

BEFORE THE BOARD OF COUNTY COMMISSIONERS  
FOR COLUMBIA COUNTY, OREGON

In the Matter of an Application by )  
Morse Bros. Inc. for a New Surface Mining ) FINAL ORDER NO. 40-03  
Operating Permit (#05-0077) at the Reichhold Site )

**WHEREAS**, on November 18, 2002, Morse Bros. Inc. submitted an application for Surface Mining Operating Permit # 05-0077, for the Reichhold Site, located on the west side of Hwy. 30 adjacent to the Coastal Chemical Plant, approximately ½ mile northwest of the City of Columbia City; and

**WHEREAS**, on December 17, 2002, said application was deemed complete; and

**WHEREAS**, prior to submitting the Surface Mining Operating Permit application, the applicant received land use approval to operate a surface mine at the Reichhold Site, through Ordinance No. 2001-1, approving a Post Acknowledgment Plan Amendment (PAPA) and a Zone Change from Rural Industrial (RIPD) to Mineral and Aggregate Resource (SM), and Final Order DR 03-06, approving the proposed Site Design for the mining operation; and

**WHEREAS**, on May 14, 2003, the Board of County Commissioners opened the public hearing "In the Matter of an Application by Morse Bros. Inc. for a new Surface Mining Operating Permit #05-0077 at the Reichhold Site"; and

**WHEREAS**, during the hearing, Carla Cudmore, Columbia County Surface Mining Administrator, read the staff report and recommended approval of the Application; and

**WHEREAS**, during the hearing, Steve Schell, attorney for Morse Bros. Inc., and Brian Gray, Morse Bros. Inc. Regional Manager, spoke in favor of the Application, and no testimony was offered in opposition of the Application; and

**WHEREAS**, during the hearing Exhibit 1, County Counsel's file, was accepted into the record of the decision, including:

- A. Notice of Public Hearing (Publication);
- B. Notice of Public Hearing (Property Owner Notice);
- C. Affidavit of Mailing;
- D. Affidavit of Publication;
- E. Operating Permit and Reclamation Plan Application, dated November 18, 2002;
- F. Board Communication dated May 14, 2003, with attached Surface Mining Administrator's Report;
- G. Final Order DR 03-06;
- H. Ordinance No. 2002-01;

- I. Letter from Steve Schell dated March 28, 2003, requesting time extension for Operating Permit Decision;
- J. Executive Summary submitted by Morse Bros. Inc., dated May 12, 2003; and

**WHEREAS**, having heard testimony, and having received evidence into the record, the Board of County Commissioners closed the record for evidence and testimony, deliberated on the matter and voted to approve Operating Permit #05-0077.

**NOW, THEREFORE, IT IS HEREBY ORDERED**, as follows:

- A. The Board of County Commissioners adopts the findings of fact and conclusions of law in the Surface Mining Administrator's Report dated May 6, 2003, which is attached hereto as Attachment 1, and is incorporated herein by this reference.
- B. Surface Mining Operating Permit #05-0077, and the proposed reclamation plan are APPROVED, subject to the following conditions of approval:

*\* For purposes of these conditions of approval, "the Applicant" shall include the current and future record owners of the Reichhold Site.*

- 1. The Applicant shall comply with the requirements of the Columbia County Surface Mining Ordinance.
- 2. The Applicant shall submit a financial security in the amount of \$10,000.00 for the site for the first year's bond.

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3. The applicant shall comply with conditions of approval from Ordinance No. 2002-01 and Final Order DR 03-06, as set forth in Attachment 2, which is attached hereto and is incorporated herein by this reference.

DATED this 4th day of June, 2003.

BOARD OF COUNTY COMMISSIONERS  
FOR COLUMBIA COUNTY, OREGON

Approved as to form

By: Sarah Tyson  
Office of County Counsel

By: not present  
Chair

By: Lita M. Richard  
Commissioner

By: [Signature]  
Commissioner

**Columbia County  
Surface Mining Administrators Report**

Application for a New Operating Permit #05-0077

**Date:** May 6, 2003

**File Number:** #05-0077

**Site Name:** Reichhold Site

**Applicant /Owner:** Morse Bros. Inc.  
32260 Old Highway 34  
Tangent, OR 97389

**Contact:** Jeff Steyaert, Tim Marshall - HCS Group, LLC

**Site Location:** The site is located on the west side of Hwy. 30 adjacent to the Coastal Chemical Plant, approximately ½ mile northwest of the City of Columbia City.

<b>Tax Account Number</b>	<b>Acres Permitted</b>
5117-000-00300	112
5117-000-00200	91

**Current Zoning:** Surface Mining on portions to be permitted under this permit

**Size:** 203 acres

**Request:** To begin a new surface mining operation in a surface mining zone, using Article V Section 5.1 of the Columbia County Surface Mining Ordinance

**Application Complete: 12/17/02**

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**Basic facts:**

Morse Bros., Inc. submitted an application for a new operating permit for the 203 acres located on two tax lots, both of which were granted a zone change to surface mining (SM) by the Columbia County Board of Commissions in March 2002 (Columbia County Ordinance 2002-1). The applicant has completed the County's Surface Application for Surface Mining Permit and submitted a Reclamation Plan per Article V of the Surface Mining Ordinance.

This site has been used primarily for agriculture and livestock grazing for the past several decades and prior to that as the Columbia County Fairgrounds and race track. Most recently (2001 and 2002) it was also used as the temporary home of a series of summer concerts (Double Tree Concerts). The mining permit boundary consists of approximately 203 acres with surface mining proposed for approximately 128 to 146 acres.

Morse Bros. has estimated that approximately 34 million tons of sand and gravel are on site. The south 46 acres of the site will not be mined below the water table and is estimated to be approximately 55 feet below the surface. The north 82 acres will be mined below the water table to an estimated depth of 155 feet, but reclamation will include filling up the pond. Land space reserved for riparian, ponds, wetlands, etc. make up approximately 35 acres of the site; 22 acres of the site include slopes and setback areas; and 18 acres of existing industrial land is located at the southern end of the site. The final post-mining use of the land is proposed as Rural Industrial.

#### **Inspection summary:**

An inspection of the area was conducted on December 13, 2002 with Jeff Steyaert, Brian Gray and Tim Marshal representing MBI and Matt Laird and Glen Higgins from Columbia County Land Development Services. The aggregate site is located on the west side of Hwy. 30 adjacent to the Coast Chemical Plant, just north of Columbia City. The site is easily seen from Hwy. 30 so site screening will be vital. Additionally the Columbia River PUD main office and existing homes to the north need to be addressed regarding visual and sound impacts. Coastal Chemical Plant to the south is not a significant concern as it is an industrial site which has a significant noise impact to the surrounding area. These concerns have been well covered in the applicants application.

The site occupies a nearly flat area composed primarily of pasture land and some mature Douglas fir woodland at approximately 80 feet msl. The site has a small pond and associated wetlands along the southwest side extending up the western site boundary. These wetlands have been delineated and will not be impacted by the operation. Other than this wetland area there are no additional streams or drainages that are within the permit boundary. The mine plan for the site is fairly straight forward although is complicated by required bald eagle's nest setback and a restricted vehicle traffic setback as well as a dry only mining area required as part of the landuse process. All of these restraints on the mining operation have been covered within the permit application. Overburden is minimal on site (2-3') and as it is removed will be used for visual and site berms on site. Mining will begin on the south side of the site and progress northward up to a maximum depth of 155' below ground surface. No blasting will occur on site. Overburden will be removed on 10 to 20 acre sections at a time with the first year estimated affected acreage being 10 acres.

The final reclamation of the site will be primarily industrial lands. A total of 203 acres of land is in the permit boundary (some of this acreage is included in the mining setback and will never be mined). The final reclamation acres and uses includes: 146 acres industrial land, 35 acres riparian, ponds and wetlands, and 22 acres of slope and miscellaneous. This is in agreement with the post mining lands uses for the site agreed upon during the zone change process.

Mining will be done with an using wheeled front-end loaders, excavators, bulldozers, dredge and/or dragline. The only processing on site will be dry processing with primary jaw crusher for over-sized rock which will then be loaded to a conveyor system which will transport the material under Hwy. 30 to the adjacent Waterview Processing site. No aggregate will be moved from this site by truck or rail.

**Review Criteria/Findings:**

The following sections of Articles V, VI and VII of the Surface Mining Ordinance are pertinent to this application:

**Article V, Section 5.2 - Each application for a new operating permit for surface mining shall be accompanied by an application fee of \$900.**

**Finding 1:** \$900 application fee was submitted with the application

**Article V, Section 5.3 - Each application for a new operating permit for surface mining shall include the information listed in Section 5.3 and whatever additional information the Administrator requires or the applicant deems relevant.**

**Finding 2:** The applicant has supplied the information requested in Section 5.3 including but not limited to landowner information; parcel size and legal description; aerial photo and maps; access road location; processing, excavation and stockpile locations; estimated quantity of mineral extraction; mining methods; contaminate and erosion control methods; and site screening.

**Article VI, Section 6.1 - Each application for a new operating permit for surface mining shall include a reclamation plan for the operating permit. Each plan must include the items listed in Section 6.1 (1 -19) of the surface mining ordinance.**

**Finding 3:** The applicant has supplied a reclamation plan with the information requested in Section 6.1 including but not limited to the present and proposed uses of the property; details of the reclamation activities; protection of the public from steep banks, and other mining hazards; protection of natural drainages, water management plan, reclamation time schedule; slope stabilization; revegetation techniques; visual screening; and the removal of all refuse.

**Article VII, Section 7.1 - Financial Security Requirement**

**Finding 4:** The applicant has agreed to posting \$42,500 of financial security for the reclamation of the site prior to the operating permit being issued. The \$42,500 bond is based upon the DOGAMI's standard reclamation formula (\$6,500 for the first acres and \$4,000 for each acre thereafter) that the County has been using for new mining site bonds. As part of Morse Bros. permit conditions they have agreed that they will not excavate below water levels unless they have a corresponding quantity of available fill documented. This condition is key to

keeping final reclamation costs to the levels agreed upon.

**Results of the public comment period:**

No public or governmental body comments were received.

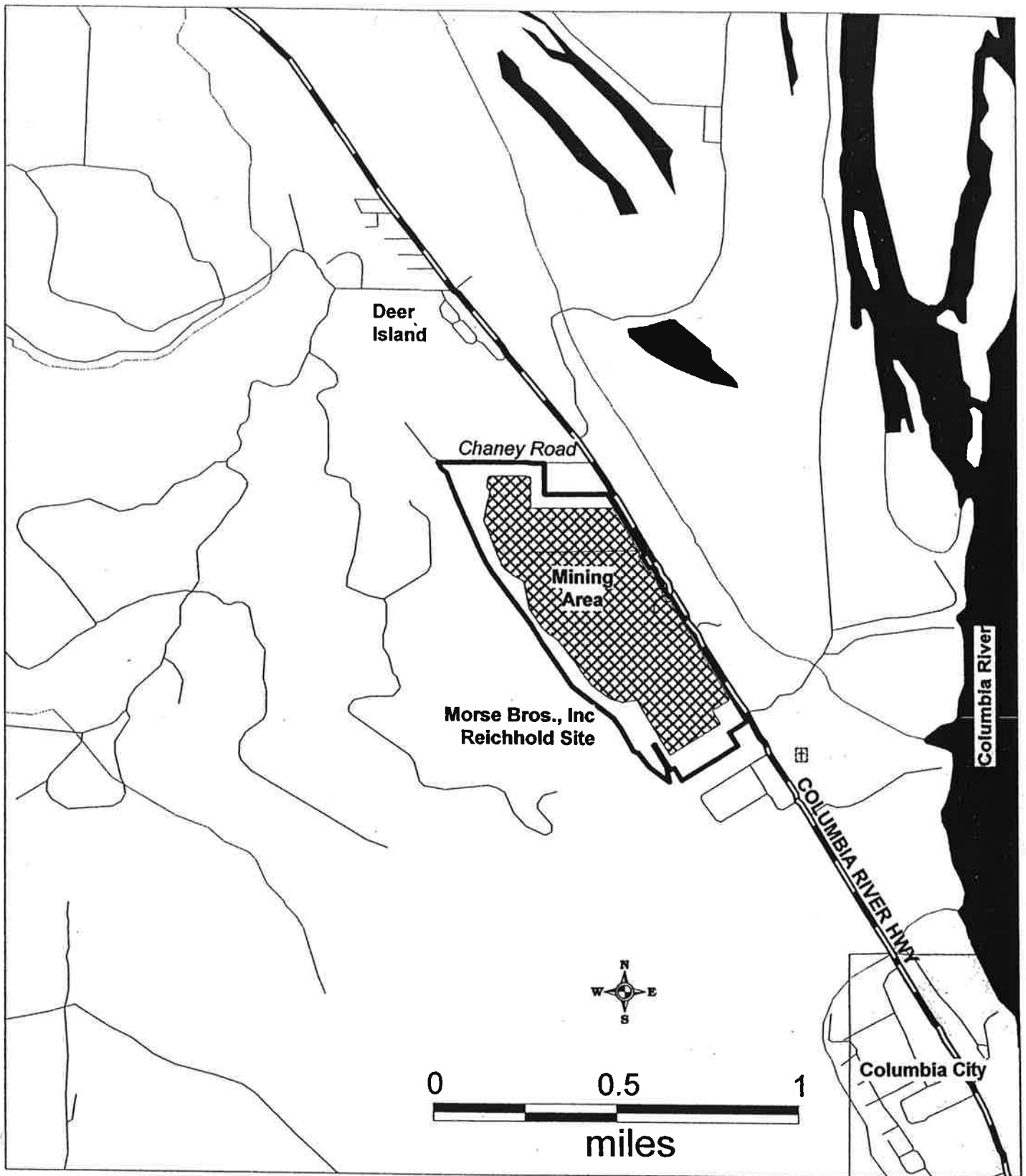
**Conclusion and recommended permit conditions:**

This application for an 202 acre operating permit should be approved with the following permit conditions and submittal of a financial security in the amount of \$42,500 for the site.

Approval of the Surface Mining Operating Permit is assuming all Conditions included in the Conditions of Approval as approved for the Site Design Review and PAPA Application processes are included.

**Attachments:**

1. Vicinity Map
2. Overview of Mining Operations
3. Planning Commission Final Order-Design Review



**Figure 1. Vicinity Map**

**Morse Bros., Inc.  
Reichhold Mining Site  
Surface Mining  
Operating Permit Application**

**Nov-2002**



## Operations Overview – Reichhold Mining Site

### *Before Extraction Begins*

Proposed operations on the subject parcel are limited to mining, which will involve either the scalping or crushing of oversize material, and the transport of aggregate materials. At the start of operations, earthen berms will be constructed, using overburden from the site. These berms will be located along the subject parcel's east and north perimeters, then seeded and planted to control erosion. These berms will act as visual screens and noise buffers against sound produced in the mining process.

### *The Extraction Process*

Extraction will occur incrementally. Every four or so years, a portion (e.g. 10 to 20 acres) will be stripped of overburden to expose the underlying aggregate resource, which will be extracted at about five to ten acres per year. When removing overburden within 1,000 feet of the residences north of the site (see Figures 5a and 5b), only one scraper will be used at a time. Within this operations area, successive "lifts" (ten or so foot vertical layers of material) will be extracted with excavators and/or front-end loaders (aka wheel loaders). The perimeter of the mining area will maintain 2:1 (23 ½ degree) slopes, consistent with Columbia County Surface Mining Ordinance requirements. Extraction will take place to a depth of up to 155 feet below ground surface (BGS). No blasting will take place, as the materials are in loose sand and gravel form. The mining plan is illustrated in Figure 3. Sectional views illustrating the material depths as well as bank sloping requirements are contained in Figure 6.

### *Surface Water Management*

Geotechnical analyses of this property suggest that the aggregate materials are very well drained, such that runoff or other surface water will quickly percolate into the exposed material. All surface water within the active mining area will be contained within the excavation and allowed to infiltrate into the gravel resource. Before mining begins the drainage from the pond in the southwest corner of the site will be realigned to drain to the northwest corner within the mining setbacks. The realigned drainage will be grass and tree lined to prevent erosion and to blend with the neighboring woodland habitat to the west.

### *Excavation and Transport*

Overburden removal and extraction will begin at the south end of the subject parcel adjacent to the Coastal Chemical Plant and Highway 30, as illustrated in Figure 3. Excavation of the sand and gravel above the water table will be conducted with excavators and wheel loaders (front-end loaders). The below water mining will utilize a dredge or yarder system to extract the gravels from beneath the water. No mining below

groundwater will be conducted in the indicated southern portion of the mining consistent with Columbia County conditions.

Front-end loaders will put material in a vibrating grizzly feed (VGB) for rough scalping and sorting of the raw material. The material will feed into a primary crusher. The crusher will discharge onto a series of conveyors, which transport the material up and out of the pit, through the proposed tunnel underneath Highway 30 (see conceptual tunnel configuration in Exhibit 12), and to the proposed processing facility at Waterview.

Morse Bros. Reichhold operations will have a single entrance to Highway 30. This entrance will be used for employee and service delivery access for MBI. There will be no access to or from Chaney Rd. for the mining project.

The primary crushing operations will consistently be more than ten feet below ground surface (bgs). The crusher will be located in the interior of the mining area with the following minimum distances from adjacent property lines:

Table 1: Minimum Crusher Distance from Property Lines

Minimum Crusher Distance From Property Boundaries	
North Property Line	400 feet
East Property Line:	300 feet
South Property Line:	250 feet
West Property Line:	250 feet

The portable jaw crusher will discharge onto a portable, variable-length electric pit conveyor, which will extend from the active mining area to the proposed tunnel conveyor in the southeast corner of the site. The field conveyor will ultimately discharge the crushed material to a surge pile at the Waterview processing facility east of Highway 30. All materials from Reichhold will be processed or distributed at the proposed Waterview processing site.

### Reclamation Overview

Prior to any surface mining, the Columbia County Surface Mining Advisory Committee must recommend approval of an applicant's site reclamation plan to the Columbia County Board of Commissioners. Once approved, the County requires placement of a full-cost bond guaranteeing compliance with reclamation requirements by the Applicant.

The reclamation activity at the Reichhold site will be continuous and incremental, and will begin within approximately five years of the commencement of mining. At this time, sufficient depths of material will have been extracted to begin shaping the slopes along mining boundary. These slopes will have soil from the excavated overburden placed on them at a slope no steeper than two-foot horizontal to one-foot vertical (2:1).

The soil-covered slopes will be planted immediately with native grasses to provide erosion protection. The slope configuration is illustrated in Figure 8.

This site contains approximately 3 million tons of overburden (soils), which will be progressively excavated and stockpiled in the southern portion of the mining area that will not be mined below groundwater (except for the overburden used for berm construction and the contaminated racetrack soils that will be removed). To cover the slopes of the mining area will require approximately 750,000 tons. The remaining overburden will be used to fill the mining pond when mining is completed. Additional clean fill that is brought into the site will be stockpiled with the overburden and used for fill in the pond, also. The slope reclamation performed on an ongoing basis is a more stable and beneficial reclamation method, because material is moved less and reclamation is closer to completion at the time mining stops.

Within 3 years of completion of the mining the bottom of the mining area, including both the area mined below groundwater and filled and the area only mined above the groundwater, will be graded to the elevations and gentle slopes as indicated in Figure 8. This area will be planted with native grasses and trees to help stabilize the ground and aid soil enhancement. Once all the specified criteria are met, the Columbia County Surface Mining Administrator must approve the slopes, planting, and any other reclamation practices before they can release the bond.

## ATTACHMENT 2

### REICHHOLD CONDITIONS OF APPROVAL

A. DR 03-06:

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1. This permit shall become void 2 years from the date of the final decision if operations to begin mining have not begun on the property. Extensions of time may be granted by the Planning Director if requested in writing before the expiration date and if the applicant was not responsible for the failure to develop.
2. Other than primary processing (jaw crusher) to facilitate conveyor belt transport, processing of aggregate material on the site is prohibited.
3. The applicant shall establish standard operating hours of 7:00 a.m. to 6:00 p.m., Monday through Sunday.
4. The applicant shall locate the earthen berms as indicated on the January 6, 2003, revised mining plan.
5. All activities and storage of materials associated with the operation of the mine shall be conducted entirely inside the setbacks of the property. Only plantings and the berms shall be permitted within setback areas, and plantings shall be as much as practical made with native grass, shrubs and trees. Applicant shall construct and maintain a 10' earthen berm along the eastern and northern boundary during the mining phase, and the entire boundary during phase 2.
6. The applicant shall install a 6' high chain link fence around the entire perimeter of the active mining area. The fence will be located behind the berms and warning signs will be attached to the fence every 100'.
7. The applicant shall locate screening vegetation on the north, east, and south mining area boundaries as well as the northwest corner of the site as proposed on the January 6, 2003, revised Mining Plan.
8. The applicant shall, at a minimum, increase the screening vegetation spacing and density of two offset rows of trees planted between 12'-25' centers depending upon the canopy size of the specific tree variety. For example, maple trees may be planted at 25' while conifer trees having a smaller canopy shall be planted on 12' centers. Plantings shall be as much as practical, made with native grass, shrubs and trees.

9. The applicant shall plant a diverse mix of native evergreen and deciduous tree species (Douglas-fir, Cedar, Maple) including 50% fast-growing tree species such as Poplar, Cottonwood and Alder.
10. Prior to active surface mining on any phase of the mining plan as approved by the operating permit, the applicant shall have an inspection by the Columbia County Planning Department to ensure that adequate earthen berms to screen the active mining areas are in place and all required vegetation has been planted in the ground.
11. After the first year of full operations or at operating permit renewal, after approval of the Site Design Review, the Site Design Review for the gravel mine shall be reviewed by the Surface Mining Administrator, with specific attention to noise and dust levels along Chaney Road, and traffic, noise and dust problems along Highway 30 between the mine and the processing facility and suspected contaminants (as the time for entering into the water table approaches). As the Board of County Commissioners is the final approval authority for renewals of operating permits, the Surface Mining Administrator shall review the mining operation annually (even if the surface mining ordinance is changed to allow longer periods between renewal permit reviews), and if the Administrator determines the need for a public hearing and so recommends, the Board shall hold a public hearing to determine whether setbacks, dust and noise control measures, equipment housing, landscaping, berms, and other mitigation measures have sufficiently reduced the adverse effects of the mining operation on the dwellings on the north side of Chaney Road and within 1500 feet of the northerly property line. (If the State takes jurisdiction over surface mining in Columbia County, DOGAMI will be asked to perform these functions.).

If the Surface Mining Administrator or Board (or DOGAMI if the State takes jurisdiction over surface mining in the County) determines that mitigation measures are sufficient to reduce the adverse effects to acceptable levels, for the Chaney Road and Deer Island residents, the Site Design Review approval may be extended indefinitely. If the Board determines that mitigation measures are not sufficient, the Site Design Review approval may be revoked or suspended until additional mitigation measures are completed. Additional measures may include different operating hours, higher berms, more landscaping, watering trucks, etc.

12. Prior to beginning any activity on the site, the applicant shall submit documentation indicating that all required Oregon Department of Transportation (ODOT) approach permits for access to Highway 30 have been secured. An ODOT permit is required to perform all work in the highway right-of-way.
13. Prior to active surface mining and extraction of aggregate material, the applicant

shall submit documentation indicating they have entered into a lease agreement with ODOT for operation of a conveyor belt underneath the Highway.

14. Except as provided below, the applicant is prohibited from removing aggregate from the site via truck or rail, unless it receives a new site design review approval by Columbia County. Not more than 10% of the aggregates shall leave the site by transport other than via the conveyor belt and underground tunnel. Trucks loaded with aggregate material leaving the site shall be either wet or covered.
15. The applicant will be required to submit evidence indicating the entrance to the facility has been paved with asphaltic concrete for a minimum distance of 300' from the edge of the Highway.
16. The applicant will be required to adhere to the scraper buffer limiting the activity within 1000' from the residences on Cheney Road. Only one scraper at a time may operate within the scraper buffer area as indicated on the Mining Plan.
17. Prior to active surface mining and extraction of aggregate material, the applicant will be required to submit evidence that the drainage plan has been established as proposed in the Hydrologic Analysis Report that was submitted with the operating permit.
18. The applicant will be required to stop all work and contact the State Archaeologist and the Columbia County Surface Mining Administrator if any cultural resources, besides "cobble choppers", are found during excavation of the site.
19. To ensure the site is reclaimed as proposed, the applicant shall only excavate gravel from beneath the specified reclamation elevations to the extent that available fill has been documented to be available. Documentation of suitable amounts of fill must be supplied to the County annually beginning on the second July 1<sup>st</sup> after wet mining commences.
20. The applicant must complete reclamation of the site within 3 years following completion of mining.
21. Prior to active surface mining and extraction of aggregate material, the applicant shall submit evidence of compliance with all ODOT requirements.
22. The applicant will be required to follow the management recommendations found in the Bald Eagle Management Plan as approved by USFWS and incorporating ODFW recommendations.
23. The applicant will be required to maintain a 50' setback from all existing wetlands

and proposed drainage channels.

24. The applicant will be required to install an address sign at the entrance to the site.

**B. Ordinance No. 2002-01:**

1. Final approval of the operating permit shall be subject to Applicant preparing a site specific management plan for bald eagle conservation, and obtaining and submitting evidence of concurrence by the U.S. Fish and Wildlife Service (“USFWS”) with the management plan, including submittal of any copies of the monitoring reports to the county.
2. Prior to receipt of an operating permit, Applicant shall provide the Surface Mining Administrator (or DOGAMI if the State takes jurisdiction over surface mining in the County) with a letter from the Department of Environmental Quality approving Applicant’s remedial action plan for polycyclic aromatic hydrocarbons (PAHs) on the site.
3. A determination from ODOT shall be received with a copy provided to County, based on an acceptable traffic impact analysis that the proposed transportation improvements and facilities are adequate. As an alternative and subject to ODOT approval, Applicant may construct a tunnel from the mining site under Highway 30 to a loading or transfer facility in the railroad right of way and convey aggregates to it.
4. Applicant must consult with, and obtain approval from, the Oregon Water Resources Department before mining below a depth of 50' below ground level. These approvals must be in writing with a copy, sent by certified or registered mail, return receipt requested, to Land Development Services.
5. Prior to Applicant mining into the water table, the concentrations of suspected chemical contaminants (including nitrate, PAHs, and PCBs) in the ground water within the proposed lake area will be shown to be below the Maximum Contaminant Levels set by Oregon Division of Health and based on the National Primary Drinking Water Standards or other applicable agencies and standards that may have replaced the current agencies or standards.
6. Annually, after mining commences into the water table, Applicant shall present water quality monitoring data from all monitoring locations on the Subject property, conducted by an independent testing company, to demonstrate that the nitrate levels, and levels of other suspected chemical contaminants within the lake area or within a lateral distance of 100 feet thereof, remain below the applicable standard or standards. All data and reporting shall be conducted under the

supervision of a Registered Professional Geologist with current registration in the State of Oregon. If the data indicates nitrate or other contaminant levels within such area to be above the applicable standard or standards, Applicant shall immediately cease and desist mining operations within such area until compliance is achieved and take immediate steps to assure compliance with such standard or standards. (Nothing in this paragraph shall be construed to prevent Applicant from performing reclamation activities that do not adversely affect water quality.

7. Present water quality monitoring data to the Board of County Commissioners demonstrating that the suspected contaminant levels remain below the applicable standard set by EPA or DEQ. If the data indicates nitrate levels to be above the applicable standard, Applicant shall forthright take steps to assure compliance with such standard.
8. In accordance with Section 1603 and Section 1044.10A of the Zoning Ordinance, prior to any mining activities commencing on the property the site shall be inventoried for any significant archaeological artifacts, in accordance with standards set by the State Archaeologist. If the property to be excavated contains any significant archaeological sites, the Planning Commission shall hold a public hearing to review testimony regarding the sites and establish measures to mitigate potential conflicts as necessary. The State Archaeologist shall be notified of the public hearing.
9. After the first full year of operations or at operating permit renewal, after approval of the Site Design Review, the Site Design Review for the gravel mine shall be reviewed by the Surface Mining Administrator, with specific attention to noise and dust levels along Chaney Road, and traffic, noise and dust problems along Highway 30 between the mine and the processing facility and suspected contaminants (as the time for entering into the water table approaches). As the Board of County Commissioners is the final approval authority for renewals of operating permits, the Surface Mining Administrator shall review the mining operation annually (even if the Surface Mining Ordinance is changed to allow longer periods between renewal permit reviews) and if the Administrator determines the need for a public hearing and so recommends, the Board shall hold a public hearing to determine whether setbacks, dust and noise control measures, equipment housing, landscaping, berms, and other mitigation measures have sufficiently reduced the adverse effects of the mining operation on the dwellings on the north side of Chaney Road and within 1500 feet of the northerly property line. (If the State takes jurisdiction over surface mining in Columbia County, DOGAMI will be asked to perform these functions).

If the Surface Mining Administrator or Board (or DOGAMI if the State takes jurisdiction over surface mining in the County) determines that mitigation measures



are sufficient to reduce the adverse effects to acceptable levels, for the Chaney Road and Deer Island residents, the Site Design Review approval may be extended indefinitely. If the Board determines that mitigation measures are not sufficient, the Site Design Review approval may be revoked or suspended until additional mitigation measures are completed. Additional measures may include different operating hours, higher berms, more landscaping, watering trucks, etc.

10. All activities and storage of materials associated with the operation of the mine shall be conducted entirely inside the setbacks of the property. Only plantings and berms shall be permitted within setback areas, and plantings shall be, as much as practical, made with native grass, shrubs and trees.
11. The Applicant shall not dewater the site.
12. Water Quality/Quantity: The Applicant shall develop and obtain approval from DEQ for a Water Monitoring Program, including but not limited to the following:
  - A. Quarterly monitoring of on-site wells;
  - B. Quarterly monitoring of PUD well at the northerly edge of the site;
  - C. Install monitoring wells north of Chaney Road within one year, with permission of property owner;
  - D. Bi-annual monitoring of participating property owners within 1500 feet of the site;
  - E. Quarterly report to County Sanitarian with copy to DEQ and WRD regarding nitrates, coliform, turbidity and draw down for tested wells;
  - F. Adhere to any actions deemed appropriate by DEQ or WRD and ordered by Columbia County in the event conditions deteriorate.
13. Dust/Particulate Emissions:
  - A. Time construction activities associated with overburden removal and transport, stockpile building and management, and berm building and management to coincide with high soil moisture;
  - B. Water unpaved roads on a specified schedule, based on road activity and weather conditions. Flush paved roads on a specified schedule to prevent particulate buildup;
  - C. Pave main access road to at least 300 feet from highway, surface unpaved roads with crushed rock;
  - D. Prepare, maintain and use a trackout control with drive-through pans or spray washing to remove material from tires and wheels;
  - E. Water active areas during overburden removal, berm, and stockpile construction and during stockpile reclamation;
  - F. Partially enclose the crusher;

- G. Utilize water sprays at crushers and screens, at transfer points on conveyors, and at stackout and loadout points;
  - H. Minimize drop height at transfer and stackout or loadout points;
  - I. Establish a 10 mph site speed limit;
  - J. Applicant shall not conduct gravel washing or other water uses on site except as to dust suppression and for domestic purposes.
14. Unless Applicant has ceased processing of aggregates at the Deer Island facility, then prior to commencement of mining, Applicant shall construct at the Deer Island processing site the following access improvements (voluntary):
- A. Construct a southbound left turn and southbound acceleration lane;
  - B. Construct a northbound right turn lane/deceleration lane;
  - C. Construct a rail crossing safety system.
15. Applicant will provide and maintain a bond in the amount of \$15,000 (2002 dollars) per well, such amount to be adjusted every three (3) years (based on the CPI-U for Portland, 1982-84= 100) to assure all cooperating well holders within the northerly 1500-foot impact area against the mining activity causing a deterioration in either the content or quality of water for domestic purposes. The Applicant shall provide an offer and notice to all well owners within the northerly impact area to participate as cooperating well holders, with wording substantially as provided to the Board by Applicant at its November 10, 1998 hearing. Bond amounts shall be set and based upon the rates of inflation so sufficiently to protect the participating landowners within the northerly impact area from the adverse effects set forth in this condition. This condition shall apply and extend to all existing and future residents within the northerly impact area.
16. Applicant shall comply with all applicable DEQ noise standards. In addition, the Applicant shall comply with the noise minimization measures, dust minimization measures, traffic minimization measures, traffic minimization measures, resource lands minimization measure, and rural industrial minimization measures as set out below and described in Finding 5 of the July 28, 200, Staff Report, except so far as such measures propose reclamation of one-half of the subject property as wildlife habitat and one-half for resource industrial development, or are otherwise inconsistent with Ordinance No. 2002-01.

**NOISE minimization measures:**

Only primary rock crushing will take place on the mining site.

A 200 foot setback from Chaney Road will be maintained.

Only one scraper will be used at a time when removing overburden within 1000 feet of residences.

A 10 foot high barrier of overburden soils to be constructed along the north and

northeast border during mining phase, and around the entire boundary during phase 2.

**DUST** minimization measures:

Time construction activities associated with overburden removal and transport, stockpile, building and management, and berm building and management to coincide with high soil moisture.

Water unpaved roads on a specified schedule, based on road activity and weather conditions. Flush paved roads on a specified schedule to prevent particulate build-up.

Pave main access road to at least 300 feet from the highway, surface unpaved roads with crushed rock.

Prepare, maintain and use a trackout control with drive-through pans or spray washing to remove material from tires and wheels.

Water active areas during overburden removal, berm, and stockpile construction and during stockpile reclamation.

Partially enclose the crusher.

Utilize water sprays at crushers and screens; at transfer points on conveyors, at stackout and loadout points.

Minimize drop height at transfer and stackout or loadout points; establish a 10 mph site speed limit.

Refrain from conducting gravel washing or other water uses on site except as to dust suppression for domestic purposes.

**TRAFFIC** minimization measures:

Provide both a dedicated northbound left turn lane on US 30 into the mining area and a dedicated southbound right turn lane on US 30 into the mining area. Provide a southbound right turn lane and a northbound left turn lane at the Deer Island processing plant.

Construct a rail crossing safety system at the spur line crossing.

**RESOURCE LANDS** minimization measures:

Provide standard setback and protection requirements in existing state law for wildlife habitat, wetlands and riparian areas.

Provide a vegetated berm, or plant sight-obscuring trees, along the northeast boundary of the site adjacent to the main entrance to Deer Island, to block the view of aggregate operations from the Deer Island historic area.

Reclaim ½ of the subject site for wildlife habitat.

**RURAL INDUSTRIAL** minimization measures:

Reclaim ½ of the site for resource industrial development purposes.

Make available the site east of Highway 30 for industrial purposes.

Retain at least ½ of the subject site at any one time for resource industrial

development purposes.

The administrative rule defines “minimize” as “reduc[ing] an identified conflict to a level that is no longer significant. For those types of conflicts addressed by local, state, or federal standards...to minimize a conflict means to ensure conformance to the applicable standard.” The Planning Commission determined that the conditions contain reasonable and practical measures to minimize adverse impacts. Therefore, mining should be allowed.

17. The post-mining use for the entire mining site shall be designated Resource Industrial (RIPD) under the Columbia County Zoning ordinance. Applicant shall submit an operating permit application that includes a detailed plan, which provides for reclamation of the Subject property after mining as follows:

Existing Industrial Land	30 acres
Reclaimed Industrial Land (Not mined below water table)	46 acres
Reclaimed Industrial Land (Mined below water table and partially refilled)	75 acres
Riparian, ponds, wetlands in mining setback area	20 acres
Slopes, misc.	19 acres
<hr/>	
TOTAL	190 acres*

\* acreages will vary somewhat when surveys are done

18. The southerly 46 acre portion of the aggregate extraction shall not be mined below the water table. In the reclamation process, the southerly 46 acre portion of the aggregate extraction area shall be made level at an elevation of at least two feet above the highest recorded ground water level in the gravel aquifer. The sides of the area shall also be sloped to a grade that will be safe for subsequent public and industrial use activities within the level portion of the site. The elevation and design configuration of the reclaimed site must be such that, in the opinion of an independent engineer, registered as a Professional Engineer in the State of Oregon, the development of at least one of the industrial (not farm) uses authorized in the RIPD zone (CCZO Section 682 and 683), can be accomplished reasonable, safely, and cost-effectively.
19. The 75 acre portion of the aggregate extraction area north of the southerly 46 acre portion of the aggregate extraction area shall be reclaimed with an unengineered fill to an elevation of at least two feet above the highest recorded ground water

level in the gravel aquifer and sides of the area shall also be sloped to a grade that will be safe for subsequent public and industrial use activities within the level portion of the site. The elevation and design configuration of the reclaimed site must be high enough such that, in the opinion of an independent engineer, registered as a Professional Engineer in the State of Oregon, to reasonably, safely, and cost-effectively allow temporary parking areas, and other uses accessory to at least one of the industrial (not farm) uses authorized in the RIPD zone, taking into consideration the nature of the unengineered fill.