdown influence from the mine at its fullest extent. This objective was met in two phases. Phase 1 of the survey consisted of sending a letter and questionnaire regarding their water supply to the 48 homeowners within one-half mile of the site. Appendix B contains a copy of the letter and all of the Residential Water Supply Surveys that were returned to Alpha. Phase 2 consisted of field measurements of water levels and water quality in wells for owners who indicated their desire to be included in the field portion of the survey. The water quality data will serve as a baseline for comparison should water quality complaints arise in the future.

The results of the well survey were used to update the understanding of the hydrogeology of the area around the site. Ground water contour maps and a hydrogeologic cross-section were constructed to represent the August water level data and compare to the maps and cross-sections of the June 2007 report, which were based primarily on the December 2006/January 2007 data, and older published water level data. The potential drawdown impacts when the mine is at its fullest extent were updated where needed based on the August 2008 water level data.

3.2 Conclusions of the Supplemental Hydrogeologic Investigation

An expanded residential water supply survey was conducted to further develop the hydrogeologic assessment for the proposed Knapps Station Road dolostone aggregate rock quarry of Barrett Paving Materials Inc. The survey was designed to address the hydrogeologic concerns listed in item 2 of Mr. Mark Wiggins' June 5, 2008 letter to Mr. Sylvain Gross of Barrett. The primary objective of the new survey was to gain information necessary to further address potential drawdown impacts to wells within the projected zone of drawdown influence from the mine at its fullest extent. This objective was met in two phases. Phase 1 of the survey consisted of sending a letter and questionnaire regarding their water supply to the 48 homeowners within one-half mile of the site. Phase 2 consisted of field measurements of water levels and water quality in wells for owners who indicated their desire to be included in the field portion of the survey. The water quality data and pumping data will serve as a baseline for comparison should water quality or yield complaints arise in the future. The following are the primary conclusions from this study:

- The hydrogeology of the site and surrounding area is comprised of a two-aquifer system in the bedrock, as described in the June 2007 report that was provided in the DEIS. There also appears to be a surficial water table aquifer within the glacial till, in some areas, that is not coincident with the shallow bedrock aquifer potentiometric surface.
- The results of the August 2008 well survey indicate that the potentiometric surface for the shallow bedrock aquifer was approximately 20 to 30 feet lower in the uplands east and west of the mine than was presented in the June 2007 report; however, it remained relatively unchanged northeast of the site, south of the site, and within the mine property in the valley.
- All the residential wells known to be shallow bedrock aquifer wells, except for the Bernard well on Regan Road, remain at the limit of, or beyond, the predicted drawdown influence of the proposed mine; consequently, no impacts to water levels or yield are anticipated in those wells. The Bernard well has sufficient available drawdown (approximately 100 feet) to withstand the predicted drawdown of less than 10 feet.
- The extent of predicted drawdown within the deep bedrock aquifer remains approximately the same as was predicted in the June 2007 report. The results of the August 2008 well survey indicate that the potentiometric surface for the deep bedrock aquifer was approximately 20 to 30 feet lower in the uplands east and west of the mine than was presented in the June 2007 report; however, it remained relatively unchanged within the mine property in the valley.
- The interpretations of the deep aquifer drawdown impacts predicted in the June 2007 report remain unchanged. The wells along Murphy Road likely have sufficient available drawdown to withstand the predicted deep bedrock aquifer drawdown of 5 to 15 feet.
- The dug wells in the water table aquifer in the glacial till uplands will experience no drawdown impacts from mine expansion. The water table aquifer appears to be a perched system above bedrock in some areas, such as the uplands east and west of the valley containing the mine site.

4.0 RESPONSES TO COMMENTS

As outlined in the Introduction of this FEIS, a draft responsiveness response was submitted to the NYSDEC on May 20, 2008. In addition, Alpha submitted a response to hydrogeologic comments on June 20, 2008. What follows is a summary of the responses to comments contained within those two documents as well as NYSDEC's summary of responses to certain of the comments (as contained within the NYSDEC's January 8, 2009 letter).

4.1. Blasting

4.1.1 Summary of Blasting Comments

There are many concerns about the effects of blasting on homes, groundwater flow and, specifically, water quantity and quality from homeowner's wells. In addition, there is a concern about the effects of blasting on a local fault.

4.1.2 Barrett's Response to Blasting Comments

Current and future blasting practices as well as potential impacts and mitigation are discussed in sections 2.2.7 and 3.2.7 of the Draft Environmental Impact Statement (DEIS). Under the current permit, MLF# 60832, Barrett must control blasting so that the peak particle velocities of the vibration satisfy the variable particle velocity versus frequency limits recommended by the United States Bureau of Mines (USBM) Report of Investigation 8507 (USBM, 1980). These standards were designed to minimize damage to residential structures in the vicinity of mines and are met by controlling the blast size and design. Vibration monitoring is accomplished using a properly calibrated seismograph to take measurements at the nearest residential structure or a comparable location. The vibration records aid in shot evaluation and design. The USBM recommends that the peak particle velocity remain at or below 2 inches per second. The USBM also recommends that the air blast not exceed 105 dBA at the property line (USBM, 1980). Barrett operates within these guidelines.

Pre-blast structure surveys will be performed at residences in the vicinity of the quarry as deemed necessary by all parties. Pre-blast surveys will include investigating existing foundation and wall conditions of nearby buildings and gathering residential well and ground water data, as discussed in the following paragraphs. Barrett or its agent will perform post-blast surveys as necessary to assess asserted mining impacts.

The quantity and quality of ground water resources will be monitored through a residential water well survey. The first phase of the survey was completed on December 7, 2006 and January 12, 2007. Twenty-nine residences within ½-mile of the site were visited and information including total well depth, the depth to water, and the depth to bedrock was collected from 15 of these residences. Information was gathered for 21 residential wells from a USGS bulletin and Well

Completion Reports provided by the DEC. The residential survey and the literature search provided data for two of the same wells. Overall, data were collected for 34 residential wells in the vicinity; it is included in Appendix B of the DEIS. The second phase of the residential well survey will include collecting GPS locations and baseline quantity and quality data that will be used in the event of mining impacts. This second phase will be completed at a later time, prior to the first blast at the expansion areas of the site.

The potential impacts on ground water quantity and quality are discussed in detail in DEIS sections 3.1.2.1 and 3.1.2.4 and Appendices B and C. According to the first phase of the residential well survey, there are only two known shallow aquifer wells (#16 and #17) located within the anticipated drawdown influence area of the mine (Figure 1). The other known shallow aquifer wells are beyond the anticipated drawdown influence area. Wells #16 and #17 are located on Regan Road, west of the southern portion of the proposed expansion and south of the westernmost extent of the proposed life of mine boundary. These two wells are anticipated to experience drawdowns of approximately 0.5 and 5 feet when the southern portion of the quarry is dewatered during mining operations. Neither well will experience a loss of access to water. The drawdown resulting from quarry dewatering is discussed in detail in DEIS Appendix B.

The location of the particular local fault referred to in the Department's summary of the issues is unknown. There are faults in the area. Seismic activity in this area is typically deep, and there has been no measurable recent movement. Blasting is very shallow. It is not expected that the short duration, shallow vibrations caused by the blasting will cause significant movement at the depth where natural seismic activity typically occurs. It is possible to monitor a fault of concern using a seismograph and displacement recorder if further investigation warrants it.

4.1.3 NYSDEC's Response to Blasting Comments

Barrett has addressed these concerns satisfactorily. All blasting is designed and controlled so that peak particle velocities of vibration satisfy the variable particle velocity versus frequency limits established in the United States Bureau of Mines Report of Investigation 8507. These standards were designed to minimize damages to residential structures near mines and are met by controlling blast size and design. The details of these standards are included in the DEIS and will be conditioned on the permit.

In addition to the blast standards, there will be pre-blasting structure surveys at residences in the vicinity of the quarry as deemed necessary by all parties.

As for potential damages to groundwater from blasting, the measures to be employed to mitigate structural damage apply here as well. Although there is sufficient energy to fracture the rock within the immediate vicinity of the blast (fractures extend outward to a distance equal to $\frac{1}{2}$ the hole depth), there is insufficient energy to disrupt any groundwater paths. To put this into perspective, you can calculate the ground displacement for a shot that has a peak particle velocity of 2 inches/sec (max allowed for any frequency) using the formula $D=V/(2If)$. If we assume the frequencies were 40 Hz, then the maximum ground displacement will be 0.008 inches. This is

insufficient to disrupt any groundwater flow path or well. Additionally, ground vibrations will attenuate with distance as they move away from the shot.

Lastly, there is no substance to concerns regarding blasting mobilizing any local fault. Blasting is very shallow and is very short duration. Again, there would be insufficient rock displacement to trigger any fault movement.

4.2 Noise

4.2.1 Summary of Noise Comments

Noise comments concern the potential generation of noise from quarry operations, trucks and blasting.

4.2.2 Barrett's Response to Noise Comments

The noise impact assessment for the proposed quarry expansion is included in the DEIS as Appendix I and is summarized in DEIS sections 2.2.6 and 3.2.6. This assessment covers all potential noise sources that are part of the operations and transportation and mitigation measurements that will be taken to minimize noise impacts to the residential and transient population of the area. The infrequent and short-lived blasting noise is discussed in DEIS section 3.2.7.

The assessment, which was prepared following the NYSDEC noise guidance (Assessing and Mitigating Noise Impacts), includes sound level calculations at 11 receptor locations representing residences and the transient population in the vicinity of the proposed Knapps Station Road operation. The projected sound level is actually lower than the level produced by the currently permitted operations at four of the 11 receptor locations. The worst-case sound level would increase over the ambient level under the permitted conditions by 0.1 to 5.6 dBA at the other seven locations. None of the estimated increases exceeds the "unnoticed to tolerable range" characterized by an increase in sound pressure of 6 dB or less.

It should be noted that the noise impact assessment was performed using the most conservative (worst-case) methodology. Noise sources were maximized while attenuation was minimized.

The impact assessment indicates that there is no significant potential for increased impacts at receptor locations. Nonetheless, Barrett's best management practices and standard noise minimization measures will be used. They are as follows:

- The perimeter berm should be vegetated and be a minimum of 10 feet high;
- Operators should not slam tailgates or use jake brakes unnecessarily;
- Whenever practicable, stockpiles will be located between operating equipment and nearby off-site receptors;

- Mufflers and other noise suppression equipment will be used on all mobile equipment, as required by MSHA (mine safety and health administration); and
- Perimeter barriers should remain in place until the last parts of mining and reclamation to provide the maximum screening practicable for the longest period possible.

Additionally, the substantial distance between the noise sources and receptors, the natural vegetation around the Site, natural topographic barriers, and the increased noise attenuation that occurs as the quarry deepens will lessen the noise reaching the receptors.

In terms of noise from trucks that may be traveling to or from the Knapp Station Road quarry, New York State Law (Vehicle and Traffic Law Section 386) and DEC regulations (6 NYCRR Part 450) establish standards for maximum dBA levels trucks may emit and all trucks that may access the site must meet these standards.

4.2.3 NYSDEC's Response to Noise Comments

The results of the noise study performed by Barrett show that during operations, the increase in noise level above the ambient would increase by 0.1 to 5.6 dBA at seven locations. No estimated levels exceed the unnoticed to tolerable range of 6dB. Four of the receptors will actually have noise levels lower than the currently permitted operations, due to mitigation measures such as berms. Barrett has prepared a best management practices plan for noise abatement.

In addition to the distances from the sources to the receptors, the natural vegetation around the site, natural topographic barriers and the increased noise attenuation that will occur as the quarry deepens will further reduce noise impacts.

Lastly, noise from blasting is of a short duration and infrequent and will not impact overall noise levels.

4.3 Traffic

4.3.1 Summary of Traffic Comments

Traffic comments concern the possible increase in traffic on County Route 47 and the surrounding area. Additional concerns are the ability of the road to support this traffic and who will repair any damaged sections. Lastly, traffic safety is a concern including traffic in the vicinity of the local baseball field.

4.3.2 Barrett's Response to Traffic Comments

The Applicant performed a traffic study which consisted of the following components:

- a study of historical traffic data,
- roadway analyses,
- intersection analyses,

- a traffic growth study,
- a truck trip generation assessment,
- truck route analyses,
- a trip distribution estimate,
- an assessment of combined conditions, and
- recommendations for minimizing and mitigating impacts

As part of this study, a Level of Service Summary is included as Appendix G of the DEIS and is summarized in sections 2.2.1 and 3.2.1. The traffic study found the potential traffic and road quality impacts of the quarry expansion to be insignificant. Regardless, the following mitigative measures will be employed:

- Haul routes to and from the quarry site will be principally restricted to CR 47, NYS 56, and US 11 locally.
- Site driveways will be properly maintained and separated by at least 150 feet and will consist of a paved section of at least 50 feet adjacent to the road and a gravel section of at least 100 feet leading up to the paved section from the site to free debris from truck tires before entering Knapps Station Road.

CR 47 is maintained and repaired by the St. Lawrence County Highway Department. The NYS Department of Transportation is responsible for the upkeep of NYS 56, and the Federal Highway Administration coordinates the repair and maintenance of US 11.

The local baseball field is approximately 0.7 miles west of the quarry on the south side of CR 47. Based on field reconnaissance and NYSDOT standards, the access road to the park has an adequate line of sight distance for safe entry and egress. The sight distance evaluation conducted at the intersection of CR 47 and the access road to the ball park, from the perspective of a vehicle exiting the ball park, resulted in sight distances of 2,125 feet to the left (west) and 815 feet to the right (east). The NYSDOT's sight distance standards for a design speed of 56 miles per hour are 623 feet in both directions for a left hand turn onto a road and 541 feet to the left for a right hand turn (NYSDOT, 2005 Highway Design Manual). The standards were adapted from A Policy on Geometric Design of Highways and Streets, 2004, published by the American Association of State Highway and Transportation Officials (AASHTO). The sight distances are more than adequate for cars turning east or west from the park access road onto CR 47.

According to AASHTO, while trucks are obviously heavier than passenger cars and, thus, require longer stopping distances from a given speed than cars do, the fact that truck operators sit higher and can see obstructions from further away tends to balance the additional braking length necessary for trucks to stop or slow from a given speed.

4.3.3 NYSDEC's Response to Traffic Comments

County Route 47 is a major thoroughfare for traffic going east from the Norfolk area. A traffic study was performed and found that any increase in traffic would be insignificant. However, it is recommended that site driveways be properly maintained and separated by at least 150 feet. The

site driveways will consist of paved sections of at least 50 feet adjacent to the road and a gravel section of at least 100 feet leading up to the paved section. This should keep debris from leaving the site via truck tires.

The local baseball field became the subject of concern however, it has been learned that plans to construct a parking lot on the field side of Route 47 should minimize concerns.

4.4 Zoning

4.4.1 Summary of Zoning Comments

There are a couple of concerns about zoning. One raises the issue of whether this area is Residential Agricultural or Residential Hamlet.

In addition, there is an issue raised about whether or not Barrett can develop only 20% or 80% of the property under the existing zoning. A copy of the Town Zoning and Land Classification map is included, as was provided by the Town.

4.4.2 Barrett's Response to Zoning Comments

Under well established DEC guidance, the issue of zoning is not subject to Department oversight but is something to be addressed between the Applicant and the municipality; here the Town of Norfolk. The existing mining operations are being conducted pursuant to special permits previously issued by the Town. Therefore, at the time the present expansion application was submitted, mining was permitted by the Town.

Nevertheless, the Applicant has reviewed the Zoning Map for the Town of Norfolk (St. Lawrence County Planning Office, 1998). The site and all the land around it are zoned Residential-Agricultural. Commercial excavation and mining are included as special uses permitted with Town Planning Board authorization, as delineated in the Norfolk Land Use and Development Code (1997). There is no development limitation of 20 or 80% in the land use and development code. The only relevant areal limitation is the required setback from the property line. Barrett designed the expansion to meet the setback requirement. The design and the setback are discussed in section 1.4.4 of the DEIS.

4.4.3 NYSDEC's Response to Zoning Comments

Some residents have raised the issue of zoning for the project. The site and all the land around it are zoned Residential-Agricultural. Commercial excavation and mining are included as special uses.

4.5 Dust

4.5.1 Summary of Dust Comments

Specifically, what will be done to control dust and its impacts on the community? Specific concerns have been raised regarding possible increased dust and its effects on the health of local individuals.

4.5.2 Barrett's Response to Dust Comments

The potential impacts of the quarry expansion on air quality and planned mitigation are discussed in DEIS section 3.1.4. Operations at the project site will create dust. Emissions from the processing plant, the haul roads, and the crushers are limited by regulatory and operational conditions incorporated in the NYSDEC air permit. (The State Facility Air Permit Application is included in Appendix A of the DEIS.) Barrett will implement dust control measures that include water sprays, equipment controls, and efficient blasting.

The following procedures will continue to be employed at the site to mitigate any potential adverse impacts the mining modification will have on air quality at the site and its vicinity. These mitigative measures will minimize the generation of dust, contain the dust that is generated, and shorten the distance the dust will travel.

- All blasting will be conducted and supervised by a certified blaster, ensuring the proper blast design and drilling pattern.
- Haul roads and stockpiles within the affected area will be periodically sprayed with water to keep the amount of dust generated to a minimum.
- Dust generated by the processing of rock will be controlled by fog nozzles located at critical points within the processing circuit (such as crusher discharge points and conveyor head pulleys).
- Processing equipment and conveyors will have screen covers wherever possible to contain dust.
- The processing and storage area will be surrounded by vegetated berms, trees planted specifically for impact mitigation, and undisturbed, naturally-occurring vegetation.
- Phased mining and reclamation will be practiced to minimize the amount and areal extent of dust-producing activities and conditions existing concurrently.
- Topsoil stripping ahead of mining will be minimized. This minimizes dust production and aesthetic impacts. Leaving vegetation in place as long as possible also helps to trap any dust caused by mining, processing, and trucking.

These mitigation measures will allow the facility to operate in compliance with current regulations and achieve state or national air quality standards.

4.5.3 NYSDEC's Response to Dust Comments

Concerns were raised regarding dust from the quarry operations. Operations at the site will create dust. However, emissions from the processing plant and crushers are limited by the regulatory and operational conditions incorporated in the NYS DEC air permit. In addition, regulatory conditions on the mining permit are designed to address any dust mobilized from the actual mining operations. Lastly, the measures to be taken for the site driveways will mitigate dust from being tracked onto County Route 47.

4.6 Groundwater

4.6.1 Summary of Groundwater Comments

Many comments raise concerns of the potential impacts to ground water quantity and quality as a result of mining and depressing the water table by dewatering operations.

4.6.2 Barrett's Response to Groundwater Comments

In summary, the quantity and quality of ground water resources will be monitored through a residential water well survey. The first phase of the survey was completed and includes data for 34 residential wells in the vicinity; it is included in Appendix B of the DEIS. The second phase of the residential well survey will include collecting GPS locations and baseline quantity and quality data that will be used in the event of mining impacts.

The potential impacts on ground water quantity and quality are discussed in detail in DEIS sections 3.1.2.1 and 3.1.2.4 and Appendices B and C. According to the first phase of the residential well survey, there are only two known shallow aquifer wells (#16 and #17) located within the anticipated drawdown influence area of the mine (Figure 1). The other known shallow aquifer wells are beyond the anticipated drawdown influence area. Wells #16 and #17 are located on Regan Road, west of the southern portion of the proposed expansion and south of the westernmost extent of the proposed life of mine boundary. These two wells are anticipated to experience drawdowns of approximately 0.5 and 5 feet when the southern portion of the quarry is dewatered during mining operations. Neither well will experience a loss of access to water. The drawdown resulting from quarry dewatering is discussed in detail in DEIS Appendix B.

4.6.3 NYSDEC's Response to Groundwater Comments

Groundwater: 1) A detailed hydrogeologic investigation was conducted as part of the DEIS. In addition; a supplemental analysis was performed at the request of the Department. The initial investigation was performed by reviewing existing information, conducting site inspections, collecting and analyzing water levels, stream flows and related hydrogeologic data, and conducting a water budget analysis. The objectives of this investigation were to attempt to develop a description of the ground water system at the site and immediately surrounding it, assess potential drawdown impacts when the mine is at its maximum lateral and vertical extent,

estimate the amount of water that would need to be pumped to maintain a dry quarry floor during mine operations, estimate the time it will take for the quarry to fill as a lake and predict the final level of this lake.

The primary conclusions are as follows:

a) The hydrology of this site is made up of a surface water system, a water table aquifer (shallow) and a deep bedrock aquifer. The surface system is made up of wetlands, streams and ditches that occur in the vicinity of the proposed project area. Both the water table aquifer and the deep bedrock aquifer occur within the fractured dolostone bedrock. The water table across the site and surrounding area generally mimics the surface topography with flows directed generally to the north-northeast. Depths to the water table ranged from four feet to 45 feet, with depth depending primarily on surface elevation. The deep aquifer levels ranged from approximately 32 feet to 76 feet and the potentiometric surface also mimics the surface of the land.

b) There are karst features around the area. Such features include solution-widened joints and fractures, and swallets are noted around the site. These features provide a conduit for some surface water to transfer to the water table and deep aquifer. This becomes apparent as some of the deep aquifer wells responded quickly to significant precipitation events. Water level changes tend to be flashy in the deep aquifer indicating low storage capabilities of this system.

c) Results of a quarry drawdown test at the existing Knapps Station Road quarry showed the drawdown impacts generally do not appear beyond a few hundred feet from the quarry.

d) Quarry excavation should not have an effect on the surface waters in the area other than the isolated small wetland south of Knapps Station Road which will be removed during mining. There is an ephemeral spring to the northeast of the northern quarry which will likely experience a loss of flow during quarry expansion.

e) Water level drawdowns may occur in some residential wells along Murphy Road which are tapping the deep aquifer directly south of, and upgradient of the site. The amount of drawdowns is anticipated to be in the 5 -15 foot range. The study suggests that these wells would not be expected to experience loss of water based on these projected drawdowns. However, the lack of responses to the residential well survey in this area created a data hole and groundwater levels had to be inferred. This matter still raised concerns by the Department and was the grounds for asking for a supplemental hydrogeologic investigation.

f) Both quarries would be reclaimed as lakes with water levels at elevations of approximately 292 amsl and 290 amsl after mining has been completed.

Groundwater: 2) In 2008 a supplemental hydrogeologic assessment was completed to address concerns raised by the first assessment. The primary objective of the expanded well survey was to obtain information necessary to further address potential drawdown impacts to wells within the projected influence from the mine at its fullest extent. In addition, the water quality and

pumping data will serve as a baseline for comparison should there be any future concerns raised about the water quality or yields. The results are as follows:

- a) The supplemental information confirmed that the site and surrounding area is comprised of a two aquifer system in the bedrock. There also appears to be a surficial water table aquifer within the glacial till in some areas that is not coincident with the shallow bedrock aquifer potentiometric surface.
- b) The supplemental data indicates that the potentiometric surface for the shallow bedrock aquifer was approximately 20 to 30 feet lower in the upland areas to the east and west of the mine, yet remained unchanged in areas northeast and south of the mine site as well as within the proposed mine in the valley.
- c) All residential wells known to be within the shallow bedrock aquifer, except one, remain at the limit or beyond the predicted drawdown influence from the proposed mine. The one exception is a well that has approximately 100 feet of drawdown and should be able to withstand a drawdown of less than 10 feet.
- d) The predicted drawdowns for the wells along Murphy Road remain unchanged. However, these wells should have sufficient available drawdown to withstand the predicted drawdown of 5 to 15 feet.
- e) There are several surface wells (dug wells) in the glacial till in the upland areas. These wells will experience no drawdown from the mine expansion.

Groundwater: 3) Fall Well Complaints: In the fall of 2008 several homeowners on Knapps Station Road lodged complaints stating that their wells had lost water. In addition, they further claimed that they lost water in 2001 after a blast at the existing Knapps Station quarry. Barrett and their consultants worked to further address these concerns. The results are as follows:

- a) Regional precipitation data for the summer of 2008 showed levels to be below normal. Dolostone and limestone rocks are typically tight rocks and have low water storage capabilities. Water storage is contained within fractures and joints which is why storage is low. Because the storage is low, drawdown tends to be rapid during dry times, yet response to prolonged wet periods is also rapid. This was demonstrated in the well information obtained in the original hydrogeologic assessment. The data from the National Oceanic and Atmospheric Administration (NOAA) showed the year to be below average for precipitation which would correspond to low water in the wells of the residents who complained. It should be noted that none of these wells were dry or had lost water when checked, despite what was reported. One particular well had an October measured water level within two feet of the level measured in August, which was prior to the time this resident was experiencing problems. Drawdowns were more rapid but the decrease in precipitation and resulting less water within the system easily explain this.
- b) One resident complained that, on September 4, 2001, a blast by Barrett at the existing quarry caused their well to go dry. In addition, they were claiming loss of water in the fall of 2008 and

blame the existing quarry although it was, at this time, full of water. Barrett's records show the 2001 shot did not take place until September 19, 2001. Of greater significance is the fact that the owner of an adjacent house installed a pump in a well drilled prior to this time. This pump was installed on August 23, 2001 at a depth 25 feet deeper than that of the adjacent complainant. Additionally, this new well is only about 90 feet from the well of the complainant. It appears that the new well has intercepted part of the supply and is the cause of water loss, not the quarry operations.

4.7 Power

4.7.1 Summary of Power Comments

Where will the power to run this facility come from?

4.7.2 Barrett's Response to Power Comments

During the start-up of operations, portable processors will likely be used and be run by diesel-powered generators. Once the new processing plant is constructed in the southern quarry, it will be run using electricity. New power lines will have to be installed for this purpose.

4.8 Property Values

4.8.1 Summary of Property Value Comments

Many concerns about potential drop in property assessment values as a result of the new facility.

4.8.2 Barrett's Response to Property Value Comments

In a Residential-Agricultural zone in the Town of Norfolk, commercial excavation and mining are included as special uses permitted with Town Planning Board authorization. There is no direct evidence to suggest that living near a quarry depresses property values. In fact, with this expansion of a pre-existing mine, no property value impacts are likely to occur. Market forces such as interest rates, availability of public services such as sewer and water, and the willingness of buyers to purchase or develop property in the vicinity of the quarry have a much greater impact on property assessment values than does the proximity to a quarry.

4.9 Hale Cemetery

4.9.1 Summary of Hale Cemetery Comments

Public comments concerned the potential for impacts to Hale Cemetery.

4.9.2 Barrett's Response to Hale Cemetery Comments

The impacts to Hale Cemetery and the mitigation of those impacts are discussed generally and specifically throughout the DEIS (sections 3.2.4, 3.2.5, 3.2.7, 4.8, 6.1.1, and 6.2). The original mine permit application for the Knapps Station Road site addresses Hale Cemetery. The November 17, 2006 determination letter from the OPRHP states that "it is the OPRHP's opinion that [Barrett's Knapp Station Road] project will have No Impact upon cultural resources in or eligible for inclusion in the State and National Registers of Historic Places."

Barrett will continue to preserve and protect the Hale Cemetery through careful blast design and monitoring. Additionally, Barrett has worked out an agreement with the caretakers of Hale Cemetery regarding Barrett's blasting and mining activity during funeral services at Hale Cemetery. The agreed-upon practices will continue.

Moving the processing and stockpile area to the eastern edge of the property south of Knapps Station Road positions it further from and downwind of the burial areas of the Hale Cemetery. This will lessen impacts to the cemetery.

From the maximum size of 235.7 acres to the current proposal of 169.9 acres, the proposed site was initially reduced to exclude major streams and wetlands and to avoid wrapping around the Hale Cemetery on three sides.

Hale Cemetery is located to the southeast of the northern expansion area and to the northeast of the southern expansion area and, for the purpose of the visual impact study, is considered a foreground viewpoint of the quarry. The cemetery itself lies in a topographic low area, and therefore, the area with the most potential for views of the project is the entrance on Knapps Station Road, which is the high point of the cemetery site. The current view of the northern quarry from the cemetery entrance is completely screened by the existing perimeter berm. Unmitigated, the current view of the topsoil mine from the cemetery entrance will be replaced with views of the quarry operation and the upper portion of the processing plant. The proposed perimeter berm along the south side of Knapps Station Road will block all views of the quarry and processing plant as well as decrease the noise level of the quarry operations from the cemetery vantage point.

4.10 Mineral Rights

4.10.1 Summary of Mineral Rights Comments

Questions have been raised as to whether or not Barrett has the mineral rights to mine here.

4.10.2 Barrett's Response to Mineral Rights Comments

Barrett owns the subject property in fee without reservation of any mineral, oil or gas rights, and therefore has all necessary rights to the property to conduct mining operations on the site.

4.11 Possible Night Time Operations

4.11.1 Summary of Night Time Operations Comments

Comments about night time operations concern impacts from the lighting of the quarry for night time operations.

4.11.2 Barrett's Response to Night Time Operations Comments

The quarry will only be operational at night when demand requires it. Based on the current operating schedule and consumer demand at Barrett's Norwood Quarry, activity at the Knapps Station Road Quarry at night is expected to be infrequent. Lighting at the quarry will be directed downward and toward the active area of the quarry to prevent stray light from unnecessarily lighting residential areas and the night sky. The lighting fixtures will be positioned at the lowest points possible so views of them will be blocked by the perimeter berms and vegetation to the maximum extent practicable, but at the same time, lighting will be sufficient to conduct safe operations and be in compliance with all applicable federal safety regulations.

4.12 Wetlands

4.12.1 Summary of Wetlands Comments

Will mining impact local wetlands?

4.12.2 Barrett's Response to Wetlands Comments

Impacts to wetlands and planned mitigative measures are discussed in DEIS Appendices C and J as well as in DEIS sections 2.1.3.1 and 3.1.3.1.

There are 10 wetlands that will be wholly or partially mined at the Site. None of the on-site wetland areas are state or federally protected due to their small size and lack of connectivity to federal waters. The wetland areas within the Life of Mine range in size from 0.1 to 8.6 acres for a total of 12.6 acres. Only 11.3 acres of the wetland areas are on property within the proposed Life of Mine boundary that is not currently permitted for mining. NYSDEC Wetland NO-32 will be enlarged by adding two constructed wetland areas as mitigation for the wetlands that will be impacted (DEIS Sheet 1 of 6). This mitigation is not required by law, because the on-site wetland areas that will be impacted by the quarry are not protected by the state or federal government. Nonetheless, Barrett has chosen to construct wetlands to compensate for wildlife habitats and wetland vegetation that will be lost during active mining. The combined Wetland Mitigation Area will cover approximately 2.12 acres northwest of and encircled by Wetland NO-32 very near and southeast of the intersection of Regan and Knapps Station roads. The southern stream diversion channel will redirect water that now flows onto the southern portion of the site to the enlarged Wetland NO-32. Wetland NO-32 will be protected by preserving a minimum setback from the Life of Mine boundary of 100 feet and a 3.9-acre wetland buffer area between the wetland and the Life of Mine boundary along the northwestern portion of the South site.

DEIS Appendix J is the Wetland Mitigation Area Plan. The figure labeled Figure 5 shows the two parcels that will comprise the 2.12 acres of constructed wetlands. Figure 6 is the grading plan for the mitigation area and its vicinity, and Figure 7 shows the proposed vegetation cover types and their locations. Table 2 in Appendix J summarizes the details of the proposed vegetation plantings in the wetland mitigation area.

4.13 Wildlife

4.13.1 Summary of Wildlife Comments

What are the impacts to local wildlife due to the loss of habitat?

4.13.2 Barrett's Response to Wildlife Comments

This issue is addressed in DEIS section 3.1.3.3 and Appendices E and F.

The mine expansion will affect 95.6 acres of previously unaffected wildlife habitat areas. The 47 species of wildlife observed at the site are consistent with the vegetation cover types and are typical of northern New York. None of these species are endangered or threatened. While the Indiana bat, which is endangered, is known to reside in St. Lawrence County, no part of the site is a suitable habitat (Appendix F).

Reclamation will provide the only necessary mitigation because the species observed at the site are common in northern New York, and the habitats that will be lost to the mine expansion are similar to the abundant habitat areas immediately adjacent to the site. Reclamation will provide approximately 58.8 acres of grassy meadow upland and approximately 111.1 acres of open water habitats. Additionally, the proposed wetland mitigation will replace 2.12 acres of the 11.3 acres of wetland habitats that will be impacted by mining. The reclamation of the Norwood Quarry that will progress as mining starts at the site will offset some of the impacts to wildlife habitats.

4.14 Dump Site

4.14.1 Summary of Dump Site Comments

One question was raised about the possibility of an old dump site at the intersection of Regan Road and CR 47.

4.14.2 Barrett's Response to Dump Site Comments

Witnesses have confirmed that there was once a dump in the area southeast of the intersection of Regan Road and CR 47. According to Mr. Edward Blackmer of the DEC's Solid Waste Division, the DEC has no record of any dump anywhere along Regan Road. It is possible that the site was an old farm that was never regulated. However, the reported dump site is not part of

the site that is the subject of this application and that dump site will not be impacted by the quarry expansion.

4.15 Neighborhood Quality of Life

4.15.1 Summary of Neighborhood Quality of Life Comments

How will the siting of this facility impact the quiet country side nature of this area?

4.15.2 Barrett's Response to Neighborhood Quality of Life Comments

The existing quarry and topsoil operations have been part of the "neighborhood" for quite some time now and must be taken into account when evaluating quality of life. Still, a concern such of this cannot be answered objectively. Every effort has been made by Barrett to evaluate and plan mitigation for every potential impact that this proposed operation will have on the surrounding area while going forward with the project Barrett purchased this land to pursue. Mitigation of these impacts in essence mitigates any potential impact to the quality of life of those residents who live near the quarry. Mining and excavation are within the uses that can be accomplished on the property with a special use permit. Under the law, a use that is specially permitted is presumptively consistent with the surround uses in the vicinity of the proposed use.