



## HEARING EXAMINER

### BEFORE THE HEARINGS EXAMINER FOR THURSTON COUNTY

In the Matter of the Appeal of	)	
	)	FILE NO. SUPT 000788
<b>Quality Rock Products, Inc.</b>	)	
	)	FINDINGS, CONCLUSIONS
For Approval of a Special Use Permit.	)	AND DECISION ON REMAND
_____	)	

### SUMMARY OF DECISION

The Special Property Use Permit to expand an existing gravel mine, replace a concrete batch plant, construct a hot mix asphalt plant, and resume concrete and asphalt recycling, as depicted on project plans labeled as Exhibit 1 is **GRANTED** subject to conditions.

### SUMMARY OF PROCEEDING

Quality Rock Products, Inc. (Applicant) requested approval of a Special Use Permit (SUP) for the expansion of a gravel mine from an existing 26-acre site to 151 acres on property located generally at 4711 – 88<sup>th</sup> Avenue SW in Thurston County, Washington. The Applicant also requested approval to replace a previously approved concrete batch plant and to construct an asphalt hot mixing plant and to resume concrete and asphalt recycling.

A hearing on the request was held before the Hearings Examiner of Thurston County on the following dates: November 19, 2001, December 10, 2001, February 5, 2002 and February 11, 2002. On April 5, 2002 approval of a Special Use Permit for the expansion of an existing gravel mine and the establishment of associated accessory uses at 4711 – 88<sup>th</sup> Avenue SW. Approval was granted subject to conditions. A request for a setback reduction was denied.

Appeals of the Hearing Examiner Decision were filed with the Thurston County Board of Commissioners. On July 15, 2002, after considering the appeals in a closed record hearing, the Board vacated the April 5, 2002 Decision and remanded the matter to the

Hearings Examiner for further review. The Board's remand Order required the following issues be reviewed:

- I. "A detailed analysis of the impact to the groundwater, aquifer and the Black River, called for in Condition Y [in the Hearings Examiner's decision] prior to the issuance of the SUP, because if there are problems that can't be mitigated and alter the entire approval of the project which should be done up front and not several years down the road.

Further, remand on this issue addresses the Applicant's concern about being subject to future hearing on water quality impacts."

- II. "For the purpose of determining whether or not compliance with the road standards specified in Condition G [original Hearings Examiner's decision] and in TCC 17.20.090(C) resolve the safety issues, and if not whether or not an alternative access is required. If the Hearings Examiner determines that an alternate access is needed, he must take evidence on the impacts associated with the alternative."

- III. "A remand so that he [Hearings Examiner] can take evidence on what portion of the site is designated as a mineral resource land of long-term commercial significance."

- IV. Whether the uses approved in the 1985 and 1986 permits have been abandoned.

Subsequent to the remand order of the Board a hearing on the issues of remand was held by the Hearings Examiner of Thurston County on November 13, 2002 and February 10, 2003. At the hearing the following submitted testimony and evidence:

Nancy Pritchett, Thurston County Development Services Department  
Scott Davis, Thurston County Roads and Transportation Services  
Linton Wildrick  
Nadine Romero  
Bob Mead, Thurston County Public Health and Social Services Department  
Laura Vandyke  
Marion Smith  
Roy Garrison  
Darryl Bullington  
Mary Ingalls  
Stephen P. Palmer  
Jerry Lee Dierker  
Colleen Wasner  
Jay Roach  
Donald Houston  
Cindy Wilson, Thurston County Development Services Department  
Attorney David Brickin

Attorney David Ward  
Attorney Jeff Fancher

At the remand hearings the following exhibits were submitted and were admitted as part of the official record, along with other exhibits that have been admitted as part of the record. The newly admitted exhibits were:

EXHIBIT 63 Thurston County Development Services Department Report dated November 13, 2002 - Supplement to Staff Report Dated November 19, 2001, and the following Attachments:

Attachment a Board of County Commissioners Decision on Appeal, dated July 15, 2002

Attachment b October 31, 2002 Letter from Robert Mead, Thurston County Public Health and Social Services Department

EXHIBIT 64 October 31, 2002 Memorandum from Robert Mead, Thurston County Public Health and Social Services Department

EXHIBIT 65 November 13, 2002 Memorandum from Scott Davis, Thurston County Roads and Transportation Services Department

EXHIBIT 66 Hydrogeologic Analysis prepared by Pacific Groundwater Group, dated October 2002

EXHIBIT 67 Washington State Department of Ecology Site Specific Fact Sheet (WAG 50-1449), dated May 1, 2002

EXHIBIT 68 Eight Photographs of Project Site

EXHIBIT 69 October 28, 2002 Memorandum from Laura Van Dyke, Heffron Transportation

EXHIBIT 70 Resume of Linton Wildrick, Associate Hydrogeologist

EXHIBIT 71 October 29, 2002 Letter from Nadine Romero regarding Summary Calculations for Quality Rock

EXHIBIT 72 Nadine Romero's November 6, 2002 Review of Pacific Groundwater Group Hydrogeologic Report for Quality Rock

EXHIBIT 73 Hydrogeologic Cross Section prepared by SubTerra, Inc., dated June 5, 2000 (Figure 12)

- EXHIBIT 74 Groundwater Temperature in Thurston County Monitoring Wells LRS-006 and LRS-007
- EXHIBIT 75 Geologic Vicinity Map prepared by SubTerra, Inc., dated November 20, 1999 (Figure 11)
- EXHIBIT 76 Testimony of Donald and Donna Huston, dated November 9, 2002
- EXHIBIT 77 June 4, 2002 Letter from Nancy Pritchett, Thurston County Development Services, regarding Follow Up to Site Visit Conducted on April 16, 2002
- EXHIBIT 78 Wetland Buffer Restoration Plan prepared by Ecological Land Services, dated July 11, 2002
- EXHIBIT 79 10 Photographs of the Quality Rock Project Site, dated November 2002
- EXHIBIT 80 January 24, 2003 Public Comment Letter from Donald W. Houston
- EXHIBIT 81 December 20, 2002 Public Comment Letter from Stephen P. Palmer with the following attachments: Appendix A: Letter from Stephen P. Palmer to Chuck Turley, Department of Natural Resources, dated December 9, 2002. *Does not include Appendix B.*
- EXHIBIT 82 Supplemental Hydrogeologic Analysis for Littlerock Aggregate Mine, dated January 2003
- EXHIBIT 83 U.S. Geological Report – Water-Supply Paper 2492, by David S. Morgan and Joseph L. Jones, 1999
- EXHIBIT 84 U.S. Geological Survey – Water-Resources Investigations Report 99-4165, by Drost, Ely and Lum, 1999
- EXHIBIT 85 February 10, 2003 Memorandum from Robert Mead
- EXHIBIT 86 January 21, 2002 Memorandum from Russ Prior, Pacific Groundwater Group, to Phil Struck, Parametrix
- EXHIBIT 87 January 13, 2003 Letter from Laura Van Dyke to David Ward, subject: Littlerock Sand and Gravel Pit Expansion – Additional Analysis
- EXHIBIT 88 February 10, 2003 Memorandum from Nancy Pritchett to Hearing Examiner James Driscoll

EXHIBIT 89 February 10, 2003 Public Comment Letter from Darryl C. Bullington

EXHIBIT 90 February 10, 2003 Public Comment Letter from Stephen P. Palmer

EXHIBIT 91 February 10, 2003 Public Comment Letter from Jerry Lee Dierker

EXHIBIT 92 November 15, 2002 Memo from Pat Gebhardt, Department of Natural Resources to Interested Parties, submitted by Jay Roach, including brochure titled “The Chehalis Basin Partnership” and CD titled “Watershed Planning, Salmon Recovery.”

The following Findings of Fact and Conclusions constitute the basis of the decision on the remand of the Hearings Examiner. The Findings of Facts address the issues raised by the Board in its Remand Order.

### **FINDINGS OF FACT**

To support the Decision of April 5, 2002, the Hearings Examiner set forth 61 Findings of Fact. The Board vacated the Decision but did not change the Findings that were submitted. Accordingly, in order for the record to be complete and this Decision to be consistent with the testimony and evidence that has been submitted at all hearings, the following Findings of Fact from the April 5, 2002 Decision are incorporated as part of the Findings of Fact of this Decision:

- Findings of Fact 1 through 5;
- Finding of Fact 6, except for the second to last sentence of the Finding. That sentence is hereby deleted;
- Findings of Fact 7 through 16;
- Finding of Fact 17 is withdrawn as a Finding;
- Findings of Fact 18, with the exception of the first sentence of the Finding is withdrawn as a Finding;
- Findings of Fact 19 and 20 are withdrawn as Findings;
- Findings of Fact 21 is incorporated as a Finding for this proceeding;
- Findings of Fact 22 is withdrawn as a Finding;
- Findings of Fact 23 through 43 are incorporated as part of the Findings for this proceeding;
- Findings of Fact 44 through 61 are hereby incorporated as part of the Findings for this proceeding.

### **I. Water**

Subsequent to the remand by the Board, the Applicant retained Pacific Groundwater Group (PGG) to prepare a hydrogeologic report for the expansion of mining activities on

site. As part of its analysis PGG installed four exploration borings that were completed at monitoring wells; excavated three back-hoe pits to examine the upper 18 feet of geologic materials; measured water levels in wells and surface water bodies; measured stream flows at two locations; conducted an aquifer test; developed a groundwater-flow model of part of the Ashley Creek groundwater basin; and, assessed effects of aggregate extraction on groundwater and surface water. *Exhibit 66*. Based on the collected data of these activities PGG submitted a Supplemental Hydrogeologic Analysis. In its January 2003 report PGG characterized the geology, groundwater and surface water of the Sand's property in the upper Ashley Creek basin; provided new data for the discharge of Ashley Creek at two previously measured sites and at the Sand's property; and, additional data of groundwater at the Littlerock mine and the Sand's property. *Exhibit 82*.

### **Ground Water**

1. The Littlerock Mine lies within the Upper Chehalis River Basin. The groundwater from the mine flows toward the Black River, a tributary of the Chehalis River. *Exhibit 66*. As part of the remand review the Applicant had an additional hydrogeologic analysis prepared by its consultant, Pacific Groundwater Group (PGG). *Exhibit 66*. The analysis included a study of the geologic makeup of the mine and surrounding areas and drilling of four monitoring wells and three backhoe pits. Three shallow test pits, TP1, TP2, TP3 located along Ashley Creek were dug: TP1 is off-site to the northwest; TP2 is immediately south of the northern property boundary about fifty feet from Ashley Creek; and TP3 is located near well LR5, west of Ashley Creek and SG-14. *Exhibit 66; Testimony of Mr. Wildrick*. There was till at ground surface at TP1, TP2, and TP3.<sup>1</sup>
2. Vashon Advance Outwash (Qva) (sometimes referred to as "hardpan" or "glacial concrete") commonly occurs below Vashon till, but can occur at surfaces where the till has eroded. At the Mine site the Qva has formed an aquifer with moderate to high permeability. *Exhibit 66, pages 3 & 4*. The Qva is the primary source of aggregate for the Littlerock Mine.
3. Weathered glacial till in wetland areas is characterized by poorly drained soil with slow permeability. These characteristics are present on site. McKenna gravelly silt loam and Alderwood gravelly sand loam have formed in the wetland areas along the eastern edge of the mine along Ashley Creek. *Testimony of Mr. Wildrick*. PGG determined that while there is a till layer at the surface of certain areas of the mine, there are discontinuities, or windows that occur on and near the mine site. The till geologic unit functions as an aquitard, which is a layer of rock having low permeability that stores groundwater but delays its flow. *Exhibit 66; Testimony of Mr. Wildrick*.
4. From August 9, 2002 to August 12, 2002 the Applicant's consultant conducted an aquifer test in the Qva aquifer. The well used in the test (PW-1) was thought to be 40 feet deep, although there was no driller's log to confirm this. The consultant

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<sup>1</sup> The citations to the test pits, gauging sites and stations are set forth in detail in Exhibit 66. Whenever such a citation is used in these findings it is referenced to Exhibit 66.

testified that it is common practice to use USGS data to determine the depth of aquifer thickness. An aquifer thickness of 42 feet, based on USGS mapping, was considered to be a conservative estimate for the thickness on site. *Testimony of Mr. Wildrick*. The well was pumped continuously for 48 hours at a constant rate of 35 gallons per minute. Water levels were monitored in LR2, LR3, LR4 and LR5 during the test and for another 36 hours after pumping ceased. A drawdown was observed only in LR2. The result of the analysis, based on Moench method, was a transmissivity of approximately 3,300 square feet per day. Based on an aquifer thickness of 42 feet (Drost), the hydraulic conductivity was estimated to be 80 feet per day. *Exhibit 66: October 2002 Hydrogeologic Analysis*.

5. In addition to drilling, the PGG consultants walked the shores of Ashley Creek. From their observations they determined that the creek bed was hard sand and gravel with a till-like composition. Based on the observations and the drilling data the consultants' interpretation was that the till is continuous beneath the creek. This interpretation of till supports the presence of the creek and wetlands and is consistent with the mapping of the area. *Testimony of Mr. Wildrick*.
6. In addition to aquifer thickness, PPG measured Ashley Creek at various gauging sites. Based on this data and that of the Qva aquifer, PPG's findings were that the underlying groundwater on site was considerably lower than the surface water in Ashley Creek. This finding was supported by the till in the bed of Ashley Creek and the measured loss of discharge from Ashley Creek. These water elevations of the Creek and the aquifer support the conclusion that none of the mine property drains into Ashley Creek. *Exhibit 66, and Exhibit 25 (Subterra study)*.
7. The GPP report reached different groundwater conclusions than the original groundwater report prepared by SubTerra (*see exhibit 25*). The GPP interpretations are different – and more reliable – because they are based on more extensive and detailed information. The SubTerra report was based on domestic driller's logs while GPP obtained its data from pits and borings at or near the creek. This closer proximity provided a more accurate reading of the groundwater, the creek and the recharge. *Testimony of Mr. Wildrick*.

### **Ashley Creek Discharge**

8. Significant measurements of Ashley Creek have occurred. For approximately a year the discharge of the Creek was gauged continuously at a culvert under a nearby railroad grade (station SC-14) by Thurston County. PGG measured the discharge of Ashley Creek at a point 1,880 feet downstream from SC-14. Another Ashley Creek measurement was taken at site AC2, approximately 830 feet downstream for AC1. The Ashley Creek stages were calculated from gage and culvert measurements during August 2002 and the measuring point elevations were surveyed to the NGVD29 datum. Based on the data from these sites Ashley Creek was losing 0.39 cfs. (From SC-14 [total discharge 1.33cfs] to AC1 [total discharge

0.94 cfs.].<sup>2</sup> *Charts are found in Exhibit 66.*) The loss of discharge in the creek showed a loss which can happen only when the groundwater level is lower than the creek level.” *Exhibit 66, Page 6.* Based on data from monitoring wells and stream flow measurement and a comparison of the groundwater heads with creek stages, the water table lies eight or more feet below Ashley Creek between SC-14 and AC2. *Exhibit 66; Exhibit 82.* Downgradient, at the Black River, the groundwater table rises to meet the river. *Testimony of Mr. Wildrick.* The analysis also concluded that Ashley Creek may be perched above the regional water table. *Testimony of Mr. Wildrick.*

9. The County’s representative submitted that based on the materials and information provided from the four new monitoring wells, along with the three back-holed borings and information from existing wells adequate information is available to determine water quality and water drawdowns that would result from the final phase of the operation. According to Mr. Mead the reaction and the observation wells to pumping that was performed at Station PW-1 provides sufficient information about aquifer conditions under the wetland and the eastern boundary. According to Mr. Mead, it provides predictive information as to how the area would react to aquifer stress. The water quality and drawdown would not be impacted by this aquifer stress. *Exhibit 64; Testimony of Mr. Mead.*
10. The till underlying Ashley Creek functions as an aquitard. The consultant’s explanation of a loss of water upstream to downstream is that the thin layer of till beneath Ashley Creek is not impermeable, even though it is continuous. *Testimony of Mr. Wildrick.* The consultant submitted that it would be possible for groundwater levels to recharge the stream if the groundwater were high enough. However, he estimated that in this case the groundwater level would have to rise seven or eight feet to influence the creek. *Testimony of Mr. Wildrick.*
11. Due to the perched condition, the water table is removed hydraulically from the stream. As long as the water table lies below the base of the till, its level will not affect the creek leakage. In other words, the leakage rate from Ashley Creek will not change or increase or decrease in response to changes in aquifer water levels. Therefore, the proposed pit lake will not affect the flow into Ashley Creek. This interpretation is in agreement with the interpretations by SubTerra (2000) and Mead (2002).
12. The Thurston County Public Health & Social Services Department water expert, Robert Mead, submitted that based on the materials and information received from the four new wells, three borings, an aquifer pumping test, water level measurements and detailed computer modeling the maximum lowering of water levels at any well will be no greater than 1.7 feet. According to Mr. Mead the results verify that the mining will not affect water levels in Ashley Creek. *Exhibit 64.*

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<sup>2</sup> The 0.4 loss was a “spot value” based on one day. The 0.4 cfs loss represented 25% of the stream flow on August 10



## **Water Quantity and Quality of Pit Lake:**

*After the site has been mined it is the intent to reclaim it with the creation of a lake. Condition Y of the April 5, 2001 decision of the Hearing Examiner conditioned the creation of the lake on further review at the appropriate time. The Board in its order directed "Further, remand on this issue addresses the Applicant's concern about being subject to future hearing on water quality impacts."*

13. Changes to the site from the till stripping and creation of the lake were modeled using HSPF. The model was used to estimate the evapotranspiration rates for the pit lake area under original forested conditions.<sup>3</sup> Evapotranspiration, which is how water returns to the atmosphere, includes both evaporation from free water surfaces and transpiration from plants.
14. The future maximum evapotranspiration rate was estimated from pan evaporation data. The pan evaporation data came from records developed at the Puyallup Agricultural Extension Service site from October 1955 through September 1999. For pre-mining conditions, the vegetation was assumed to be forest, the slope gentle to flat, and geology type of ½ Qva and ½ till based on USDA soil maps. The pan evaporation rate was calculated using the USDA's daily pan evaporation record and pan evaporation coefficients of 0.7 and 0.8. The estimated change in recharge was calculated as follows: the difference between evaporation under future lake condition and evapotranspiration plus surface runoff under current condition.
15. Estimates were submitted by GPP that the average annual evaporation from the pit lake would be two feet per year. This figure would exceed the historic evapotranspiration rate by 3.7 inches per year but is considered a small change from the vegetated to the lake effect. *Exhibit 66, page 17, table 2; Testimony of Mr. Wildrick.*
16. The program GFLOW2000 was used to evaluate the effect of the pit lake and the expansion on groundwater levels in nearby wells and on groundwater discharge to the Black River valley. Figure 5 of Exhibit 66 provides the model results. The groundwater level is expected to drop up to six feet along the eastern edge of the mine, which, according to GPP, represents the maximum impact on the aquifer. This drop amount would decrease as the water flows east. For residential wells, the change is expected to be between 0.8 feet and 1.7 feet. The available drawdown for a well is typically between 10 and 30 feet. Based on this data the Applicant's consultant testified that if the domestic well has at least 10 feet, the owner will not notice a difference in pumping rate. *Testimony of Mr. Wildrick.*
17. Table 3 of Exhibit 66 depicts the estimated change in groundwater level at the Clovis, Holmes, Lee, McNamara, Seed, Shobar, Thurber and Wolfenburger wells.

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<sup>3</sup> The assumption used in the model was that the mine site was originally forested and would be reclaimed with landscaping.

The estimated change in groundwater level ranged from a drop of 0.8 feet at the Lee well to a drop of 1.7 feet at the Shobar and Thurber wells. *Exhibit 66, page 17.*<sup>4</sup>

18. Another hydrology expert, Ms. Romero, applied data from the TEIS aquifer program and submitted that the drawdown of nearby domestic wells caused by creation of the pit lake to as much as ½ foot to 2 feet. *Romero Testimony; Exhibit 71.* While the drawdown predicted by Ms. Romero is slightly more than the drawdown defined by GPP, she considered the drawdown as significant. *Romero Testimony.* The Black Hills Audubon Society also questioned water quality in its post hearing memorandum. Citing Mr. Wildrick’s testimony that “wood waste was common knowledge” the Society claimed that the Applicant had not done any water quality studies on the Black River and that the Department of Health’s studies are limited at best.
19. According to the GPP representative, the GFLOW program was selected rather than the TEIS program because the TEIS program is not sophisticated enough to determine the lake’s effect on the aquifer drawdown. The TEIS model is based on the water needed for a well and not the development of a lake. Further, according to GPP, the TEIS model would predict a greater drawdown caused by the lake because it is based on the incorrect assumption that pumping is occurring. *Testimony of Mr. Wildrick.* The Applicant’s consultant testified that, using the GFLOW program, the expected well drawdowns are similar to the drawdown calculated by Nadine Romero, the BLAS consultant. *Testimony of Mr. Wildrick.*
20. The County representative, Mr. Mead, commented on Condition Y of the March 3, 2002 Decision of the Hearings Examiner. In Exhibit 64 Mr. Mead stated as follows:

“In response to this condition the following should be added to the Health Department’s condition for this project: In designing the monitoring plan for this project, the Applicants must devise water level monitoring parameters that will validate the predictions of the affects on groundwater. As stated previously this monitoring plan must be approved by the Health Department before the expansion can proceed. If during future five-year reviews the actual effects of this project differ significantly from the predicted effects, the project must be modified to mitigate the effects. The project operators must agree before starting the expansion that if they are significantly out of

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<sup>4</sup> The GPP Report notes: “the magnitude of water level changes may be as much as twice that shown in Figure 5 and Table 3, as a result of the increase in hydraulic gradient across the mine, as compared to the average gradient used for modeling. Nonetheless, these modeling results are appropriate for planning and permitting purposes, and indicate that the functioning of the local domestic water supply wells will not be materially impaired, because they have sufficient available drawdown (height of water above screen or open lower end of casing).” *Page 11.*

compliance with the conditions of the approved monitoring plan at a future five-year review, the Health Department clearly has authority to close their operation.”

In essence this new information validates the previous Findings relating to groundwater. With the exception of the condition given above the conditions relating to groundwater require no other changes. *Exhibit 64.*

Mr. Mead also submitted data relating to water consumption for the mining activity proposed by the Applicant. Mr. Mead submitted the size of the proposed operation makes it improbable that the Applicant would use less than 5,000 gallons per day for the activities on site. Based on his data the County, through Mr. Mead, recommended that mining operations be limited to the production feasible with a maximum well pumpage of 5,000 gallons per day unless a Washington Department of Ecology water right is obtained and provided to Thurston County. Mr. Mead also recommended that cumulative flow measuring devices be provided and that the measurements be taken weekly. *Exhibit 85*

## **II. Traffic Safety**

*The second issue of remand was traffic safety. Findings of Fact Nos. 17 – 25, Conclusion 7(e) and Conditions G, H and I of the April 5, 2002 SUPT decision addressed roads and traffic, and should be referred to in conjunction with the Findings as set forth herein.*

Based on its review of the Findings, Conclusions and Conditions, the Board determined as follows:

“Accordingly, a majority of the Board determined that this case needed to be remanded to the hearing examiner for the purpose of determining whether or not compliance with the road standards specified in condition G and in TCC 17.20.090(c) resolve the safety issues, and if not whether or not an alternative access is required. If the hearing examiner determines that an alternate access is needed, he must take evidence on the impacts associated with the alternate.”

The condition at issue, Condition G, read as follows:

“The access to the site shall comply with county and state road standards as specified in TCC 17.20.090. This ordinance may require road improvements to 88<sup>th</sup> Avenue SW. If alternate access is chosen to satisfy this requirement, the SUP proceeding shall be reopened for the limited purpose of considering impacts associated with the alternate access and to adjust conditions of approval accordingly.”

21. Subsequent to the Board’s July 15, 2002 Remand Order the Applicant purchased the Hard Rock Mine immediately south of the site. The purchase included easements for use of a permitted haul road (Hard Rock Haul Road) that connects

with Littlerock Road SW approximately one mile south of 93<sup>rd</sup> Avenue SW. At Littlerock Road SW, the haul road has an 80-foot wide paved apron to accommodate truck-turning radii. The Hard Rock Haul Road is gated approximately 145 feet west of Littlerock Road SW. To the west of the gate it narrows to approximately 20 feet. There are no homes or other businesses located along the Hard Rock Haul Road. *Exhibit 68; Exhibit 69, page 1; Testimony of Ms. VanDyke; Argument of Mr. Ward.*

22. The Applicant proposes to direct all *new* truck traffic generated by the expansion to the Hard Rock Haul Road. However, the Applicant argued that some truck traffic should be allowed to use 88<sup>th</sup> Avenue SW (also a permitted haul road) to the extent of historic usage. *Argument of Mr. Ward; Applicant's Closing Brief on Remand Issues.* In their respective presentations the County staff and the Applicant agreed that 70 truck trips per day (35 round trips) is an appropriate figure for historic usage. This number was based on the average truck trips between April 2000 and January 2001. In a letter dated May 4, 2001 (Exhibit 29), one of the Applicant's consultants submitted that the number of truck trips ranged from 50 per day (25 round trips) for average production months (18,000 tons), to 90 per day (45 round trips) for the peak month (August 2000). The Applicant agreed to the 70 truck trips per day figure even though the current use of 88<sup>th</sup> Avenue NE is higher (average of 100 truck trips per day (50 round trips) with peaks as high as 150 truck trips per day for the year prior to the November 2002 hearing date). The existing employee vehicle trips are approximately 20 per day. The employee trips would access the site from 88<sup>th</sup> Avenue NE and would not be counted as part of the 70 trip per day limit. *Exhibit 29; Exhibit 63, page 4; Applicant's Closing Brief on Remand Issues; Testimony of Ms. VanDyke.*
23. Although the County and the Applicant agreed that a 70 truck trip per day limit was reasonable based on historic usage, the parties differed as to how the truck trips should be determined and calculated. The County recommended that use of 88<sup>th</sup> Avenue SW be conditioned. The County submitted that the primary access to the project site for truck traffic should be the Hard Rock Haul Road, and that truck trips on 88<sup>th</sup> Avenue be limited to a maximum count of 70 truck trips per day. A truck trip would be defined as a truck either entering or leaving the site. Thus, 70 truck trips would be the equivalent of 35 trucks entering the site and 35 trucks exiting the site. Employees could continue to access the mine from 88th Avenue and their vehicular trips would be in addition to the allowed maximum truck traffic. Further, the County stated all truck trips outside the hours of 7:00 a.m. to 7:00 p.m. Monday through Saturday, as allowed under TCC 17.20.115(C), should only use the Hard Rock Haul Road. When counting truck trips, actual daily truck trips should be used. Truck trips should not be averaged over any period of time when determining truck trips per day. The County would require that the Applicant maintain a daily record of truck trips that documents how many trucks use 88<sup>th</sup> Avenue and how many trucks use the Hard Rock Haul Road. This daily record should be made available to Thurston County staff on request. *Exhibit 63.*
24. The conditions recommended by the County would establish a cap on truck traffic of 70 trips per day and would not allow the trips to be averaged. *Exhibit 63, page*

7; *Exhibit 88*. The Applicant argued that the maximum of 70 trips per day should be based on *average* trips, with no cap at 70 trips on any given day. The Applicant did not specify a time period to determine the averaging (e.g., weekly, monthly or yearly). He agreed “to maintain detailed logs and provide the County with truck trip information on a monthly basis or as requested.” *Applicant’s Closing Brief on Remand Issues*.

25. Although the Black Hills Audubon Society (BHAS) supported use of the Hard Rock Haul Road rather than use of 88<sup>th</sup> Avenue SW, it argued that the proposed use of the haul road and supporting traffic analysis does not address the safety issue on 88<sup>th</sup> Avenue SW that prompted the Board’s remand. BHAS argued that because the safety issue has not been addressed, the Applicant has not met its burden of proof and the SUPT application should be denied. *Testimony of Mr. Marion Smith; Black Hills Audubon Society’s Post-Hearing Memorandum*.
26. 88<sup>th</sup> Avenue SW has a pavement width of 20 feet and no shoulders. In order to comply with County standards for local access roads, the road would have to be widened two feet for shoulders. Ten-foot wide clear zones (unobstructed right-of-way or easement) would have to be established. Currently only portions of the road have clear zones. In addition, the intersection of 88<sup>th</sup> Avenue SW and Littlerock Road does not have sufficient turning radius to satisfy AASHTO standards for truck traffic (Chapter 9). Trucks turning south onto Littlerock Road occupy the entire road during the turn. *Testimony of Mr. Marion Smith*.
27. The Applicant submitted a Supplemental Transportation Analysis (STA) (*Exhibit 69*) for the alternative site access. The STA assumed that “70 truck trips and about half of the daily passenger vehicles generated by the site would use 88<sup>th</sup> Avenue SW to access the site on an average day.” This number of truck trips represents the current use of 88<sup>th</sup> Avenue SW. Because approximately 80% of the project trips would access I-5 via 93<sup>rd</sup> Avenue SW, the STA focused on impacts to the intersection of 93<sup>rd</sup> Avenue SW and Littlerock Road SW. In addition, the STA addressed impacts to the intersection of the Hard Rock Haul Road and Littlerock Road SW. *Exhibit 69*. At the date of hearing the Thurston County Roads & Transportation Department had not adequately reviewed the STA. However, the Department indicated that the Applicant should be required to contribute pro rata shares to improvements at Littlerock Road SW and 93<sup>rd</sup> Avenue SW. *Exhibit 1, Staff Report*.
28. At the intersection of 93<sup>rd</sup> Avenue SW and Littlerock Road SW during the AM peak hour, the northbound and southbound movements would operate at LOS A in 2003 (the year the expanded pit is expected to be open and operational at a production of 500,000 tons) and 2009 (the year the expanded pit is expected to reach maximum production of 750,000 tons). Both of these levels of service continue with and without the project during average production days and average production days during the peak month. The eastbound movement would operate at LOS C in 2003 and 2009 both with and without the project, during both average production days and average production days during the peak month. LOS C is an

acceptable level of service pursuant to Thurston County standards. The westbound movement would operate at LOS B in 2003 without the project, but would drop to LOS C with the project, during both average production days and average production days during the peak month. The westbound movement would continue to operate at LOS C in 2009 during both average production days and average production days during the peak month. *Exhibit 69, pages 3-4.*

29. At the intersection of 93<sup>rd</sup> Avenue SW and Littlerock Road SW during the PM peak hour, the results are identical to those for the AM peak hour for the northbound and southbound movements (LOS A). The eastbound movement would operate at LOS B in 2003 without the project, but would drop to LOS C with the project, during both average production days and average production days during the peak month. The westbound movement would continue to operate at LOS C in 2009 during both average production days and average production days during the peak month. The westbound movement would operate at LOS C in 2003 both with and without the project, during both average production days and average production days during the peak month. The LOS would drop to D in 2009 with or without the project. LOS D operating conditions are substandard for areas outside of the Urban Growth Boundary. However, installation of a northbound right-turn lane on Littlerock Road SW would improve operating conditions to LOS C both with and without the project (as a revised condition of SUPT approval). County staff recommended that the Applicant contribute a pro-rata share towards installation of the turn lane. *Exhibit 69, pages 3-4; Exhibit 63, page 6.*
30. At the intersection of the Hard Rock Haul Road and Littlerock Road SW, the northbound and southbound movements would operate at LOS A during both the AM and PM peak hours, both in 2003 and 2009, with or without the project, during both average production days and average production days during the peak month. The eastbound left turn movement would operate at LOS C during the AM peak hour, whether in 2003 or 2009, with or without the project, during both average production days and average production days during the peak month, and either LOS B or C during the PM peak hour for those times. The eastbound right turn movement would operate at either LOS A or B during those times. *Exhibit 69, page 4.*
31. The traffic impacts of directing all truck traffic (including historic truck traffic) to the Hard Rock Haul Road is similar to the impacts described above. At the intersection of 93<sup>rd</sup> Avenue SW and Littlerock Road SW during the AM peak hour, the northbound and southbound movements would operate at LOS A in 2003 and 2009 both with and without the project, during both average production days and average production days during the peak month. The eastbound and westbound movements would operate at LOS B or C in 2003, but would operate at LOS B in 2009 both with and without the project, during both average production days and average production days during the peak month, with the installation of the northbound right-turn lane on Littlerock Road. During the PM peak hour, the northbound and southbound movements would operate at LOS A in 2003 and 2009 both with and without the project, during both average production days and average

production days during the peak month. The eastbound and westbound movements would operate at LOS C with the installation of the northbound right-turn lane on Littlerock Road. *Exhibit 87.*

32. At the intersection of the Hard Rock Haul Road and Littlerock Road SW (assuming all truck traffic uses the Hard Rock Haul Road), the northbound and southbound movements would operate at LOS A during both the AM and PM peak hours, whether in 2003 or 2009, with or without the project, during both average production days and average production days during the peak month. The eastbound left turn movement would operate at LOS C during the AM peak hour, whether in 2003 or 2009, with or without the project, during both average production days and average production days during the peak month, and either LOS B or C during the PM peak hour. The eastbound right turn movement would operate at either LOS A or B during those times. *Exhibit 87.*

### **III. Designation of Mineral Resource Lands**

*The third issue of remand was the Comprehensive Plan designation of mineral resource lands. Finding of Fact No. 3 and Conclusion No. 5 of the SUPT decision addressed the Comprehensive Plan designation.*

In its Remand Order the Board held:

“A majority of the Board determined that designation of a site as a Mineral Resource Land of Long Term Commercial Significance is relevant to analyzing its consistency with the comprehensive plan and protecting those lands. A majority of the Board determined that because it is unclear whether or not the entire parcel or only 80 acres is designated, or which 80 acres of the 151 acres is designated, this matter needs to be remanded back to the hearing examiner so that he can take evidence on what portion of the site is designated as a Mineral Resource Land of Long Term Commercial Significance.” *Board Decision of July 15, 2002.*

33. Thurston County Comprehensive Plan map M-43 depicts designated Mineral Resource Lands of Long Term Commercial Significance. The map labels the designated lands by number, and an accompanying legend provides more specific information, including the DNR permit number; the operator; the section, township and range; and the permitted acreage. Although, according to the shading and boundaries depicted on the map, the entire 151-acre parcel is designated a Mineral Resource Land of Long Term Commercial Significance, the legend indicates that the DNR permit issued to Milt Emerick of Fairview Sand and Gravel was for 26 acres, and that the number of acres permitted for such designation was 80. Based on this information, the County retracted its original determination that the entire 151-acre site is designated a Mineral Resource Land of Long Term Commercial Significance and submitted that only 80 acres is a designated Mineral Resource Land of Long Term Commercial Significance. Although Staff could not discern from the available information which 80 acres carry the designation, it submitted

that because the northernmost 80 acres of the site includes the original 26-acre site it would be the logical boundary for the designated 80 acres. *Exhibit 63, page 5; Closing Argument of Thurston County dated March 21, 2003.*

34. The Black Hills Audubon Society supported the County's analysis, arguing that the language of TCC 20.30B.020 specifies that the "precise boundaries" of the designated lands are "as indicated on the DNR permit." *BHAS Post-Hearing Memorandum dated March 21, 2003.* However, the Society argued that the DNR permit was for 26 acres, not 80 acres, so that the designation is limited to 26 acres. *BHAS Closing Reply Brief on Remand Issues dated March 28, 2003; Letter from Jennifer Dold dated April 1, 2003.*
35. The Applicant argued that the Comprehensive Plan map depicts the entire 151 acres as designated. It based this contention on TCC 20.30B.020, which states that the designated lands are those shown on the map. However, the Applicant admitted that "the protections of the MRL overlay only extend to the edge of the DNR permitted area." The Applicant argued that the designation should extend to the entire parcel. The Applicant argued that a split overlay would be analogous to split zoning. *Applicant's Closing Brief on Remand Issues dated March 21, 2003.*

#### **IV. Vested Rights**

*In the July 15, 2002 Remand Order the Board questioned whether the uses approved in 1985 and 1986 permits (issued by Thurston County) have been abandoned. This issue was addressed by attorneys in a proceeding prior to the remand hearing. On October 18, 2002 the Hearings Examiner determined that the 1985 permit (LTD-3-85) for mineral excavation of 26 acres and the 1986 permit (LTD-3-85) for a cement batch plant on site have not been abandoned, vacated or discontinued. In that same Order the Hearings Examiner set forth that Findings of Fact and Conclusions would be submitted at a later date. The following constitute the Findings of Fact for this decision.*

36. On October 22, 1985 Thurston County issued a Limited Use Permit (LTD-3-85) to extract minerals from a 26-acre portion of the subject property and to operate a portable crusher/classifier. The permit was granted to the Fairview Sand & Gravel Company. In 1986 the LUP was amended to allow the addition of a dry cement batch plant. *Michael Kain Statement, October 7, 2002.* Reference is also made to Finding No. 4 of the April 5, 2002 decision of the Hearings Examiner, which sets forth in greater detail the history of the operation.
37. The mine that was permitted by LTD-3-85 operated continuously for approximately 10 years. Sometime around 1995 the mining activity ceased on site and the property owner sought to sell or lease to another mining operator. The property and operation was eventually purchased by the Applicant on January 25, 2000. Mining activity was resumed immediately. *Thurston County Planning Manager Michael Kain's Statement, October 7, 2002.*



38. At the time mining operations ceased in 1995 the LTD was subject to the provisions of the Thurston County Zoning Code, Section 20.54.040 and in particular subsection (4) of that ordinance. That ordinance which set time limits for the LTD stated:

“The authorization shall expire upon expiration of three (3) years from the date of final approval of a special use which by then has not commenced operation, or upon abandonment for a period of one (1) year of a special use that has been authorized . . .”

The previous owner expressed no intent of abandoning the operation and took measures to try and sell the operation. *Kain Statement, October 7, 2002.*

39. No intent of abandonment was ever shown by the previous owner or the Applicant. As noted in Mr. Kain’s statement of October 7, 2002, the Applicant started up the mining operation immediately upon purchase.
40. Subsequent to the time that the property was purchased by the Applicant on January 25, 2000, TCC 25.54.040(4)(a) was amended to exclude the word “abandonment”. The amended ordinance is not the standard for the review of this particular request.

## **CONCLUSIONS**

### **Jurisdiction**

The Hearing Examiner is granted jurisdiction to hear and decide applications for Special Use Permits for gravel mining pursuant to TCC 2.06.010 and TCC 20.54.015.

### **Criteria**

The Hearing Examiner may approve an application for a Special Use Permit only if the specific standards set forth in TCC 20.54.070 and the following general standards set forth in TCC 20.54.040 are satisfied:

1. Plans, Regulations, Laws. The proposed use at the specified location shall comply with the Thurston County Comprehensive Plan and all applicable federal, state, regional, and Thurston County laws or plans.
2. Underlying Zoning District. The proposed use shall comply with the general purposes and intent of the applicable zoning district regulations and subarea plans. Open space, lot, setback and bulk requirements shall be no less than that specified for the zoning district in which the proposed use is located unless specifically provided otherwise in this chapter.

3. Location. No application for a special use shall be approved unless a specific finding is made that the proposed special use is appropriate in the location for which it is proposed. This finding shall be based on the following criteria:
  - a. Impact. The proposed use shall not result in substantial or undue adverse effects on adjacent property, neighborhood character, natural environment, traffic conditions, parking, public property or facilities, or other matters affecting the public health, safety and welfare. However, if the proposed use is a public facility or utility deemed to be of overriding public benefit, and if measures are taken and conditions imposed to mitigate adverse effects to the extent reasonably possible, the permit may be granted even though the adverse effects may occur.
  - b. Services. The use will be adequately served by and will not impose an undue burden on any of the improvements, facilities, utilities, or services existing or planned to serve the area.
4. Time Limits.
  - d. Time Limit and Re-Review. Where the approval authority is the hearing examiner, there may be a condition to provide time limits for the use. If it is determined after review that the special use no longer meets the conditions set by the hearing examiner at the time of the initial approval, the use may be terminated, or such standards added as will achieve compliance with the original hearing examiner conditions.

### **Conclusions Based on Findings**

#### **Conclusions**

The Conclusions based on Findings as set forth in the April 5, 2002 Decision are hereby incorporated and included as Conclusions for this proceeding. It should be noted that the references to Findings of Fact in Conclusions 1 through 10 of the April 5, 2002 "Decision" refer to the Findings of Fact of the original Decision dated April 5, 2002.

#### **I. Water**

1. Based on the analysis of the impact to groundwater, aquifer and the Black River, water quality and quantity issues have been addressed. The maximum lowering of water levels at any well will be no greater than 1.7 feet and the mining will not affect water levels in Ashley Creek.
2. The soil conditions, including sand and gravel layers under the wetland and eastern boundary, as well as under Ashley Creek have been adequately reviewed. There is conclusive evidence on water quality and water drawdowns. The reaction of the aquifer and the information from the observations and pumping at PW-I have

provided adequate information that the area will not negatively react to any aquifer stress.

3. The mining operation shall be subject to five year reviews, including analysis of the impact to groundwater to the site, aquifer and the Black River. This information will be provided in monitoring plans for this project and in the five-year review of the permit. The Applicants must devise water level monitoring parameters that will validate the predictions on the effects of groundwater. The monitoring plan must be approved by the Thurston County Department of Health before the expansion can occur. If during future five-year reviews, the actual effects of the project differ significantly from the predicted effects, the project must be modified to mitigate the effects. The project operators must agree before starting the expansion that if they are significantly out of compliance with the conditions of the approved monitoring plan at a future five-year review, the Health Department has the authority to close their operation.

## **II. Traffic**

4. With the Hard Rock Mine Haul Road that was part of the Hard Rock Mine acquisition all new truck traffic generated by the expansion would not cause substantial or undue adverse effects on traffic conditions in the area.
5. Traffic data provided indicates that the level of service will not be impacted by the continued use of existing truck traffic on 88<sup>th</sup> Avenue SW. A 70-truck trip per day limit on 88<sup>th</sup> Avenue SW, supported by the Applicant and the County, is reasonable for its ability to carry traffic and not impact traffic flow. The “averaged” limit (as proposed by the Applicant) would be meaningless and difficult to enforce. The 70 truck trip per day cap recommended by the County is appropriate, and is necessary to ensure that actual traffic conditions are consistent with the assumptions of the Supplemental Traffic Analysis.
6. While the data provided supports the fact that 88<sup>th</sup> Avenue SW can carry the existing traffic it does not address the physical conditions of the Avenue that impacts traffic safety. *See Findings Nos. 25 and 26.* While the County has submitted that the existing rights to 88<sup>th</sup> Avenue SW cannot be taken away through the SUPT process needed improvements are in part the result of continued safety impacts created by the Applicant’s vehicles. The Applicant will be required to participate in 88<sup>th</sup> Ave. improvements on a pro rata share.
7. The traffic impact on the adjoining properties and on the public in general was significantly reduced with the Applicant’s purchase of the hard rock mine immediately south of the site and the easements of the permitted of the Hard Rock Haul Road. With all new truck traffic being channeled on the Hard Rock Haul Road increased impacts will not be significant. Level of service at the intersection of the Hard Rock Haul Road and the Littlerock Road SW are reasonable and the increased traffic can adequately use these roads and intersection.

8. Subject to condition F (below) 88<sup>th</sup> Avenue SW may only be used for existing traffic. The County's calculation of 70 truck trips per day is reasonable. This is a figure that should not be averaged, but should be limited to no more than 70 truck trips per day. Thus on no day will the truck traffic exceed 70 truck trips per day, which means 35 trips in and 35 trips out.
9. With limitation of use on 88<sup>th</sup> Avenue SW and with the requirement that all new truck traffic use the Hard Rock Haul Road as an alternative access, safety and traffic issues are resolved.

### **III. Designation of Mineral Resources**

10. The designation of mineral resources land of the subject property is confusing at best. While the designation of the entire 151-acre site has not been done, 26 acres has been designated as mineral resource land. The proposed 80 acres in the north, with the exception of the 26 acres, has not been designated. However the lack of designation does not automatically prohibit mineral extraction. *TCC 20.30(B).010* sets forth that nothing in the chapter shall be construed as prohibiting mineral extraction on nondesignated lands. In addition the Applicant would qualify as a mineral resource designation for the entire parcel pursuant to the requirements of *TCC 20.30(B).030(2)*.
11. It is recommended that all of the property be subject to designation as mineral resource lands and that the Applicant proceed through the County designation process.

### **IV. Vested Rights**

12. There was no abandonment of the mining operations permitted by LTD-3-85 and the amended LTD-3-85. When the previous owner ceased the mining operations in 1996 there was no intent to abandon. As evidenced by his intent to sell and the eventual sale to the Applicant, who started up the operations immediately, the rights were vested with the original permits.

## **DECISION**

Based upon the preceding Findings of Facts and Conclusions, the testimony and evidence submitted at the Public Hearing, and upon the impression of the Hearings Examiner at site views, it is hereby ORDERED that the Special Property Use Permit to expand an existing gravel mine, replace a concrete batch plant, construct a hot mix asphalt plant, and resume concrete and asphalt recycling, as depicted on project plans labeled as Exhibit 1 is **GRANTED**. The approval is granted subject to the following conditions:

- A. The approved permits LTD-3-85 and LTD-3-85 as amended remain in effect. Quality Rock Products must continue to comply with the conditions established in LTD-3-85 and LTD-3-85-Amendment, (Attachments i and j) except as amended below:
1. Condition I of both LTD-3-85 and LTD-3-85-Amendment shall be eliminated and replaced with a requirement for a 100-foot buffer around the perimeter of the 151-acre expansion area, as required in TCC 17.20.230. The 100-foot setback area shall not be used for any other use in conjunction with extraction except access streets, berms, fencing, landscaping, and signs. Any use in the 100 foot setback shall be reviewed by the Thurston County Department of Development Services.
- B. All requirements of the Thurston County Environmental Health Department comment letters (Attachments o and p of the November 19, 2001 staff report and Attachment b of this staff report (*exhibit 63*)) and the Thurston County Roads and Transportation Services memorandums ((*exhibit 63* Attachments l, m, and n) shall be satisfied prior to any mining activity occurring within the expansion area.
- C. The Applicant will be required to contribute a pro-rata share to the improvements at Littlerock Road and 93<sup>rd</sup> Avenue to install a right turn lane on northbound Littlerock Road.
- D. Comply with all conditions of the Mitigated Determination of Nonsignificance dated October 4, 2001 (Attachment h). None of the MDNS conditions shall be construed as authorizing activities that exceed the limits set forth in the Thurston County Mineral Extraction Code (TCC 17.20).
- E. The operation of the facilities on the site shall comply with Thurston County Mineral Extraction Code, TCC 17.20.
- F. The primary access to the project site for truck traffic shall be the Hard Rock Mine Haul Road. All truck traffic shall utilize the Hard Rock Mine Haul Road, except as specified below:
- The use of 88<sup>th</sup> Avenue shall be allowed for up to 70 truck trips per day if the Applicant pays for a determined pro-rated share of the costs of the improvements needed for the Avenue. If the Applicant does not pay for the prorated share of the costs of the improvements of 88<sup>th</sup> Ave, SW all traffic (existing and projected) must use the Hard Rock Mine Haul Road.
  - Truck trips on 88<sup>th</sup> Avenue shall be limited to a maximum count of 70 truck trips per day. A truck trip is defined as a truck either entering or leaving the site. Therefore, 70 truck trips is the equivalent of 35 trucks entering the site and 35 trucks exiting the site. Employees may continue to access the mine from 88<sup>th</sup> Avenue and are in addition to the maximum truck traffic.

- All truck trips outside the hours of 7:00 a.m. to 7:00 p.m. Monday through Saturday, as allowed under TCC 17.20.115(C), shall use only the Hard Rock haul road.
- G. The speed limit for truck traffic on 88<sup>th</sup> Avenue shall be 25 miles per hour. Should there be more than three violations per calendar year from all of the Applicant's vehicles the Permit will be reviewed and possibly cancelled. The Applicant shall post this condition on site and shall inform all of its employees of it.
- H. The Special Use Permit shall be reviewed by the Hearing Examiner each five years after the effective date of the permit to determine whether the conditions of approval have been complied with or should be amended. The Applicant is responsible to ensure that such review has been completed within the five-year time period.
- I. The Applicant shall comply with all conditions of OAPCA Order of Approval for Notice of Construction 01NOC116 and any other applicable OAPCA regulations.
- J. The Applicant shall comply with all local, state, and federal permits and regulations.
- K. The Applicant shall obtain a Solid Waste Handling Permit prior to the recycling of asphalt and concrete.
- L. The Applicant shall submit a copy of the Washington State Department of Natural Resources approved reclamation plan to Thurston County Development Services prior to any mining activity within the expansion area.
- M. The floor of the excavation area shall be designed and maintained in such a manner that stormwater drainage will flow to the sedimentation pond to be retained on-site.
- N. For protection of surface and ground water, all turbid water and all stormwater shall be retained within the sedimentation pond as shown on the site plan.
- O. The Applicant shall require that noise levels shall comply with standards set forth in WAC 173-60-040. Noise levels shall be monitored at the property boundaries and at the easement boundary of the Burlington Northern (BN) right-of-way during normal operating hours and during both daytime and nighttime operating hours at least quarterly until the Health Department determines that such monitoring is not necessary, as required in TCC 17.20.110. Measured daytime noise levels shall not exceed the following levels, as established in WAC 173-60-040:
- |  |        |
|--|--------|
| Adjacent to Hard Rock Mine property      | 60 dBA |
| Adjacent to all other property lines and |        |
| BN right-of-way                          | 55 dBA |

Between 10:00 p.m. and 7:00 a.m., all measured noise levels shall be 10 dBA *lower* than the levels stated above. If noise monitoring noise levels along any property line exceed the permitted levels in WAC 173-60-040, the Applicant shall be required to mitigate with berms or other approved methods. The type of mitigation shall be determined by the Thurston County Department of Developmental Services.

- P. A twenty-foot high noise berm shall be installed along the eastern portion of the property. The noise berm shall extend to the south property line, shall be located outside the wetland buffers, and shall run parallel to the west side of the Burlington Northern Railroad easement that cuts across the southeast corner of the property. The berms may be located within the required 100-foot setback and shall be landscaped to prevent erosion.
- Q. All equipment used on the site shall be equipped with mufflers and be properly maintained to limit noise.
- R. All loaders and dozers shall be equipped with ambient-sensitive back-up alarms due to the site's proximity to residential zoned properties and residential uses.
- S. All development on the site shall be in substantial compliance with the approved site plan. Any expansion or alteration of this use will require approval of a new or amended Special Use Permit. The Development Services Department will determine if any proposed amendment is substantial enough to require Hearing Examiner approval.
- T. The Applicant shall maintain a daily record of truck trips that documents how many trucks use 88<sup>th</sup> Avenue and how many trucks use the Hard Rock Mine haul road. This daily record shall be made available to Thurston County staff on request.
- U. The Applicant shall obtain any required easements from Thurston County Parks Department prior to using the Hard Rock haul road for mining activities.
- V. The last three phases of the operation shall be subject to further review including detailed analysis of the impact of the groundwater to the site, the aquifer, and the Black River. In designing the monitoring plan for this project, the Applicants must devise water level monitoring parameters that will validate the predictions of the affects on groundwater. As stated previously this monitoring plan must be approved by the Health Department before the expansion can proceed. If during future five-year reviews the actual effects of this project differ significantly from the predicted effects, the project must be modified to mitigate the effects. The project operators must agree before starting the expansion that if they are significantly out of compliance with the conditions of the approved monitoring plan at a future five-year review, the Health Department clearly has authority to close their operation."

- W. Mining operations shall be limited to the production feasible with a maximum well pumpage of 5,000 gallons per day unless a Department of Ecology water right is obtained and submitted to Thurston County. Based on the best available information at hand, that maximum production is 700 tons per day. In the alternative the Applicant may get approval from the Department of Ecology for a written plan that shows how all combined water uses can be held below 5,000 gallons per day. A copy of that plan shall also be submitted to Thurston County for review.
- X. All wells on site shall be equipped with cumulative flow measuring devises. Measurements shall be taken weekly, and the data shall be submitted to Thurston County quarterly.

DATED this 30<sup>th</sup> day of May, 2003.

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James M. Driscoll  
Hearings Examiner