RESOLUTION NUMBER Z-07-054

RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA

WHEREAS, an application was filed by the property owner, Harper Brothers, Inc., for an Amendment to an Industrial Planned Development (IPD) in reference to Fort Myers-Harper Mine IPD; and

WHEREAS, a public hearing was advertised and held on October 3, 2007 (not heard), continued and heard on January 16, 2008, with the record held open for written submissions until January 25, 2008, before the Lee County Zoning Hearing Examiner, Diana M. Parker, who gave full consideration to the evidence in the record for Case #DCI2005-00105; and

WHEREAS, a second public hearing was advertised and held on May 19, 2008, before the Lee County Board of Commissioners, who gave full and complete consideration to the recommendations of the staff, the Hearing Examiner, the documents on record and the testimony of all interested persons.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS:

SECTION A. REQUEST

The applicant filed a request to 1) amend the existing Industrial Planned Development zoning granted by Resolutions Z-96-068 and Z-92-036A to allow dewatering as part of the mining operations; 2) allow impacts to wetlands comprising 3.87 acres in the southwest corner of the site; at hearing, this request was amended to allow impacts to wetlands comprising 0.79± acres in the southwest corner of the site; and 3) Amend Resolution Z-00-076 to allow for two phases instead of one. The property is located in the Density Reduction/Groundwater Resource and Wetlands Future Land Use Categories and is legally described in attached Exhibit A.

The request is APPROVED AS FOLLOWS AND SUBJECT TO the conditions and deviations specified in Sections B and C below.

1) **APPROVE** the applicant's request to amend the existing Industrial Planned Development zoning granted by Resolutions Z-96-068 and Z-92-036A to allow dewatering as part of the mining operations; and

2) **APPROVE** the applicant's amended request to allow impacts to wetlands comprising 0.79± acres in the southwest corner of the site; and

3) **APPROVE** the applicant's request to amend Resolution Z-00-076 to allow for two phases instead of one for the real property described in attached Exhibit A.

CASE NO: DCI2005-00105

Z-07-054 Page 1 of 9

SECTION B. CONDITIONS:

All references to uses are as defined or listed in the Lee County Land Development Code (LDC).

1. The development, use, and reclamation of this property shall be in accordance with the following Master Concept Plan (MCP) attached hereto as Exhibit C, except as may be modified by the conditions herein:

Sheet 1 of 10 entitled, "IPD Modification Plan for: Fort Myers -Harper Mine IPD", dated October 2005, date-stamped "Received Feb 22 2007 Community Development,"

Sheet 2 of 10 entitled "Aerial Photograph," dated 11-29-1999, datestamped "Received Feb 22 2007 Community Development,"

Sheet 3 of 10 entitled "Sketch and Legal Description," dated 07-06, last revised 11-99, date-stamped "Received Feb 22 2007 Community Development,"

Sheet 4 of 10 entitled "Harper Brothers, Inc., FLUCFCS and Wetlands Map," dated 10-13-05, date-stamped "Received Feb 22 2007 Community Development,"

Sheet 5 of 10 entitled "Harper Brothers, Inc., Existing Zoning and Current Land use Map," dated 11-29-1999, date-stamped "Received Feb 22 2007 Community Development,"

Sheet 6 of 10 entitled Harper Brothers, Inc., Soils Map," dated 11-29-1999, date-stamped "Received Feb 22 2007 Community Development,"

Sheet 7 of 10, entitled "Master Mining Plan (Master Concept Plan)", dated 11-29-1999, last revised 5-20-08, date-stamped "RECEIVED MAY 20 2008 PERMIT COUNTER."

Sheet 8 of 10 entitled "Harper Brothers, Inc., Agricultural Uses at time of Zoning Application," dated 11-29-1999, date-stamped "Received Feb 22 2007 Community Development,"

Sheet 9 of 10 entitled "Harper Brothers, Inc., Rehabilitation & Reclamation Plan," dated 11-29-1999, date-stamped "Received Feb 22 2007 Community Development,"

Sheet 10 of 10 entitled "Harper Brothers, Inc., Surface Water Management Plan," dated 11-29-1999, date-stamped "Received Feb 22 2007 Community Development,"

This project must be developed in accordance with all applicable state, regional, and local development regulations, except as may be granted by deviation as part of this planned development.

The Schedule of Uses for this IPD is limited to the following:

Excavation/Mining - LDC §34-1671, et. seq.

Agricultural Uses - farming, pasturage and agricultural accessory structures (Note: applicant may continue to utilize the property for agricultural activities after the excavation permit is issued, but those activities may occur only in areas not undergoing excavation.

The Phasing of the project must be consistent with the Phasing depicted in the above-noted approved MCP.

- 2. Lee County Resolutions Z-92-036A, Z-96-068 and Z-00-076 are HEREBY SUPERCEDED BY THIS ZONING ACTION, and become null and void upon approval of this resolution by the Lee County Board of County Commissioners.
- 3. Prior to the issuance of an Excavation/Mining Operations Permit for Phase 2.2 the conditions of this zoning approval must be reviewed by the Lee County Department of Community Development (DCD) staff. If DCD staff determines that changed conditions on or near the property result in the threat of detrimental impacts to the public health, safety or welfare not considered at the time of this rezoning, then DCD staff may propose modifications to these conditions deemed necessary. If the developer accepts these modified conditions, then an Excavation/Mining Operations Permit may be issued in accordance with the zoning regulations. If the developer believes that such modifications are not justified, then the developer may appeal DCD staff's determination as an Appeal from Administrative Action.
- 4. Prior to the approval of an Excavation/Mining Operations Permit for any phase, the developer must meet with the Lee County Emergency Medical Services to confirm the location of the designated emergency helicopter landing zone and the means of access for an Emergency Medical Services Unit.
- 5. The arrangement for the provision of fire protection for this site will be with and to the satisfaction of the San Carlos Fire District (Fire District) and must include the utilization of an on-site, truck-mounted sprayer and other preventative measures. In the event a development order or building permit is sought for a permanent structure, this plan must be re-reviewed by the Fire District to insure adequate protection.
- 6. Prior to the approval of any new Excavation/Mining Operation Permit, the applicant must contact the Lee County Division of Emergency Management, Hazardous Material representative, to discuss the proposed development in relation to the potential type, use, and storage (if any) of hazardous materials which could be located on the premises. If required by federal, state, or local regulations, the applicant will prepare or have available Material Safety Data Sheets (MSDS) and submit either copies of MSDS or a list of MSDS

CASE NO: DCI2005-00105

chemicals to the appropriate fire department or district and to the Lee County Department of Pubic Safety. An emergency notification system must be established to be used in the event of a hazardous material release.

- 7. The maximum depth of this excavation is 68 feet, or the confining layer, whichever occurs first.
- 8. The holder of the Excavation/Mining Operation Permit will be responsible for its pro-rata share of any damage to Alico Road from the private access road westward to 1-75 caused by the truck traffic from this operation and must repair any such damage to the satisfaction of the Lee County Department of Transportation.
- 9. On-site haul roads must be watered on a regular basis to avoid creating dust in excess of standards of the Florida Department of Environmental Protection.
- 10. Blasting is a permitted activity within this proposed mining operation. Blasting operations shall only occur between the hours of 8:00 a.m. through 5:00 p.m., Monday through Friday.

11. DEWATERING AND RECHARGE TRENCHES:

Dewatering will be conducted in accordance with the Dewatering and Monitoring Plan prepared by CDM, dated January 21, 2008, attached hereto as Exhibit D, except as modified herein. The Dewatering and Monitoring Plan expressly provides that no dewatering will occur within 1000 feet of a public water supply (PWS) well. The applicant will maintain the hydrologic trenches in accordance with their design specifications, as approved and permitted by the SFWMD, as shown in Exhibit E attached hereto. In addition, the pumps filling the recharge trenches must be operated 24 hours per day, 7 days per week, as long as the dewatering activities are occurring on-site, unless prior specific approval is received from Lee County or SFWMD to shut them down.

Adjustments to the water level in the hydrologic trenches will be made based upon review of the quarterly water level monitoring data, if/when determined to be necessary by Natural Resources and Environmental Staff after consultation with the South Florida Water Management District. The applicant must submit the quarterly reports to the Lee County Division of Natural Resources within 15 days of the end of each quarterly period.

Prior to development order approval, the applicant must submit, for review and approval by the Lee County Division of Environmental Sciences (DES) staff, a wetland monitoring plan to be implemented for the duration of dewatering activities. The wetland monitoring plan must include details of vegetation monitoring methodology, locations of monitoring transects and surface water level monitoring wells within the on-site preserved wetlands. Wetland monitoring will be conducted semi-annually, once in the wet season and once in the dry season. The applicant must submit each wetland monitoring report to the DES within 15 days of each monitoring date.

Annual reports compiling and documenting the quarterly or semi-annually obtained results of all the monitoring events will also be submitted to Lee County. If any adverse impacts (loss of canopy tree and/or under story vegetation) occur within the indigenous preserve

areas as documented through the wetland monitoring, indigenous management plan, and/or DES staff inspections, then a restoration plan as per LDC §10-423, including a work completion schedule, must be submitted for the review and approval by the DES staff.

- 12. The entire site must be fenced in a manner similar to the existing mine operation, to prevent unauthorized access onto the property. The fence must be maintained in good condition by the holder of the General Excavation Permit until such time as the excavation is complete, or a change of land use is approved.
- 13. The approved Protected Species survey included in this application will be valid for 5 years. Any lands included in this request to be mined after five years will be required to submit a new species survey, provided that the Florida Land Use, Cover and Classification System (FLUCCS) code would trigger this requirement, in accordance with County regulations. This new survey(s) shall be submitted to the DES, or its successor, to determine sufficiency and adequacy of the information. If listed species are found on site, an approved management plan will be required, per Ordinance 89-34, as amended.
- 14. Mining operations may not impact wetlands located on the subject property, except as provided for in Condition 23.
- 15. Littoral plants will be used for vegetation reclamation. The developer must install a minimum of four littoral plant species, and no one species may comprise more than 25 percent of the total planting number. Required littoral planting numbers must be computed for the total area of the littoral shelf (length x width). The developer must install one plant for each nine square feet of littoral area (this equates to planting on 3-foot centers). Survivability must be 80 percent for five years. The developer must submit to DCD a brief narrative monitoring report annually. The report must include all necessary corrective action for the five year period.
- 16. The developer must obtain a certificate to dig prior to the issuance of a General Excavation Permit/Limited Review Development Order.
- 17. The permanent stockpiling of mined material is not permitted within 100 feet of any preserve.
- Prior to issuance of an Excavation/Mining Operations Permit for the Green Meadow Mine IPD, an alligator management plan, per LDC §10-474, must be submitted to DES staff for review and approval.
- 19. No expansion of the mining operations approved in this request may proceed without a new Excavation/Mining Operations Permit. As part of this new Permit, the cost of mitigating road impacts, if applicable, must be paid. If determined to be applicable, the fee will be determined utilizing the procedures applicable to the independent fee calculation process set forth in the LDC, with adjustments made for the temporary nature of the mining operation and previous creditable road improvements made by the applicant for the Green Meadow Mine operation.

CASE NO: DCI2005-00105

- 20. Prior to development order approval, the development order plans must:
 - a) delineate a minimum of 396.0± acres as open space. The open space must incorporate the preserve areas, site required buffers and setbacks in substantial compliance with the MCP.
 - b) include an invasive exotic vegetation removal plan for the entire project area meeting the requirements of LDC §10-420(h), subject to review and approval by DES staff.
- 21. Prior to development order approval, the development order plans must delineate a minimum of 246.0± acres as indigenous preservation. Indigenous vegetation communities must be labeled as Indigenous Preservation and all other proposed preserve area not meeting indigenous criteria labeled as Preservation.
- 22. Prior to development order approval, the applicant must submit for review and approval by DES staff an Indigenous Management Plan meeting the requirements of LDC §10-415(b)(4).
- 23. Prior to development order approval, the applicant must submit appropriate documentation of approval from the South Florida Water Management District (SFMWD) for the 0.79± acres of jurisdictional wetland impacts. All conditions, mitigation, and/or compensation required by SFWMD must be provided.
- 24. Prior to local development order approval for any phase of the mine, a mining reclamation plan, meeting LDC §34, Division 15, must be submitted to the DES staff for review and approval. The reclamation plan must include specific details on proposed plant species and number of each species used to meet density requirements.

Prior to local development order approval for any phase of the mine, the mining reclamation plan must delineate the planted littoral zones located adjacent to existing preserves either on-site or on adjacent properties.

- 25. Approval of this amendment request does not address mitigation of the project's vehicular or pedestrian traffic impacts. Additional conditions consistent with the LDC may be required to obtain a local development order.
- 26. Approval of this amendment does not guarantee local development order approval. Future development order approvals must satisfy the requirements of the Lee Plan Planning Communities Map and Acreage Allocation Table, Map 16 and Table 1(b).
- 27. Prior to local development order approval for any phase of the mine, the property must be surveyed for improperly cased or free-flowing wells. Any such wells must be permanently capped or plugged in accordance with the applicable regulations at the sole expense of the property owner/mine operator.

28. Prior to local development order approval for any phase of the mine, the preservation areas shown on the approved MCP must be placed in a conservation easement benefitting Lee County.

SECTION C. DEVIATIONS:

- 1. Deviation (1) seeks relief from the required 150-foot setback from a road easement (Zoning Ordinance §508.G.2.a.I), to provide a 70-foot setback from Greenmeadow Road. No road improvements have been planned for this road. This deviation is APPROVED.
- 2. Deviation (2) seeks relief (from Z-96-068) from LDC §34-1682(2)a.2 requirement to provide a zero- foot setback from the north property line of the property. This Deviation is APPROVED, SUBJECT Condition 3 above.
- 3. Deviation (3) seeks relief from LDC §34-1682(2)a.2 provision that prohibits excavation within 100 feet of any private property line under separate ownership, to allow a zero-foot setback from the north property line. This Deviation is APPROVED, SUBJECT Condition 17 above.

SECTION D. EXHIBITS AND STRAP NUMBER:

The following exhibits are attached to this resolution and incorporated by reference:

- Exhibit A: Legal description of the property
- Exhibit B: Zoning Map (with the subject parcel indicated)
- Exhibit C: The Master Concept Plan
- Exhibit D: Florida Rock Industries Harper Brothers Mine Dewatering and Monitoring Plan
- Exhibit E: SFWMD Water Management Plan

The applicant has indicated that the STRAP numbers for the subject property are:

01-46-26-00-00001.0000, 11-46-26-00-00001.2000, 11-46-26-00-00001.3000, 11-46-26-00-00001.4000, 11-46-26-00-00001.4010, 11-46-26-00-00001.5000, 11-46-26-00-00001.5010, 11-46-26-00-00001.6000, 11-46-26-00-00001.7000, 11-46-26-00-00001.8000, 11-46-26-00-00001.9000, 12-46-26-00-00001.0000, and 12-46-26-00-00001.4000

SECTION E. FINDINGS AND CONCLUSIONS:

- 1. That the applicant has proved entitlement to the IPD amendment, as conditioned, and the General Mining Permit (Mining Operations Permit) by demonstrating compliance with the Lee Plan, the LDC, and other applicable codes or regulations.
- 2. That the IPD amendment, as conditioned, will meet or exceed all performance and locational standards set forth for the mining uses, and the General Mining Permit will meet or exceed local, state and federal standards for noise, air quality and vibration.

- 3. That the IPD amendment, as conditioned, and the General Mining Permit are consistent with the densities, intensities and general uses set forth in the Lee Plan, and are compatible with existing or planned uses in the surrounding area.
- 4. That approval of the IPD amendment, as conditioned, will not place an undue burden upon existing transportation or planned infrastructure facilities, and the development will be served by streets with the capacity to carry traffic it generates.
- 5. That the IPD amendment, as conditioned, will not adversely affect the water quantity or water quality functions of the DR/GR land use category, nor the nearby public potable well fields, and the operation, as conditioned, is located and designed to minimize other potential adverse environmental impacts, such as noise and dust on surrounding properties and resources.
- 6. That the recommended conditions to the MCP are reasonably related to the impacts anticipated from the proposed development, and, with other regulations, will provide sufficient safeguard to the public interest.
- 7. That the approved Deviations, as conditioned, will enhance the objective of the proposed development, and will promote the protection of the public health, safety and welfare.
- 8. That the General Mining Permit will have fire protection, transportation facilities, wastewater treatment, and water supply to adequately support the mining operation.

Commissioner Robert P. Janes made a motion to adopt the foregoing resolution, seconded by Commissioner Frank Mann. The vote was as follows:

| Robert P. Janes | Aye |
|-----------------|--------|
| Brian Bigelow | Nay |
| Ray Judah | Aye |
| Tammara Hall | Absent |
| Frank Mann | Aye |

DULY PASSED AND ADOPTED this 19th day of May 2008.

ATTEST: CHARLIE GREEN, CLERK BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA

0

lilson BY: marcia **Deputy Clerk**



Approved as to form by:

Ray Judah Chair

Robert Spickerman County Attorney's Office

RECEIVED MINUTES OFFICE MW 2008 JUL -8 PM 1:02

BY:

CASE NO: DCI2005-00105

Z-07-054 Page 9 of 9

LEGAL DESCRIPTION:

ALL OF SECTION 1 AND A PORTION OF SECTIONS 11 AND 12, TOWNSHIP 46 SOUTH, RANGE 26 EAST, LEE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE NORTHWEST CORNER OF SECTION 1, TOWNSHIP 46 SOUTH, RANGE 26 EAST, LEE COUNTY, FLORIDA; THENCE RUN S89°38'00"E, ALONG THE NORTH LINE OF THE NORTHWEST ONE-QUARTER OF SAID SECTION 1, FOR A DISTANCE OF 2,644.11 FEET TO THE NORTHWEST CORNER OF THE NORTHEAST ONE-QUARTER OF SAID SECTION 1; THENCE RUN N89°48'12"E, ALONG THE NORTH LINE OF THE NORTHEAST ONE-QUARTER OF SAID SECTION 1, FOR A DISTANCE OF 2,653.67 FEET TO THE NORTHEAST CORNER OF SAID SECTION 1; THENCE RUN S01°24'15"E. ALONG THE EAST LINE OF THE NORTHEAST ONE-QUARTER OF SAID SECTION 1. FOR A DISTANCE OF 2,638.50 FEET TO THE NORTHEAST CORNER OF THE SOUTHEAST ONE-QUARTER OF SAID SECTION 1; THENCE RUN S00°58'11"E, ALONG THE EAST LINE OF THE SOUTHEAST ONE-QUARTER OF SAID SECTION 1, FOR A DISTANCE OF 3,957.15 FEET TO THE NORTHEAST CORNER OF SECTION 12, TOWNSHIP 46 SOUTH, RANGE 26 EAST, LEE COUNTY, FLORIDA; THENCE RUN S01°03'47"E, ALONG THE EAST LINE OF THE NORTHEAST ONE-QUARTER OF SAID SECTION 12, FOR A DISTANCE OF 1,979,77 FEET; THENCE RUN S89°10'01"W, A DISTANCE OF 5.296.46 FEET TO A POINT ON THE EAST LINE OF SECTION 11. TOWNSHIP 46 SOUTH, RANGE 26 EAST, LEE COUNTY, FLORIDA ; THENCE RUN S01°02'24"E, ALONG THE EAST LINE OF SAID SECTION 11, FOR A DISTANCE OF 1,979.90 FEET; THENCE RUN S89°10'44"W, A DISTANCE OF 5,294.58 FEET TO POINT ON THE WEST LINE OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 11; THENCE RUN N00°54'31"W, ALONG THE WEST LINE OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 11. FOR A DISTANCE OF 1,320.90 FEET TO THE SOUTHWEST CORNER OF THE NORTHWEST ONE-QUARTER OF SAID SECTION 11; THENCE RUN N00°59'32"W, ALONG THE WEST LINE OF THE NORTHWEST ONE-QUARTER OF SAID SECTION 11. FOR A DISTANCE OF 2,637.93 FEET TO THE NORTHWEST CORNER OF SAID SECTION 11; THENCE RUN N89°10'07"E, A DISTANCE OF 5.289.35 FEET TO THE SOUTHWEST CORNER OF SAID SECTION 1; THENCE RUN N01°09'05'W, ALONG THE WEST LINE OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 1, FOR A DISTANCE OF 3,343:73 FEET TO SOUTHWEST CORNER OF THE NORTHWEST ONE-QUARTER OF SAID SECTION 1; THENCE RUN N01°09'05"W, ALONG THE WEST LINE OF THE NORTHWEST ONE-QUARTER OF SAID SECTION 1, FOR A DISTANCE OF 3,336.58 FEET, TO THE POINT OF BEGINNING; CONTAINING 1,528.81 ACRES, MORE OR LESS...

BEARINGS SHOWN HEREON REFER TO THE NORTH LINE OF NORTHWEST ONE-QUARTER OF SECTION 1, TOWNSHIP 46 SOUTH, RANGE 26 EAST, LEE COUNTY, FLORIDA, BEING SOUTH 89°38'00" EAST.

THE COORDINATES LISTED ON THIS SURVEY, WHICH HAVE BEEN PROVIDED AS ADDITIONAL INFORMATION, REFER TO THE STATE PLANE, FLORIDA WEST ZONE, NORTH AMERICAN DATUM OF 1983, 1999 ADJUSTMENT, AND DO NOT REFER TO THE BASES OF BEARING LISTED HEREON.

Applicant's Legal Checked 11/29/05 by CSS



COMMUNITY DEVELOPMENT

EXHIBIT A







OCI 2005-00105









OCI 2005-00105

EXHIBIT C 5 OF 10



OCI 2005-00105

EXHIBIT C 6 OF 10





DCI 2005-00105

S EXHIBIT C 8 OF 10

~ ~ /



EXHIBIT C 9 OF 10

and an answer of the second second



Florida Rock Industries

Harper Brothers Mine Dewatering and Monitoring Plan

January 21, 2008

10

Florida Rock Industries Harper Brothers Mine Dewatering and Monitoring Plan

This Dewatering and Monitoring Plan presents the methods of dewatering and monitoring employed at the Harper Brothers Rock Mine site.

Dewatering Plan

Dewatering has been conducted at the Harper Brothers Mine for removal of overburden (unconsolidated sediments) on top of the limestone rock, which is mined wet. Dewatering at the mine has been and will continue to be conducted in accordance with South Florida Water Management District (SFWMD) permit number 36-04640-W. Dewatering is to be conducted in Section 1, 11, and 12 in areas defined and permitted as "mining areas". Excavation will maintain a 500-foot setback from public water supply (PWS wells). In addition, a 1,000-foot setback will be maintained between dewatering and PWS wells.

Dewatering will occur in cells no larger then 400 feet by 1000 feet, adjacent to excavation areas. Dewatering is limited to a maximum depth of 20 feet below land surface, an elevation of 5 feet NGVD, or top of rock, whichever is higher, consistent with the requirements of permit number 36-04640-W. Dewatering water will be discharged to a recharge trench located at the mine perimeter and to the mine pit. The recharge trenches were installed consistent with the requirements of SFWMD MSSW Permit Number 36-00612-S and will continue to be maintained to the requirements of that active permit. Water levels in the recharge trenches are measured from staff gauges on a daily basis, and recorded in field logs.

Dewatering activities have raised concerns at other sites where drawdown in the water table aquifer resulted in adverse impacts to offsite areas. It is our understanding that where such adverse impacts occurred, dewatering methodologies required by the SFWMD were not employed. The primary methodology that prevents offsite impacts from dewatering is the use of recharge trenches. Dewatering results in drawdown of the water table. As dewatering discharge is routed to recharge trenches, the water level in the trenches prevents water table drawdown from propagating beyond the trench. Recharge trenches are located between dewatering sites and wetlands and offsite areas at the Harper Brothers Mine, thus preventing offsite or wetlands impacts from dewatering.

Monitoring Plan

A monitoring program has been developed to address Lee County concerns regarding protection of public water supply (PWS) wells and to ensure that dewatering activities result in no adverse impacts to wetlands, the water table aquifer, or neighboring land uses. The Harper Brothers Mine site is shown on the attached aerial photograph map (Figure 1). This map depicts the locations of water table aquifer



EXHIBIT D

1

monitor wells located throughout the site. Proposed monitoring activities are summarized in the attached table (Table 1) and discussed below.

In order to further address Lee County concerns, water levels are being measured in dewatering monitor wells. Two dewatering monitor wells (DEW-MW-1 and DEW-MW-2) were constructed at the request of Lee County. Five additional dewatering monitor wells (DEW-MW-3 through DEW-MW-7) were constructed voluntarily by Florida Rock Industries. The dewatering monitoring wells consist of 2-inch diameter PVC casing installed to a depth of approximately 5 feet below land surface (bls), and the screened interval installed between approximately 5 and 10 feet bls. The dewatering monitor wells are located along the project site perimeter, beyond recharge trenches. Transducer/data loggers in the monitor wells are used to record water levels on an hourly basis. The data loggers are downloaded quarterly, and manual water levels are taken during downloads to confirm performance of the transducer/data loggers.

PWS Monitoring Program

PWS monitoring has been implemented in order to demonstrate that the existing PWS wells are not impacted by mining activities including under direct influence (UDI) of surface water concerns. Please note that the existing Section 2 mine has been in operation since the 1980s and the Green Meadows PWS wells have been operating for a comparable period. To our knowledge, no mining activities have resulted in adverse impacts to PWS wells in Lee County. Rock mining has been considered a land use consistent with and, to a degree, beneficial to PWS wells. The mining results in added storage of water onsite due to the excavated lake storing water in the volume that previously contained rock. This added water storage has potential to mitigate aquifer drawdown from the PWS wells.

Four PWS-series monitor wells have been installed, of which one was voluntarily added by Florida Rock Industries. The monitor wells are located between existing PWS wells and the mining operations; one in Section 2 (PWS-MW-1) and three in Section 1 (PWS-MW-2, 3, and 4). Monitor well locations are shown on Figure 1. The PWS-series monitor wells were constructed with nominal 4-inch diameter PVC casing and an open hole interval. The cased and open hole intervals are approximately the same as the adjacent PWS wells, as summarized below.

| Monitor Well | Cased Interval (feet bls) | Open Hole Interval (feet bls) | |
|--------------|------------------------------|----------------------------------|--|
| PWS-MW-1 | 22 | 45 | |
| PWS-MW-2 | 22 | 40 | |
| PWS-MW-3 | 22 | 40 | |



P:\Floride Rock\Harber Bros\1-Lee County Zoning\21-Hearing Follow Up\Monitoring Plan\Monitoring_Plan.ooc

| PWS-MW-4 | 22 | . 40 |
|----------|----|------|
| | | |

Monitoring will be conducted at the PWS-series monitor wells on a quarterly basis. Groundwater samples will be analyzed for the parameters stipulated in the attached table. A minimum of three well volumes of water will be purged prior to sampling. The samples will be analyzed by a FDEP/NELAP certified laboratory. Water levels will be measured in the PWS-series monitor wells using the same methodologies employed at the dewatering wells, as discussed above.

Monitoring Reports

Monitoring reports will be prepared on a quarterly basis and submitted to Lee County Division of Natural Resources within 30 days of the end of the quarter. The monitoring reports will include hydrographs from the transducer/data loggers, laboratory analytical data reports, and a brief discussion of the monitoring results.







CDM

Table 1. Harper Brothers Mine **Proposed Monitoring Well Network**

| | | Water Level | Water Quality |
|------------------|--|-------------|---------------|
| Monitor Well | Purpose | Measurement | Sampling |
| IDEW MW-1 | Measure water table aquifer water levels | X | |
| IDEW MW-2 | Measure water table aquifer water levels | x | |
| DEW MW-3* | Measure water table aquifer water levels | X . | |
| DEW MW-4* | Measure water table aquifer water levels | X | |
| DEW MW-5* | Measure water table aquifer water levels | X | |
| DEW MW-6* | Measure water table aquifer water levels | X | |
| DEW MW-7* | Measure water table aquifer water levels | X | |
| Section 11 West* | Measure water table aquifer water levels | X | |
| Section 11 East* | Measure water table aquifer water levels | X | |
| LM-2290* | Measure water table aquifer water levels | x | |
| LM-2993* | Measure water table aquifer water levels | x | |
| LM-1892* | Measure water table aquifer water levels | x | |
| LM-1891* | Measure water table aquifer water levels | x | |
| PWS-MW-1 | Monitor water levels and water quality as mining approaches PWS wells. | x | x |
| IPWS-MW-2* | Monitor water levels and water quality as mining approaches PWS wells. | Χ. | x |
| PWS-MW-3 | Monitor water levels and water quality as mining approaches PWS wells. | . x | х |
| PWS-MW-4 | Monitor water levels and water quality as mining approaches PWS wells. | · X | X |

* Monitoring being done voluntarily by Florida Rock Industries.

Water Level Measurement

Water levels to be measured using data logger/transducers with quarterly downloads and manual confirmation measurements.

Water Quality Sampling Parameters

Samples to be analyzed for the following based on the Chemical Constituent List for Proposed Mining provided by Lee County dated December 11, 2006:

> Chloride tetrometric Argentometric. Sulfate **Total Dissolved Solids** Iron Florida PRO Water Table Elevation

Water Quality Sampling Frequency

Water quality samples to be collected quarterly during mining.

Water quality samples to be collected semi-annually after completion of mining, for two years.

Water quality samples to be collected annually after completion of semi-annual monitoring, for two years.

Monitoring Reporting

Monitoring reports to be submitted to Lee County quarterly. Reports to include water level hydrographs and laboratory analytical data reports.

Harper Brothers Rock Mine

Water Level Hydrographs

Attached are water level hydrographs for six monitor wells located at the Harper Brothers Rock Mine. This includes three wells that have been monitored since the 1980s (LM-1891, LM-1892, and LM-2290), and three wells that have been monitored since April 2007 (Section 11 East Well, DEW-MW-1, and DEW-MW-2). Two hydrographs are included for each of the LM-series wells, one for the entire period of record, and one for a one year period (April 2005 to April 2006). The one year period hydrographs illustrate that the variability in water level elevation over a shorter period visually appears less dramatic than the variability of water level elevation shown over a longer period. This is directly related to the effect of the scale used on the hydrograph and the amount of time that has elapsed on the scale. The gradual nature of water table fluctuation (increase during the rainy season (May- Oct) and decrease during the dry season (Nov-April)) is more evident with the one year scale format. The long-term hydrographs demonstrate that the water levels in recent years are consistent with historical water levels. No discernable effect on groundwater levels from the mining and dewatering operations is therefore evident.



















Section 11 East Well

-Water Level ---- Ground Surface



Well DEW-MW-1



Well DEW-MW-2





ARCHIVES