

BEFORE THE BOARD OF COUNTY COMMISSIONERS OF LANE COUNTY, OREGON

ORDER NO. 21-10-26-06

In the Matter of Denying an Application on Remand from Land Use Board of Appeals to Amend the Lane County Rural Comprehensive Plan (RCP) to Add a Quarry to the Inventory of Significant Mineral and Aggregate Sites, Authorize Mining and Processing as Provided by Oregon Administrative Rules (OAR) 660-023- 0180; Amending the RCP to Redesignate Land from Forest (F) to Natural Resource: Mineral (NR:M), and Rezone that Land From Non-Impacted Forest Land (F-1) Zone to Quarry and Mine Operations (QM) Zone; Requiring Site Review of the Proposed Mining Operations Pursuant to Lane Code 16.257(4)(a)-(j); (Remand No. 2 Planning File 509- PA20-05535, Remand No. 1 Planning File 509-PA18-05392, Original Planning Files 509-PA15-05803 & 509-PA15-05804; Applicant Old Hazeldell Quarry)

WHEREAS, Lane Code 16.400 sets forth procedures to amend the Rural Comprehensive Plan, and Lane Code 16.252 sets forth procedures for rezoning lands within the jurisdiction of the Rural Comprehensive Plan; and

WHEREAS, Oregon Administrative Rules (OAR) Chapter 660 Division 23 sets forth procedures to amend the Goal 5 Inventory of Significant Mineral & Aggregate Sites within Lane County and address requests for a post-acknowledgment plan amendment (PAPA) affecting those sites; and

WHEREAS, on December 9, 2015, application nos. 509-PA15-05803 and 509-PA15-05804 were made for a major amendment to add a site to the Lane County Goal 5 Inventory of Significant Mineral & Aggregate Sites; to authorize mining and processing; to amend the RCP to redesignate land from Forest (F) to Natural Resource: Mineral (NR:M) and rezone that land from Non-impacted Forest Land (F-1) Zone and Impacted Forest Land (F-2) Zone to Quarry and Mine Operations (QM) Zone; to require a site review of the proposed mining operations on the subject property (as tax lot 502 and a portion of tax lot 100 of map 21-35-22, and a portion of tax lot 1900 of map 21-35-15); and

WHEREAS, the Lane County Planning Commission reviewed the proposal in public hearings on April 19, 2016 and May 10, 2016, and deliberated on July 26, 2016, and forwarded the matter to the Board with formal Planning Commission recommendations; and

WHEREAS, on October 12, 2016, the Lane County Board of Commissioners conducted a hearing and deliberated on December 13, 2016, and on March 14, 2017, voted to approve the applications and enact Ordinance No. PA 1343 to implement the proposed plan amendment and zone change; and

WHEREAS, an appeal of the County's enactment of Ordinance No. PA 1343 was filed with the Land Use Board of Appeals (LUBA); and

WHEREAS, LUBA remanded Lane County's decision to the county on January 8, 2018; and

WHEREAS, on May 9, 2018, the applicant requested further processing of its applications by Lane County; and

WHEREAS, on September 25, 2018, the Board of County Commissioners conducted a public hearing and deliberated on the matter on November 27, 2018, and on December 18, 2018, voted to approve the applications and enact Ordinance No. PA 1363 to implement the proposed plan amendment and zone change. Ordinance No. PA 1363 repealed Ordinance No. PA 1343: and

WHEREAS, an appeal of the County's enactment of Ordinance No. PA 1363 was filed with LUBA: and

WHEREAS, LUBA remanded Lane County's decision to the county on October 16, 2019; and

WHEREAS, due to the LUBA remands noted above, Ordinance Nos. PA 1343 and 1363 are no longer effective, and

WHEREAS, on September 16, 2020, the applicant requested further processing of its applications by Lane County; and

WHEREAS, on April 20, 2021, and May 4, 2021, the Board of County Commissioners conducted a public hearing and a continued public hearing, and deliberated on the matter on August 3, 2021, and October 26, 2021, and

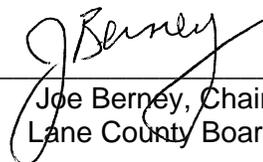
WHEREAS, evidence exists within the record regarding the assignments of error identified in the LUBA remand, indicating that, with the exception of conflicts with inventoried big game, the proposal meets the requirements of Lane Code Chapter 16, and the requirements of applicable state and local law; and

WHEREAS, the Board tentatively denied the application on August 3, 2021, due to conflicts with inventoried big game and set a 5th reading and further deliberations for October 26, 2021, to consider the economic, social, environmental, and energy (ESEE) consequences of allowing, limiting, or not allowing mining at the site.

NOW, THEREFORE, the Board of County Commissioners of Lane County Orders as follows:

For the reasons set forth in the findings of fact and conclusions of law adopted and incorporated as Exhibit A and the ESEE findings adopted and incorporated as Exhibit B, the application is denied.

ADOPTED this 26th day of October, 2021.



Joe Berney, Chair
Lane County Board of County Commissioners

Exhibit A to Order No. 21-10-26-06

FINDINGS OF FACT AND CONCLUSIONS OF LAW ON REMAND IN THE MATTER OF
FILE NOS. 509-PA-15-05803 AND 509-PA-15-05804

- I. A.**
- Applicant:** Old Hazeldell Quarry, LLC
c/o Mr. Michael Reeder
Law Office of Mike Reeder
375 West 4th Avenue, Suite 205
Eugene, Oregon 97401
- Owner:** Old Hazeldell Quarry, LLC
c/o Mr. Michael Reeder
Law Office of Mike Reeder
375 West 4th Avenue, Suite 205
Eugene, Oregon 97401
- Agents:** Mr. Steven Pfeiffer
Perkins Coie LLP
1120 NW Couch St., Tenth Floor
Portland, Oregon 97209
- Ms. Dorian Kuper
Kuper Consulting LLC
3575 Running Deer Dr.
Helena, Montana 59602

B. Proposal:

The applicant proposes to amend the Lane County (“County”) Rural Comprehensive Plan (“RCP”) to add a quarry site to the inventory of Significant Mineral and Aggregate Sites and authorize mining and processing as provided by Statewide Planning Goal 5 “Post Acknowledgment Plan Amendment” (“PAPA”) requirements found in Oregon Administrative Rule (“OAR”) 660-023-0180, and authorize a Site Review Permit. The applicant proposes to mine north and northeastward from the existing Dunning Road Quarry and utilize a processing area to the west of the mining (extraction) area. For reference purposes, a vicinity map and figures showing the significant resource area are proposed to be added to the County’s Significant Mineral and Aggregate Resources Inventory as attached to these findings as Attachment A and Attachment B, respectively. These documents illustrate the area of the approximately 46 acres proposed to be excavated within the site that consists of a volume of rock calculated to be approximately 16.9 million tons. This amount of material is greater than 2 million tons and is determined to be significant under the provisions of OAR 660-023-0180(3)(a).

C. Procedural Status:

As detailed below, the County Board of Commissioners is acting on remand in this matter. The Board of Commissioners adopted a set of findings in support of its original decision to approve the applications; however, because the previous ordinances (Ordinance Nos. PA 1343 and PA 1363) including the original findings, were remanded by LUBA, neither is currently effective. The findings in this document address the issues from both the original proceedings as modified by the remand proceedings.

1. Original Proceedings

The applicant filed the applications with the County on December 9, 2015. (Applications for Post-Acknowledgment Comprehensive Plan Map and Zone Map Amendment, Comprehensive Plan Text Amendment and Site Review Permit (“KC PAPA”).) The County Planning Commission conducted public hearings on April 19 and May 10, 2016, deliberated on July 26, 2016, and voted unanimously (8-0) to recommend approval to the Board of Commissioners. The Board of Commissioners conducted a public hearing on October 12, 2016, and deliberated on December 13, 2016 and March 14, 2017. The Board of Commissioners voted 4-1 to approve the applications and adopt Ordinance No. PA 1343. Save TV Butte and Katherine Pokorny appealed the County’s decision to the Land Use Board of Appeals (“LUBA”).

2. Initial LUBA Decision and County Remand Proceedings

LUBA entered a final opinion and order remanding the County’s decision to address the following specific issues. *Save TV Butte et al. v. Lane County*, 77 Or LUBA 22 (LUBA No. 2017-031, January 8, 2018) (“*Save TV Butte I*”). On remand, the Board of Commissioners has adopted findings in this document in response to these issues at the pages identified in bold at the end of each bullet point:¹

- Scope of Property on Inventory: LUBA held that the County erred by including 107 acres of the site on the County’s Significant Mineral and Aggregate Resources Inventory when this inventory must be limited to “significant” resources and only approximately 46 acres of the site include “significant” resources. *Save TV Butte I*, at 27-32 (first assignment of error). **ADDRESSED AT PP. 13, 77-78 OF THESE FINDINGS.**
- Conflicts with Big Game Range in the Impact Area: LUBA held that the County erred by concluding that it was not required to consider conflicts between the project and the adopted inventory of big game habitat within the project’s impact area. *Save TV Butte I*, at 41-48 (third assignment of error). **ADDRESSED AT PP. 48-53 OF THESE FINDINGS.**
- Conflicts Caused by Off-Site Discharges: LUBA held that the County erred by failing to correctly analyze, and adopt adequate findings addressing, potential conflicts caused by off-site discharges from the project to uses within the 1,500-foot impact area surrounding

¹ References to the findings at these particular page numbers are for convenience and are intended to identify the primary responses to the remand issues. They are not intended to discount or exclude other findings in this document that may also be responsive to these issues.

the project. *Save TV Butte I*, at 62-63 (fourth assignment of error). The potential conflicts concerned the following:

- Silica Dust: LUBA held that the County adopted inadequate findings to address whether the regulations and condition cited for controlling visible dust are sufficient to minimize silica dust fugitive emissions. **ADDRESSED AT PP. 24-27 OF THESE FINDINGS.**
- Air Pollutant Dispersion Modeling: LUBA held that the applicant must produce air dispersion modeling required by OAR 340-225-0040 and 340-225-0050 or offer a better explanation for why the required modeling is unnecessary to demonstrate the proposal complies with standards that protect ambient air quality. **ADDRESSED AT PP. 21-23 OF THESE FINDINGS.**
- Net Air Quality Benefit/Emission Offsets: LUBA held the County erred by not directly addressing the opponents' argument that the proposal does not demonstrate that it will offset impacts on ambient air quality under OAR 340-224-0250(2)(b) and OAR 330-224-510 and -530. **ADDRESSED AT P. 23 OF THESE FINDINGS.**
- Airblast and Ground Vibration: LUBA held that the County erred by failing to consider whether airblast and ground vibration from blasting at the project should be identified as a conflict that must be minimized, and if so, whether reasonable and practicable measures are available to do so. **ADDRESSED AT PP. 35-39 OF THESE FINDINGS.**
- Groundwater Impacts: LUBA held that the County erred by adopting inconsistent findings in response to the allegation that the project would cause stormwater to infiltrate into the former Dunning Road dump site, which could cause leaching to groundwater. The County's findings appeared to rely upon Condition 8 as a basis for ensuring that berms and capture areas would prevent potential impacts to the landfill from stormwater inundation, but Condition 8 did not actually require the upgradient berms in question. **ADDRESSED AT PP. 28-30 OF THESE FINDINGS.**

On May 9, 2018, the applicant submitted a request for the County to begin formal remand proceedings. On August 31, 2018, the County mailed notices of the hearing to all parties to the original proceedings, adjacent property owners, the applicant, and affected agencies. The notices included information about how to participate in the remand proceedings, submit testimony, and access the application materials and the Board of Commissioners' Agenda Cover Memo packet with attachments. On September 11, 2018, the Board of Commissioners conducted a first reading of Ordinance No. PA 1363. On September 25, 2018, the Board of Commissioners conducted a second reading of the ordinance and a public hearing on remand. At the conclusion of the proceedings, the Board of Commissioners closed the public hearing and kept the record open to allow for additional testimony pursuant to a defined schedule, which concluded on October 30, 2018, when the applicant submitted its final written argument. On November 27, 2018, the Board

of Commissioners conducted a third reading of Ordinance No. PA 1363. On December 18, 2018, the Board of Commissioners conducted a fourth reading and adopted Ordinance No. PA 1363, which approved the applications. Save TV Butte, Linda McMahon, and Katherin Pokorny appealed the County's decision to LUBA.

3. Second LUBA Decision and County Remand Proceedings

LUBA entered a final opinion and order remanding, on a single issue, the County's decision to adopt Ordinance No. PA 1363. *Save TV Butte et al. v. Lane County*, __ Or LUBA __ (LUBA No. 2019-002, October 16, 2019) ("*Save TV Butte II*"). LUBA held that the County erred because it was required, but failed, to provide timely and accurate notice to the Department of Land Conservation and Development ("DLCD") of alterations to the original plan amendment proposal pursuant to ORS 197.610(6). *Id.* The Court of Appeals affirmed this decision. *Save TV Butte et al. v. Lane County*, 301 Or App 853, 455 P3d 1051 (2020) ("*Save TV Butte III*"). On remand, the Board of Commissioners adopts findings in response to this issue later in this section under the heading "Notice of Proposed Alteration to DLCD."

General Procedural Findings on Remand

On September 9, 2020, the applicant submitted a request for the County to begin formal remand proceedings. On March 30, 2021, the County mailed notices of the hearing to all parties to the original proceedings, adjacent property owners, the applicant, and affected agencies. The notices included information about how to participate in the remand proceedings, submit testimony, and access the application materials and the Board of Commissioners' Agenda Cover Memo packet with attachments. On April 6, 2021, the Board of Commissioners conducted a first reading of Ordinance No. PA 1385. On April 20, 2021, and May 4, 2021, the Board of County Commissioners conducted a public hearing and a continued public hearing, and deliberated on the matter on August 3, 2021, and October 26, 2021.

Notice of Proposed Alteration to DLCD

The Board of Commissioners finds that, in the second remand proceedings, the County has provided timely and accurate notice of the proposed alterations to the original plan amendment proposal to DLCD pursuant to 197.610(6), which provides as follows:

"(6) If, after submitting the materials described in subsection (3) of this section, the proposed change is altered to such an extent that the materials submitted no longer reasonably describe the proposed change, the local government must notify the Department of Land Conservation and Development of the alterations to the proposed change and provide a summary of the alterations along with any alterations to the proposed text or map to the director at least 10 days before the final evidentiary hearing on the proposal. The director shall cause notice of the alterations to be given in the manner described in subsection (4) of this section. Circumstances requiring resubmission of a proposed change may include, but are not limited to, a change in the principal uses allowed under the proposed change or

a significant change in the location at which the principal uses would be allowed, limited or prohibited.”

The Board of Commissioners finds that between the initial notice of amendment provided to DLCD in 2016 and the present remand, the proposed plan amendment has been altered to reduce the portion of the subject property being added to the County’s Significant Mineral and Aggregate Resources Inventory from 107 to 46 acres. The reason for the reduction in acreage is to limit the area added to the inventory to that where the “significant” resource is located, consistent with LUBA’s holding in *Save TV Butte I*. The Board of Commissioners finds that the materials submitted with the 2016 notice—which only refer to 107 acres—do not reasonably describe the proposed change, as altered on remand. Accordingly, the Board of Commissioners finds that it was required to provide notice of the alteration to DLCD in accordance with ORS 197.610(6).

As quoted above, ORS 197.610(6) requires the County to provide notice of the proposed alteration, including a summary of the alteration and a copy of the altered text and map, to DLCD at least 10 days before the final evidentiary hearing. As set forth in the record, County staff completed, and submitted to DLCD, a new “Notice of a Proposed Change to a Comprehensive Plan or Land Use Regulation” form on March 30, 2021. At the bottom of the first page of this form, the County provided in all capital letters a summary and explanation of the alteration in the amount of acreage being added to the inventory:

“THE PURPOSE OF THIS NOTICE IS TO ADVISE OF AN ALTERATION TO THE PROPOSED CHANGE TO THE COMPREHENSIVE PLAN PURSUANT TO ORS 197.610(6). THE ALTERATION IS TO REDUCE, FROM 107 ACRES TO 46 ACRES, THE PORTION OF THE ZONE CHANGE/PLAN AMENDMENT PROPERTY THAT WOULD BE ADDED TO THE LANE COUNTY INVENTORY OF SIGNIFICANT AGGREGATE RESOURCES. THE REASON FOR THE REDUCTION IN ACREAGE IS TO INCLUDE ONLY THE ACREAGE WHERE THE ‘SIGNIFICANT’ RESOURCE IS LOCATED ON THE COUNTY INVENTORY. THIS NOTICE INCLUDES REVISED ORDINANCE TEXT AND MAP TO REFLECT THIS ALTERATION. THE REDUCTION IN ACREAGE BEING ADDED TO THE INVENTORY DOES NOT REDUCE THE AREA OF THE ZONE CHANGE/PLAN AMENDMENT PROPERTY, WHICH IS STILL 107 ACRES.”

The notice form was provided more than 10 days before the final evidentiary hearing date on remand of May 4, 2021 (continuation of the initial evidentiary hearing on April 20, 2021). Finally, the County also included the altered ordinance text and map with this form. That altered text reduced the acreage proposed to be added to the inventory consistent with the summary on the form quoted above. Based upon this evidence, the Board of Commissioners finds that the County has provided accurate and complete materials with the notice of proposed alteration as required by ORS 197.610(6).

The Board of Commissioners further finds that the County provided timely notice of the proposed alteration on remand. In these remand proceedings, the final evidentiary hearing in this matter was held May 4, 2021. As set forth in the record, County staff provided notice of the alteration to the

proposed change to DLCD on March 30, 2021, approximately 35 days before the final evidentiary hearing. Accordingly, the Board of Commissioners finds that its March 31, 2021 notice was provided more than 10 days in advance and therefore is timely under ORS 197.610(6).

Additionally, the Board of Commissioners finds that, even though it previously conducted an evidentiary hearing during the first remand, at which time the Board of Commissioners received and considered testimony and evidence from applicant and several other parties, and even though, following that hearing, the Board of Commissioners addressed the bulleted items from *Save TV Butte I* listed under Section C.2. of these findings, that evidentiary hearing was not preceded by the required DLCD notice. In order to ensure a meaningful opportunity to participate in the proceedings, the Board of Commissioners finds that it was required to conduct a new final evidentiary hearing to address these same *Save TV Butte I* issues after providing the timely and accurate notice described above to DLCD. The Board of Commissioners finds that it conducted the required evidentiary hearings on April 20, 2021 and May 4, 2021.

II. SITE AND PLANNING PROFILE

A. Location

The site is located just east of Oakridge and north of Highway 58. The site is generally located northeast of the intersection of Dunning Road and Fish Hatchery Road. Of the 183 acres of ownership, approximately 107 acres is the proposed mining area, of which approximately 46 acres is proposed to be excavated. The 107-acre subject property comprises three tax lots identified on Assessors Map 21-35-22, tax lot 502, portions of tax lot 100 and portions of tax lot 1900 as identified on Assessors Map 21-35-15.

B. Zoning

The property is zoned “Non-Impacted Forest Lands (F-1, RCP) and Impacted Forest Lands, (F-2, RCP). The Rural Comprehensive Plan (RCP) designation is currently Forest Land. The intent is to rezone the site to Quarry and Mine Operations (QM) and designate the site as Natural Resource in accordance with the RCP.

C. Site Characteristics

The subject property lies east and outside of the City of Oakridge and includes approximately 183 acres of vacant forested land. The site contains the existing Dunning Road Quarry, previously mined and permitted with the Oregon Department of Geology and Mineral Industries (“DOGAMI”) permit #20-0001, at the southern portion of the Old Hazeldell property. The intent is to mine (excavate) north and northeastward from the existing quarry on approximately 46 acres. The processing area will be located on Tax Lot 502, immediately west of the excavation area. The site is made up of andesitic rock that occurs as a north-south trending ridgeline proposed for excavation. Elevations range from approximately 1900 feet Mean Sea Level (“MSL”) in the northern portion of the site, to a low of 1,600 feet MSL on the eastern portion of the site and a low of 1,400 MSL on the western portion of the site. The access to the mining area will be off of and to the north of Dunning Road and east of the Union Pacific railroad line, onto the processing area, as reflected on the Revised Site Plan dated October, 2016.

Surrounding Area

The area surrounding the subject property is illustrated on Figure 2 in the KC PAPA which includes the 1,500 foot impact area. Properties surrounding the property are forestry zoned to the north and south, industrial to the west and a combination of forestry and rural residential to the east.

There are 42 properties within the 1,500 foot impact area, excluding the Old Hazeldell LLC ownership. The zoning of those properties ranges from Forestry (F-1, F-2) to Industrial (I2) to nine Rural Residential (RR10) lots. Uses for each tax lot are presented in Appendix M of the KC PAPA, "Existing Uses within the 1,500 foot Impact Area and Existing Farm and Forest Practices within ½ mile of the Site".

D. Services & Resources

Fire: Hazeldell Rural Fire District.

Police: County Sheriff, State Police

Water: on-site well and/or purchased water

School District: Oakridge School District 76

Power: Lane Electric

Access: Highway 58, north on Fish Hatchery Road, east on Dunning Road

Class I Stream: none identified on the subject property.

Historical: none identified on the subject property

Archaeological: none identified on the subject property

Sensitive Habitat: The property is located within an inventoried Major Big Game Resource area. The impact area includes lands within the Major Big Game Resource area and lands within the Impacted Big Game Resource area.

Water Quantity: The property is located within a water quantity limited area.

Wetlands: No wetlands are identified within the quarry area. Wetlands are identified in the western portion of the overall ownership where no mining or processing will occur. In addition, Salmon Creek and its associated inventoried riparian area are located off-site within the Impact Area.

III. CRITERIA AND ANALYSIS

A. Character of the Request

This application request is characterized as a Post-Acknowledgement Plan Amendment (PAPA) to the Lane County Rural Comprehensive Plan (RCP). The applicant requests that the proposed excavation area of 46 acres be recognized as a significant Goal 5 aggregate resource, added to the Lane County Significant Mineral and Aggregate Resources Inventory, and granted approval to conduct mining and processing of the resource. In addition, the applicant is requesting a zone change from Forestry to Quarry and Mine Operations, and to change the RCP designation from Forest Land to Natural Resource, and issuance of a Site Review permit for the entire 107 acres.

B. Evaluation

The applicant has addressed the Goal 5 requirements of Oregon Administrative Rules (OAR) 660-023 - 0180 which authorizes Lane County to add the site to the Lane County Rural Comprehensive Plan "Significant Mineral and Aggregate Resources Inventory" and authorize mining and

processing of the resource. The Lane Code requirements of LC 16.400 that govern review of Plan Amendments are also addressed below.

1. Classification of Amendment

a. *LC 16.400(8)(a) Amendments to the Rural Comprehensive Plan shall be classified according to the following criteria:*

(i) Minor Amendment. An amendment limited to the Plan Diagram only and, if requiring an exception to Statewide Planning Goals, justifies the exception solely on the basis that the resource land is already built upon or is irrevocably committed to other uses not allowed by an applicable goal.

(ii) Major Amendment. Any amendment that is not classified as a minor amendment.

The applicant requests that the Lane County Significant Mineral and Aggregate Resources Inventory be amended to include the area of the subject property utilized for mining. Since the proposal does not require an amendment to the Plan Diagram only, the Board of Commissioners finds that the amendment is classified as a Major Amendment.

2. Plan Amendment Criteria

a. *Lane Code 16.400(6)(h)(iii)*

The Board may amend or supplement the Rural Comprehensive Plan upon making the following findings:

(aa) For Major and Minor Amendments as defined in LC 16.400(8)(a) below, the Plan component or amendment meets all applicable requirements of local and state law, including Statewide Planning Goals and Oregon Administrative Rules.

The Oregon Land Use Board of Appeals (LUBA) and the Oregon Court of Appeals have determined that the Goal 5 rule for mineral and aggregate establishes a comprehensive regulatory scheme that is intended to supersede local review standards for aggregate. *Eugene Sand and Gravel, Inc. v. Lane County, 44 Or LUBA 50 (2003)*. The applicable requirements for review of this application are found in the Oregon Administrative Rules and the Statewide Planning Goals only. The decision in *Eugene Sand and Gravel, Inc.* was based upon OAR 660-023-0180(2)(c) and OAR 660-023-0180(9)(a) formerly (7). Section (9) has not changed since the date of that LUBA decision while subsection (2)(c) was amended in 2004 to include subsection (6) that is applicable to the approval of the mining and processing proposed in this application. Since Lane County has not amended its Rural Comprehensive Plan and land use regulations after 1989 to include procedures and requirements consistent with the 1996 and 2004 administrative rule changes for the consideration of PAPAs concerning aggregate resources, the Board of Commissioners finds that the substantive review of this application is limited to applicable review criteria identified within the Goal 5 Rule, subject to the procedures and requirements in the applicable Lane County regulations.

(bb) For Major and Minor Amendments as defined in LC 16.400(8)(a) below, the Plan amendment or component is:

(i-i) necessary to correct an identified error in the application of the Plan; OR

(ii-ii) necessary to fulfill an identified public or community need for the intended result of the component or amendment; OR

*(iii-iii) necessary to comply with the mandate of local, state or federal policy or law; OR
(iv-iv) necessary to provide for the implementation of adopted Plan policy or elements; OR
(v-v) otherwise deemed by the Board, for reasons briefly set forth in its decision, to be desirable, appropriate or proper.*

This request conforms to Lane Code 16.400(6)(h)(iii)(bb)(iii-iii) above. Lane County is mandated to comply with the Oregon Administrative Rule (OAR) 660-023-180(2) which states: “Local governments are not required to amend acknowledged inventories or plans with regard to mineral and aggregate resources except in response to an application for a PAPA, or at periodic review as specified in OAR 660-023-0180(7)” (emphasis added). This proposal is a request for a Post Acknowledgement Plan Amendment (PAPA) to add this site to the significant Mineral & Aggregate Resource Inventory. The Board of Commissioners finds that it is necessary to consider the proposal to amend the Rural Comprehensive Plan to comply with the mandate of the identified state rule.

b. Lane Code 12.050(2)

The Board may amend or supplement the comprehensive plan upon a finding of:

(a) an error in the plan; or

(b) changed circumstances affecting or pertaining to the plan; or

(c) a change in public policy; or

(d) a change in public need based on a reevaluation of factors affecting the plan; provided, the amendment or supplement does not impair the purpose of the plan as established by LC 12.005 above.

As explained above, the Board of Commissioners finds that the substantive review of this application is limited to those applicable review criteria identified within the Goal 5 Rule. This code section is not applicable, except to establish a procedural requirement to process an application submitted pursuant to OAR 660-023-0180.

3. Oregon Administrative Rules (OAR)

Statewide Planning Goal 5 was amended on June 14, 1996 and the Amendment became effective September 1, 1996. Accompanying Oregon Administrative Rules 660, Division 23 was amended and became effective on the same date. A subsequent amendment to the rules occurred effective June 25, 2004 which is applicable to small mineral and aggregate mine sites such as the one proposed on the subject property. The application addresses the relevant provisions of OAR 660, Division 23 regarding mineral and aggregate resources.

A. PROCESS

OAR 660-023-180 is the section of Oregon Administrative Rules 660, Division 23 that applies specifically to mineral and aggregate resources. OAR 660-023-180(2) states:

“Local governments are not required to amend acknowledged inventories or plans with regard to mineral and aggregate resources except in response to an application for a post acknowledgement plan amendment (PAPA) or at periodic review as specified in section (9) of this rule. The requirements of this rule modify, supplement, or supersede the requirements of the standard Goal 5 process in OAR 660-023-0030 through 660-023-0050, as follows:”

(a) A local government may inventory mineral and aggregate resources throughout its jurisdiction, or in a portion of its jurisdiction. When a local government conducts an inventory of mineral and aggregate sites in all or a portion of its jurisdiction, it shall follow the requirements of OAR 660-023-0030 except as modified by subsection (b) of this section with respect to aggregate sites. When a local government is following the inventory process for a mineral or aggregate resource site under a PAPA, it shall follow the applicable requirements of OAR 660-023-0030, except where those requirements are expanded or superseded for aggregate resources as provided in subsections (b) through (d) of this section and sections (3), (4) and (8) of this rule;

(b) Local governments shall apply the criteria in section (3) or (4) of this rule, whichever is applicable, rather than OAR 660-023-0030(4), in determining whether an aggregate resource site is significant;

(c) Local governments shall follow the requirements of section (5) or (6) of this rule, whichever is applicable, in deciding whether to authorize the mining of a significant aggregate resource site, and OAR 660-023-0040 through 660-023-0050 in deciding whether to authorize mining of a significant mineral resource; and

(d) For significant mineral and aggregate sites where mining is allowed, except for aggregate sites that have been determined to be significant under section (4) of this rule, local governments shall decide on a program to protect the site from new off-site conflicting uses by following the standard ESEE process in OAR 660-023-0040 and 660-023-0050 with regard to such uses.

As directed by OAR 660-023-0180(2)(a) above, Lane County is required to amend the acknowledged mineral and aggregate inventory in response to this application for a Post Acknowledgement Plan Amendment (PAPA) provided the relevant criteria are met. The Goal 5 Rule provides two avenues to add a mineral and aggregate site to the inventory and authorize mining, characterized by staff as “large” and “small”. Large sites are subject to Sections (3) and (5) while small sites may use Sections (4) and (6). Subsection (2)(b) states that “the local governments shall apply the criteria in section (3) or (4) of this rule, whichever is applicable.” Section (4) is applicable only on “farmland” and whenever the “quantity of material proposed to be mined from the site is estimated to be 2,000,000 tons of aggregate material or less for a site in the Willamette Valley”. OAR 660-023-0180(4)(a). In this instance, the property is within Forest Land and NOT the Exclusive Farm Use Zone and the applicant proposes to mine more than 2,000,000 tons of material from the site. The Board of Commissioners finds that review of this proposal to mine a quantity of aggregate more than 2,000,000 tons, OAR 660-023-0180(2) directs the use of OAR 660-023-0180(3) to determine whether the aggregate resource site is significant, and the use of OAR 660-023-0180(5) to evaluate whether to authorize mining and processing of the resource. The relevant provisions are addressed below.

The Board of Commissioners finds that the site meets the test of Significance, in that the site meets the location, quality and quantity as reflected in the findings below.

B. DEFINITIONS

The relevant criteria for review of the proposal include several terms or phrases which are defined in OAR 660-023-0180(1) and several that rely upon definitions found in the Oregon Revised Statutes (ORS):

OAR 660-023-0180(1)

(a) *"Aggregate resources" are naturally occurring concentrations of stone, rock, sand gravel, decomposed granite, limestone, pumice, cinders, and other naturally occurring solid materials commonly used in road building or other construction.*

(f) *"Mineral resources" are those materials and substances described in ORS 517.750(7) but excluding materials and substances described as "aggregate resources" under subsection (a) of this section.*

(h) *"Mining" is the extraction and processing of mineral or aggregate resources, as defined in ORS 215.298(3) for farmland, and in ORS 517.750 for land other than farmland.*

(i) *"Mining area" is the area of a site within which mining is permitted or proposed, excluding undisturbed buffer areas or areas on a parcel where mining is not authorized.*

(j) *"Processing" means the activities described in ORS 517.750(10)².*

ORS 517.750 (11) *"Processing" includes, but is not limited to, crushing, washing, milling and screening as well as the batching and blending of mineral aggregate into asphalt and portland cement concrete located within the operating permit area.*

ORS 215.010(5) *"The Willamette Valley" is Clackamas, Linn, Marion, Multnomah, Polk, Washington and Yamhill Counties and the portion of Benton and Lane Counties lying east of the summit of the Coast Range.*

C. GOAL 5 ANALYSIS

Division 23 of the Administrative Rules Chapter 660 establishes the procedures and criteria for evaluating Goal 5 resources. The Board of Commissioners finds that the application addresses the relevant criteria to determine the significance of the resource, and whether to add the excavation area to the Significant Mineral and Aggregate Inventory of the Lane County Rural Comprehensive Plan and allow mining and processing of the resource.

1. Significance of the Resource

OAR 660-023-0180(3)(a) – Quality of the Resource

"A representative set of samples of aggregate material in the deposit on the site meets applicable Oregon Department of Transportation (ODOT) specifications for base rock for air degradation, abrasion, and soundness".

² The 2007 Legislature adopted Senate Bill 149 which changed the ORS numbering for the definition of "processing" to ORS 517.750(11) effective January 1, 2008

OAR 660-023-0180(3)(a) requires that the aggregate resource meet quality standards for base aggregate. Base aggregate is tested in the laboratory for its ability to withstand abrasion and degradation. Aggregate samples that meet specified durability criteria are accepted by Oregon Department of Transportation (“ODOT”) for use as base aggregate.

The abrasion test indicates how aggregate will withstand grinding actions (*e.g.*, generated from heavy traffic). The air degradation test measures the quantity and quality of the material produced by attrition (*e.g.*, repeated traffic loading and unloading). The sodium sulfate soundness test measures the quantity of material produced by repeated immersion in a corrosive solution of sodium sulfate. While ODOT has specific soundness criteria for asphaltic concrete aggregate, it does not have soundness criteria for base rock aggregate.³ The ODOT Standard Specifications for Highway Construction (revised 2015, current edition) Section 02630 describes the requirements for base rock aggregate. As part of the base rock aggregate requirements under Durability Section 02630.10(c) only the Abrasion and Degradation tests are required. Therefore, this test cannot be applied to base rock quality evaluations within the context of Goal 5 because there is no applicable ODOT standard for this quality characteristic.

As presented in the Kuper Consulting LLC (“KC”) *Aggregate Resource Evaluation and Significance Determination, Old Hazeldell Quarry Property, Lane County, Oregon (Oct. 12, 2015)*, Appendix A of the KC PAPA, on the basis of the test results, KC concluded that the identified resource to be extracted within the mining site meets or exceeds ODOT’s minimum quality standards. On the basis of this testimony, the Board of Commissioners finds that the resource meets the quality standards of this rule.

OAR 660-023-0180(3)(a) – Quantity of the Resource

“...the estimated amount of material is more than 2,000,000 tons in the Willamette Valley, or 500,000 tons outside of the Willamette Valley...”

The Board of Commissioners finds that all of Lane County east of the summit of the Coast Range is considered the “Willamette Valley” within the Goal 5 definition. As presented in the KC Significance Determination, Appendix A of the KC PAPA, a total of at least 11.3 million in-place cubic yards (16.9 million tons) of aggregate is calculated to be present within the quality rock deposits underlying the Site. Therefore, the Site exceeds the quantity criteria of 2 million tons required in OAR 660-023-0180(3)(a) for sites outside of the Willamette Valley.

Opponents that are not registered engineering geologists alleged that the calculation of 16.9 million tons is in error because a large quantity of lower grade volcanoclastic rock and weathered highly fractured and internal contact zone rock of the andesite rock are included in the total. Based on responsive evidence contained in the November, 2016 KC Letter and the KC Significance Determination, the Board of Commissioners finds that the estimated volume of rock identified to be extracted that meets the base rock specifications on the site is approximately 17 million tons, which far exceeds the required 2 million ton requirement for aggregate resources.

³ Oregon Department of Transportation, *Standard Specifications for Highway Construction* (rev ed 2015).

OAR 660-023-0180(3)(a) – Location of the Resource

The surrounding area has been the subject of historical mining activity as evidenced by Dunning Quarry. The Dunning Quarry, is an inactive mining site located on the southern portion of the property. While the site was listed on the County's inventory of Signification Mineral and Aggregate list under Ordinance No. 883 & 889 it was deleted under Ordinance 892. This later Ordinance revised the inventory list and removed several mining sites where there was a lack of information regarding the aggregate. Regardless, a review of the local geology maps in the area, coupled with borings performed on the site as documented in Appendix A of the KC PAPA support the conclusion that there is a sufficient abundance of rock on the site.

The Board of Commissioners finds that the aggregate at the site meets the location criteria for a significant aggregate site, as required by OAR 660-023-0180(3)(a) and as identified in the KC report in Appendix A.

The remaining significance criteria set forth at OAR 660-23-180(3)(b-d) and (4) are not applicable to this Application. Soils that have been mapped on the Site by the Natural Resource and Conservation Service (NRCS) and are presented in the KC report in Appendix A of the KC PAPA. The NRCS *Soil Survey of Lane County, Oregon*⁴ shows Class III, VI and VII soils mapped on the site. There are no Class I, Class II or Unique soils mapped on this site. Therefore, since there are no Class I, II or unique soils on site, the criteria of OAR 660-023-0180(3)(d) do not apply.

OAR 660-23- 0180(3)(b-d) and (4)

The Board of Commissioners finds that the remaining significance criteria set forth al OAR 660-23- 180(3)(b-d) and (4) are not applicable to this Application. Soils that have been mapped on the Site by the Natural Resource and Conservation Service (NRCS) and are presented in the KC report in Appendix A. The NRCS *Soil Survey of Lane County, Oregon*⁴ shows Class HI, VI and VII soils mapped on the site. There are no Class I, Class II or Unique soils mapped on this site.

OAR 660-023-0180(5) *For significant mineral and aggregate sites, local governments shall decide whether mining is permitted. For a PAPA application involving an aggregate site determined to be significant under section (3) of this rule, the process for this decision is set out in subsections (a) through (g) of this section. A local government must complete the process within 180 days after receipt of a complete application that is consistent with section (8) of this rule, or by the earliest date after 180 days allowed by local charter.*

The Board of Commissioners finds that the County has correctly processed the Applications. First, as explained below, the County applied the applicable criteria in subsections (a) through (g) of this section. Second, the Board of Commissioners finds that its decision regarding the Applications was within the time period allowed by this rule, as extended by the Applicant. Specifically, the County deemed the Applications complete on March 31, 2016. No one

⁴ The Soil Conservation Service has been renamed the Natural Resource and Conservation Service.

contended that the County committed a procedural error under this section. Therefore, the Board of Commissioners finds that it has complied with the procedural requirements of this section.

OAR 660-023-0180(5)(a) *The local government shall determine an impact area for the purpose of identifying conflicts with proposed mining and processing activities. The impact area shall be large enough to include uses listed in subsection (b) of this section and shall be limited to 1,500 feet from the boundaries of the mining area, except where factual information indicates significant potential conflicts beyond this distance. For a proposed expansion of an existing aggregate site, the impact area shall be measured from the perimeter of the proposed expansion area rather than the boundaries of the existing aggregate site and shall not include the existing aggregate site.*

For the reasons explained below and based upon the evidence presented by the applicant, the Board of Commissioners finds that the appropriate impact area is 1,500 feet.

OAR 660-023-0180(5)(b) requires that the local government determine existing or approved land uses within the impact area that may be adversely affected by the proposed mining operations and the potential conflicts. This determination is further clarified by OAR 660-023-0180(5)(b)(A)-(F), which limits conflicts the Board of Commissioners may consider. Existing uses are existing land uses, and these are typically characterized as permanent or semi-permanent structures or purposeful activities which commit the land to an existing use. The Land Conservation and Development Commission's ("LCDC") intent to limit existing and approved uses to permanent or semi-permanent activities and structures is further clarified in OAR 660-023-0180(5)(b)(A) with the term "with regard to those existing and approved uses and associated activities (e.g., houses and schools)." As such, the occasional wild elk traversing the property do not constitute an existing use within the context of Division 23, unless these activities are deemed associated with a resource deemed significant on an acknowledged Goal 5 inventory.

With regard to the Airstrip, this use has been acknowledged by the applicant as an existing use within the impact area. As detailed further below, with the mitigation measures included in the conditions of approval, the Board of Commissioners finds that the record, including submittals by W&H Pacific, demonstrates that conflicts with this use are unlikely to occur.

With regard to the recreational trails located outside the established impact area boundary, this activity is similar to many types of uses which exist outside the impact area. However, the only impacts to the use of the trails in the vicinity of the project that opponents identify are conflicts with cyclists and trucks on Dunning Road, which is the public roadway serving the nearest trailhead. There will be no truck traffic east of the site access on Dunning Road and there will be no trucks on or affecting the use of the trail or trailhead. With regard to potential truck conflicts with cyclists on Dunning Road to the west, such conflicts can be minimized with required roadway improvements on Dunning Road and through the providing an easement for off-road access pursuant to condition of approval number 47, and as documented with the recommended Public Works condition regarding road improvements and the expert testimony submitted by Sandow Engineering.

The former Dunning Road landfill has long since been closed and is no longer active, which means that it is not an existing use within the application of Division 23. Further, the fact that

the former landfill has long been closed and the use terminated means that there can be no conflicts with a use which no longer exists. And even if the landfill remained an existing use, the substantial evidence in the record demonstrates that avoidance of this limited area, coupled with mitigation measures preventing stormwater intrusion, will preclude any potential conflicts.

In sum, the Board of Commissioners finds the applicant and staff have correctly applied the 1,500-foot impact boundary for purposes of conflict minimization under Division 23. By the terms of the Goal 5 rule, the impact boundary is limited to 1,500 feet, “except where factual information indicates significant potential conflicts beyond this distance.” OAR 660-023-0180(5)(a). As explained in the applicant’s technical responses and further enumerated below, potential conflicts associated with dust and groundwater discharges, which are the primary issues raised by opponents, cannot have an effect beyond 1,500 feet because this expert testimony confirms that the discharges, which diminish with distance, are successfully minimized within 1,500 feet.

Further and alternatively, in this remand proceeding, opponents to the application have asserted that the 1500’ impact area should be expanded and the applicant should be made to evaluate potential conflicts within this expanded impact area. However, the Board finds that a 1500’ impact area was used during the previous proceedings before the Board, the sufficiency of the impact area was not challenged in the prior LUBA appeals, and the issue is, therefore, not properly within the scope of this remand proceeding.

OAR 660-023-0180(5)(b) *The local government shall determine existing or approved land uses within the impact area that will be adversely affected by proposed mining operations and shall specify the predicted conflicts. For purposes of this section, "approved land uses" are dwellings allowed by a residential zone on existing platted lots and other uses for which conditional or final approvals have been granted by the local government. For determination of conflicts from proposed mining of a significant aggregate site, the local government shall limit its consideration to the following:*

Goal 5 requires that existing and approved land uses within the impact area be identified to allow the County to evaluate conflicts with future mining activity if mining is permitted.

The Board of Commissioners has identified the following uses within 1,500 feet from the boundaries of the mining area, also shown in the table below. The existing land uses in the 1,500-foot impact area can be characterized generally as undeveloped, rural residential, and forestry uses. In addition, a partially developed industrial park exists to the west of the site and within the 1,500 foot impact area. An ODFW fishery hatchery is also located to the north of the site. A County-owned shooting range exists to the south of the site and the Dunning Quarry exists on the southern portion of the site.

An inventory of allowed residential uses within the impact area was completed. Tax lots within the impact area were researched and permit records for approved uses were reviewed within the 1,500-foot impact area. There appear to be 16 residences within the impact area. In addition to residential uses, non-residential uses include the fish hatchery, the industrial park, shooting range and one convenience store within the 1,500-foot impact area (Appendix M). Within the 1,500-foot impact area, there is one approved residence under a forest template (Map 21-35-22, Tax

Lot 501). In addition to the above described developed properties, there are three vacant tax lots within the 1,500-foot impact area: Map 21-35-14, Tax Lot 902, Map 21-35-14, Tax Lot 203, and Map 21-35-23, Tax Lot 501. On remand, opponents correctly noted that the County approved a forest template dwelling on Tax Lot 203 between the date of the original approval for the Old Hazeldell Quarry and the date of the remand. Accordingly, the Board of Commissioners finds that this dwelling is an “approved land use” for purposes of OAR 660-023-0180(5)(b), and it was not addressed in the original proceedings. The Board of Commissioners addresses potential conflicts with this approved dwelling in Section V (“Additional Issues Raised During Local Proceedings”) of these findings. The Goal 5 Rule does not require an applicant to analyze potential future uses on the two remaining vacant tax lots.

Location	Existing Use
North	Undeveloped, Fish Hatchery with Several Residences
West	Rural Commercial, Heavy Industrial (Industrial Park)
East	Undeveloped, Rural Residences
South	Undeveloped, Rural Residences

OAR 660-023-0180(5)(b)(A) *Conflicts due to noise, dust, or other discharges with regard to those existing and approved uses and associated activities (e.g., houses and schools) that are sensitive to such discharges;*

Noise:

Identification of Conflicts:

The proposed mining project will produce noise that has the potential to impact residential uses within the impact area. The Board finds that, based on substantial evidence provided by the applicant, the quarry will not generate noise that will conflict with land uses in the Impact Area. The Board further finds that although quarry operation will generate noise, because the quarry will not exceed the applicable Oregon Department of Environmental Quality (“DEQ”) Noise Control Regulation limits at all noise sensitive receivers within the Impact Area, noise generated by the project will not conflict with uses in the Impact Area. The Board of Commissioners relies on the mitigation measures adopted as conditions of approval as evidence of mitigation of potential conflicts.

Noise from the proposed quarry constitutes a “new” noise source on a previously unused site. DEQ noise regulations found at OAR 340-035-0035(1)(b)(B) limits noise produced by a new noise source to an increase of 10 dBA on existing ambient L10 and L50 sound levels at noise sensitive receivers, and requires that the noise produced be under the maximum hourly statistical noise levels, summarized for daytime and nighttime in the table below.

	DEQ Daytime Limit (7am - 10pm)	DEQ Nighttime Limit (10pm - 7am)
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L ₅₀	55 dBA	50 dBA
L ₁₀	60 dBA	55 dBA
L ₀₁	75 dBA	60 dBA

The applicant presented evidence in the form of a noise modeling study dated October 13, 2015 conducted by a licensed engineer at Daly-Standlee & Associates, Inc. (“DSA”) in Appendix F of the application and letters submitted on May 31, 2016, June 20, 2016, October 31, 2016 and November 22, 2016. DSA selected eight locations to measure ambient noise levels of noise sensitive receivers for future sound level predictions to estimate the worst-case noise scenario that could occur from the proposed mining activities. A computer model was used to evaluate future sound levels for the residences near the site. The model assumed the following equipment would be used on or near the site:

- Crusher system, screening equipment
- Front-end loader
- On-site haul trucks, off site dump trucks
- Excavators
- Rock drilling

The noise model assumed the worst case scenario that all equipment would be operating at the same time and concluded that without mitigation, noise levels from the mining operation at certain residences could exceed DEQ standards listed above for some surrounding residences at some point during the mining operation. Therefore, because the noise model predicted the noise from mining operation under a worst-case scenario would exceed DEQ noise regulations, a noise conflict is identified and minimization is required. DSA identified mitigation measures that would reduce the noise produced by the project under a worst-case scenario to below the allowed DEQ noise levels. If mining were to be authorized, these mitigation measures would be required to be implemented during mining operations as conditions of approval for the project.

Quarry operation noise also has the potential to impact future residences developed on vacant lots surrounding the project. Only one vacant lot (Tax Lot 203) lies within the noise level compliance boundary and is zoned F-2. As explained above, after the date of the original decision in this matter, the County approved a forest template dwelling on this lot. The Board addresses potential conflicts with this approved dwelling in Section V (“Additional Issues Raised During Local Proceedings” of these findings.

The Board of Commissioners concludes that based on the evidence presented by DSA, the proposed conflict minimization plan, including COAs 21-25, would minimize noise conflicts to below the allowed DEQ levels noise levels.

Opponents allege that noise generated by the quarry will be amplified by the canyon geography of Oakridge, that residences “down-wind” of the quarry will be disproportionately impacted by noise, that the noise analysis assumed below-grade operations and did not account for initial above grade noise, and that enforcement of noise-related mitigation was uncertain.

The Board finds that evidence presented by DSA in the May 31, 2016 response adequately responds to these concerns. DSA presented evidence that any amplification of noise by the canyon geography was accounted for in the noise measurements and that noise generated by the project would not exceed DEQ regulation limits at sensitive receptors around the quarry. DSA also presented evidence that noise modeling accounted for “down-wind” impacts to residences in the area. DSA presented evidence that measurements of quarry operation noise were taken assuming that all equipment was operating at grade and these measurements show compliance with DEQ noise levels. The applicant proposed conditions of approval requiring enforcement of the noise limits.

Opponents allege that the noise evaluation presented by the applicant is deficient because it does not account for weekends and varying times of day, the study identified 22 receivers but only sampled at 8, the ambient noise data was not measured within 25 feet, the noise sampling was done by computer modeling and therefore is inaccurate, and noise generated by blasting and berm construction are not accounted for. Other concerns were raised about the impact of blasting noise on agricultural cultivation.

The Board finds that the evidence presented by DSA in the June 20, 2016 response adequately responds to these concerns. It appears DSA chose to sample noise in an accurate and conservative manner (as to times of day and sampling locations) consistent with DSA’s professional experience modeling noise impacts and DEQ’s guidance. The Board finds that DSA’s modeling followed standard industry practice and that DSA used a model that accounted for geography of the canyon. The Board further finds that DSA presents sufficient evidence that blasting noise would not conflict with land uses in the Impact Area if DEQ limitations are complied with. If mining were to be authorized, DSA’s proposed Noise Compliance Monitoring Plan would be required to be implemented for the project as COA 25, with one exception which has been superseded by COA 57.

Opponents allege that repositioning of the crushing plan and shrinking the berm nullifies the berms’ effectiveness at reducing noise impacts. Opponents again raised concerns regarding the effects of geography on noise impacts to residences. A Board member raised concerns regarding the inclusion of on-site haul trucks in the noise modeling. Other opponents were concerned that blasting noise was not addressed at the October 12, 2016 hearing, and that noise monitoring would not be needed for 10 years.

The Board finds that the evidence presented by DSA in the October 31, 2016 response adequately responds to these concerns. The Board of Commissioners finds that repositioning of the crusher would allow the noise berm to be reoriented and shortened in length without compromising its effectiveness in reducing crusher noise. The Board also finds that DSA adequately addressed concerns regarding the effects of area geography on noise impacts by accounting for this geography in its noise modeling and that noise from on-site haul trucks was included in the noise modeling.

Several members of the community have voiced concerns with assurance on how the mining operation will meet the DEQ noise regulations over time. The Board of Commissioners finds that concerns about noise and blasting were adequately addressed in previous submittals from DSA.

The Board of Commissioners further finds that the proposed noise compliance monitoring plan (with one exception explained below) is reasonable. The specific provisions of the noise compliance monitoring plan are listed on pages 8-9 of the DSA letter dated June 20, 2016.

The Board of Commissioners finds that the evidence presented by DSA in the October 31, 2016 response adequately responds to these concerns.

Measures to Minimize Conflicts:

The Board of Commissioners finds that reasonable and practicable measures would minimize the limited conflicts identified above. Specifically, the Board finds that, if mining were approved, the following mitigation measures on the site would ensure that noise levels at residences would conform to DEQ standards.

In response to LUBA's remand regarding blast vibrations (discussed below), the Board finds the deletion of subsection i. of COA 25 below, which addressed blast vibration monitoring, and the adoption of a new blast-monitoring condition, COA 57, would minimize the potential conflict, as discussed below.

COA 21. The applicant/owner must utilize the noise mitigation provisions set forth in the written noise study report prepared by Daly Standlee and Associates, Inc. (DSA) dated October, 2015 to ensure compliance with the DEQ noise regulations.

COA 22. The applicant/owner must utilize berms, buffers or polyurethane screens in accordance with the DSA report in order to mitigate the noise impacts associated with the operation of crushing and screening equipment in the processing area.

COA 23. The applicant/owner must use mufflers and radiator fan controls which reduce the noise level of the haul trucks to a level of 79 dBA at a reference distance of 500 feet and the excavators to a level of 76 dBA at a reference distance of 50 feet.

COA 24. The applicant/owner must maintain a 20 foot high natural barrier on the east side of the quarry as excavation moves west to east. When the rock drill is operating on a top bench on the eastern side of the north-south ridgeline, an up-close barrier or curtain system attached to the rock drill feed-beam must be used in addition to the natural barrier.

COA 25. The applicant/owner must comply with the following aspects of the Noise Compliance Monitoring Plan set forth at pages 8-9 of the correspondence submitted by Daly-Standlee and Associates dated June 20, 2016:

- a. Within one week after the beginning of any operations on the quarry site, the applicant through registered mail, must notify property owners of all residences located within the Old Hazeldell Quarry Impact Area that the owner can have noise compliance measurements made at their residence if written permission for the measurements is provided to the applicant within 30 days of receipt of the notification.

- b. Upon receipt of written permission from the owner of any residence included in the Old Hazeldell Quarry Impact Area for noise compliance measurements, the applicant must have sound level measurements made at the residence. The noise compliance measurements must be made during a time when a rock drill is in operation at the quarry as well as the aggregate crushing and screening equipment using procedures considered acceptable under the DEQ noise regulation rule. The measurements must be completed within 3 months of the beginning of aggregate crushing and screening operations at the quarry.
- c. Within 30 days of the completion of the noise compliance measurement period, a report must be provided to the County showing the results of all initial noise compliance measurements made on behalf of the applicant.
- d. If the results of the initial noise compliance measurements show noise from the mining operations is exceeding the applicable DEQ noise regulation limits at any of the residences where monitoring occurred, changes must be made at the quarry within 30 days of the date when the report was provided to the County to reduce the amount of noise radiating to the residence(s) to a level of compliance with applicable DEQ regulations. Within 90 days of when the initial noise compliance report was submitted to the County, follow-up sound level measurements must be made at those residences where the initial measurement results showed non-compliance with the DEQ limits and a follow-up compliance report provided to the County.
- e. If the results of the 2nd compliance measurements show the noise at any residence in the Old Hazeldell Quarry Impact Area is still exceeding the applicable DEQ limit, the same conditions stated in Condition 25.d. must go into effect. These conditions must continue in effect until full compliance is demonstrated at all residences in the Old Hazeldell Quarry Impact Area.
- f. Once noise compliance measurements show the noise radiating from the Old Hazeldell Quarry is in compliance with the DEQ noise limits at all residences included in the measurement program, the applicant may cease noise measurements made until excavation operations move from Phase 1 excavation area to Phase 2 excavation area.
- g. If excavation operations were to move from Phase 1 excavation area to the Phase 2 excavation area (and again from Phase 2 area to the Phase 3 area), the applicant must, using registered mail, notify all residential property owners inside the Old Hazeldell Quarry Impact Area of the operational changes and let them know that they can have measurements made at their residence if written permission is provided to the applicant within 30 days of receipt of the notification.
- h. Noise compliance measurements and reporting must be made the beginning of Phase 2 and Phase 3 operations using the same procedures described in Conditions 25. b. c. and d.

Dust and Other Impacts to Air Quality

Identification of Conflicts:

Topsoil and overburden removal, stockpiling, drilling for blast holes, aggregate extraction, and on-site truck and equipment movement have the potential to create dust which may impact land uses in the impact area.

Arctic Engineering LTD submitted an Air Quality Report as appendix K of the application that details the potential dust impacts from quarry operations and proposes Best Management Practices (“BMPs”) acknowledged by DOGAMI to mitigate these impacts. These BMPs would be required to be implemented through the project conditions of approval.

Opponents raised concerns alleging impacts to air quality from the proposed mining operation. Opponents allege that dust from drilling, sizing, blasting and transportation of aggregate would generate large amounts of dust that would directly impact homes and properties within and outside of the Goal 5 Impact Area. Opponents also alleged that a quantitative analysis of mining-generated dust is required and was not completed. Opponents raised concerns regarding diesel truck exhaust, poor air quality in the winter (due to wood stove use), and toxic dust that could be released from the landfill. Finally, opponents expressed concerns that silica dust would cause human health impacts.

Arctic Engineering provided testimony that the quarry operation does not anticipate detrimental air quality impacts beyond the extent of the applicant’s property. In order to reduce PM_{2.5} and PM₁₀ emissions to regulatory insignificant levels (approximately a 95% reduction), the applicant would be required to pave the access road from Dunning Road and aggressively water this access road when weather conditions require. As noted above, if mining were approved, the quarry will also implement a Best Management Practices & Fugitive Emissions Control Plan, including the use of water sprays, pursuant to COA 25 and 44, planting vegetation on topsoil overburden stockpiles, and others.

Arctic Engineering provides evidence in its May 23, 2016 letter that an air dispersion study and modeling is not required because the PM and PM₁₀ annual emission rates are below the significant emission rates set by the project’s Lane Regional Air Protection Agency (“LRAPA”) permit.

As explained by Arctic Engineering in its May 23, 2016 letter, mobile sources of air contamination must comply with LRAPA and Oregon Department of Environmental Quality standards (as further discussed below under Diesel Emissions). Wood stove use in the area is not relevant to or impacted by the quarry and seasonal weather in the fall and winter (rain and storms) is likely to reduce particulate matter in the air. As explained in these Findings, the quarry operations (including excavation and process) would avoid the landfill and no disturbance would occur in the landfill area. Because the landfill would be avoided, toxic dust resulting from disturbance of the landfill would not occur.

Air Dispersion Modeling

On appeal to LUBA, in the second subassignment of the fourth assignment of error, the opponents alleged that the County erred by not requiring applicant to prepare or provide air dispersion modeling typically required by OAR 340-225-0040 and OAR 340-225-0050. LUBA

agreed and remanded for applicant to either submit the modeling data or explain why the modeling requirement is not applicable:

“On remand [Applicant] will either need to produce the required modeling, or offer a better explanation for why the required modeling is unnecessary to demonstrate the proposal will comply with standards that protect ambient air quality.”

Save TV Butte I, at 58.

On remand, the Board finds that air dispersion modeling is not applicable to the project because the project’s emission rates will be below the levels that trigger the requirement to conduct modeling under state law. Although sources that will release large quantities of emissions must conduct air dispersion modeling and be permitted through the State’s New Source Review program, sources with emissions below stated rates—the Significant Emission Rates (“SER”)—are “minor sources” and are permitted to operate with Air Contaminant Discharge Permits without the need to perform air dispersion modeling air quality analysis. OAR 340-224-0010(2)(a)(A).

The Board of Commissioners finds that the project would release emissions well below the applicable SERs for PM, PM_{2.5}, and PM₁₀. As support for this conclusion, the Board of Commissioners relies upon the written memorandum from Jessica Stark, P.E. of SLR Consulting dated April 18, 2018, and revised July 10, 2018 (“SLR Consulting Report”). In her report, Ms. Stark evaluated all potential sources of fugitive dust and diesel emissions from the project and concluded that the emissions from these sources would not exceed the applicable SERs.⁵ Accordingly, Ms. Stark concluded that the project was not subject to the State New Source Review air dispersion modeling requirements:

“Old Hazeldell Quarry is located in a nonattainment area for particulate matter but will not have emissions of the nonattainment pollutants PM, PM₁₀, or PM_{2.5} greater than the respective SERs of 25, 15, and 10 tons per year, as shown in Tables 2 and 3, for all sources of emissions at the site. The project is not required to comply with Major NSR or State NSR requirements.”

SLR Consulting Report at 11. The SLR Consulting Report includes the relevant emissions calculations, the assumptions that underlie those calculations, the results of the analysis, and how these results compare to the SERs. Based upon the SLR Consulting Report and the plain language of the applicable rules, the Board of Commissioners finds that the State New Source Review provisions are not applicable to the project. The Board of Commissioners finds that this analysis and these findings respond to LUBA’s remand on this issue.

Net Air Quality Benefit

⁵ Because the project’s emission rates are below the applicable SERs, they are also necessarily below the threshold that would trigger Major New Source Review, which is 100 tons per year of the nonattainment pollutant. OAR 340-224-0010(1)(b)(A).

For a source subject to State New Source Review, the owner or operator of the facility must demonstrate a net air quality benefit. OAR 340-224-0250(2)(b). As explained in that rule, the benefit is shown by providing emission offsets to balance the level of projected emissions by the source, in accordance with OAR 340-224-0510 and OAR 340-224-0530.

In the second part of their second subassignment of error under the fourth assignment of error, opponents contended that the proposal does not demonstrate compliance with these requirements. LUBA sustained this contention and directed the County to address the issue on remand:

“* * * [P]etitioners make a detailed argument that the proposal does not demonstrate that ‘it will offset impacts on ambient air quality under OAR 340-224-0250(2)(b) and OAR 340-22[4]-510 and 530.’ Petition for Review 37.
[Footnote omitted.]

“In its brief, intervenor cites to some conclusory findings that do not really respond to the argument petitioners make regarding OAR 340-224-0250(2)(b) and OAR 340-224-510 and 530. On remand the county and intervenor will need to more directly confront the issues petitioners raise in subassignment of error 2(b)(ii).

“Subassignment of error 2(b)(ii) is sustained.”

Save TV Butte I, at 59-60).

On remand, the Board of Commissioners finds that the project is not required to show a net air quality benefit or provide offsets. These rules are only applicable if a source is subject to State New Source Review. OAR 340-224-0250 (“* * * [A] source subject to State NSR must meet the following requirements * * *”). As explained immediately above in these findings, the mine is not subject to State New Source Review. Therefore, none of these provisions are applicable.

The Board finds that these findings address LUBA’s remand on this issue.

Completeness of Analysis

Although opponents have contended that Applicant’s air quality expert (Jessica Stark of SLR Consulting) failed to address emissions from drilling and blasting in her air quality analysis, the Board finds that is incorrect. Ms. Stark analyzed the emissions that would be generated by drilling and blasting at the project for a throughput of 250,000 annual tons of rock. *See* Table 1 of Attachment 2 to the SLR Consulting Report. Further, she included drilling/blasting emissions in her calculation of total annual potential emissions from the project. *See* Attachment 2, Table 8 of SLR Consulting Report. Finally, Ms. Stark then compared the projected project emissions from all sources, including drilling and blasting (the figures calculated in Table 8), and concluded that they would fall well below the relevant emissions thresholds. *See* p. 11 of SLR Consulting Report. Ms. Stark also recommended new mitigation measures to minimize air quality conflicts from drilling and blasting, including requiring use of integrated manufacturer-

designed dust collection systems on rock drills and delaying blasting during unfavorable wind and meteorological conditions. These measures are memorialized in COA 51 and COA 52.

Use of Spray Bars

Although opponents contend that applicant has not demonstrated that its proposed use of spray bars to wet truck loads will be an effective dust control measure, the Board rejects this contention for four reasons. First, the only expert testimony in the record on the issue (from Ms. Stark) is that the use of the spray bars “will increase the moisture content of the aggregate and prevent dust from blowing out of the beds along the transportation route.” SLR Consulting Report at 6. Second, mining operations would be subject to regional and federal emission standards, and both the LRAPA and the Environmental Protection Agency have authority to enforce these standards if they are exceeded. The Board finds that such enforcement authority will serve as a check on air emissions from all sources, including dust from haul trucks. Third, as a practical matter, the spray bars are not a “one size fits all” approach; rather, the mine operator will have the flexibility to adjust the timing and amount of the spray from the bars based upon atmospheric conditions and heat and humidity levels. The Board finds that this flexibility to adjust to varied circumstances will also support the efficacy of the spray bars. Fourth, the Board is only required to consider discharges within the impact area, and there is no “factual information” to support an expansion of the impact area on this issue. OAR 660-023-0180(5)(b). The Board finds that the opponents’ contention is not supported by the record.

Silica Dust

Silica is naturally present in the soils that will be disturbed for the mining operation, and dust containing silica is primarily an occupational health hazard. As such, the mining operation would be subject to regulation by Oregon OSHA and Oregon MSHA, and subject to fine, penalties and other actions for poor performance in controlling silica dust. LRAPA also regulates fugitive dust emissions, including emissions of dust that contain silica. Per the condition of approval 44 and LRAPA’s requirements, the project would fully comply with air quality standards imposed by a LRAPA General Air Contaminant Discharge Permit. The applicant’s consultant Arctic Engineering, LTD also prepared an additional Fugitive Dust Mitigation and Daily Reporting Plan that the applicant would be required to implement through conditions of approval. This Plan imposes additional requirements beyond the LRAPA permits to ensure that fugitive dust, including silica dust, does not impact land uses in the impact area.

On appeal to LUBA, opponents contended that the findings adopted by the Board in the original decision were only concerned with visible dust and not concerned with smaller silica dust particles. LUBA questioned the opponents’ contention but sustained it anyway:

“The findings suggest that such may not be the case, and that the regulations and conditions are also sufficient to minimize silica fugitive dust emissions. But the findings provide no way for LUBA to confirm that such is the case. On remand the county must do so.

“Subassignment of error 2(a) is sustained.”

Save TV Butte I at 56.

On remand, the Board finds that there are reasonable and practicable measures that will minimize potential silica dust conflicts associated with the project to a level that is not significant for sensitive uses in the Project's impact area. As support for this conclusion, the Board relies upon the SLR Consulting Report. In her report, Ms. Stark first evaluated dust emissions from all aspects of the proposed operations and concluded that, subject to compliance with identified best management practices, the mine would operate consistent with applicable federal air quality standards and the Project's LRAPA Air Contaminant Discharge Permit ("ACDP") conditions. SLR Consulting Report at 9. The best management practices identified by Ms. Stark included COA 28-33 and 44 from the Board's original decision for the project, which are quoted below. SLR Consulting Report at 8-9. Ms. Stark also recommended compliance with the conditions of the applicable General ACDP (which are detailed at pages 7-8 of her report) and the following best management practices to ensure compliance with applicable federal air quality standards and the Project's LRAPA ACDP conditions:

- Use integrated manufacturer-designed dust collection systems on rock drills
- Delay blasting during unfavorable wind and meteorological conditions, which would be defined, in this case, to occur when wind speeds exceed 25 miles per hour
- Operate a spray bar to wet each load for aggregate trucks leaving the quarry

Id. Accordingly, to minimize dust-related conflicts, the Board requires compliance with these best management practices in COA 51-54, which are quoted below.

Based upon the SLR Consulting Report, the Board finds that the ACDP conditions and these three additional best management practices will ensure that drilling, blasting, and transporting activities will not emit significant levels of dust.

Ms. Stark also examined the issue of silica dust specifically and determined that the control of fugitive dust emissions in general would likewise prevent silica dust emissions from conflicting with sensitive uses in the impact area:

"Mitigation of fugitive dust emissions will prevent respirable silica dust emissions and minimize conflicts from quarry development and operations."

SLR Consulting Report at 2. The Board finds that Ms. Stark is a qualified expert on this issue with more than 20 years of experience as an air quality engineer, with an understanding of state and federal air quality programs. *See* Attachment 1 to SLR Consulting Report. The Board further concludes that a reasonable person would rely upon Ms. Stark's expert testimony to support the conclusion that silica dust conflicts will be minimized to a level that is insignificant to sensitive uses in the impact area, subject to imposing conditions of approval requiring compliance with the identified best management practices (including the three new bulleted items).

Although opponents submitted various materials describing the health effects of excessive exposure to silica dust (including an Occupational Health and Safety Administration ("OSHA") pamphlet summarizing a new rule designed to protect workers from silica impacts, a 2017 federal court opinion that is not binding in Oregon regarding a challenge to OSHA's silica rule, and a PowerPoint presentation describing the health effects of exposure to crystalline silica), the Board finds that these materials are not informative for determining whether the proposed mine

is likely to discharge silica dust in an amount that causes a significant conflict within the project impact area. Further, opponents have not presented any expert testimony that calls into question Ms. Stark's report. Therefore, the opponents' testimony does not undermine Ms. Stark's expert testimony on this issue.

The Board finds that these findings respond to LUBA's remand on this issue.

Additional Issues Raised on Remand

On remand, opponents expressed concern that dust impacts from the mine would contribute to the region's already poor air quality, would interfere with aircraft and the nearby airstrip, and would threaten Big Game habitat. The Board finds that these concerns are speculative and not supported by expert testimony. Further, the Board finds that they are addressed by Ms. Stark's supplemental memorandum dated October 9, 2018, which made the following findings:

- The quarry will have very minor particulate emissions (approximately 2 pounds per day of P_{2.5}) compared to the existing emissions in the Oakridge area, which include approximately 432.1 pounds per day of P_{2.5} from residential wood burning.
- The quarry will be required to, and is expected to, meet opacity limits under its ACDP and federal emissions standards, which will minimize conflicts associated with aircraft in the vicinity.
- Various conditions of approval, including COA 28-36, 44, and 51-53 will help reduce the release of emissions from the quarry, which will minimize dust conflicts with both existing and approved uses and Big Game habitat.

The Board addressed the only rebuttal to this memorandum under the "Completeness of Analysis" and "Use of Spray Bars" headings above. For the reasons explained in those sections, the Board finds that opponents' concerns do not demonstrate additional air quality conflicts.

Measures to Minimize Conflicts:

The Board finds that the following reasonable and practicable measures would minimize the limited conflicts identified above in the event mining were authorized.

COA 28. The applicant/owner must maintain vegetative ground cover on stockpiles to reduce dust.

COA 29. The applicant/owner must sprinkle interior roads with a water truck to reduce dust.

COA 30. The applicant/owner must have water spray bars on the crusher/screens to reduce dust potential.

COA 31. The applicant/owner must use a crusher that meets LRAPA/DEQ permit standards.

COA 32. The applicant/owner must follow DOGAMI's Best Management Practices (BMP's) for aggregate mining to suppress dust emissions.

COA 33. The applicant/owner must pave the main facility access road from Dunning Road to the scale house.

COA 34. The applicant/owner must use off-road equipment that meets federal Tier 3 off-road engine standards, and/or equipment to be modified as such.

COA 35. The applicant/owner must limit onsite idle times for heavy-duty diesel truck engines to no more than three minutes per truck trip.

COA 36. The applicant/owner must assure that if contracted services are present, (such as asphalt paving plant or a batch concrete mixing facility) that materials removed from air pollution control equipment will be stored in a covered container to prevent the material from becoming airborne during storage and transfer.

COA49. The operator must install and maintain a wheel wash facility for use by aggregate trucks prior to exiting the project site onto Dunning Road.

COA 51. To control dust emissions from drilling, the operator must utilize integrated manufacturer-designed dust collection systems on rock drills.

COA 52. The operator must delay blasting during unfavorable wind and meteorological conditions, which would be defined, in this case, to occur when wind speeds exceed 25 miles per hour.

COA 53. To control dust emissions, the operator must utilize a spray bar to wet each commercial haul truck aggregate load from the quarry before the truck exits the subject property.

COA 54. The operator must comply with the conditions of any Air Contaminant Discharge Permit issued by the Land Regional Air Protection Agency for the project or its components.

Other Discharges - Diesel Engine Emissions:

Identification of Conflicts:

The use of mining equipment and vehicles would generate diesel engine exhaust, which contains pollutants such as nitrogen oxide, carbon monoxide, sulfur dioxide, and particulate matter. The release of diesel emissions could, if not minimized, create potential conflicts with residential or other uses in the impact area.

Opponents commented that the emissions from diesel vehicles would lead to high levels of respiratory illness and that trucks “driving through the middle of town” would drastically increase particulate matter.

The Board finds that the evidence presented by Artic Engineering, LTD is persuasive and shows that diesel emissions will not present a conflict with uses in the impact area when mitigation measures are implemented.

Arctic Engineering noted that operation of diesel vehicles has the potential to impact air quality and therefore proposes a Diesel Engine Operation and Maintenance Control Plan for the project. Compliance with this plan would be a condition of approval for the project. These mitigation measures require the majority of the project's diesel vehicles will meet federal Tier 3 off-road engine standards or better and limit idle time to no more than 3 minutes. The project would also be required to adhere to LRAPA, DEQ and EPA standards for diesel emissions. Arctic engineering finds that implementation of these mitigation measures would lower the level of pollutants produced by the diesel vehicles to an insignificant level at the residential uses within 1,500 feet of the project site.

Measures to Minimize Conflicts:

The Board finds that the following reasonable and practicable measures would minimize the limited conflicts identified above.

COA 34. The applicant/owner must use off-road equipment that meets federal Tier 3 off-road engine standards, and/or equipment to be modified as such.

COA 35. The applicant/owner must limit onsite idle times for heavy-duty diesel truck engines to no more than three minutes per truck trip.

Other Discharges - Storm Water:

Identification of Conflicts:

Turbid storm water can be generated when storm water runoff is allowed to flow over areas of disturbed soils resulting from the mining excavations. DOGAMI and DEQ have joint regulatory authority of the treatment and discharge of storm water at mine sites. The applicant's mine plan and erosion control methods would be required to comply with DOGAMI requirements.

A stormwater report by Westlake Consultants (Applicant's Appendix I) and supplemented by a May 18, 2016 memorandum was presented by the applicant. Westlake finds that all stormwater runoff within disturbed areas will remain on site and either be captured for on-site recycling or infiltrate back into the aggregate resource. The applicant worked with Lane County Public Works staff to design a conceptual swale/catchment facility map that would be located down gradient from the driveway that enters Dunning Road. This catchment facility will be used to store water for storm events, which will evaporate or infiltrate, or if necessary will be pumped back into the site.

Opponents raised concerns that stormwater could leach back into the groundwater and cause contamination and that runoff could reach Salmon Creek and its fish hatchery approximately 1,500 feet from the site.

Westlake explains that the mining operation would be constructed in a bowl shape, which would catch and direct stormwater toward the lowest elevation on the site (the pit). A series of berms at crucial locations will prevent stormwater from flowing to the access road or moving by sheet flow off of the property. Due to the mining site design, stormwater would not flow toward

Salmon Creek. Shannon & Wilson, Inc. (“S&W”) also provides information regarding comments on runoff in a May 31, 2016 letter and concludes that no pathways exist for surface runoff to enter Salmon Creek or its floodplain. Any stormwater that percolates back into the ground would do so in the same manner as currently occurs and will not be impacted by the mining activities.

Opponents also raised concerns regarding infiltration of stormwater into the landfill area and resultant impacts to groundwater. Westlake Consultants recommended installation of up-gradient berms to direct and divert overland rainfall and stormwater around the landfill to stormwater conveyance ditches/treatment areas. The Board finds that adoption of COA 8, which requires these berms and capture areas, would prevent potential impacts to the landfill from stormwater inundation.

On appeal to LUBA from the original decision, opponents contended that the Board’s findings and COA 8 were inadequate because the condition did not actually require the upgradient berms the findings claim it does; rather, this condition required compliance with an entirely different plan (the May 16, 2016 stormwater and grading plan), which did not show or require berms. LUBA sustained the opponents’ contention:

“[Applicant] is probably correct that the reference in Condition of Approval 8 to the May 18, 2016 storm water and grading plan was a scrivener’s error and may be correct that other findings and other aspects of the proposal would be sufficient to ensure that no surface water is directed into the site of the old land fill. However, the decision must be remanded for other reasons and it would be relatively easy to correct the error in Condition of Approval 8 so that there will be no question about whether surface water will be directed to the old landfill site.”

Save TV Butte I at 63. The Board finds that, in this passage, LUBA has directed the County to revise COA 8 to more clearly require compliance with a plan that depicts the upgradient berm. The Board finds that this berm is depicted and labeled (“upgradient berm to direct surface stormwater away from land fill areas”) on Figure 6 of the Mining Area Maps, which was prepared by Westlake Consultants and submitted into the record in the original proceedings. Accordingly, the Board revises the condition to require compliance with Figure 6 of the Mining Area Maps (see revised condition below).

Measures to Minimize Conflicts:

The Board finds that the following reasonable and practicable measures would minimize the limited conflicts identified above and would be required if mining were approved.

COA 8. The applicant/owner must comply with the storm water and erosion control plan prepared by Westlake Consultants, dated July, 2015 and May 18, 2016 or as modified by DOGAMI, and as modified by Figure 6 of the Mining Area Maps.

The Board further finds that the record contains the corrected version of Figure 6 depicting the labels the upgradient berm to direct stormwater away from the landfill (*see* Attachment B). If mining were approved, the applicant would be required to install the berm when developing and operating the mine.

Finally, the Board finds that LUBA did not identify any shortcomings in the County's reliance upon the berm as a basis to minimize stormwater conflicts. Moreover, LUBA did not identify any other deficiencies in the County's findings on this issue.

Accordingly, the Board finds that, subject to the modified findings and condition, and subject to the County's adoption of the corrected Figure 6 in the Mining Area Maps, the County has addressed LUBA's remand on this issue and has imposed reasonable and practicable measures to minimize the identified conflicts that would be expected to arise if mining were allowed.

Impacts to and from Dunning Road Landfill.

Identification of Conflicts:

Opponents raised various concerns regarding potential impacts associated with the Dunning Road landfill, including concerns that the landfill contains hazardous and toxic wastes and that the mining operation has potential for contamination of groundwater with landfill waste.

Through site reconnaissance, the applicant determined that the deed records inaccurately described the location of the former landfill on the quarry site. A corrected deed accurately describing the location of the landfill was recorded with County and provided to the Board of Commissioners and placed in the record. DEQ has not classified the landfill as contaminated and opponents have not presented evidence of contamination at the landfill.

The Board finds that there will be no potential conflicts with the Dunning Road landfill based on the responsive evidence submitted by the applicant as follows. An extensive historical records search and on-site reconnaissance was conducted by S&W and presented to the Board in a May 31, 2016 letter. This investigation identified the historic boundaries of the landfill operations and the likely trench locations. On May 31, 2016, the applicant confirmed in writing by memorandum and revised Site Plan that the proposed project will avoid the former landfill in its entirety and include a 25-foot buffer from this portion of the site. *See* KC Memorandum dated May 31, 2016.

Opponents raised concerns that contamination on the abandoned Pope & Talbot Mill site had the potential to contaminate the area in conjunction with the proposed mining project. Other opponents raised concerns about contamination from rusted drums on the property and from placing the processing plant atop the former landfill site. Opponents also commented that crusher vibrations may cause open ground fractures and released contaminants, that crusher vibrations and heavy truck traffic may increase soil permeability and introduce water to the landfill area, and that water used for dust suppression may infiltrate into the buried landfill trenches.

Based on the responsive evidence provided by S&W in its June 16, 2016 and November 1, 2016 letters, the Board finds that contamination from these sources is unlikely to occur. The Pope & Talbot Mill site is not connected to the former landfill and would not be impacted by the mining operation; therefore, no contamination from that site would occur in conjunction with mining. S&W found through site reconnaissance that the rusted drums are unconnected to the landfill trenches and appear to be surface debris that was not previously buried. The mining operation would require a 25-foot offset barrier from the landfill and no mining activities would take place within this barrier or on the landfill property itself. As discussed in the stormwater impacts

section, a series of berms would be constructed up-gradient of the landfill trenches to collect and divert storm or surface water from entering the landfill area. The land underneath the processing area has a low groundwater table and there is no evidence of groundwater seepage from that area into the landfill. The presence of heavy trucks and vibration at the processing area would compact the soil and make groundwater seepage even less likely. An up-gradient berm east of the landfill would divert stormwater, processing water, and water used for dust suppression away from the landfill to sealed collection reservoirs or tanks where it will be recycled and reused on site. As explained above, the Board of Commissioners has revised COA 8 to require compliance with a plan that depicts this upgradient berm.

Based upon the applicant's responsive materials, the Board finds that approval of the applications would not result in adverse impacts to the Dunning Road landfill. The Board denies the opponents' contentions on this issue.

Measures to Minimize Conflicts:

The Board finds that the following reasonable and practicable measures would minimize the limited conflicts identified above in the event mining were approved.

COA 5. Extraction, processing and activities including stockpiling of aggregate material must occur only in the areas identified on the approved site plan for such activities.

COA 7. Setbacks from the property lines and easements identified in the approved site plan must be maintained.

COA 8. The applicant/owner must comply with the storm water and erosion control plan prepared by Westlake Consultants, dated July, 2015 and May 18, 2016 or as modified by DOGAMI, and as modified by Figure 6 of the Mining Area Maps.

COA 48. The applicant/owner must not allow excavation, stockpile, fill or other activity to occur within the former landfill area or within the associated 25-foot buffer area, as identified on PAPA Figure 6, dated Oct. 27, 2016, "Old Hazeldell Quarry Processing Area" submitted by the applicant.

Other Conflicts Identified By Project Opponents

Seismic Issues and Earth Movement

Opponents expressed concerns that active earthquake faults in Salt Creek and Hills Creek drainages could result in earthquakes or fault rupture with detrimental impacts to the proposed quarry. Opponents also commented that blasting for the mining activities could trigger local earthquakes.

Based on responsive evidence presented by S&W in letters dated May 31, 2016, November 11, 2016, and November 22, 2016 the Board finds that the quarry project is not likely to be impacted by or cause seismic activity. There is no evidence that any of the faults along the Eugene-Denio Lineament within the Western Cascades have been active in the past million years. The USGS mapping of the area does not show active fault activity. Although high pressure fluid injection in

fault lines has been shown to trigger local earthquakes, blasting activities have not been shown to trigger earthquakes.

Earthflows and Slope Stability

Opponents allege that active earthflows on the site contribute to slope instability and provided a LIDAR map of the mining area marked to show these earthflows; however, the origin of the mapping analysis is unknown. Opponents provided DOGAMI hazard maps showing relative landslide hazards for the quarry as ranging from high to very high and raised concerns that the quarry would be incompatible with these geologic hazards. Opponents also presented photographs of pavements cracks and stated that these had been caused by earthflows at the site and argue that the 1:1 slopes proposed for the quarry present a large potential for disaster, damage or death and that RQD values at the site have been associated with weaker rock masses.

The Board finds that testimony provided by the applicant's consultant, S&W on May 31, 2016 and November 22, 2016 and by KC on November 16, 2016 successfully rebuts these contentions. The applicant's team of engineering geologists regularly interprets LIDAR maps and determined that the mining area's LIDAR map does not indicate unstable slopes or debris flow. Additionally, published geologic maps from the U.S. Army Corps of Engineers, DOGAMI and the USGS show no known landslides or earthflows at the processing and mining areas. The DOGAMI maps referenced by opponents show a relative hazard assessment, which is mapped as "moderate" to "high landslide susceptibility" for the quarry. These susceptibility measurements only lead to landslides if the overlying soil is weak, which is not the case at the quarry site, where the soil is made of competent bedrock. The landslide inventory shows no landslides on or near the quarry site, due to this shallow competent bedrock. Due to the soil conditions at the site and lack of landslide activity, the actual landslide hazard level of the site is very low. The pavement cracks present no evidence of landsliding as soil settling on cut and fill slopes (as shown in the photograph) may have settled under pavement, causing cracks.

KC provided its expert opinion as Engineering Geologists that RQD is only one factor associated with weak rock masses and that performance of existing excavated slopes in the same andesite resources is a better predictor of slope stability. The same andesite materials that will form the quarry walls in this project are present in the Hills Creek Dam quarry to the south of the site, and these perform very well with no massive slope failures. A 1:1 slope is very conservative by established industry standard. DOGAMI reviews mine plans specifically for slope stability concerns. If mining is authorized, the project slopes will not be allowed to exceed 1:1 unless approved by DOGAMI, per COA 42.

On remand, opponents contend that a report prepared by Cornforth Consultants, Inc. ("Cornforth") in conjunction with the City's construction of an above-ground water tank on nearby property ("Cornforth Report") supports their contention that the site is characterized by unstable slopes. In the report, Cornforth stated that the proposed location of the water tank was "within the boundaries of an ancient landslide feature."

The Board finds that the Cornforth Report does not undermine the Board's conclusion in the original decision that the site is not subject to active earthflows and slope instability. As support for this restated conclusion, the Board relies upon the November 22, 2016 technical

memorandum from S&W's team of seven geologists, which concluded that there was no evidence of debris flow or other unstable slope features on the site. S&W's report was based upon review of historic aerial photographs and published agency maps, site explorations, and numerous field surveys of the site. The Board also relies upon the KC testimony summarized above.

Further, the Board finds that Cornforth did not conduct deep borings and analysis of core samples from the site. As a result, the Board of Commissioners finds that Cornforth's methodology and analysis was not as complete as that of applicant's experts, which draws Cornforth's conclusions into question. Additionally, the Board of Commissioners finds that Cornforth's own statements in the Cornforth Report suggested that the risk of a landslide was not great. For example, Cornforth admitted that it did not find any landslide debris and that any landslide that might have occurred was ancient. Finally, the Board finds that Cornforth's report was not prepared for the mine proper and Cornforth did not make specific recommendations as to operation of the mine, thus limiting the ability to use the Cornforth Report to draw conclusions about the mine.

For these reasons, the Board finds that a reasonable person would rely upon the evidence presented by applicant's geologic experts to find that the site is not characterized by active earthflows or unstable slopes, and opponents have not presented evidence that undermines this evidence.

The Board of Commissioners denies opponents' contentions on these issues.

Impacts to Groundwater

Opponents raised concerns regarding the mining operation's impact on the surrounding alluvial aquifer and four private groundwater wells within the impact area east of the excavation. Opponents allege that the aquifer surrounding the mine pit will steadily drain into the mine pit at all times, depleting the water available for neighboring wells. Opponents also raised concerns about water quality impacts to nearby wells from the mining operation.

The Board finds that responsive evidence provided by S&W in the Groundwater Report and their May 31, 2016 letter that a small amount of groundwater will seep into the pit excavation at slow rate. Due to the impermeability of the bedrock, this seepage will come from water trapped in the bedrock within very close proximity to the excavation area. In addition, evidence provided by S&W in their November 22, 2016 letter further substantiates that wells and the groundwater regime within the impact area will not be impacted. The mining site and surrounding area are designated by Lane County as a Groundwater Limited Area. Wells in this area draw water from the surrounding impermeable bedrock and therefore the radius of potential impacts to a well's supply and quality is very small. The quarry will not reduce the yield of or interfere with the quality of nearby wells due to the small spheres of influence around these wells. Additionally, tight joints and clay between the rock in the area make a large amount of seepage into the pit unlikely.

S&W also provided information about the elevation of the wells and the planned elevation of the mine pit. The pit will be elevated above the level of the neighboring wells and would need to

flow uphill to reach these areas, which will not naturally occur. The Board considers it highly unlikely that water trapped in the mine will flow through the impermeable bedrock to neighboring wells.

Opponents further contended that there will be impacts on wells if the mine operator withdraws 5,000 gallons per day from an onsite well for use for dust suppression and for processing of the aggregate. The Board finds responsive evidence provided by S&W in their Nov. 1 and Nov. 22, 2016 letters that there will be no impacts to wells within the impact area by withdrawing 5,000 gallons per day persuasive.

The City of Oakridge requested that the County require groundwater monitoring of its wells based on a geological study performed by GSI Water Solutions and Curran-McLeod, Inc. The GSI and Curran-McLeod report was not completed or signed by a licensed Certified Engineering Geologist or Geotechnical Engineer. *See* ORS 672.505. Nonetheless, the applicant's Certified Engineering Geologists KC and S&W, who are experienced in quarry operations and familiar with the subject property, provide compelling substantial evidence in response to the above testimony. The applicant's experts conclude that the risk of impacts to the City's supply aquifer are very low, given that the City's wellfield and replacement well is outside of the impact area and do not recommend a monitoring program. However, to further ensure water quality monitoring the Board would require COA 46 that will establish a baseline for water quality and sampling at 6 month intervals during the mining activity in Phase 2. With the addition of this mitigation measure, required by COA 46, the Board finds that there is substantial evidence that the project will not have adverse impacts on the City's wells.

Based on the substantial evidence provided by the applicant's consultant, the Board finds that the mining operation will not impact the surrounding alluvial aquifer or groundwater wells.

Geothermal Activity:

Commenters raised concerns about geothermal activity in the vicinity of the project based on a sulfur smell encountered while drilling a well. Opponents did not present any additional information or evidence regarding the presence of geothermal activity

As noted in their logs, exploration geologists and experienced drillers working on the quarry property did not identify indications of geothermal activity, such as heat or a sulfur smell. No surface or subsurface evidence of geothermal activity was observed during field work in the impact area. The Board finds that geothermal activity does not present a conflict with uses in the area because there is not substantial evidence that geothermal activity is occurring in the mining or impact area.

Blasting Impacts to Structures and Wells

Opponents raised concerns that blasting used in the mining operation would affect neighboring structures and water wells.

S&W addressed potential impacts to blasting in May 31, 2016 and June 21, 2016 letters. A 1980 U.S. Bureau of Mines ("USBM") report, which synthesizes 40 years of research, establishes thresholds for vibration above which damage to older residential structures may occur. The

distance between the quarry excavation and the nearest residents is approximately 1,000 feet and will significantly offset blast-induced vibration. Vibration at the nearest structures will be far lower than the threshold for structural damage. Potential impacts to wells can be measured using the same thresholds and are not expected to occur.

In the event mining were authorized, to minimize potential impacts from blasting, the Board would require the following condition of approval. The Board finds based upon responsive evidence provided by S&W in their May 31 and June 21, 2016 letters that blast induced vibrations will not impact wells within the impact area. The Board also relies upon responsive testimony from Jerry Wallace in his supplemental report dated October 22, 2018, which refutes residents' concerns that blasting will adversely affect wells or the underlying aquifer.

COA 37. The applicant/owner must maintain a record of each blast for at least two years. These records must be available to the County, the State Department of Geology and Mineral Industries and other governmental agencies with appropriate jurisdiction upon request. Such records must show the following for each blast:

- (i) Name of quarry or mine.
- (ii) Date, time and location of blast.
- (iii) Description of type of explosive and accessories used.
- (iv) Time interval of delay in milliseconds.
- (v) Number of different delays.
- (vi) Number of holes per delay.
- (vii) Nominal explosive weight per hole.
- (viii) Total explosive weight per delay.
- (ix) Total weight of explosives per blast.
- (x) Blast hole diameter, depth, spacing and stemming height"

Airblast and Vibration from Blasting

In the original proceedings, opponents and others testified that airblast and vibration caused by blasting at the mine would adversely affect residential structures and residents' quality of life within the impact area. Applicant responded that airblast and vibration would be kept within controlled levels and would not conflict with surrounding uses. In its decision, the Board adopted a condition of approval requiring that Applicant monitor and report airblast and vibration levels associated with each blast during the first year of operation:

“25. The applicant/owner must comply with the Noise Compliance Monitoring Plan set forth at pages 8-9 of the correspondence submitted by Daly-Standlee and Associates [the applicant's engineer] dated June 20, 2016 which states:

“* * * * *

“i. A blast-monitoring program to physically measure ground vibration and airblast energy must be used for all blasts occurring in the first year of operations at the quarry. Measurements of the ground movement in terms of peak-particle

velocity must be made. Airblast measurements must be made in terms of the C-weighted, slow response sound pressure level. Measurements must be made at all residences located within the Old Hazeldell Quarry Impact Area where written permission has been given to have measurements made. Blast measurement reports to include the limits applicable to the blast energy must be provided to the County within 10 business days of the blast event.”

On appeal to LUBA, opponents contended that the County erred by failing to identify airblast and ground vibration from blasting as conflicts that need to be minimized. LUBA sustained petitioners’ contention and directed the County to address the issue on remand:

“The issue presented in this subassignment of error is whether the intervenor and county erred by not also identifying airblast and ground vibration from blasting as a conflict that arises from blasting. The above finding is not responsive to the issue raised in this subassignment of error. Also, it [is] not clear to us what ‘limits applicable to the blast energy’ the above findings are talking about. On remand the county will need to consider whether airblast and ground vibration from blasting should be identified as a conflict that must be minimized and, if so, whether reasonable and practicable measures are available to do so. OAR 660-023-0180(5)(c).

“Subassignment of error 3 is sustained.”

Save TV Butte I at 61-62.

On remand, the Board finds that, subject to reasonable and practicable measures, blasting at the project would not generate significant conflicts with existing and approved uses in the impact area associated with airblast and ground vibration. As support for this conclusion, the Board of Commissioners relies upon the testimony of two experts, who have identified applicable state and federal standards that regulate airblast and vibration from blasting and have opined that, subject to conditions, the project will conform with these standards. By definition, conformance with these standards will minimize the conflict to a level that is not significant. OAR 660-023-0180(1)(g).

First, acoustic engineer Kerrie Standlee of ABD Engineering & Design (formerly with DSA, which performed the initial acoustic analysis in the record for the project) testified that it is feasible for the project to comply with applicable “airblast” standards imposed by DEQ. He presented testimony clarifying that “airblast”—commonly known in the industry as “air overpressure”—consists of two components, one of which is audible to humans and one of which is at a frequency that it cannot be heard by humans. However, both components of “airblast” or “overpressure” are acoustic energy that travels at the speed of sound and decreases from the source at the same rate. *See* ABD Airblast Report dated April 16, 2018 (“ABD Report”) at 1. Mr. Standlee stated that, because it is all acoustic energy, even the non-audible aspect of “airblast” is subject to DEQ’s acoustic control regulations set forth in OAR 340-035-0035, which read as follows:

“(d) Impulse Sound. Notwithstanding the noise rules in Tables 7 through 9, no person owning or controlling an industrial or commercial noise source shall cause or permit the operation of that noise sound if an impulsive sound is emitted in air by that source which exceeds the sounds pressure levels specified below, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule:

“(A) Blasting. 98dBC, slow response, between the hours of 7 a.m. and 10 p.m. and 93 dBC, slow response, between the hours of 10 p.m. and 7 a.m.”

See ABD Report at 1-2. Mr. Standlee’s testimony includes, and is supported by, a letter from John Hector, the manager of DEQ’s noise control program from 1973-1986. Mr. Hector states in his letter that, in his experience, the intent of DEQ’s noise control rules is to regulate both the audible and non-audible aspects of blasting and that DEQ specifically selected use of the “C” weighted (dBC) measurement scale set to “slow” response in order to adequately account for overpressure. *See* John Hector letter attached to ABD Report. Finally, Mr. Standlee stated that, based upon his experience of 30 years with blasting events at quarries, and given the distance between the project and the nearest residences, blasting at the project could be conducted consistent with the applicable DEQ rules in OAR 340-035-0035(1)(d)(A), which includes overpressure limits. Based upon this testimony, the Board would require a condition requiring that blasting at the project be conducted in accordance with OAR 340-035-0035(1)(d)(A) as follows:

COA 55. Acoustic energy generated by blasting activities must comply with the DEQ noise standard of 98 dBC, slow response, at all noise sensitive receptors within the impact area that are existing or approved as of the date of the approval of this land use application.

Although previous counsel for opponents contended that OAR 340-035-0035(1)(d) only regulates audible acoustic energy and thus cannot be a safe harbor to ensure that the non-audible aspects of acoustic energy (i.e., airblast) are met, the Board denies this contention. Counsel does not cite to anything in the rule that expressly supports his position; instead, he declares that the standards govern “audible sound.” Counsel’s contention is at odds with testimony from the then-DEQ Director who stated that, part of the reason OAR 340-035-0035(1)(d) utilizes the “C” weighted (dBC) measurement scale with the instrument set to slow response is to adequately account for sound overpressure. If DEQ had intended to limit the standard to audible acoustic energy, it presumably would have selected a different scale. Accordingly, the Board finds that OAR 340-035-0035(1)(d) can serve as a “safe harbor” for purposes of assessing airblast impacts from the project. Further, the Board finds that compliance with this safe harbor will *per se* minimize airblast conflicts associated with the project. OAR 660-023-0180(1)(g).

The Board, therefore, rejects counsel’s contentions on this issue.

Second, blaster Jerry Wallace testified that, in light of the distance between the project and surrounding structures, it is feasible for the Project to comply with vibration and overpressure limits set forth in Chapter 11 of the National Fire Protection Association (“NFPA”) Standard 495, which regulates use of explosives. *See* Wallace Technical Blasting, Inc. Report dated April 18, 2018. The Oregon State Fire Marshal has adopted Chapter 10 of the NFPA 495 (2001

edition), so this standard applies in Oregon. OAR 837-012-1340. A copy of Chapter 11 of NFPA 495 (2018 edition) is included in the record. Mr. Wallace testified that Chapter 10 of the 2001 edition adopted in OAR Chapter 837 Division 012 is substantially the same as Chapter 11 in the 2018 edition, and no one challenged this statement. Mr. Wallace testified that compliance with the NFPA vibration and overpressure limits would ensure that vibration and overpressure levels and flyrock resulting from blasting at the Project would be below the levels that could damage even the most fragile residential construction. *See* Wallace Technical Blasting, Inc. Report dated April 18, 2018 at 3.

Although opponents' counsel contends that NFPA 495 cannot serve as a "safe harbor" in this case because OAR Chapter 837 Division 012 only regulates use of pest control fireworks, the Board of Commissioners finds that the contention misconstrues the state rule. In support of the contention, counsel only refers to a single provision, and it is an incorrect one, a purpose statement (at an uncited location), which is contended shows that OAR Chapter 837 Division 012 only regulates use of pest control fireworks. The Board finds that the correct purpose statement is set forth in OAR 837-012-1200 ("Purpose and Scope—Explosives"), which reads as follows:

"(1) The purpose of these rules is to establish standards, policies, and procedures for the possession, storage, and use of explosives for the protection and safety of the public, first responders, and individuals purchasing, possessing, storing, using, and transporting explosives.

"(2) The scope of these rules applies to the implementation of ORS 480.200 through 480.290."

Further, the rule expressly adopts the definition of "explosive" utilized in ORS 480.200(3), which includes, among other things, "dynamite." Thus, OAR 837-012-1200 *et seq.* regulate the use of dynamite, not simply pest control fireworks. Accordingly, the use standards adopted in OAR 837-012-1340 (including the provisions of NFPA 495) can properly serve as a safe harbor for purposes of determining whether a conflict is minimized under OAR 660-023-0180(5).

Mr. Wallace has approximately 40 years of experience as a blaster, including working as a blasting supervisor in quarries, and the Board finds he is well-qualified to provide professional opinions about compliance with applicable standards.

Mr. Wallace also recommended compliance with various blasting best management practices, which he listed in his report. These best management practices include requiring that the project have a Blaster in Charge, limiting blasting to certain days and hours, providing notice to neighbors of proposed blasting, and monitoring blasts with seismographs.

Finally, applicant has submitted a blasting plan prepared by Mr. Wallace to ensure compliance with the standards he cites in his report as well as those cited by Mr. Standlee. The blasting plan, which includes eight attachments, is dated June 28, 2018. As stated in the blasting plan, compliance with these standards would minimize blasting conflicts within the impact area.

Based upon Mr. Wallace's testimony, the Board adopts the following new conditions of approval to address blasting at the project if mining is authorized:

COA 56. Blasting activities must comply with the airblast and vibration limits adopted by reference by the Oregon State Fire Marshal, as set forth in NFPA 495 Chapter 11.

COA 57. A blast-monitoring program to physically measure ground vibration and airblast energy must be used for all blasts occurring in the first year of operations at the quarry. Measurements of the ground movement in terms of peak-particle velocity must be made. Airblast measurements must be made in terms of the C-weighted, slow response sound pressure level. Measurements must be made at all residences located within the Old Hazeldell Quarry Impact Area where written permission has been given to have measurements made. Blast measurement reports to include the pressure levels of the blast energy must be provided to the County within 10 business days after the blast event.

COA 58. The quarry operator must comply with the blasting plan prepared by Wallace Technical Blasting, Inc. dated June 28, 2018.

Imposing these conditions would ensure that blasting at the Project conforms with the applicable state and federal standards identified by Mr. Standlee and Mr. Wallace, which will, by definition, ensure that conflicts with airblast and vibration from blasting would be minimized to a level that is not significant. OAR 660-023-0180(1)(g). Further, because COA 57 fully addresses blast monitoring, the Board strikes COA 25.i from the original decision, which previously established a blast-monitoring plan and was the source of confusion for LUBA.

The Board finds that these findings address LUBA's remand on this issue.

OAR 660-023-0180(5)(b)(B) *Potential conflicts to local roads used for access and egress to the mining site within one mile of the entrance to the mining site unless a greater distance is necessary in order to include the intersection with the nearest arterial identified in the local transportation plan. Conflicts shall be determined based on clear and objective standards regarding sight distances, road capacity, cross section elements, horizontal and vertical alignment, and similar items in the transportation plan and implementing ordinances. Such standards for trucks associated with the mining operation shall be equivalent to standards for other trucks of equivalent size, weight, and capacity that haul other materials;*

Potential Conflicts to Local Roads (within 1 Mile of the mine entrance):

The addition of project trucks and other vehicle traffic to the roadway system has the potential to impact two local roads within 1 mile of the mine entrance - Dunning Road and Fish Hatchery Road. Highway 58 also occurs within 1 mile of the mine entrance but is not a local road and impacts to this Highway are outside of the scope of the OAR 660-023-0180(5)(b)(B) analysis.

Based on persuasive evidence presented by the applicant and conditions of approval adopted as noted below, the Board finds that project will not conflict with local roads within 1 mile of the mine entrance.

A Transportation Impact Analysis (the “TIA”) was completed by Sandow Engineering (“Sandow”), Appendix G, for roadways and intersections within one mile of the proposed Site entrance, as well as to the nearest arterial, Highway 58 (classified as a Statewide Highway). All truck access to and from the site would be by way of an access road that intersects Dunning Road approximately three tenths of a mile east of Fish Hatchery Road. Access to the Site is on Dunning Road. The existing gravel driveway would no longer be used; the site's truck access would be relocated to approximately 285 feet east of the Union Pacific Railroad crossing. The 30-foot wide access would be constructed with pavement capable of supporting the quarry operation's vehicles.

The haul route follows Dunning Road to Fish Hatchery Road then south to Oregon Highway 58, the arterial route. From the intersection of Fish Hatchery Road and Highway 58, trucks would disperse both east and west with predominance to the west toward the City of Oakridge.

Based on an estimated peak annual production, the analysis assumes there would be up to 86 daily truck round trips during the busiest times. This would equate to a maximum of 8 to 9 round trips per hour, given a 10-hour day. It also has been assumed that the site would employ an average of approximately 12 people, once up and running. This would produce an additional 24 round trips per day.

As required by the Goal 5 rule, the TIA projects future road conditions that could occur when the site is fully operational. The TIA assesses potential conflicts based on clear and objective standards regarding sight distances, road capacity, and similar items in the transportation plan and implementing ordinances. The TIA also evaluates the proposed site pursuant to the requirements of Statewide Planning Goal 12 (Goal 12), and the implementing Transportation Planning Rule (TPR).

The project traffic engineer, Sandow, completed an analysis of existing conditions, and projected transportation impacts of the proposed mine and applicable standards. See Appendix G. As further detailed in the TIA, the Sandow analysis supports the following conclusions:

Sight Distance: Dunning Road traverses terrain that allows a maximum speed of 30 MPH for the section of the road adjacent to the site, based on the Sandow report. There is no posted speed limit on Fish Hatchery Road and its speed limit is therefore 55 MPH. Quarry trucks will use Fish Hatchery Road south of the Dunning Road intersection only to Highway 58.

The available stopping sight distance for southbound traveling vehicles on Fish Hatchery Road as they approach Kokanee Way is measured to be approximately 435 feet which does not meet the recommended 495 foot stopping sight distance for this movement. The sight distance is restricted due to the horizontal curvature of Fish Hatchery road just to the north where fencing and building on the inside of the curve (west side) are the limiting factor. The only way to meet sight distance is to remove the fencing and the buildings on the west side. This is not a feasible solution.

The available stopping sight distance for southbound traveling vehicles on Fish Hatchery Road as they approach Industrial Way is measured to be approximately 340 feet which does not meet the recommended 495 foot stopping sight distance for this movement. The sight distance is

restricted due to the horizontal curvature of Fish Hatchery Road just to the north where fencing and buildings on the inside of the curve (west side) are the limiting factor. The only way to meet sight distance is to remove the fencing and the buildings on the west side. This is an infeasible solution. The maximum sight distance that can be achieved currently (340 feet) corresponds to a safe traveling speed of 40 mph.

The AASHTO manuals state that if existing intersections do not meet the standard it does not mean the location is required to be improved. An evaluation of conditions on the roadway indicates that a significant safety issue does not currently exist for either Kokanee Road or Industrial Way at Fish Hatchery Road. Crash data for the most recent available records (01/01/2009 - 11/30/2014) for both intersections above show no reported crashes. There is no indication that, although the intersections do not meet the SSD standard, the intersections are unsafe and requires geometric modification. However, it is recommended that an advanced intersection warning sign W2-7L with a supplemental W16-2P "XX FEET" sign be placed in advance of the Kokanee Way for both intersections for southbound traffic. The signage will alert motorists along Fish Hatchery Road of potential conflicts, effectively reducing reaction times and speeds, therefore improving conditions at this location.

The Fish Hatchery Road and Highway 58 intersection was also analyzed by Sandow with the knowledge that the majority of the trucks will turn right (west) at Highway 58. There is no sight distance issue at this intersection. The applicable criteria are therefore met for the sight distance for the studied intersections with the recommended mitigation measures set forth in the Sandow report.

Commenters encouraged the use of a trail overpass to allow mountain bikers to avoid road segments where trucks will turn into the project site. Contribution to and an easement for this trail segment would be required as a condition of approval for the project.

Additional comments were made regarding school busses using the road a future time. To comply with public works requirements, the applicant would be required to widen Dunning Road where needed to meet a 24-foot minimum width between Fish Hatchery Road and the railroad tracks. This 24-foot minimum width would safely accommodate passage of a school bus and gravel truck should school busses begin using this road segment. In a May 31, 2016 letter Sandow confirms that there is enough sight distance to allow for a gravel truck to safely see and stop for a school bus that has stopped at the railroad tracks. The Board of Commissioners finds that there is not a potential for conflicts between future bus use of the site and the project's operations.

Commenters also raised concerns about gravel trucks colliding with a train using the railroad tracks. Sandow's May 31, 2016 letter analyzed the scenarios under which a gravel truck might need to stop for an oncoming train and found that there is adequate time and distance to allow a truck to stop at the time the railroad guards begin to lower to prevent a collision with a train. A condition of approval requiring final resolution of crossing improvements by ODOT rail is included.

Commenters raised additional concerns about the appropriate width and classification of Dunning Road and the potential for collisions at the Highway 58 and Fish Hatchery Road

intersection. Information contained in Sandow's May 31, 2016 letter responds to these comments. The proposed 24-foot width for Dunning Road meets City of Oakridge and County standards for local roads. In conjunction with county public works staff it was determined that on-street parking is not needed along this roadway segment and that the cost of sidewalks is disproportionate to the need for sidewalks. Sandow determines that the crash data for the Highway 58-Fish Hatchery Road intersection is representative of typical crash circumstances and is not due to the shortened sight distance. The intersection line of sight is twice the stopping sight distance for this intersection which provides drivers with time to assess traffic risks and react. Sandow also clarified in its November 1, 2016 letter that the sight distance measurement for this intersection was field-verified and does account for the slight curve directly east of the intersection.

Commenters raised concerns regarding the eastern access point to the site and questioned why this was not studied for sight distance and trips. The eastern access point would be used only for initial set-up and access to the site on a temporary basis and haul trucks would not use this access point. The Board of Commissioners finds that the condition of approval prohibiting use of haul trucks at the Red Gate entrance sufficiently resolves these concerns.

Commenters also questioned the speed limit assumptions on Highway 58 used in Sandow's analysis, whether local road would be used to transport material from the quarry face to the processing area, and whether a 3-hour traffic count could produce accurate results. Commenters also raised concerns about crashes on Highway 58 between Dunning and Fish Hatchery Road and alleged that the gravel trucks would add to the road hazards of Highway 58.

The Board of Commissioners finds that Sandow's November 1, 2016 letter provides persuasive evidence regarding these points. Sandow explains that the 55mph speed limit assumed for Highway 58 is based on the speed limit, which it reasonably assumed will be enforced. On-site haul roads will exclusively be used to transport materials from one area of the quarry to another and local roads will not be impacted by the inter-quarry movement of materials. Sandow's 3-hour traffic count complies with industry standards and were cross-validated with ODOT's traffic counts for accuracy. Highway 58 is not a local road and therefore outside of the jurisdictional consideration for the project. Commenters have not provided any evidence that the presence of gravel trucks will add to the number of crashes or other hazards on Highway 58, which is a highway designed to accommodate truck traffic.

Based on this information, the Board finds that the project would not conflict with local roads within one mile of the site, provided the below conditions of approval were instituted before any mining were allowed.

Measures to Minimize Conflicts:

The Board of Commissioners finds that the following reasonable and practicable measures would minimize the limited conflicts identified above in the event mining were authorized.

COA 10. Access to the site is on Dunning Road. A new driveway must be constructed to 30 feet wide, consistent with Lane Code 15.707, capable of supporting the quarry operations vehicles, and consistent with the TIA.

COA 11. The applicant/owner must remove vegetation and the earth embankment at the site driveway intersection with Dunning Road as necessary to meet the minimum AASHTO westbound stopping site distance identified in the TIA as 165 feet.

COA 12. A standard MUTCD warning sign with lettering, "TRUCKS" with a supplemental W16-2P "XX FEET" sign must be installed within the right of way no closer than 200 feet east of the driveway on Dunning Road to alert westbound traffic to the entering trucks. Sign installation to be completed by Lane County with costs reimbursed by the applicant.

COA 13. A standard MUTCD warning sign with lettering, "TRUCKS" with a supplemental W16-2P "XX FEET" sign must be installed within the right of way on Dunning Road to alert eastbound traffic to truck traffic. Sign installation to be completed by Lane County with costs reimbursed by the applicant.

COA 14. A standard MUTCD, advanced intersection warning sign (W2-7L with a supplemental W16-2P "XX FEET" sign) must be installed 495 feet in advance of the centerline of Kokanee Way intersection for southbound traffic. Sign installation to be completed by Lane County with costs reimbursed by the applicant.

COA 15. The applicant/owner must complete a pavement analysis for a 20 year design life based upon the existing traffic volumes and the addition of site generated traffic on both of the applicable sections of Dunning Road and Fish Hatchery Road. Such analysis and design proposal must comply with the applicable provisions of Lane Code 15.707(3). Any pavement structure mitigation measures determined necessary to meet a 20 year design life must be constructed by the applicant prior to the addition of 20 or more daily truck trips, within 5 years of commencing operations, or within 10 years of commencing operations provided the Pavement Condition Index (PCI) has not fallen below 70, whichever is less. Should the PCI fall below 70 after commencement of operation, the applicant/property owner must complete necessary pavement mitigation within one construction season. The PCI is measured routinely by Lane County. Any required paving work must be consistent with Lane County Road Overlay standards.

COA 16. The applicant/owner must comply with any future Rail Order issued by ODOT Rail.

COA 17. The applicant/owner must widen Dunning Road between Fish Hatchery Road and the Railroad right-of-way to a minimum paved width of 24 feet. Additional width must be constructed at guardrails to accommodate E distances and flares. Additional width is required to accommodate truck off-tracking along all curves on Dunning Road between the site driveway and Fish Hatchery Road. The applicant/owner must design and construct the facility to meet the requirements of LC 15.704.

COA 18. The applicant/owner must remove the existing driveway access located approximately 650 feet east of the railroad in conjunction with construction of the new driveway access.

COA 19. Lane County Facility Permits must be obtained for the following:

- Removal of the existing driveway access on Dunning Road.

- Construction of a new driveway access on Dunning Road.
- Required widening and paving improvement on Dunning Road.
- Paving improvements on Fish Hatchery Road.
- Removal of vegetation and earth embankment at the site driveway with Dunning Road to improve sight distance.
- Any other work required within the right-of-way of Dunning Road and/or Fish Hatchery Road.

COA 20. The applicant/owner must provide the following to the County Engineer at (541) 682-6928 for Lane County review of stormwater analysis: A final drainage report and drainage plans. The final report and plans must include information on the pre and post development drainage runoff flow rates, contours, drainage patterns, calculations, assumptions, details of detention pond, metering device, streams, culverts, roadside ditch, etc.

- If runoff is directed into any of the Dunning Road cross culverts, the flow capacity of these culverts must be evaluated in this report. If the culverts need to be upsized that will be the responsibility of the applicant.
- Water directed to the roadway must be directed to the cross culverts, not the roadside ditch.

OAR 660-023-0180(5)(b)(C) *Safety conflicts with existing public airports due to bird attractants, i.e., open water impoundments as specified under OAR chapter 660, division 013;*

Conflicts with the Private Use Airstrip

Identification of Conflicts:

The Board of Commissioners finds that the private Aubrey Mountain Airstrip (“Airstrip”) is not a public airport and therefore conflicts with this land use are not required to be analyzed under this section. The Board of Commissioners further finds that Lane County’s Private Use Airport Overlay Zone does not apply to the Airstrip. Although the County regulates some private airports under Ordinance PA 1549, the Airstrip is not among the regulated airports. As such, there are no applicable criteria governing proposed land uses located near the Airstrip, which typically constitute the primary substantive requirements of this Overlay designation where applied elsewhere in the County.

Project opponents contend that the project will adversely impact the Airstrip by changing the topography in the area (by removing a portion of TV Butte) and thereby changing wind patterns and affecting flight safety, and by creating dust that will negatively impact visibility for pilots.

The Board finds that evidence presented by W&H Pacific in the May 26, 2016 and October 24, 2016 responses adequately responds to these concerns. The Board finds that TV Butte does not currently impact wind patterns at the Airstrip and does not protect the Airstrip from otherwise dangerous wind conditions. Thus, the Airstrip will not be impacted by a partial removal of TV Butte. The Board also finds that the relatively calm weather in the Oakridge area, combined with the fugitive dust mitigation measures (discussed at length under the dust responses) will ensure that quarry operations do not impact the Airstrip.

In a letter dated November 11, 2016, the Oregon Department of Aviation (“ODA”) raised a further concern with dust and suggested mitigation measures to ensure that dust does not impact the airport. Although ODA’s role is simply advisory, and ODA lacks independent regulatory or permitting authority over private airports, W&H Pacific a highly qualified airport design and operations consulting firm, reviewed ODA’s suggestions and concluded that the project will employ best management practices that are typically used for dust control mitigation at airports, which are required for the project by the conditions of approval. An additional condition of approval, number 43, requires the quarry operator to provide blasting schedules to the airport operator to ensure coordination if needed. The Board also relies upon the supplemental report prepared by Ms. Stark at SLR Consulting, which determined that there would be no air quality conflicts between the project and the airstrip. Based upon the weight of the evidence in the record and the mitigation required by the conditions of approval, the Board finds that there is no reasonable basis to conclude that dust or other potential discharges would conflict with the continued operation of this airstrip. For these reasons, the Board denies the opponents’ contention that the project will adversely impact the airstrip.

Measures to Minimize Conflicts:

The Board finds that the following reasonable and practicable measures would minimize the limited conflicts identified above if mining were authorized.

COA 43. The applicant/operator of the quarry must provide information on blasting events to Aubrey Mountain Airstrip operator not less than 48 hours prior to such events.

OAR 660-023-0180(5)(b)(D) *Conflicts with other Goal 5 resource sites within the impact area that are shown on an acknowledged list of significant resources and for which the requirements of Goal 5 have been completed at the time the PAPA is initiated;*

The Board finds that its consideration of conflicts under this section is limited to those identified on an acknowledged list of significant resources for which the requirements of Goal 5 have been completed. Based upon evidence presented by the applicant in the application and the 1982 Flora & Fauna Working Paper, the Board finds that four inventoried Goal 5 resources, including Riparian Corridor, Wetlands, Wildlife Habitat, and Big Game Range exist within the Impact Area. As explained below, the Board finds that: (1) there are not identified conflicts with inventoried Goal 5 resources, except as to Big Game Range; (2) evidence introduced into the record identifies significant potential conflicts with Big Game (deer and elk) in the impact area; (3) the potential conflicts with Big Game cannot be minimized through reasonable and practicable measures to a level that they are not significant, including those measures proposed by the applicant; and (4) the analysis of the ESEE consequences do not weigh in favor of authorizing mining. Detailed findings regarding the impacts to big game in the impact area and the economic, social, environmental, and energy (“ESEE”) consequences of allowing, limiting, or not allowing mining at the site are set forth in Exhibit B to Order No. 21-10-26-06.

Riparian Corridors, including Water and Riparian Areas and Fish Habitat.

Salmon Creek is a mapped Goal 5 riparian corridor which contains Goal 5 sensitive fish and waterfowl habitat and is accompanied by wetlands that appear to be jurisdictional. Because the quarry will fully avoid these Goal 5 areas (as required by COAs 26 and 27) the Board concludes that the quarry project will not conflict with these Goal 5 resources.

Riparian Corridors

The Board finds that the proposed quarry will not impact Goal 5 riparian corridors within the Impact Area because the Project will avoid any intrusion into inventoried riparian corridors and will preserve a 100-foot setback from the Salmon Creek corridor.

As support for this conclusion, the Board relies on the evidence presented by James A. Mann, LLC and Terra Science, Inc.. The Board of Commissioners finds that the Impact Area includes a 1C significant Class 1 stream, Salmon Creek, which is located on Willamette National Forest Property, approximately 1,400 to 1,450 feet north of the quarry site. RCP Goal 5 Flora and Fauna Policy 6 applies a 1C significance category to riparian areas located within 100 feet of Class 1 streams and requires a 100-foot setback from ordinary high water in rural resource zones. The project would avoid this 100-foot setback area. Stormwater drainage from the quarry site would not run to Salmon Creek due to protective berms that would be erected to ensure storm water remains on the quarry site and would not run off into the Impact area.

Wetlands

The Board finds that the proposed quarry would not impact Goal 5 wetlands within the Impact Area because quarry operations would not disturb wetland areas directly or the setback area around these wetlands.

As support for this conclusion, the Board relies on the evidence presented by James A. Mann, LLC and Terra Science, Inc.. Salmon Creek is the only 1C significant wetland identified on the Goal 5 natural resource inventory and requires the same 100-foot setback as the riparian area above. The project would avoid this 100-foot setback area. Stormwater drainage from the quarry site would not run to Salmon Creek due to protective berms that would be erected to ensure storm water remains on the quarry site and would not run off into the Impact Area.

Terra Science, Inc. (“TSI”) performed a wetland evaluation for the site, as well as submitted the evaluation to the Oregon Department of State Lands (DSL) and the U.S. Army Corps of Engineers (“Corps”) for their review. These findings are included in Appendix D of the project application. A review of aerial photos, literature search and site visits indicate that there is a riverine wetland running along the eastern boundary of Tax lot 1900 and through the southeast part of Tax lot 100. Although on the applicant’s property, this is outside of the proposed mining area and south of Dunning Road.

Crossing the southeast corner of Tax lot 100 is another creek along with potential riparian wetlands associated with the creek. Both these two areas could be regulated by as jurisdictional wetlands/waters by the DSL and Corps. Another riverine wetland is located on the western part of Tax lot 502 (sic 500). Since all of these potential wetlands are outside of the proposed mining area and all impacts to these areas are avoided, authorization under the Clean Water Act and the Oregon Removal-Fill Law are not required for the project.

Wildlife Areas

The Board finds that the proposed quarry would not impact Goal 5 wildlife areas within the Impact Area because quarry operations would not disturb wildlife areas directly and will provide a protective setback around these areas.

As support for this conclusion, the Board of Commissioners relies on the evidence presented by James A. Mann, LLC. RCP Goal 5, Flora and Fauna Policy 8 applies a 1C significant category to sensitive fish and waterfowl areas in the 1983 Revision of the Flora and Fauna Working Paper and requires protection of these resources as specified in Goal 5 Flora and Fauna Policy 7. Salmon Creek is a listed sensitive fish and water fowl area and a 100-foot protective setback would be applied to this area. Stormwater drainage from the quarry site would not run to Salmon Creek due to protective berms that would be erected to ensure storm water remains on the quarry site and would not run off into the Impact area.

The Board further addresses potential conflicts with Big Game Range below.

Measures to Minimize Conflicts:

The Board finds that the following reasonable and practicable measures would minimize the limited conflicts identified above if mining were authorized.

COA 26. Mining and processing must not occur within 50 feet of the unnamed creek on the east side of the property.

COA 27. The applicant/owner must not place fill, or excavate within wetlands on the site until obtaining appropriate permits from the Oregon Department of State Lands (DSL) and the Corps of Engineers (Corps).

Impacts to Elk and Big Game Habitat

Identification of Conflicts

Opponents contend that the potential presence of elk habitat and game habitat is a basis for conflict assessment and minimization under applicable criteria.

In the original decision, the Board determined that there were no inventoried Goal 5 resources within the project impact area. Relatedly, the Board found that, even though the County had designated portions of the impact area as Big Game Range, the County had not classified Big Game Range as a “significant” Goal 5 resource during the Lane Rural Comprehensive Plan adoption process because other policies and zoning restrictions made the categorization unnecessary. As a result, the Board concluded that there was no need to determine conflicts with Big Game Range in the project’s impact area.

On appeal to LUBA, in their third assignment of error, opponents contended that the County had, in fact, designated Big Game Range as a significant Goal 5 resource and therefore, the County erred in not considering conflicts between the project and Big Game Range within the project impact area. LUBA sustained opponents’ contention:

“The county’s Flora & Fauna Working Paper (1) identifies the Lane County Wildlife Inventory Maps that were developed based on ODFW big game range maps, (2) identifies the location, quality and quantity of the big game range, (3) identifies conflicts with big game range and (4) explains how those conflicts are to be mitigated by existing zoning. Supp. Rec. 4785-89. Based on what the county did in the Flora & Fauna Working Paper, it is most accurate to say the
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county adopted a 1C inventory decision, *i.e.*, that the inventoried big game habitat is ‘significant or important.’ * * * We agree with petitioners that the county erroneously determined that its adopted inventory of big game habitat is not ‘an acknowledged list of significant resources * * * for which the requirements of Goal 5 have been completed at the time the PAPA [in this case was] initiated,’ within the meaning of OAR 660-023-0180(5)(b)(D).

“The third assignment of error is sustained.”

Save TV Butte I at 47-48.

On remand, the Board has considered project impacts to Big Game Range within the impact area and adopts the following findings in response to this issue:

(A) The County has inventoried Big Game Range as a significant Goal 5 resource that applies to much of the project impact area.

As stated by LUBA in its final opinion and order, the County effectively deemed Big Game Range as a significant Goal 5 resource through the 1982 Flora & Fauna Working Paper because the County identified an inventory, identified conflicting uses, and identified measures that would protect Big Game Range. According to the County’s adopted map, nearly the entire project impact area is located within designated Big Game Range, with approximately the eastern half being designated Major Big Game Range and approximately the western half being designated Impacted Big Game Range. Therefore, the Board finds that Big Game Range is a significant Goal 5 resource that applies to much of the project impact area. As a result, pursuant to OAR 660-023-0180(5)(b)(D), and as part of its analysis of the applications, the Board concludes that it is required to determine whether the project would conflict with the inventoried Big Game Range in the project impact area.

(B) The mine will generate two potential conflicts with the inventoried Big Game Range within the project impact area: displacement conflicts and collision conflicts.

The applicant has proposed measures aimed at minimizing these conflicts to levels that are not significant, but the Board finds that significant conflicts will persist. Specific findings regarding conflicts to Big Game range and the ESEE consequences associate with mining activities are set forth in the ESEE Findings (Exhibit B to Order No. 21-10-26-06) accompanying these findings.

The Board does note here, however, that opponents’ contention that the County is required to consider impacts to big game habitat within the mining area itself is inconsistent with Oregon law and is rejected. *Setniker v. Polk County*, 63 Or LUBA 38 (2011), *aff’d in part, rev’d in part, on other grounds* 244 Or App 618, *rev den* 351 Or 216 (2011).

Impacts to Historical Artifacts.

Identification of Conflicts:

Based on testimony provided by HRA in the Cultural Resources Review report (Appendix H of the PAPA application) and as submitted by oral testimony from Dr. Rick Minor on October 12, 2016, the Board of Commissioners finds that there are no inventoried Goal 5 cultural or archaeological resources on the proposed quarry site or in the 1,500-foot impact area and no identified resources that would qualify for listing. The required conflicts analysis only pertains to Goal 5 resources and the Board of Commissioners finds that these resources are not present within the 1,500-foot impact area.

Nonetheless, project opponents raise a number of concerns regarding historical and cultural resources that were addressed by the applicant which we detail here.

Opponents contend that the quarry will impact Native American cultural and religious artifacts in a number of ways. These include reports of historical and archaeological artifacts within the mining area that would be impacted by the mining activities, identification of an Indian Trail across the elevation of TV Butte based on a 1988 interview by Lawrence Hills, concerns that quarry operations will disturb burial grounds of Charlie Tufti's ancestors, and reports that burial sites are located within the proposed mining area. Opponents also raised concerns about the mining impacts on a prehistoric village atop TV Butte and artifact finds in the vicinity of the quarry.

The Board of Commissioners finds that the applicant's archaeological experts Hart and Toepel and Heritage Resource Associates, Inc. ("HRA") provided responsive evidence in their May 27, 2016, October 30, 2016, and November 16, 2016 letters that persuasively rebuts opponents' contentions. HRA archaeologists conducted a physical reconnaissance of the mining area in May 2016 but no prehistoric or historical archaeological materials were observed. None of the artifacts reported in testimony to the County within the mining area have been confirmed by archaeological investigation.

HRA determined that the "old Indian trail" referenced by Lawrence Hills is likely to be the Aubrey Mountain trail which comes out on level ground. None of the maps researched for the project indicate that a historic trail was located on TV Butte. The pedestrian survey of site also did not show any indication of a historic trail. HRA's investigation also determined that Charlie Tufti's land claim did not include the mining area or the 1,500-foot impact area. HRA reviewed historical records regarding burial practices in the area and historic field investigations of the area that relate to the Tufti burials. None of the recitals regarding burial grounds reference TV Butte or any landforms corresponding to the TV Butte geography. Further, no earth disturbing activities related to mining will occur in the Jim Chuck or Charlie Tufti land claims. Based on this information, HRA concluded that the Tufti burial grounds are most likely on the Tufti land claim in an area suitable for farming in their letter dated October 30, 2016.

Opponents also claimed that the quarry area was sacred land with extreme cultural and historical significance and that Indian artifacts had been found in the vicinity of the quarry site.

The Board of Commissioners finds HRA provided responsive evidence in their June 18, 2016, May 27, 2016, October 30, 2016, and November 16, 2016 letter that persuasively rebuts opponents' contentions. No significant archaeological or historical sites are known to or likely to be present in the mining area that may be affected by the quarry. The absence of archaeological evidence in conjunction with the geography of TV Butte (steep slopes) suggests

that use of the Butte was limited to occasional hunting and travel and therefore the mining site is not likely to contain historical artifacts.

Opponents raised concerns about impacts to burial grounds within the mining area and Impact area, the Old Indian Trail, an ancient village, and the potential to harm previously identified artifacts in the Impact Area.

The Board of Commissioners finds HRA provided a responsive evidence in their May 27, 2016, October 30, 2016 and November 16, 2016 letters that persuasively rebut opponents' contentions. Concerns regarding burial grounds and the Old Indian Trail were sufficiently addressed in HRA's earlier letter and do not show that either is likely to be present on the mining site. Opponents provide no evidence of an ancient village on TV Butte and the lack of archaeological evidence along with the site's conditions (steep rocky terrain and lack of water) make the Butte a very unlikely location of a previous Indian village. The artifacts identified within the Impact Area will not be impacted by the quarry because no ground disturbance will occur in the Impact Area. The Applicant fully assumes that DOGAMI will coordinate with tribal leaders in the area to ensure the project does not impact cultural resources.

Based on the responsive evidence provided by the application the Board denies opponents' contention that the project will impact historical artifacts.

Measures to Minimize Conflicts:

The Board of Commissioners finds that the following reasonable and practicable measures would minimize the limited conflicts identified above.

COA 9. In the event that buried cultural deposits are encountered during the project activities, the applicant/owner must comply with ORS 97.740-760 and ORS 358.905-961.

OAR 660-023-0180(5)(b)(E) *Conflicts with agricultural practices; and*

The Board finds that the mine would not generate any significant conflicts with agricultural practices on surrounding lands. As support for this conclusion the Board relies on the applicant's agricultural survey contained in Appendix M of the application.

In determining whether conflicts with agricultural practices will result, the County is required to comply with ORS 215.296, rather than the requirements or the Goal 5 rule. OAR 660-023-0180(5)(c). ORS 215.296 requires a demonstration that the Project will not:

"(a) Force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; or

"(b) Significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use."

The Board finds that while low-intensive, small-scale agricultural activities, primarily livestock grazing, greenhouses, and private gardens, are occurring in the surrounding area, none of these activities appeared to be for commercial purposes. Therefore, they do not constitute "accepted farming practices" as defined in ORS 215.203(2)(c).. Additionally, no conflicts were identified with forest practices.

The Board further finds as discussed above, based on the evidence provided by the applicant, that, subject to adoption and implementation of various recommended minimization measures, there would be no significant conflicts with regard to noise, dust and other discharges including ground water and transportation access, and this analysis further supports the conclusion of compliance with the standards under ORS 215.296. Based upon the available evidence, the available documentation and analysis support the conclusion that, due to the limited nature and small scale or existing non-commercial agricultural practices, the relative lack of proximity to the mining operation, and the various measures that would minimize project conflicts to a level that is insignificant, the mining operation would not force a significant change in or significantly increase the cost of accepted farm practices on surrounding lands devoted to farm use.

OAR 660-023-0180(5)(b)(F) *Other conflicts for which consideration is necessary in order to carry out ordinances that supersede Oregon Department of Geology and Mineral Industries (DOGAMI) regulations pursuant to ORS 517.780;*

The Board finds that the proposed project will generate very limited conflicts, none are significant in nature, and all such conflicts, other than conflicts with big game, can be minimized with reasonable and practicable measures that are imposed as conditions of approval. Specific issues raised by project opponents regarding conflicts and the minimization measures required by conditions of approval are addressed above and in the accompanying ESEE Findings.

OAR 660-023-0180(5)(c) *The local government shall determine reasonable and practicable measures that would minimize the conflicts identified under subsection (b) of this section. To determine whether proposed measures would minimize conflicts to agricultural practices, the requirements of ORS 215.296 shall be followed rather than the requirements of this section. If reasonable and practicable measures are identified to minimize all identified conflicts, mining shall be allowed at the site and subsection (d) of this section is not applicable. If identified conflicts cannot be minimized, subsection (d) of this section applies.*

Except for potential conflicts with big game, which are discussed in the ESEE Findings, the Board finds that there are reasonable and practicable measures that would minimize the other identified conflicts, as set forth in the project conditions of approval and further discussed above. As support for this conclusion, the Board relies upon the evidence provided by the applicant and its many expert consultants. The Board finds that there are reasonable and practicable measures that would minimize all identified conflicts other than conflicts to big game. However, as reflected in the ESEE Findings, the Board finds the conflicts to big game cannot be effectively minimized, and further that the negative ESEE consequences of allowing some or all of the proposed mining outweigh the positive ESEE consequences. Accordingly, the Board finds it appropriate at this point to disallow all mining at the site. Specific concerns identified by opponents regarding proposed mitigation measures are discussed below:

1. Watering is an effective means of dust control.

In conjunction with the application, the applicant's technical consultants have provided evidence and analysis demonstrating that water spray measures are a feasible, acceptable industry standard

and an effective best management practice for dust control, including silica dust. As support for this conclusion, the Board relies upon (1) the Response to Hearing Comments letter and Old Hazeldell Quarry, Response to Opposition submittals through November 1, 2016 letter, both from KC; (2) the Rebuttal Letter and Response Submittal regarding Testimony regarding Air Quality and Permitting Assessment Compliance for Old Hazeldell Quarry, both from Arctic Engineering, LTD, and (3) the October 29, 2016 Letter regarding Old Hazeldell Quarry - Quarry Water Usage from Katie Jeremiah of Aggregate Resources Industries, Inc..

2. TIA addresses necessary mitigation.

With regard to alleged sight distance non-compliance, Sandow Engineering has provided rebuttal responses through memoranda dated May 31, 2016, June 20, 2016, and November 1, 2016. The Board finds that these rebuttal responses demonstrate compliance with applicable standards is feasible.

3. Deed restrictions are not an applicable review criterion.

A project opponent suggests that the noise berm cannot be constructed due to a restrictive covenant which provides, in relevant part:

“* * * [N]o significant excavating work shall be performed on the portion of the Property described on the attached Exhibit ‘B’ except for the purpose of access road construction to the northerly and easterly areas of Exhibit ‘B’ Property. This restriction will expressly not prohibit Grantee, its successors or assigns, from **storing equipment or material**, running heavy machinery or otherwise using the Exhibit ‘B’ Property. This restrictive covenant shall run with the land and be irrevocable.” (Emphasis added. Exhibit “B” is the legal description of the former landfill portion of the property.)

As noted by Michael Reeder in a November 1, 2016 letter, the above referenced Exhibit B was amended to correct the legal description of the former landfill. The Board finds that opponents’ analysis is incorrect as a matter of fact and law. First, the construction of a noise berm does not require excavation of any kind. A berm is constructed via the placement of material upon land, and *this activity is expressly allowed* by the covenant. Moreover, so is certain road construction, storage of equipment or material, running machinery, and otherwise using the former landfill. There will be no excavation associated with these activities. In short, the express language and intent of the covenant at issue do not support his interpretation.

Second, it is well-established that deed restrictions are not an applicable review criterion. Opponents cite to *Butte Conservancy v. City of Gresham*, 51 Or LUBA 194 (2006) as authority that the County is required to consider covenants, conditions and restrictions in order to determine that a proposed condition is possible and likely to succeed. The Board finds that *Butte Conservancy* is readily distinguishable from the present circumstance, which renders the ruling irrelevant to this review. The issue in *Butte Conservancy* was review of the feasibility of implementing a proposed condition of approval and not, as in this instance, whether the covenant serves as an applicable review criterion. Further, the facts of *Butte Conservancy* were markedly different than in the present application. In *Butte Conservancy*, a housing developer was required to provide secondary access where there was only one location to do so, which had a

restrictive covenant prohibiting such use. In the pending application, there is no County imposed condition for a noise berm. Rather, the applicant has elected to provide the noise berm; and, more importantly, the record demonstrates that the proposed noise berm is intentionally located beyond the footprint of the former landfill. As support for this conclusion, the Board relies upon the KC memoranda and Revised Site Plans dated May 31, 2016 and October 29, 2016. In sum, there is no mitigation or development activity imposed within the former landfill area; and only excavation, and not the placement of the berm, would be precluded by the covenant even if such activity were proposed. Consequently, the Board finds that the covenant is inapplicable.

Finally, private deed restrictions are not enforceable by local governments. OAR 660-023-0180 provides the exclusive review criteria for consideration of an aggregate PAPA. Notably, this rule does not require consideration of private deed restrictions. As such, the local government is not authorized to consider any such deed restrictions. Furthermore, applicable Oregon case law clearly provides that only intended beneficiaries of a deed restriction are entitled to enforce such restrictions. See *Providence Memorial Ass'n v. Providence Missionary Baptist Church*, 241 Or. 194, 199-201 (Or. 1965). In *Providence*, the Supreme Court of Oregon held that a prior first grantee was not entitled to enforce a restrictive covenant where it was not an intended third-party beneficiary. *Id.* 200-201. Thus, an intended beneficiary of a restriction is the proper party to seek its enforcement. Here the intended beneficiary is not the local government. As such, the local government is not required to consider private deed restrictions in their review of the proposed PAPA.

OAR 660-023-0180(5)(d) *The local government shall determine any significant conflicts identified under the requirements of subsection (c) of this section that cannot be minimized. Based on these conflicts only, local government shall determine the ESEE consequences of either allowing, limiting, or not allowing mining at the site. Local governments shall reach this decision by weighing these ESEE consequences, with consideration of the following:*

OAR 660-023-0180(5)(d)(A) *The degree of adverse effect on existing land uses within the impact area;*

OAR 660-023-0180(5)(d)(B) *Reasonable and practicable measures that could be taken to reduce the identified adverse effects; and*

OAR 660-023-0180(5)(d)(C) *The probable duration of the mining operation and the proposed post-mining use of the site.*

Except with respect to conflicts to big game in the impact area, which are addressed in the ESEE Findings, the Board finds that it has identified reasonable and practicable measures to minimize all other identified conflicts, as set forth in the conditions of approval. An economic, social, environmental, and energy (“ESEE”) analysis is required only in the event that one or more identified applicable conflicts under Division 23 are not successfully minimized. In this instance, and based upon substantial evidence in the record, the Board has found that the applicant has successfully minimized all conflicts other than to big game and that OAR 660-023-0180(5)(d) is applicable only to the conflicts to big game as discussed in the ESEE Findings.

OAR 660-023-0180(5)(e) *Where mining is allowed, the plan and implementing ordinances shall be amended to allow such mining. Any required measures to minimize conflicts, including special conditions and procedures regulating mining, shall be clear and objective. Additional land use review (e.g., site plan review), if required by the local government, shall not exceed the minimum review necessary to assure compliance with these requirements and shall not provide opportunities to deny mining for reasons unrelated to these requirements, or to attach additional approval requirements, except with regard to mining or processing activities:*

OAR 660-023-0180(5)(e)(A) *For which the PAPA application does not provide information sufficient to determine clear and objective measures to resolve identified conflicts;*

OAR 660-023-0180(5)(e)(B) *Not requested in the PAPA application; or*

OAR 660-023-0180(5)(e)(C) *For which a significant change to the type, location, or duration of the activity shown on the PAPA application is proposed by the operator.*

Because the Board has determined to not allow mining, no amendment of the RCP and implementing zones is appropriate.

Additional land use review was completed under the Site Review application (Planning File No. 509-PA15-05804) processed concurrently with this Plan Amendment, findings below. These site review findings may not be directly relevant given the Board's decision to not allow mining at the site, but are included for potential future reference.

OAR 660-023-0180(5)(f) *Where mining is allowed, the local government shall determine the post-mining use and provide for this use in the comprehensive plan and land use regulations. For significant aggregate sites on Class I, II and Unique farmland, local governments shall adopt plan and land use regulations to limit post-mining use to farm uses under ORS 215.203, uses listed under ORS 215.213(1) or 215.283(1), and fish and wildlife habitat uses, including wetland mitigation banking. Local governments shall coordinate with DOGAMI regarding the regulation and reclamation of mineral and aggregate sites, except where exempt under ORS 517.780.*

Although the Board has determined that mining will not be allowed, it appears the application would satisfy these standards if mining were allowed. Based upon testimony submitted by KC in the PAPA application, page 46, the record includes a proposed mine plan and reclamation plan submitted to DOGAMI by the applicant. The aggregate site is not located on Class I, II or Unique farmland. The applicant also notes that the post-mining use of the area, included as Appendix L of the PAPA application, which confirms such proposed post-mining activity, would consist of blasted scree slopes and ledges. These uses are already provided for, as permitted uses within the current F-1 and F-2 designations for the property, as identified in the application.

OAR 660-023-0180(5)(g) *Local governments shall allow a currently approved aggregate processing operation at an existing site to process material from a new or expansion site without requiring a reauthorization of the existing processing operation unless limits on such processing were established at the time it was approved by the local government.*

This criterion is inapplicable because the quarry is not an expansion of a currently approved aggregate processing operation.

OAR 660-023-0180(7) Except for aggregate resource sites determined to be significant under Section (4) of this rule, local governments shall follow the standard ESEE process in OAR 660-023-0040 and 660-023-0050 to determine whether to allow, limit, or prevent new conflicting uses within the impact area of a significant mineral and aggregate site. (This requirement does not apply if, under section (5) of this rule, the local government decides that mining will not be authorized at the site).

Because the Board has decided that mining will not be authorized at the site, this criterion is inapplicable.

OAR 660-023-0180(8) In order to determine whether information in a PAPA submittal concerning an aggregate site is adequate, local government shall follow the requirements of this section rather than OAR 660-023-0030(3). An application for approval of an aggregate site following sections (4) and (6) of this rule shall be adequate if it provides sufficient information to determine whether the requirements in those sections are satisfied.

As explained above, the Board finds that the applicant has provided sufficient information to address the relevant criteria of section (3) and (5) of the Goal 5 rule relating to resource significance and conflict minimization, respectively, above. Further, the Board of Commissioners finds that the criteria of sections (4) and (6) are not relevant to the application.

OAR 660-023-0180(9) Local governments shall amend the comprehensive plan and land use regulations to include procedures and requirements consistent with this rule for the consideration of PAPAs concerning aggregate resources. Until such local regulations are adopted, the procedures and requirements of this rule shall be directly applied to local government consideration of a PAPA concerning mining authorization, unless the local plan contains specific criteria regarding the consideration of a PAPA proposing to add a site to the list of significant aggregate sites, provided:

(a) Such regulations were acknowledged subsequent to 1989; and

(b) Such regulations shall be amended to conform to the requirements of this rule at the next scheduled periodic review after September 1, 1996, except as provided under OAR 660-023-0250(7).

Lane County has not amended the Lane County Rural Comprehensive Plan or land use regulations for consistency with the Goal 5 Rule provisions adopted in 1996. The Oregon Land Use Board of Appeals (LUBA) has determined that the Goal 5 rule for mineral and aggregate establishes a comprehensive regulatory scheme that is intended to supersede local review standards for aggregate. *Eugene Sand & Gravel, Inc. v. Lane County*. LUBA No. 2002-068. The Board finds that the criteria that govern the review of this application to add a site to the significant aggregate sites and authorize mining and processing are found in the Oregon Administrative Rules and the Statewide Planning Goals.

Additional land use review was completed under the Site Review application (Planning File No. 509-PA15-05804) processed concurrently with this Plan Amendment application, findings below. The Board finds the Site Review has not exceeded the minimum review necessary to assure compliance with the OAR requirements. Because the County complied with applicable notice and hearing procedures, the Board finds that the proposed amendments, if approved, would have been consistent with the method of adoption sections for Lane Code Plan Amendment standards.

4. STATEWIDE PLANNING GOALS

As directed by ORS 197.175(2)(a), comprehensive plan amendments must comply with the Statewide Planning Goals.

Goal 1: Citizen Involvement To provide for widespread citizen involvement.

This goal requires that citizens and affected public agencies be provided an opportunity to comment on the proposed plan amendment. As part of the application review process, public notification in the form of a mailed notice was sent by Lane County to affected public agencies, including local service providers, Oregon Department of Transportation (ODOT), and the Department of Land Conservation and Development (DLCD). All owners of record within 750 feet of the subject property were also notified. Public notice of the Planning Commission and Board of Commissioners hearings were published in the *Eugene Register-Guard*, a general circulation newspaper. The proper notices were sent separately and prior to the Lane County Planning Commission and Lane County Board of Commissioner Hearings. The Lane County Planning Commission conducted the first of multiple public hearings on the project on April 19, 2016, and May 10, 2016 and deliberated on the matter on July 26, 2016. The Board of Commissioners received a recommendation of approval from the Planning Commission and held its first of multiple hearings on the project on October 12, 2016, and December 13, 2016. During the Planning Commission and Board of Commission Hearings the record was held open in order for the public to submit additional evidence then subsequently rebut that evidence along with final arguments for the applicant prior to the record closing.

Testimony provided by Kevin Matthews alleges that the consolidated processing of the project application violates Statewide Planning Goal 1. The Board finds that ORS 215.416(2) specifically requires counties to provide “a consolidated procedure by which an applicant may apply at one time for all permits or zone changes needed for a development project,” and applicants have broad discretion about consolidating land use actions into one application. *See Cornell park Associates v. Washington County*, 16 Or LUBA 897, 900-901 (1988), *N.E. Medford Neighborhood Coalition v. City of Medford*, 214 Or App 46, 53-54 (2007). In conformance with state law, the state-acknowledged Lane Code specifically provides for consolidated or “combinable” applicants in Chapter 14.050. The Board finds that the applicant’s combined land use application does not violate Statewide Planning Goal 1.

Mr. Matthews further alleged that the language in the County’s notice purporting to restrict the scope of the remand also violated Goal 1. The Board denies this contention because, as explained in Section I.C.3, the County did not exclude any testimony or issues on the grounds that they were outside the scope of the remand. Because the County complied with applicable notice and hearing procedures, the Board finds that the amendments are consistent with Goal 1. *See Wade v. Lane*

County, 20 Or LUBA 369, 376 (1990) (Goal 1 is satisfied as long as the local government follows its acknowledged citizen involvement program).

Goal 2: Land Use Planning

To establish a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions.

Goal 2 requires establishing a land use planning process and policy framework as a basis for land use decisions and requires an adequate factual base for all land use decisions. In the present case, the provisions of OAR chapter 660 division 023 establish the land use planning process and policy framework for considering the applications. Further, the applicant's materials, which include detailed expert reports across a number of disciplines, demonstrate that the applications satisfy all applicable substantive standards of OAR chapter 660, division 023. Therefore, the Board finds that there is an adequate factual base for the County's decision.

Additionally, Goal 2 requires that the County coordinate its review and decision on the applications with appropriate government agencies. In its review of the applications, the County provided notice and an opportunity to comment to affected government agencies, including the City of Oakridge, DLCD, DOGAMI, and ODOT.

Project opponents contend that an exception to Goal 2 is required because the property is currently inventories ad forest land and carries a comprehensive plan designation as forest land. The Board denies this contention for the following reasons.

Pursuant to OAR 660-004, a Goal 2 exception is not required unless a proposed use is not an allowed use or activity on lands or at a location where under applicable Goal requirements. Goal 4, Forest Lands, expressly establishes mining and processing of aggregate and mineral resources" as an allowed use under Goal 4. OAR 660-006-00259(4)(g). Thus, mining is an allowable use in Forest Lands, which means no exception is required under these circumstances. The Goal 2 exception process further clarifies that an exception is not required for any of the forest or nonforest uses allowed in a forest zone under OAR 660-006, Forest Lands. OAR 660- 004-0010(1)(b). Further, the exceptions process is generally not applicable where statewide goals include their own procedures for resolving conflicts between competing uses. OAR 660--4-0010(2). Here, OAR 660-023-0180 provides a process for conflict resolution between any such competing uses, and OAR 660-0234I80(5)(e) expressly requires that where mining is allowed, the plan and implementing ordinances *shall* be amended to allow such mining." (Emphasis added.) Notably absent is any requirement for a Goal 2 exception to implement the express requirements of Goal 5 to protect and allow the use of a significant aggregate resource. Taken together, these rules clearly establish that no Goal exception is required for the proposed uses, and the associated plan and zone map designations under review, in Forest Lands.

For the above reasons, the Board finds that the applications are consistent with Goal 2.

Goal 3: Agricultural Lands

To preserve and maintain agricultural lands.

This goal recognizes the importance of maintaining agricultural lands as those are defined under the goal. In western Oregon, agricultural land consists of predominantly Class I through IV soils identified by the Soil Conservation Service and other lands which are suitable for farm use taking into consideration soil fertility, suitability for grazing, climatic conditions, existing and future availability of water for farm and irrigation purposes, existing land use patterns, technological and energy input required, for accepted farm practices. Agricultural must be preserved and maintained for farm use, consistent with existing and future needs for agricultural products, forest and open space and with the state's agricultural land use policy expressed in ORS 215.243 and 215.700.

The purpose of Goal 3 is to preserve and maintain agricultural lands for farm use. Goal 3 is not applicable to this application as its acknowledged comprehensive plan designation is not mapped for exclusive farm use. The proposed mining area does not occur on any Class I and II soils and does not impact farm or forest practices on the surrounding lands.

Goal 4: Forest Lands

To conserve forest lands by maintaining the forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.

The site is primarily located on designated forest resource (F-1, F-2) land. A portion of the land has been harvested for timber in the past, and a portion of the property has been previously mined (Dunning Quarry). Mining and processing of aggregate resources is permitted on forest lands under OAR 660-006-0025(4)(g). Any reclamation of the site would result in scree slopes, and benches with forest surrounding the site. The Board finds that the proposed amendments would be consistent with Goal 4.

Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces

To protect natural resources and conserve scenic and historic areas open spaces.

The Goal 5 Rule calls for the protection of natural resources and the conservation of scenic and historic open spaces. Additionally, OAR 660-023-0180 is a rule implementing Goal 5. As required by OAR 660-023-0180(5)(b)(D), the Board's consideration of conflicts is limited to the impact area and limited to resources identified on an acknowledged inventory of significant Goal 5 resources. The Board finds, based upon evidence presented by the applicant in the application and the 1982 Flora and Fauna Working Paper, that four inventoried Goal 5 resources (Riparian Corridor, Wetlands, and Wildlife Habitat all specifically related to Salmon Creek; and Big Game Range) occur within the 1,500' Impact Area.

As discussed above in response to OAR 660-023-0180(5)(b)(D), the Board finds that the riparian and wetland resources identified in the Impact Area will not be impacted by the mining project. These resources lie outside of the mining area and do not overlap with the area designated as a significant aggregate resource. However, the Board has noted that wildlife habitat in the impact area could be impacted by mining operations. Specifically, for the reasons explained in response to OAR 660-023-0180(5)(b)(D) above, the Board finds that the mine will generate two potential conflicts with inventoried Big Game Range within the impact area: displacement conflict and collision conflict. Further, the Board finds that the proposed conditions of approval do not

constitute reasonable and practicable measures would minimize these Big Game range conflicts to a level that is not significant. No riparian, historic, or cultural resources have been inventoried on the subject property and the site is not designated as a scenic resource. Further, the Board finds that a Goal 5 implementing rule (OAR 660-023-0180) limits the consideration of conflicts under Goal 5 to the impact area. Conflicts with Goal 5 resources not in the impact area are outside the scope of review under the Goal in the present context and therefore cannot be a basis to find that the proposed amendments are not consistent with the Goal. However, the Board finds that the proposed amendments are not consistent with Goal 5 due to the conflicts with big game in the impact area noted above.

Goal 6: Air, Water and Land Resources Quality

To maintain and improve the quality of the air, water and land resources of the state.

Processing of aggregate (e.g., crushing, screening, washing of the products) is requested as part of these applications. Discharges from processing would be treated and remain on site. Consistent with best management practices (BMP's) set out by the Lane Regional Air Protection Agency/Oregon Department of Environmental Quality visible emission and nuisance requirements, the applicant would minimize dust by graveling internal roads, using water to control dust, paving the access road, and promptly removing dirt and other material that might become airborne from paved portions. Storm water discharges would be directed on-site and would be handled through an NPDES 1200A permit, if necessary. Extraction activities at the site would unavoidably result in disruption of surface land resources. This would be necessary to meet the provisions of Goal 5 to protect and allow the use of mineral and aggregate resources. Pursuant to a DOGAMI permit and DOGAMI standards, reclamation would be accomplished to return disrupted land to scree slopes and ledges, ultimately improving the quality of land resources in the State. For the reasons set forth in the Shannon & Wilson report as to water quality and quantity (Appendix B to the application), the Terra Science Inc. report as to wetlands (Appendix D to the application) and the Westlake report as to water quality (Appendix I to the application), and the related rebuttal testimony prepared by these consultants and entered into the record, the Board find that the applications are consistent with Goal 6.

Goal 7: Areas Subject to Natural Disasters and Hazards

To protect life and property from Natural Disasters and Hazards.

Under this goal, natural hazards are identified as floods (coastal and riverine), landslides, earthquakes and related hazards, tsunamis, coastal erosion, and wildfires. This area is not subject to such hazards and the risk of such hazards is not increased by the activity allowed by the plan amendment. The site is not subject to stream flooding, erosion or other particular natural hazards. The Board finds that the proposed amendments are consistent with Goal 7. In support for this conclusion and in denial of contentions made otherwise by project opponents, the Board relies on the evidence presented by the applicant discussed above under the Seismic Issues and Earth Movements section above.

Goal 8: Recreational Needs

To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including Destination Resorts.

No recreational facilities have been identified on the site by the Rural Comprehensive Plan. Further, no recreational opportunities are known to be reduced or eliminated by the proposed mining operation. The Board finds that Goal 8 is not applicable to the applications.

Goal 9: Economic Development

To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.

The goal contemplates that comprehensive plans and policies will contribute to a stable and healthy economy in the state. The goal primarily addresses commercial and industrial development within urban areas. The Board finds, based on substantial evidence provided by Arnold Gallagher on November 1, 2016, and in PAPA application Appendix J, that to the extent the goal is applicable to this application, the operation would contribute to the economy of the local area by its employment of persons and by providing the natural resource for construction of roads, which in turn facilitate the economy of the state. The Board finds that the proposed amendments are consistent with Goal 9.

Goal 10: Housing

To provide for the housing needs of the citizens of the state.

The applications demonstrate conformance with the housing goal of the state to the extent that an adequate supply of aggregate is necessary for the construction of housing in the form of foundations, driveways, and streets and roads to provide access to such housing. The Board finds that the proposed amendments are consistent with Goal 10.

Goal 11: Public Facilities and Services

To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

The applications do not directly relate to this goal. The public facilities and services in the form of roads exist to provide access to and from the site. The proposal would not result in the extension of public facilities and services beyond those existing. The Board finds that the proposed amendments are consistent with Goal 11.

Goal 12: Transportation

To provide and encourage a safe, convenient and economic transportation system.

Goal 12 requires providing a safe, convenient, and economic transportation system. The project will further the objectives of this goal by providing a material (rock) that is essential to the construction and reconstruction of a variety of transportation projects, including roads, airports, railroads, sidewalks, and bikeways.

Goal 12 is implemented by the Oregon Transportation Planning Rule ("TPR"), which requires local governments to determine whether or not a proposed PAPA will "significantly affect" an existing or planned transportation facility. OAR 660-012-0060(1). A PAPA will "significantly affect" an existing or planned transportation facility if it will: (1) change the functional classification of a facility; (2) change standards implementing a functional classification system;

(3) as measured at the end of the planning period, result in types or levels of travel or access that are inconsistent with the functional classification of an existing facility; or (4) degrade the performance of an existing facility either below applicable performance standards, or if already performing below these standards, degrade it further. *Id.*

In its report set forth in Appendix G to the applications, Sandow Engineering compared the reasonable worst-case trip generation scenario of the Site under the existing zoning designation (F-1, F-2), with the reasonable worst-case trip generation scenario under the proposed zoning designation (QM-RCP). This comparison indicated that the site would generate more trips under the proposed zoning designation; however, at the end of the planning period (2036, as a 20 year study is required), the site access point and off-site intersections were forecast to perform within acceptable performance standards during weekday PM peak hour. Based upon these results, Sandow concluded that the applications would not significantly affect any existing or planned transportation facilities for purposes of the TPR and, as such, applicable Goal 12 requirements would be met. The Board finds that no one presented testimony that undermined this conclusion. Therefore, the Board finds that the applications are consistent with Goal 12 and the TPR.

Goal 13: Energy Conservation

To conserve energy.

This goal contemplates that land and uses developed on the land be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.

To the extent that this goal is relevant to these applications, these applications would make aggregate resource available to the northwestern and western areas of Lane County, thus reducing fossil fuel use for transporting aggregate without a local source. The Board finds that the amendments are consistent with Goal 13.

Goal 14: Urbanization

To provide for an orderly and efficient transition from rural to urban use.

The subject property is not within an urban growth boundary and is not urbanizable; therefore, this goal does not have relevance to these applications. The Board finds that the amendments are consistent with and do not affect the RCP compliance with Goal 14.

Goal 15 Willamette Greenway

To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway.

The subject property is not located near the Willamette River or within the Willamette Greenway boundaries. This goal does not have relevance to these applications. The Board finds that the amendments are consistent with and do not affect the RCP compliance with Goal 15.

Goal 16: Estuarine Resources

Goal 17: Coastal Shorelands

Goal 18: Beaches and Dunes

Goal 19: Ocean Resources.

These four goals are geographically oriented to coastal resources; therefore, the Board finds that these Goals are not applicable to this application for mining within the Willamette Valley.

IV. SITE REVIEW PERMIT CRITERIA

In conjunction with Lane Code 16.216(5), Lane Code 16.257(2)(f) requires a Site Review Permit for quarry operations. The Board finds that the project would meet the following Site Review Permit criteria if mining were allowed.

Lane Code 16.257(4)(a): That the location design size shape and arrangement of the structures are sufficient for the proposal intent and are compatible with the surrounding vicinity;

The Board finds that a significant aggregate resource is present at the site in the location proposed for mining. The size and shape of the proposed quarry is designed to excavate the maximum quality of rock on the property. Based on the substantial evidence provided by the applicant and its consultants, as well as the conditions of approval adopted for the project, the Board finds that the site is designed to minimize impacts to adjacent uses through provision of noise and visual berms. The mining operations would avoid the former landfill site and will prevent flows of water to the landfill site. The Board finds that the proposed location, design, size, shape and arrangement of the project's structures would meet the intent of the quarry operation and would be compatible with the surrounding vicinity.

Lane Code 16.257(4)(b): That there is no unnecessary destruction of existing healthy trees or other major vegetation, and that due consideration is given to the preservation of distinctive historical or natural features;

Trees and Major Vegetation

Healthy trees and vegetation would be used as visual screens where possible. The only trees that would be removed from the site are those that overlay the quarry pit excavation area. These trees sit directly atop the aggregate resource and would need to be removed to allow mining in this location. The Board finds that there would not be unnecessary destruction of existing healthy trees or other major vegetation.

Distinctive Historical or Natural Features

The Board finds that Lane Code 16.257(4)(b) requires only that the County give "due consideration * * * to the preservation of distinctive historical or natural features." It does not require preservation of such features, and it is not a prohibition on impacts to these features. Further, as discussed above, there are no inventoried historic artifacts, riparian areas, or wetlands on the site that will be impacted by the mining operation. Furthermore, to the extent that concerns were raised about historic artifacts or features in the Impact Area, these would be fully avoided and not impacted by the quarry. Salmon Creek and its associated riparian area, as well as wetland areas in the impact area would also be avoided. Except in the geographic area of actual excavation, which is the purpose of the quarry use, no on-site "natural features" will be impacted by the project. These impacted features sit directly atop the aggregate resource and must be removed to allow mining in this location, which the Board has determined "shall be

allowed” pursuant to OAR 660-0230180(5)(c). The Board therefore finds that distinctive historical and natural features on the site and within the impact area have been considered and will be preserved from impacts by the project.

Lane Code 16.257(4)(c): That the quantity, location, height and materials of walls, fences, hedges, screen planting and landscape areas are such that they serve their intended purpose and have no undue adverse effect on existing or contemplated abutting land use;

The Board finds that based on the information submitted by the applicant, the quarry would provide berms to screen adjacent sensitive uses from noise, as identified by Daly, Standlee and Associates. As discussed in the noise findings above, these berms would be adequate to buffer noise impacts and will not have undue adverse effects on abutting land uses. The quarry would also provide a fence along the existing landfill to avoid intrusion that will not pose adverse impacts. Finally, the quarry would provide a 10-foot visual berm and fence along Dunning Hill Road for safety purposes. This fence and berm would not have adverse effects on neighboring uses. No walls or hedges are proposed for the site or Impact Area.

Lane Code 16.257(4)(d): That suitable planting of ground cover or other surfacing is provided to prevent erosion and reduce dust;

The Board of Commissioners finds that the quarry would be required, through conditions of approval listed below, to provide ground cover and many other mitigation measures to control dust. Appendix L to the PAPA application (DOGAMI Plan Set) also provides recommendations for vegetation planting for disturbed areas to minimize the potential for erosion and dust. As detailed above in the extensive discussions of dust impacts and stormwater erosion impacts, the Board finds that the project would adequately mitigate dust and erosion with planting and other methods.

The following proposed conditions of approval would be sufficient to ensure control of erosion and dust if mining were approved:

COA 8. The applicant/owner must comply with the stormwater and erosion control plan prepared by Westlake Consultants, dated July, 2015 and May 18, 2016 or as modified by DOGAMI, and as modified by Figure 6 of the Mining Area Maps.

COA 28. The applicant/owner must maintain vegetative ground cover on stockpiles to reduce dust.

COA 29. The applicant/owner must sprinkle interior roads with a water truck to reduce dust.

COA 30. The applicant/owner must have water spray bars on the crusher/screens to reduce dust potential.

COA 31. The applicant/owner must use a crusher that meets LRAPA/DEQ permit standards.

COA 32. The applicant/owner must follow DOGAMI’s Best Management Practices (BMP’s) for aggregate mining to suppress dust emissions.

COA 33. The applicant/owner must pave the main facility access road from Dunning Road to the scale house.

COA 34. The applicant/owner must use off-road equipment that meets federal Tier 3 off-road engine standards, and/or equipment to be modified as such.

COA 35. The applicant/owner must limit onsite idle times for heavy-duty diesel truck engines to no more than three minutes per truck trip.

COA 36. The applicant/owner must assure that if contracted services are present, (i.e. asphalt paving plant or a batch concrete mixing facility) that materials removed from air pollution control equipment will be stored in a covered container to prevent the material from becoming airborne during storage and transfer.

COA49. The operator must install and maintain a wheel wash facility for use by aggregate trucks prior to exiting the project site onto Dunning Road.

Lane Code 16.257(4)(e): That the location, design and size of the uses are such that the residents or establishments to be accommodated will be adequately served by community facilities and services or by other facilities suitable for the intended uses;

The Board finds that to the extent that the quarry would require community facilities and services, the quarry's needs would be met. Services for the quarry would be provided by the following public agencies:

- Fire: Hazeldell Rural Fire District.
- Police: County Sheriff, State Police
- Water: on-site well and/or purchased water
- School District: Oakridge School District 76
- Power: Lane Electric
- Access: Highway 58, north on Fish Hatchery Road, east on Dunning Road

Lane Code 16.257(4)(f): That, based on anticipated traffic generation, adequate additional right-of-way, road improvements, and on-site vehicular, bicycle and pedestrian improvements connecting directly to off-site roads, paths and sidewalks must be provided by the development in order to promote traffic safety and reduce traffic congestion.

The Board finds that the applicant's traffic analysis discussed at length above studied the anticipated traffic generation by the proposed quarry. Based on the results of the traffic analysis, the Board finds the proposed conditions of approval 10 through 20, which would require road improvements, an easement for off-site safe bicycle passage, and other measures to enhance safety and minimize congestion would be adequate. No sidewalks or paths are proposed for the quarry use, as safety is of utmost importance and visitation by the public is not encouraged. The proposed conditions of approval that respond to this criterion and would apply if mining were approved are as follows:

COA 10. Access to the site is on Dunning Road. A new driveway must be constructed to 30 feet wide, consistent with Lane Code 15.707, capable of supporting the quarry operations vehicles, and consistent with the TIA.

COA 11. The applicant/owner must remove vegetation and the earth embankment at the site driveway intersection with Dunning Road as necessary to meet the minimum AASHTO westbound stopping site distance identified in the TIA as 165 feet.

COA 12. A standard MUTCD warning sign with lettering, "TRUCKS" with a supplemental W16-2P "XX FEET" sign must be installed within the right of way no closer than 200 feet east of the driveway on Dunning Road to alert westbound traffic to the entering trucks. Sign installation to be completed by Lane County with costs reimbursed by the applicant.

COA 13. A standard MUTCD warning sign with lettering, "TRUCKS" with a supplemental W16-2P "XX FEET" sign must be installed within the right of way on Dunning Road to alert eastbound traffic to truck traffic. Sign installation to be completed by Lane County with costs reimbursed by the applicant.

COA 14. A standard MUTCD, advanced intersection warning sign (W2-7L with a supplemental W16-2P "XX FEET" sign) must be installed 495 feet in advance of the centerline of Kokanee Way intersection for southbound traffic. Sign installation to be completed by Lane County with costs reimbursed by the applicant.

COA 15. The applicant/owner must complete a pavement analysis for a 20 year design life based upon the existing traffic volumes and the addition of site generated traffic on both of the applicable sections of Dunning Road and Fish Hatchery Road. Such analysis and design proposal must comply with the applicable provisions of Lane Code 15.707(3). Any pavement structure mitigation measures determined necessary to meet a 20 year design life must be constructed by the applicant prior to the addition of 20 or more daily truck trips, within 5 years of commencing operations, or within 10 years of commencing operations provided the Pavement Condition Index (PCI) has not fallen below 70, whichever is less. Should the PCI fall below 70 after commencement of operation, the applicant/property owner must complete necessary pavement mitigation within one construction season. The PCI is measured routinely by Lane County. Any required paving work must be consistent with Lane County Road Overlay standards.

COA 16. The applicant/owner must comply with any future Rail Order issued by ODOT Rail.

COA 17. The applicant/owner must widen Dunning Road between Fish Hatchery Road and the Railroad right-of-way to a minimum paved width of 24 feet. Additional width must be constructed at guardrails to accommodate E distances and flares. Additional width is required to accommodate truck off-tracking along all curves on Dunning Road between the site driveway and Fish Hatchery Road. The applicant/owner must design and construct the facility to meet the requirements of LC 15.704.

COA 18. The applicant/owner must remove the existing driveway access located approximately 650 feet east of the railroad in conjunction with construction of the new driveway access.

COA 19. Lane County Facility Permits must be obtained for the following:

- Removal of the existing driveway access on Dunning Road.
- Construction of a new driveway access on Dunning Road.
- Required widening and paving improvement on Dunning Road.
- Paving improvements on Fish Hatchery Road.
- Removal of vegetation and earth embankment at the site driveway with Dunning Road to improve sight distance.
- Any other work required within the right-of-way of Dunning Road and/or Fish Hatchery Road.

COA 20. The applicant/owner must provide the following to the County Engineer at (541) 682-6928 for Lane County review of stormwater analysis: A final drainage report and drainage plans. The final report and plans must include information on the pre and post development drainage runoff flow rates, contours, drainage patterns, calculations, assumptions, details of detention pond, metering device, streams, culverts, roadside ditch, etc.

- If runoff is directed into any of the Dunning Road cross culverts, the flow capacity of these culverts must be evaluated in this report. If the culverts need to be upsized that will be the responsibility of the applicant.
- Water directed to the roadway must be directed to the cross culverts, not the roadside ditch.

Consideration shall be given to the need and feasibility of widening and improving abutting streets to specifications of LC Chapter 15, "Roads," and also to the necessity for such additional improvements as lighting, sidewalks, bicycle lane and path connections, and turn and deceleration/acceleration lanes. Improvements shall be consistent with access management, spacing standards, and other requirements of LC Chapter 15;

The Board finds that any necessary upgrades to abutting streets, including such upgrades as lighting, sidewalks, bicycle paths and pedestrian connections were reviewed for the proposed quarry. As necessary to mitigate impacts of the quarry operations, upgrades to streets and public facilities would be required under the conditions of approval listed above.

Lane Code 16.257(4)(g): That there is a safe and efficient circulation pattern within the boundaries of the development. Consideration shall include the layout of the site with respect to the location and dimensions of vehicular, bicycle, and pedestrian entrances, exists, drives, walkways, buildings and other related facilities;

The Board finds that the proposed site plan would provide safe and efficient circulation for the quarry activities. The Board finds that pedestrian paths and walkways are not appropriate for an active mining site due to safety considerations.

Lane Code 16.257(4)(h): That there are adequate off street parking and loading/unloading facilities provided in a safe, efficient and pleasant manner. Consideration shall include the layout of the parking and loading/unloading facilities and their surfacing, lighting and landscaping;

The Board finds that the proposed quarry site is designed for mining and processing of aggregate resources in a safe and efficient manner and is designed to facilitate loading and unloading at the

processing area. The site layout is designed to minimize off-site impacts. The quarry's off-street parking and loading/unloading facilities would be adequate for the quarry use, including parking areas for employees and visitors. Security lighting would be provided as is commonplace for all industrial uses, including mining. Proposed condition of approval 6 would require all lighting to be directed downward and shielded to eliminate light pollution to surrounding properties.

Lane Code 16.257(4)(i): That all signs and illumination are in scale and harmonious with the site and area;

The Board finds that the signs and illumination for the quarry are adequate to serve the quarry use and provide direction and safety. The signs are in scale and harmonious with the quarry use. Condition of approval 6 would require all lighting to be directed downward and shielded to eliminate light pollution to surrounding properties.

Lane Code 16.257(4)(j): That adequate methods are provided to ensure continued maintenance and normal replacement of facilities, landscaping and other improvements, etc. that are required by Site Review Permit.

As detailed throughout these Findings, proposed conditions of approval would ensure that mitigation measures required to decrease significant impacts would be required to be implemented by the applicant. The applicant would also be responsible for on-going maintenance of the on-site structures, as well as landscaping on the site.

Lane Code 16.257(5): Conditions. Reasonable conditions may be established in connection with a Site Review Permit as deemed necessary to secure the purpose and requirements of this section. Guarantees, evidence, dedications or bonding may be required to ensure that such conditions will be met.

The Board finds that the proposed conditions of approval would ensure that the applicant implement necessary mitigation measures for the project. To ensure such conditions would be met, the County would use its enforcement power to enforce the conditions of approval.

V. ADDITIONAL ISSUES RAISED DURING LOCAL PROCEEDINGS

Economic Viability of the Quarry

Opponents question the economic viability of the quarry. As discussed above, the site is properly classified as a significant aggregate resource under Goal 5 because it meets or exceed the ODOT specifications for base rock materials. The Goal 5 criteria do not take into consideration the dollar value or marketable aspects of the resource when evaluating a proposed significant Resource Site. *See* OAR 660-023-180. The economic viability of the quarry is not otherwise an approval criterion upon which the County can base its decision. Therefore, to the extent that opponents questioned the economic benefit and viability of the quarry, these comments are irrelevant. The applicant's rebuttal testimony provides a credible analysis of the economic benefits of a quarry at this location and includes a study from Eco NW, Inc. regarding the demand for aggregate and the interaction between aggregate and farmland. Additionally, opponents concerns regarding reclamation of the mine if it is not economically viable would be

addressed through the DOGAMI requirement to post a reclamation bond prior to mining disturbance. Should a mine operator fail to reclaim the land, DOGAMI can complete the reclamation with the bond funds.

Amount of Property being Added to the Inventory

In the original decision, the County included all 107 acres of the property on the County's Significant Mineral and Aggregate Resources Inventory because applicant proposed to conduct mining and processing activities across this entire area. On appeal to LUBA, opponents contended that the County erroneously included too much land on the inventory because 61 of the 107 acres of the property did not qualify as a "significant" aggregate resource site. LUBA concluded that the County may only add lands that qualify as a significant aggregate resource site pursuant to OAR 660-023-0180(3) or (4) to the inventory:

"We agree with petitioners that the site that is to be included on the CP Significant Aggregate Sites Inventory is the 46 acres where the significant aggregate resource is located. The other 61 acres (the processing area and a sizable area where there apparently is no mining or processing proposed) do not include a significant aggregate resource and should not have been included on the CP Significant Aggregate Sites Inventory."

Save TV Butte I at 29. As explained in Section III.C above, the Board has concluded that approximately 46 acres of the property (a portion of Tax Lot 1900 of Map 21-35-15 and a portion of Tax Lot 100 of Map 21-35-22) qualify as a significant aggregate resource pursuant to OAR 660-023-0180(3). However, because the Board has found that mining should not be allowed, these 46 acres are not eligible to be added to the inventory. *See* OAR 660-023-0180(5)(e) ("Where mining is allowed, the plan and implementing ordinances shall be amended to allow such mining").

Amount of property subject to the Quarry and Mine Operations ("QM") zoning designation.

In the previous appeal, opponents contended that the County is only allowed to assign the NR:M RCP designation and the QM Zone designation to those areas deemed significant (i.e., the locations included on the County's Goal 5 Inventory of Significant Mineral & Aggregate Sites) and cannot assign these designations to related and wholly necessary processing and operations areas. LUBA rejected this contention on appeal:

"How to plan and zone an inventoried significant mineral and aggregate resource site, and how to plan and zone any adjoining areas that may be needed for processing or buffers or to otherwise mitigate identified conflicts is a separate question from what property is properly included on the CP Significant Aggregate Sites Inventory. It may well be that such adjoining properties are properly assigned the same plan or zoning map designations as the area to be mined, or assigned other plan or zoning map designations to allow them to be put to

appropriate uses to allow mining and processing to occur and identified conflicts to be mitigated * * *.”

Save TV Butte I at 31-32. On remand, opponents contend that even if state law does not restrict the location of the NR:M RCP designation and the QM zoning designation, the RCP itself does. For two reasons, the Board denies this contention. First, although two RCP policies (Goal 5, Policies 1 and 9) both require that the NR:M and QM designations must be applied to inventoried sites, neither policy states that these designations may only be applied to inventoried lands. The Board finds that the opponents’ contention to the contrary improperly inserts the word “only” into the policies in contravention of ORS 174.010, and in the process, inserts restrictions into the policies that the Board did not intend. To the contrary, the County has expressed the intent that the QM zoning designation be applied to “new or existing operations” that “have been evaluated through” the Goal 5 process. LC 16.216(2). The LC purpose and intent statements for the QM zone do not state that the designation may only be applied to significant or inventoried sites.

Second, the Board finds that the RCP policies cited by the opponents do not apply directly to the applications. Pursuant to OAR 660-023-0180(9), local governments are required to directly apply OAR 660-023-0180 in their consideration of a PAPA concerning mining authorization “unless the local plan contains specific criteria regarding the consideration of a PAPA proposing to add a site to the list of significant aggregate sites.” *See also Hegele v. Crook County*, 44 Or LUBA 357 (2003) (local plan provisions preempted except as provided in the rule). The Board finds that the County has not amended the RCP and LC to include procedures and requirements consistent with OAR 660-023-0180 for the consideration of PAPAs concerning aggregate resources. As a result, the Board finds that OAR 660-023-0180, not the RCP policies, apply directly to the applications.

On a related note, opponents have suggested that the applicant intends to mine outside of the 46-acre site and suggests such mining could occur without further review. The Board denies this contention for the following reasons. First, the geographic scope of any mining area potentially approvable is defined by the adopted Site Plan, which here requests only mining within the identified 46-acre portion of the site. *See Revised Site Plan* provided on May 31, 2016 by KC. A description of the area to be mined is set forth in the application at page 12, which states:

“The proposed quarry site comprises five tax lots (100, 104, 401, 502, and 1900) but the majority of the extraction operations will take place on tax lots 100 and 1900. Processing operations, as well as a small amount of excavation and filling operations will take place on tax lot 502. A small 7.4 acre area in the extreme northwest corner of tax lot 1900 will remaining as Forest zoning for future use by the City for a proposed water storage tank. There are no planned mining operations for tax lots 104 and 401; and these areas will instead serve as buffers to the mining operation.”

As the site plan illustrates, the applicant is only requesting approval to mine a delineated 46-acre area, and if the proposed mine plan were adopted by the Board it would incorporate this mining footprint limitation. As described in the PAPA submittal, the remaining 61 acres are proposed for various uses and activities necessary to the commercial mining operation. Furthermore, the

applicant would also need a surface mining permit from DOGAMI, which would also define the area to be mined consistent with the County authorization. Any changes to the approved Site Plan would require subsequent review and approval by the County and DOGAMI. The Board denies opponents' contentions on this issue.

Quality of Life Conflicts Resulting from Ground Vibration Caused by Blasting at the Project

The Board finds that ground vibration associated with blasting at the project would not cause a quality of life conflict within the impact area, or alternatively, any such conflict would be minimized to an insignificant level.

The Board reaches this conclusion for two reasons. First, on remand, opponents have not articulated any specific "quality of life" issues occurring within the impact area with which blasting and vibration will conflict. As such, this contention is too generalized to establish a conflict. Further, the Board finds that issues raised earlier in the proceedings also do not establish "quality of life" conflicts for the following reasons:

Although an opponent contended that "[v]ibrations would run off our wildlife," the Board of Commissioners finds that, as phrased, this testimony appears to be concerned with impacts to wildlife, not people. To the extent impacts to wildlife affect overall "quality of life," that connection is not adequately explained by opponents and thus is an additional basis to find there is no "quality of life" conflict.

Although opponents expressed concern that blasting vibrations would cause "loss of amenity" and could "affect [chickens'] egg production," the Board finds that these concerns are too speculative to establish that there will be conflicts. Speculative testimony of impacts to agricultural practices is not sufficient to establish conflicts from discharges. *See Central Oregon Landwatch v. Deschutes County*, 72 Or LUBA 45 (2015) (no conflict where record only showed speculation of grazing impacts); *see also Protect Grand Island Farms v. Yamhill County*, 66 Or LUBA 291 (2012) (no conflict where there is no evidence in the record that diesel exhaust will taint berries). Further, to the extent that these agricultural impacts would somehow affect overall "quality of life," that connection is not adequately explained by opponents and thus is an additional basis to find that there is no "quality of life" conflict.

Although opponents expressed concern that blasting vibrations could lead to a flood of complaints made to the County, the Board finds that this contention is also speculative and appears to be premised upon a separate case (Tri-Met blasting for the Westside light-rail tunnel) where the blaster failed to comply with applicable standards. As Mr. Standlee testified in his June 20, 2016 report, once the blaster complied with applicable standards, the complaints subsided. The Board further finds that the blasting plan would require the mine operator to accept, log, and follow up on complaints, which should also reduce the burden on the County. This contention does not establish a "quality of life" conflict.

The Board also finds that blasting would only occur a few times a year, and the duration of each blast would be less than 10 seconds and often less than one second. As a result, the total amount of time taken up by actual blasting would be less than one minute per year. As support for this

conclusion, the Board relies upon the testimony submitted by Jerry Wallace dated October 9, 2018. These facts demonstrate how infrequent blasting would be, which further reduces the degree of “quality of life” concerns associated with vibrations.

Second, to the extent that blasting vibrations could create a potential “quality of life” conflict within the impact area, the Board finds that there are reasonable and practicable measures to minimize this conflict because applicant has submitted a blasting plan dated June 28, 2018, with a variety of measures that would minimize quality of life conflicts to people. These measures include the following: limiting blasting to specified days and hours, providing a blasting schedule in advance, emitting audible warnings before blasts commence, complying with applicable overpressure limits, having a Blaster in Charge, and blocking off area roads during blasting activities. The Board finds that these standards would address “quality of life” concerns because they provide notice to affected residents (such that they can leave the area or remove or shelter their animals in advance of a blast) and establish limits and parameters that would reduce the number and intensity of blasts. COA 55, COA 56, and COA 58 require compliance with these standards, and unrebutted testimony in the record supports the conclusion that it is feasible to comply with these standards. Thus, the proposed conditions would require compliance with measures designed to minimize quality of life conflicts to an insignificant level. Opponents do not explain why the proposed conditions would be ineffective at minimizing the “quality of life” conflict.

For these reasons, the Board denies opponents’ contentions on this issue.

Impacts to the Approved Forest Template Dwelling Use on Tax Lot 203.

In assessing conflicts with mining operations under the Statewide Planning Goal 5 rule, the local government must determine existing or approved uses within the impact area that will be adversely affected by the mining operations and then assess conflicts between mining and those uses. OAR 660-023-0180(5)(b). For purposes of the analysis, “approved uses” include “uses for which conditional or final approvals have been granted by the local government.” *Id.*

Opponents contend that the County’s analysis under this provision was flawed because it failed to identify and consider conflicts between a recently approved forest template dwelling (County File No. 509-PA17-05777) (“New Dwelling”) on an adjacent property (Tax Lot 203) and the project. The County did not approve the New Dwelling until December 2017, well after the County’s original approval of the project. As a result, it was not possible for the County to consider the New Dwelling in the original conflicts analysis or decision.

On remand, the County finds that conflicts between the New Dwelling and the project have been minimized. As support for this conclusion, the Board relies upon the following:

- October 23, 2018 letter from Jessica Stark, P.E., which explains that the proposed conditions of project approval would ensure that significant dust conflicts between the project and the New Dwelling are minimized. Ms. Stark reached this conclusion because, as stated in her earlier analysis on the record, it is feasible for the project to comply with the proposed air quality conditions of approval, and such compliance would, in turn, ensure conformance with applicable regional and federal air quality standards. This

conformance would *per se* minimize conflicts for existing and approved uses in the impact area, including the New Dwelling. See OAR 660-023-0180(1)(g).

- October 23, 2018 analysis from Kerrie Standlee, P.E., which explains that the proposed conditions of project approval would ensure that significant noise conflicts between the project and the New Dwelling are minimized. Mr. Standlee reached this conclusion after calculating the potential increase in ambient noise levels at the New Dwelling once the mine becomes operational and determining that the total noise at the New Dwelling would be equal to or below the DEQ ambient noise degradation rule limit applicable at the New Dwelling. He also explained that this analysis was conservative because, under applicable DEQ rules, it would only apply if the New Dwelling is occupied before the project commences operations. If that does not occur, noise levels from the project, as measured at the New Dwelling, would be subject to a much higher standard because a different DEQ rule applies under those circumstances. Conformance with the applicable DEQ rules would *per se* minimize noise conflicts between the project and the New Dwelling. See OAR 660-023-0180(1)(g).
- October 22, 2018 analysis from blasting consultant Jerry Wallace, which explains that, in his best professional judgment, it is feasible for blasting activities at the project to be conducted in compliance with the site-specific blasting plan, and that compliance with the plan would ensure conformance with applicable NFPA 495 standards limiting flyrock, vibration, and air overpressure, even as measured at the New Dwelling. Mr. Wallace reached his conclusions after calculating predicted velocities and accelerations at the New Dwelling. Conformance with the applicable standards would *per se* minimize flyrock, vibration, and overpressure conflicts between the project and the New Dwelling. See OAR 660-023-0180(1)(g).

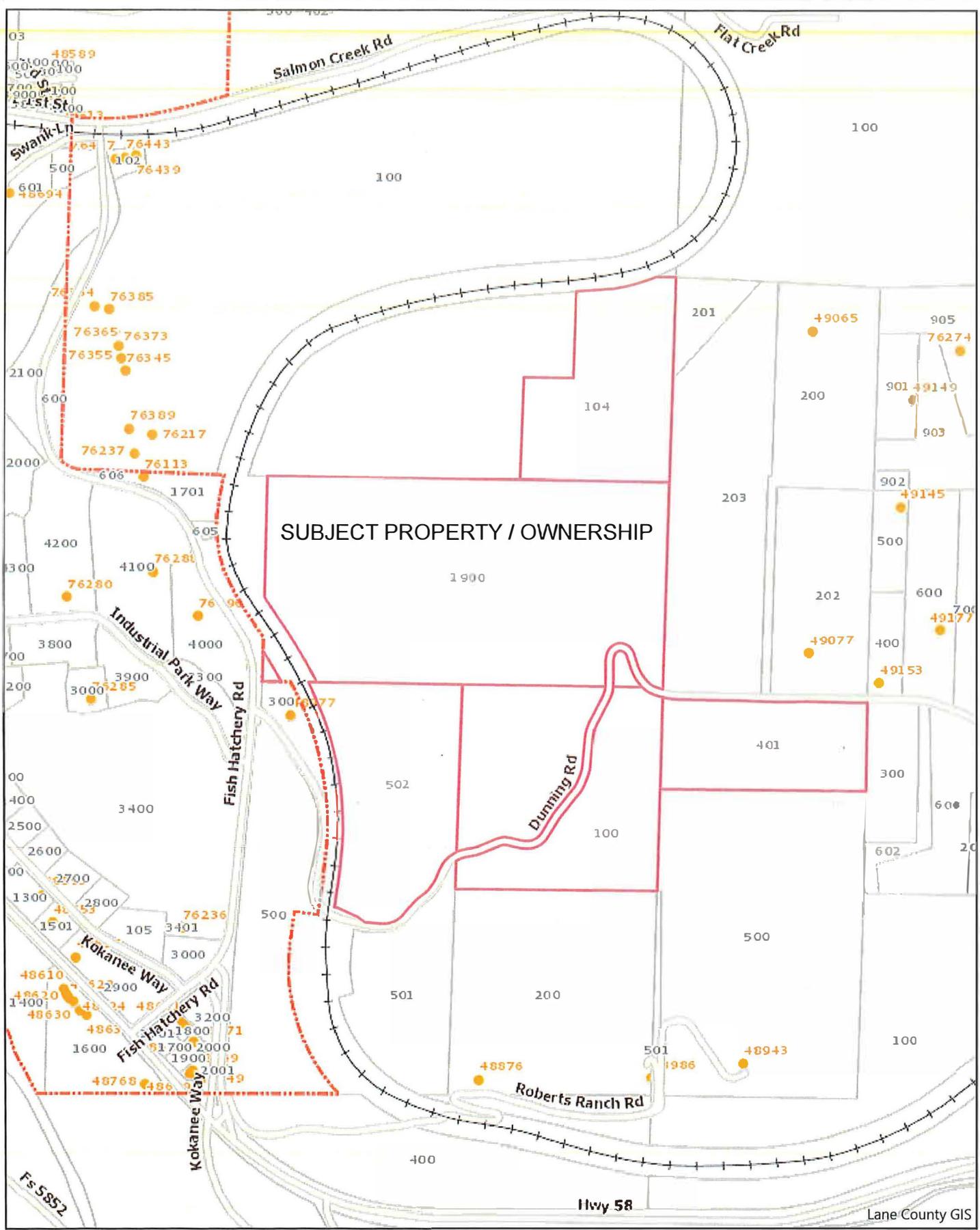
The Board finds that opponents did not submit any expert testimony that undermines, or even conflicts with, this expert testimony. Opponents also have not identified any other potential conflicts between the project and the New Dwelling. Therefore, the Board of Commissioners finds that conflicts between the project and the New Dwelling would be effectively minimized through the proposed conditions of approval.

VI. CONCLUSION

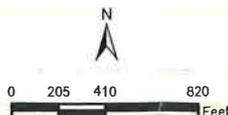
As stated above, the Board of Commissioners finds that with the exception of conflicts with inventoried big game resources, the applications satisfy the other applicable approval criteria, subject to imposing the identified conditions of approval. Further, the Board of Commissioners finds that it has addressed LUBA's remands in *Save TV Butte I* and *II* and has responded to issues raised during the local proceedings, again, with the exception of the big game conflicts. Due to the Board's finding that conflicts with big game in the impact area cannot be adequately minimized, the County has undertaken an analysis of the economic, social, environmental, and energy (ESEE) consequences of allowing, limiting, or not allowing mining at the site. The findings related the ESEE analysis (Exhibit B to Order No. 21-10-26-06) accompany these findings and support denial of the applications.

Accordingly, the Board of Commissioners DENIES the applications to:

- Adopt the Old Hazeldell Quarry site as a significant Goal 5 mineral and aggregate site by amending the County's Comprehensive Plan text and adding the 46 acres of the site with a significant aggregate resource to the County Inventory of Significant Mineral and Aggregate Sites;
- Amend the RCP to redesignate the land from Forest (F) to Natural Resource: Mineral (NR:M) and to rezone that land from Non-Impacted Forest Land (F-1) and Impacted Forest Land (F-2) Zones to Quarry and Mine Operations (QM) zone; and
- Issue a Site Review for the proposed use pursuant to Lane Code 16.257 consistent with OAR 660-023-0180(5)(e).



The information on this map was derived from digital databases on the Lane County regional geographic information system. Care was taken in the creation of this map, but is provided "as is". Lane County cannot accept any responsibility for errors, omissions or positional accuracy in the digital data or the underlying records. Current plan designation, zoning, etc., for specific parcels should be confirmed with the appropriate agency. There are no warranties, expressed or implied, accompanying this product. However, notification of any errors will be appreciated.



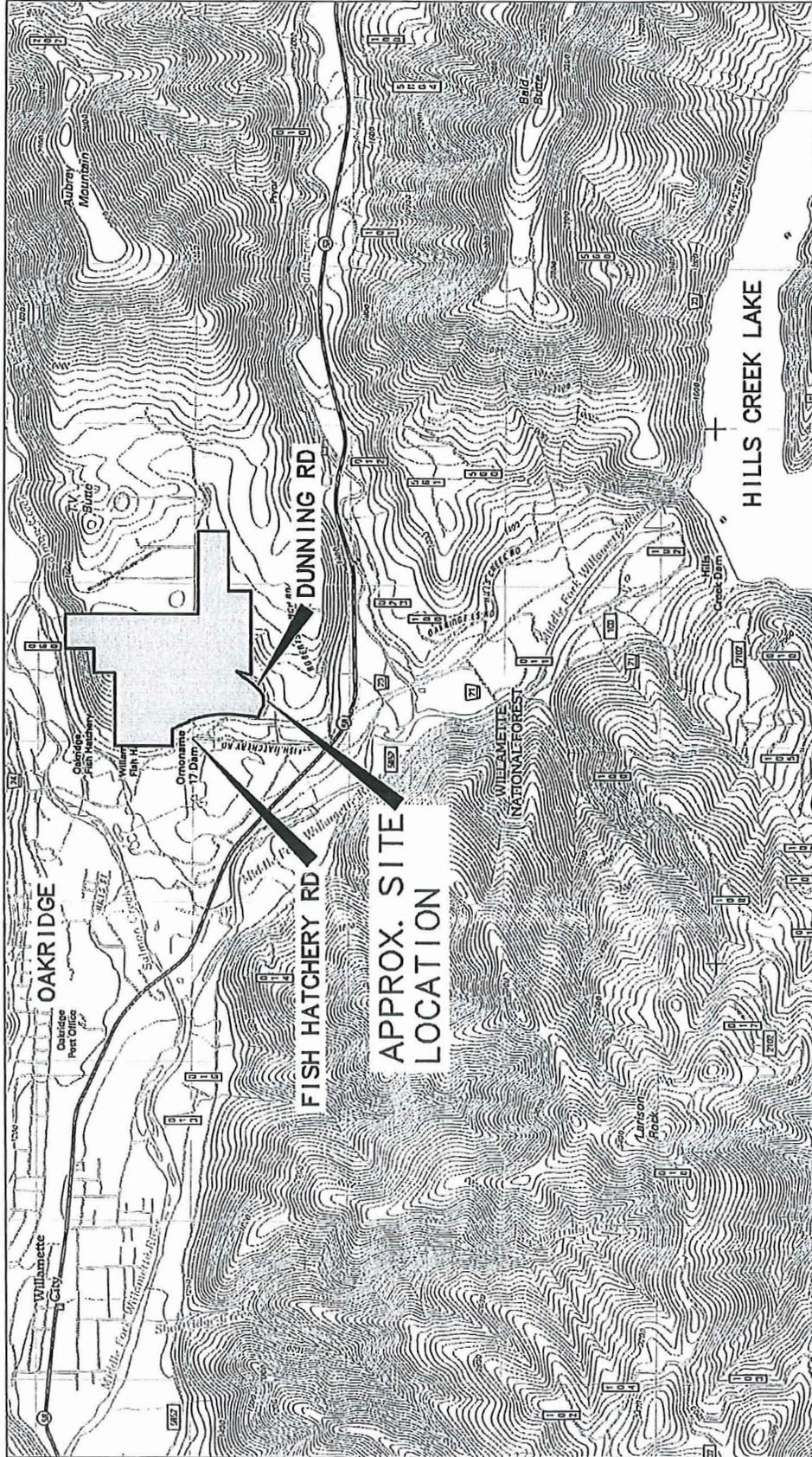
VICINITY MAP - Ordinance 1385

Lane County, Oreg

Attachement A
Page 1 of 1

VICINITY MAP FOR OLD HAZELDELL QUARRY SITE

FIGURE 1



SCALE: NTS

DATE	03/2015
DRAWN BY	PEK
CHECKED BY	BEM
REVISIONS	
JOB NO.	2372-001

KUPER CONSULTING LLC
 ENGINEERING GEOLOGY CONSULTANTS
 TIGARD, OREGON (503)638-9722
 HELENA, MONTANA (406)475-3244



WESTLAKE CONSULTANTS INC.
 ENGINEERING ♦ SURVEYING ♦ PLANNING
 PACIFIC CORPORATE CENTER
 15115 S.W. SEQUOIA PARKWAY, SUITE 150 (503) 684-0852
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NOTE:
 DRAWING SCALES INDICATED APPLY TO
 11" x 17" DRAWING SHEETS. SCALE MAY
 NOT BE ACCURATE IF DRAWING PLOTS
 ARE LESS THAN THIS SIZE, USE BAR
 SCALE FOR REFERENCE ON REDUCED
 SIZE SHEET.



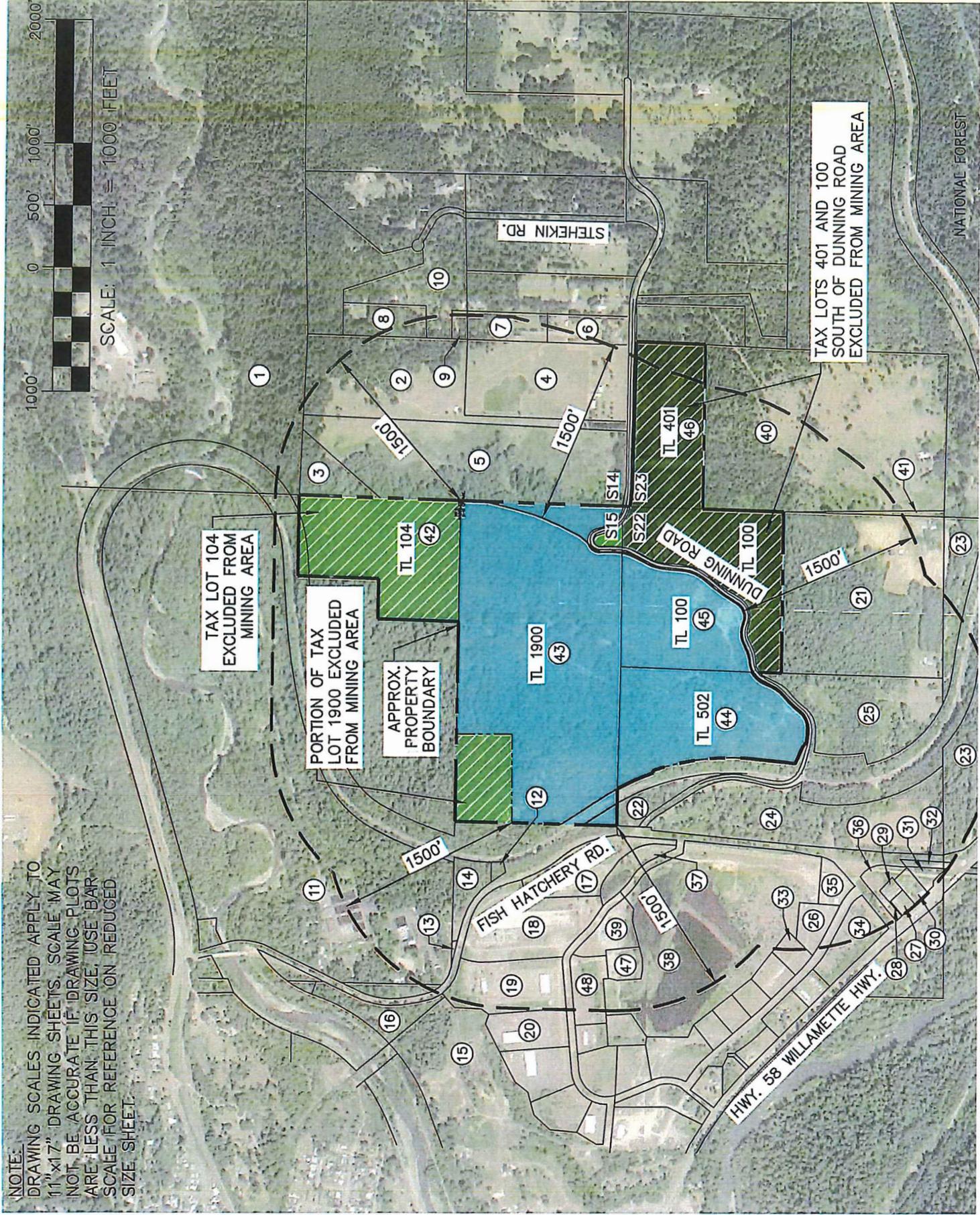
SCALE: 1 INCH = 1000 FEET

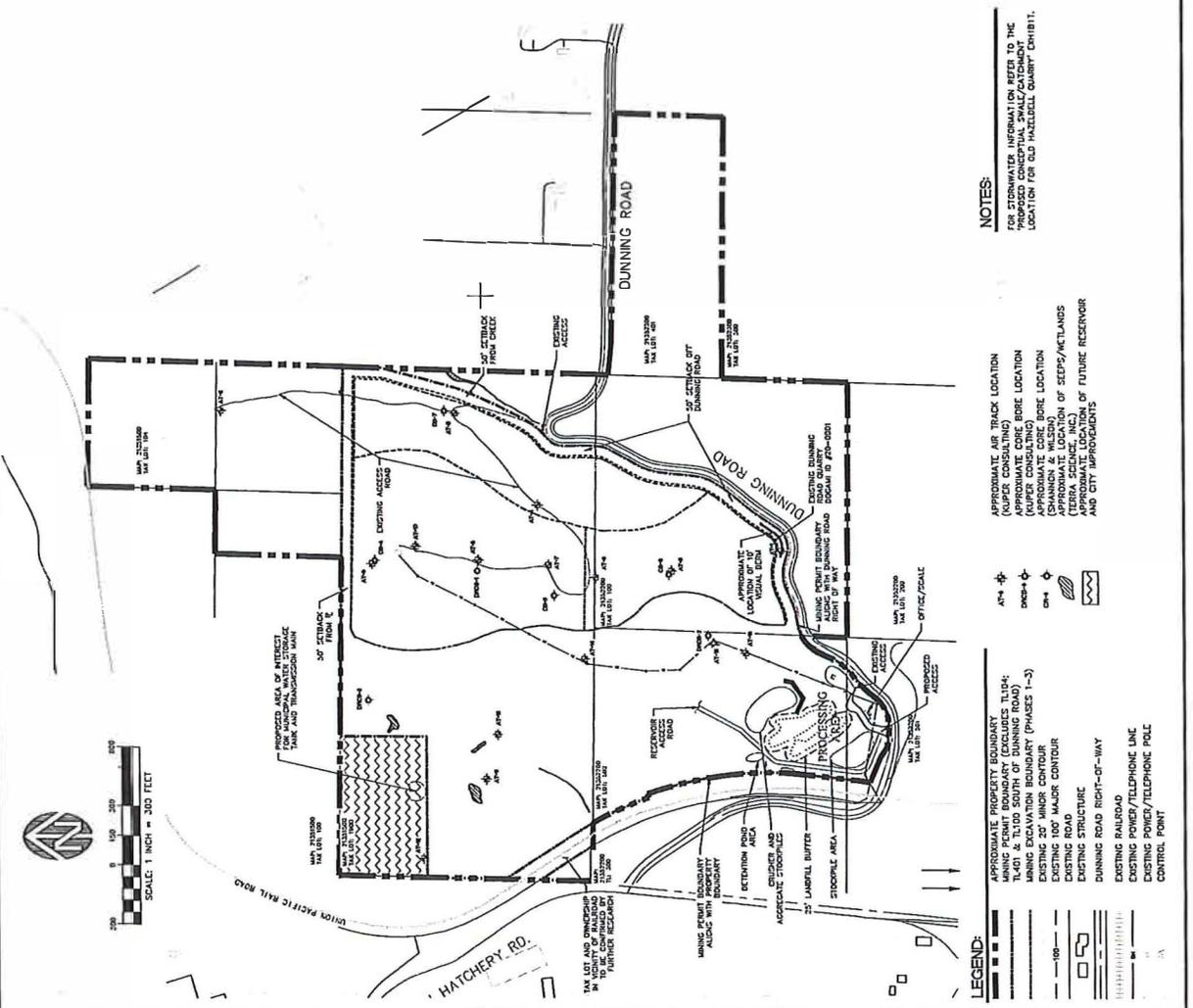
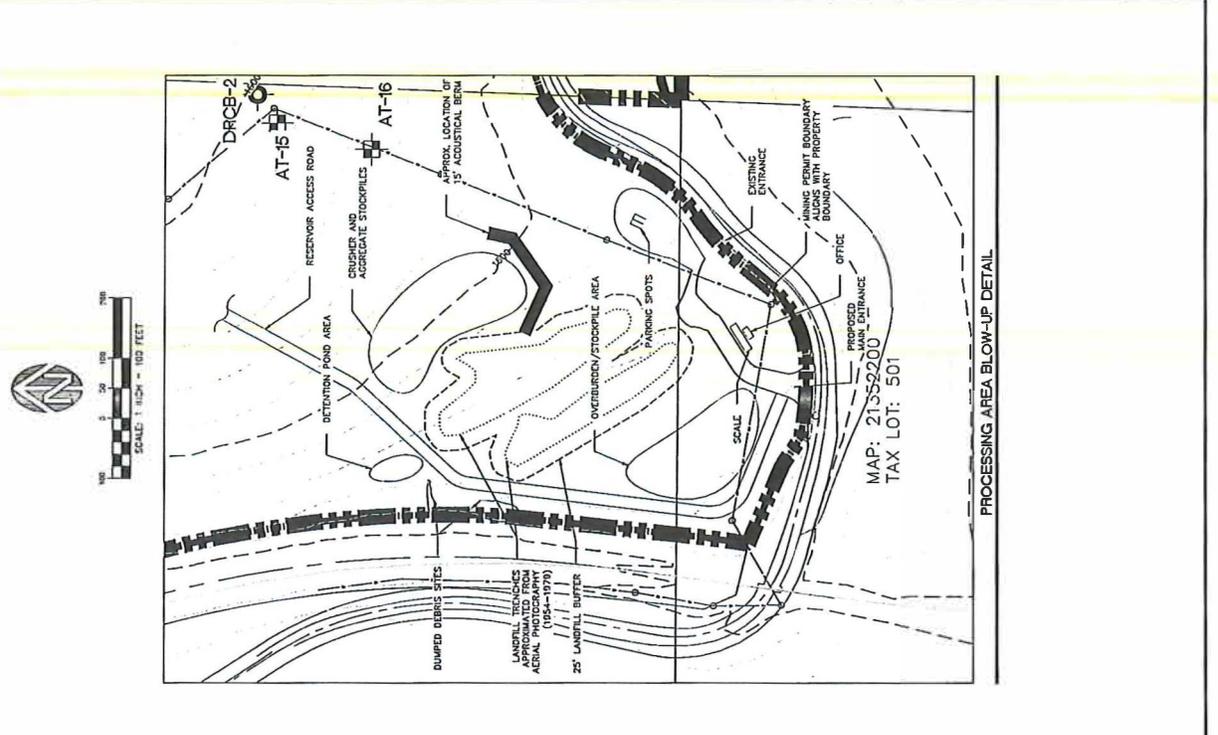
TAX LOT 104
 EXCLUDED FROM
 MINING AREA

PORTION OF TAX
 LOT 1900 EXCLUDED
 FROM MINING AREA

APPROX.
 PROPERTY
 BOUNDARY

TAX LOTS 401 AND 100
 SOUTH OF DUNNING ROAD
 EXCLUDED FROM MINING AREA





**Exhibit B to Order No.
21-10-26-06 ESEE Findings**

Big Game Habitat Impacts

Goal 5—The Mining and Aggregate Resource rule requires a determination of conflicts of the proposed mining with other Goal 5 resources that are shown on an acknowledged list of significant resources (OAR 660-023-0180(5)(d)). That rule provides:

“The local government shall determine any significant conflicts identified under the requirements of subsection (c) of this section that cannot be minimized. *Based on these conflicts only*, local government shall determine the ESEE consequences of either allowing, limiting, or not allowing mining at the site. Local governments shall reach this decision by weighing these ESEE consequences, with consideration of the following:

- (A) The degree of adverse effect on existing land uses within the impact area;
- (B) Reasonable and practicable measures that could be taken to reduce the identified adverse effects; and
- (C) The probable duration of the mining operation and the proposed post-mining use of the site.”

Where a significant resource is identified, the County must determine whether conflicts exist, and if so, whether the conflict can be minimized, and if not, an ESEE analysis must be completed. The mining site and character of the request is described in the main findings of fact and conclusions of law in Attachment 1 Exhibit A.

In the Board’s original decision approving the application in 2017, it determined that even though the County had designated portions of the impact area as Big Game Range, the County had not classified the Big Game Range as a “significant” Goal 5 resource during the Lane County Rural Comprehensive plan adoption process. Accordingly, the Board concluded that there was no need to determine conflicts with Big Game in the impact area.

On appeal to LUBA in *Save TV Butte I*, LUBA disagreed with that conclusion. *Save TV Butte v. Lane County (Save TV Butte I)*, 77 Or LUBA 22 (LUBA No. 2017-031, January 8, 2018). In short, LUBA concluded that the adopted inventory of Big Game habitat was indeed on the County’s Significant 1C inventory that was to be protected under the Goal 5 rule. Therefore, the County needed to assess the potential conflicts the proposed mining action would have on the protected Big Game Goal 5 resource. As a result, the applicant addressed the conflicts to Big Game Range in their supplemental findings in the 2018 remand with the Board. The Board voted 4-1 to approve the remand in the 2018 proceedings and the decision was appealed to LUBA a second time. However, in the second LUBA appeal (*Save TV Butte II*), LUBA remanded *primarily* on a procedural notice issue and did not reach a decision on other substantive issues, including Big Game. *Save TV Butte v. Lane County (Save TV Butte II)*, ___ Or LUBA ___ (LUBA No. 2019-002, October 16, 2019). Accordingly, the issue of conflicts to Big Game is before the Board again in this remand.

As part of the conflict assessment the impact area includes a 1,500 foot buffer from the boundaries of the mining area. The inventoried Big Game Range applies to much of the area within the 1,500-foot impact area. Most of the 1,500 foot impact area is classified as Major Big Game area the highest quality habitat area while portions nearer to the City of Oakridge are classified as Impacted Big Game habitat area. Goal 5 requires an analysis to identify potential conflicts. If a significant conflict is identified, reasonable and practicable measure must be adopted to minimize the conflict, i.e., “reduce the conflict to a level that is

no longer significant.” OAR 660-023-0180(1)(g). If reasonable and practicable measures are identified to minimize conflicts, mining should be allowed at the site. If the local government determines conflicts cannot be minimized then the local government must determine the ESEE consequences of either allowing, limiting, or not allowing mining at the site (OAR 660-023-0180(5)(d)).

Identification of Potential Conflicts

Applicant’s Expert

On remand, the applicant hired Northwest Resource Solutions, LLC to prepare a report on the potential conflicts between the proposal and the Big Game habitat in the area (specifically blacktailed deer and Roosevelt Elk). The applicant’s expert wildlife biologist, Jason Robison, identified two such potential conflicts: displacement conflict and collisions conflict. Each of those potential conflicts are discussed below.

Displacement Conflict

With regard to the potential displacement conflict, Mr. Robison explained that both deer and elk respond to disturbances associated with increases in ambient noise levels. Based on the severity of the noise disturbance and other factors listed below, Mr. Robison determined that, although the project could cause temporary displacement of big game, this displacement “is not likely to result in any long-term measurable impacts on local populations.” See Northwest Resource Solutions “Goal 5 Big Game Impact Assessment Report” dated May 7, 2018 at 6.

Mr. Robison reached this conclusion because the habitat within the impact area would remain intact, the deer and elk in the area naturally move within home ranges that extend beyond the impact area (in fact, well beyond the impact area in the case of elk), mining activities would be phased in over time (which would allow deer and elk time to adjust), the area is already highly disturbed by human activity (due to an active railroad, active airstrip, nearby residences, Highway 58, recreational activities such as mountain biking and hiking, and urban development associated with the City of Oakridge), the fact that the County itself has deemed the western half of the impact area as “Impacted Big Game Range,” which is the “lowest quality habitat and has essentially been ‘written off’ for Big Game management,” and implementation of the noise mitigation measures set forth in COA 21, 22, 23, and 24, which would minimize noise conflicts with big game in the impact area. Northwest Resource Solutions Report at 6-7, 8.

Collision Conflicts

This conflict, as explained by Mr. Robison, involves the increase in wildlife vehicle collisions. The increase in truck vehicle miles travelled as a consequence of the increase in mining activity increases the likelihood of collision between those additional trucks and resident Big Game. Again, the applicant’s expert concluded that the conflicts between Big Game and haul trucks on the haul road in the impact area will either not be significant, or to the extent they are significant, they will be minimized by reasonable and practicable measures.

Mr. Robison based this conclusion on the assertion that the mine would not be expected to increase the number of collisions to a significant level due to the relatively small number of resident Big Game in the immediate area and the fact that the haul road is only 1,800 feet long (about a third of a mile) in the impact area. Northwest Resource Solutions Report at 7. Mr. Robison also based his conclusion on the fact

that elk generally avoid roads and road crossings. Id. Finally, based upon studies in the field, he recommended that the County install signage warning of elk and deer in the area as a means to further reduce the likelihood of collisions. Northwest Resource Solutions Report at 8.

Condition of Approval #50 provides:

“Standard MUCTD signage shall be posted within the project impact area along both sides of Dunning Road between the mine entrance and Fish Hatchery Road warning of deer and elk in the area. Additionally, the operator shall post signage at the site egress warning exiting drivers of deer and elk in the area and the need for drivers not to exceed 25 miles per hour along Dunning Road.”

Based upon the application of the proposed condition, the Board concludes that the required signage will reasonably reduce the identified collision conflict to a level that is no longer significant.

Remaining Assignments of Error or Additional Impacts to Big Game

In *Save TV Butte II*, LUBA did not address all of the petitioner’s assignments of error. Petitioners fourth assignment of error argued that the county improperly construed OAR 660-023-0180(5)(b)(D) in failing to evaluate **all** conflicts with big game.¹

LUBA listed potential additional alleged conflicts identified by the petitioners in that appeal, including conflicts due to vehicle and human traffic, big game stress hormone response, decreased reproduction, increased mortality, and other behavioral responses. *Save TV Butte II*, at fn. 8. Staff’s Cover Memo dated April 20, 2021 detailed these issues. As explained above, the applicant addressed the collision and displacement as conflicts to Big Game as part of their analysis, but did not provide further evidence to address this allegation on remand. Furthermore, ODFW letters in the record raised additional concerns with consequences to foraging, overwintering, fawning, along with a result of ODFW issuing more elk tags due to redistribution of elk in the area, damage to agricultural lands and fences in their comments. As such, these appear to be unresolved potential conflicts to Big Game which the applicant has not addressed. Therefore, the Board finds the applicant did not provide evidence to evaluate how these potential conflicts to Big Game, vehicle and human traffic, big game stress hormone response, decreased reproduction, increased mortality, other behavioral responses, consequences to foraging, overwintering, fawning, result of increased elk tags, damage to agricultural lands and fences are minimized.

ODFW Letters

Oregon Department of Fish and Wildlife (ODFW) is the lead and premier wildlife agency in Oregon. Its mission includes managing deer and elk populations at healthy and sustainable levels compatible with the

¹ OAR 660-023-0180(5)(b) provides, in relevant part,

“For determination of conflicts from proposed mining of a significant aggregate site, the local government shall limit its consideration to the following:

* * *

(D) Conflicts with other Goal 5 resource sites within the impact area that are shown on an acknowledged list of significant resources and for which the requirements of Goal 5 have been completed at the time the PAPA is initiated.”

primary uses of the land (ORS 496.012) and bases its management decisions on the Oregon Black-tailed Deer Management Plan (ODFW 2008) and Oregon's Elk Management Plan (ODFW) 2003).

During the open record period following the initial remand hearing on April 20, 2021, ODFW submitted two letters, dated April 29, 2021 and May 18, 2021, from District Wildlife Biologist, Christopher Yee. With regard to the 1,500 foot impact area, Mr. Yee acknowledged in his April letter that the County's analysis is limited to the impact area (1,500 feet), but that ODFW's jurisdiction extends beyond that boundary. Based on the ODFW letters, opponents argued that the impact area should be expanded, as is allowed in OAR 660-023-0180(5)(a) (impact study area may be expanded "where factual information indicates significant potential impacts beyond this point"). However, the Board finds that the opponents did not object to the scope of the impact area during the previous LUBA appeals and it is therefore too late to raise the issue now. As such, the discussions below are limited to the identified conflicts that occur within the 1,500 foot impact area. Also, ODFW expressed concerns related to other wildlife in its letters. However, as a matter of law under the Goal 5 Mining and Aggregate Resources rule, the county can only consider impacts to wildlife that are on an acknowledged list of significant resources, which here includes only Big Game.

ODFW raised two main concerns relating to Big Game conflicts, loss of habitat and displacement, with derivative concerns relating to property damage, staffing limitations, and mortality.

Displacement Conflict

With regard to the identified displacement conflict, the applicant's expert concluded that there would be no direct removal of habitat because there are no proposed mining or processing activities occurring within the impact area. Northwest Resource Solutions Report at 5. The applicant concludes that conflicts to Big Game will be minimized by proposed Conditions of Approval 21-24 & 50. The May ODFW letter concluded that there would be direct loss of habitat both from direct and indirect impacts to wildlife. ODFW indicated that the project site is located within county designated Goal 5 habitat for Big Game and in ODFW's Year-round Major Big Game Habitat area. ODFW further states displacement would result in private property damage complaints, workload increases (ODFW staffing), and lethal take. ODFW differed from the applicant's assessment in that they believe the impacts are long-term and measurable as indicated in their April letter. However, it appears from the graphic and aerial photo submitted by the applicant's expert that mining and processing activities themselves will not overlap with major Big Game habitat. That said, the mining activities create impacts that will adversely affect the nearby Big Game habitat.

Mr. Robison identified the impacts of noise on the elk and deer herds, but asserted:

"Deer and elk naturally move across their home ranges to exploit changes in resource availability. Disturbance within the impact area may temporarily displace deer and elk; however, both deer and elk would likely continue to use the habitat within the impact area for portions of their life history, and they would likely select other areas and microhabitats within their home range to meet other seasonal needs." Id. at 7.

The opponent's wildlife biologist, John Goddell comments were general in nature and concluded that elk are generally highly sensitive to human disturbance. The applicant states the consultant relied on studies conducted for a different elk sub-species and not Roosevelt Elk, and did not address site specific items such as habitat types or conditions.

ODFW asserts that black-tailed deer tend not to relocate outside of their home range even when disturbance occurs. “[T]hese animals will be directly impacted from the proposed actions. Consequences for foraging, overwintering, and fawning are likely significant in scope.” April letter at 1. ODFW explains that, in contrast, elk do tend to leave an area when disturbance exceeds their tolerance. With regard to the large elk herd in this vicinity of this proposal, ODFW has observed the damage that large elk herds do to agricultural lands, fences and other features of private property. Following efforts to break up large herds, ODFW is not currently experiencing elk herd-caused damage to the Oakridge area or the project site. ODFW fears the proposed project will likely cause “resident elk to relocate to another area in Oakridge on private lands since the adjacent National Forest land is extremely poor quality elk habitat.” Damage to those areas where elk is likely to relocate as a result of the proposed 20-50 years of disturbance “would likely result in ODFW issuing more elk tags to further reduce the population. Thus, redistribution of elk from the project area would result in some elk mortality.” ODFW concluded that the imposition of Conditions of Approval 21-24 are inadequate to address the issues of displacement.

Direct Loss of Habitat

ODFW described the area’s habitat type as a Year-round Major Habitat and acknowledged the area is within the county designated Goal 5 habitat for big game in their May letter. ODFW concluded this habitat type is essential for wildlife. ODFW asserts a direct loss is expected to impact deer populations and elk are expected to be impacted indirectly by proposed project activities. ODFW recommends a mitigation plan for their “no net loss” policy.

HMMP and Mitigation Versus Conflict Minimization

The ODFW May letter indicated a recommendation to “mitigate” for the loss of habitat. The applicant titled this potential coordination effort with ODFW a Hazard Management and Mitigation Plan (HMMP) in their June 1, 2021 letter and June 8, 2021 final rebuttal letter. While this may be consistent with ODFW policy, staff note the Mining and Aggregate criteria focuses on conflict minimization to Big Game and not mitigation of impacts. While impact mitigation is something that can be contemplated and potentially achieved with coordination efforts between an applicant and ODFW, the Board finds that impact mitigation is not in lieu of conflict minimization as directed by the Rule.²

During the Board’s deliberations on August 3, 2021, the Board voted 3-2 to tentatively deny the application and directed staff to return to the Board with revised findings and an ESEE analysis on October 26, 2021. The Board finds that the ODFW submissions demonstrate that mining activities would result in conflicts to Big Game and that the applicant’s proposed conditions of approval are inadequate to sufficiently minimize significant conflicts to Big Game. Specifically, the Board finds that the measures proposed by the applicant, including Conditions of Approval 21-24, are insufficient to reduce the conflicts with Big Game habitat (specifically, the likely displacement of resident elk herds and loss of habitat to deer and elk) such that the conflicts are no longer significant, as required by OAR 660-023-0180. The Board further finds that the conflicts with Big Game will lead to impacts to private property located in their home range within the 1,500 impact area.

² The critical distinction between “minimization” of conflicts and “mitigation” of impacts is that “minimization” includes a goal or end point; a conflict is “minimized” at the point where the conflict is no longer significant. “Mitigation” of impacts, on the other hand, is open-ended; there is no specific target or goal to which the impacts must be reduced.

Based solely on the identified conflicts that cannot be minimized noted above, OAR 660-023-0180(5)(d) requires the county to analyze the ESEE positive and negative consequences of allowing, limiting or not allowing mining.

Economic, Social, Environmental and Energy Consequences Analysis (“ESEE”)

Identification of ESEE Consequences

Economic:

Allowing Mine: Some of the economic consequences of allowing the mine are positive. For example, Project operations will provide direct and indirect jobs and generate local and state tax revenue. The applicant’s economist, Jerry Johnson, asserts that the Project, at full capacity, will employ 16.5 - 20.7 full-time employees, each of which will be paid an average of \$60,000/year, or a total of \$1.0 - 1.3 million in labor income per year. See “Economic and Fiscal Impact Analysis - Old Hazeldell Quarry” prepared by Johnson Economics and dated November 2015. Including wages and total value added, the Project will have direct impacts of between \$2.5 and \$3.1 million per year and total impacts (direct, indirect, and induced) of between \$3.7 and \$4.7 million per year. Id. Over its lifespan, the Project is expected to generate approximately 2,046 full-time equivalent positions with total labor income of approximately \$248,580,258. Id.

Further, the Project is expected to generate approximately \$18.7 million in local and state taxes, including corporate, individual, and ad valorem taxes. These taxes include over \$832,000 in ad valorem taxes. Id. By comparison, the Property was charged only \$1,674 in ad valorem taxes in 2014. Id. Preparation for Project operations will also provide significant economic benefits, such as payment of permitting and consultant fees.

Opponents contend that there is no demonstrated public need for aggregate from the Project. In response, the applicant first contends that neither the Goal 5 rule nor any other applicable standard affirmatively requires the demonstration of a public need. The applicant is correct in this regard. There is no direct “public need” approval criterion, *per se*. The applicant contends that if the market does not support development of the Project, it will not develop, and none of the Project consequences— positive or negative—will result. The applicant appears to miss the point the opponents are trying to make with regard to the “public need”. It appears that the opponents’ point is that, if there is no public need, and the demand is not there for the aggregate, then the positive economic consequences will not materialize. What opponents fail to mention is that if the market demand is not present, the negative economic consequences also will not materialize. The Board finds that consideration of “public need” would result in no net change in the positive and negative consequences and need not be considered.

Opponents contend that negative economic consequences of approving the Project include adverse effects to the tourism and mountain biking industry. The applicant counters that the alleged consequences are speculative and not supported by a site-specific analysis of Project economic impacts like the report submitted by the applicant. Second, the applicant alleges that the opponents’ alleged adverse impacts to tourism fail to account for the imposition of Condition of Approval #1, which limits the days and hours of specific mining activities (no mining activities of any type on Sundays or significant holidays; no drilling and blasting on Saturdays or weekdays after 4 p.m.; weekday mining activities must conclude by 5 p.m.). The applicant alleges that there are many hours each day and each week when mountain bikers and tourists can travel the area without experiencing mine impacts. Moreover, even if

the mine is operating, it is subject to conditions of approval designed to minimize Project conflicts such that tourism and mountain biking activities can continue without significant conflicts.

The Board agrees with the applicant that any negative economic impacts based on loss of mountain biking tourism would likely be minimal, if any. The evidence in the record demonstrates that one short piece of one trail falls within the impact area. The alleged negative economic consequences to tourism based on approval of the mine are so inconsequential that they need not be considered.

Finally, ODFW identifies the possible negative economic consequences from private property damage, including damage to fencing and agricultural lands, resulting from the likely dispersal of the resident elk herd.

Not Allowing Mine: If the mine is not allowed, the County will not reap any of the positive economic consequences cited by the applicant. However, if the mine is not allowed, the resident elk population will not be dispersed, which will eliminate the possibility that a dispersed herd could cause damage to private property.

Limiting Mine: The negative economic consequences of limiting the mine are the loss of at least a portion of the positive economic consequences of allowing the mine fully. The applicant asserts that limiting the mine would be tantamount to not allowing the mine at all, because it is not financially feasible to conduct mining operations on the Property in such a limited area. In that case, the Board should find that the negative economic consequences of limiting the mine are the loss of all of the positive economic consequences of allowing the mine.

On balance, the positive economic consequence of allowing the mine, largely related to the revenue and jobs created, slightly outweigh the possible negative economic consequences resulting from possible private property damage.

Social:

Allowing Mine: The applicant identifies the following positive social consequences of allowing the mine: (1) the positive social esteem for the 16.5-20.7 workers employed at the mine; and (2) the social benefits associated with utilizing aggregate from the mine to complete needed regional transportation improvements, including potentially some of the more than \$1 billion in planned improvements identified by the County's Transportation System Plan ("TSP"). See TSP Vol. 1, pp. 24-39.

The negative social consequence of allowing the mine include the loss of Big Game habitat values. The applicant asserts that this consequence has low value because the conditions of approval would mitigate the loss of habitat. However, the ESEE analysis is being conducted because the Board has determined that the conflicts to Big Game habitat cannot be sufficiently minimized to a level that is not significant. The Board agrees, the loss of Big Game habitat is significant and the social consequences of loss of elk and deer based on that loss in habitat must be accounted for.

Not Allowing Mine: The positive social consequences of not allowing the mine include the preservation of Big Game habitat values. The applicant asserts that to the extent an "existence value" exists in this case at all, it is not substantiated and does not warrant further consideration in this analysis. The "existence value" is the value placed on knowing that a resource exists, even though nobody may ever use it. It is the value of the benefits derived from the asset's existence alone. The very fact that Big Game habitat is

a Goal 5 resource subject to significant protections dispels the applicant's position that "existence value" is not substantiated or worthy of discussion.

The Board disagrees with the applicant that the "social esteem" of the workers who would not be employed if the mine were not allowed can be considered a negative social consequence of not allowing the mine. It is not as if the projected, hypothetical workers are now unemployed. They never were employed. Workers that would have taken positions at the mine would be employed elsewhere--perhaps not in the mining industry, but those workers could find "social esteem" in other employment.

The applicant also identifies another negative social consequence of disallowing the mine: that the region would not utilize its natural resources to serve the greater good of completing road improvements the County has identified as needed during the planning period of 30-50 year lifespan. While the County has identified certain road projects that must be completed, the applicant has failed to demonstrate that those projects could not or would not be completed if the proposed mine were not operational. The applicant asserts that the proposed quarry is the closest location to certain of the needed road projects. The proximity of the quarry to the needed road projects is not a negative social consequence because the road projects could still be completed. That consideration is appropriately addressed in the energy consequences analysis; that is, an analysis of the energy costs of transporting rock from this quarry as opposed to transporting rock from a more distant quarry.

Limiting Mine: Limiting the mine will limit the applicable positive and negative social consequences. The degree to which these consequences are limited will be directly tied to the extent or degree to which the mine itself is limited. That said, as discussed above, the Board has rejected the two positive social consequences identified by the applicant.

The Board finds that "existence value" can be considered a positive social consequence of not allowing the mine. The Board also rejects the two positive social consequences that the applicant identifies for allowing the mine. On balance, the positive social consequences of not allowing the mine outweigh the positive social consequences of allowing the mine.

Environmental:

Allowing Mine: The parties have not identified any positive environmental consequences of allowing the mining activity. The obvious negative environmental consequences of fully allowing the mine include the adverse impacts to Big Game habitat values. The applicant offers two reasons to discount this negative consequence. First, it alleges that the impacts are to lower-quality habitat. It asserts that much of the western half of the impact area is classified as "Impacted Big Game Range," which consists of "areas that have existing levels of land use which preclude future wildlife management options of maintaining viable wildlife population." See Lane County "Working Paper: Flora and Fauna." "Impacted Big Game Range" is the "lowest quality habitat and has essentially been 'written off' for Big Game management." Id.

The development site, admittedly, abuts developed land on its western side. See Northwest Resource Solutions Report at 11 ("Big Game Habitat Map"). That land is designated Impacted Big Game Range. It is the land within the impact area to the east of the mine that is the more valuable Major Big Game habitat. As is shown on the Big Game Habitat Map, a significant portion of the impact area is designated "Major Big Game Range." This is the designation for which the County provides the highest level of protections and contains the highest quality habitat. Additionally, ODFW identifies this area as "Year-round Major Habitat," or Habitat Category 3. This habitat category serves essential functions and values to non-migratory deer and elk that include: thermal cover, security from predation and harassment, forage

quantity, adequate nutritional quality, calving, and fawning areas as asserted by ODFW. The mitigation goal for Habitat Category 3 is no net loss of either habitat quantity or quality. ODFW May 18 letter at 2. Thus, the ODFW letters demonstrates how the proposed actions will impact both the quality and quantity of this precious habitat. The applicant's attempt to discount the value of the habitat within the impact area is not borne out by the evidence in the record.

The applicant also asserts that it is currently coordinating with ODFW to develop a HMMP, which will require implementation of measures to prevent or "mitigate" impacts to Big Game habitat values. At the time the record closed in this matter, however, the applicant had not yet completed coordination efforts with the ODFW. Any conditions of approval that would be required as a result of such negotiations is still to be determined and the Board chose not to re-open the record during final deliberations. Based on the record as it exists currently, the conditions of approval and proposed minimization efforts are inadequate to address the conflicts. Accordingly, the applicant cannot rely on an HMMP that is not yet adopted as a basis to minimize the negative environmental consequences of allowing the mine.

Not Allowing Mine: Not allowing the mine will preserve the Major Big Game habitat that exists within the 1500-foot impact area.

Limiting Mine: Limiting the mine will limit the applicable positive and negative environmental consequences. Allowing the mine in a limited fashion will not result in reducing the conflicts to a point where they are no longer significant.

The applicant has identified no positive environmental consequences of allowing the mine. As explained above, the environmental value of the Big Game habitat is of the highest quality (Major Big Game Range), and the ODFW has identified serious negative environmental consequences to the resident elk herd and deer, including displacement, overwintering, and impacts to fawning, that would result if the mine were allowed. The Board finds the environmental consequences weigh largely in favor of not allowing the mine.

Energy:

Allowing Mine: The applicant identifies two positive energy consequences to fully allowing the mine. First, as explained above, the applicant asserts that mining the aggregate resource will facilitate completion of many needed transportation improvements, which will, in turn, provide greater capacity and smoother surfaces. As a result, vehicles on roads throughout the region will be able to consume less fuel because they will spend less time idling in traffic and/or confronting substandard road conditions. As explained above, the applicant has not demonstrated that, absent approval of the proposed amendment, the needed transportation improvements will not get built. In all likelihood, the road will get built, but with rock from another quarry location.

Second, the applicant asserts that the energy consequences of allowing the mine are positive because the Property is one of the few aggregate resource sites located in this area of the County. See Johnson Economics report at 11. Locating a mine in this area will reduce the distance the product must travel to serve this area of the County, resulting in lower fuel costs compared to importing product from other areas of the County or other counties altogether. The Board agrees that the energy savings based on the proximity of the mining site to some of the needed roads would provide an energy savings and benefit.

The applicant identifies as a negative energy consequence of allowing the mine that it will employ vehicles and machinery that will consume fuel in conjunction with completing extraction, processing, and distribution activities. However, the Project operator will have at least two incentives to utilize fuel-

efficient equipment. First, that fuel is expensive and becoming more so. Second, the Project operator will need to purchase and utilize late-model equipment which is designed to comply with U.S. Environmental Protection Agency Tier 3 standards, including the higher fuel efficiency associated with these standards. See proposed Condition of Approval 34. Thus, the Board finds that, on balance, the negative energy consequences are not likely to be significant.

Not Allowing Mine: The applicant relies on its assertion that, if the mine is not allowed, the aggregate resource underneath the Property will not be used to facilitate completion of needed transportation improvements. As a result, vehicles will spend more time idling in traffic and thus consume more fuel. As discussed above, the applicant has not demonstrated that the needed roads will not be constructed if the mine is not operational. However, if the mine is not allowed, the rock will have to be transported from locations further from the needed roads, which will consume more fuel. That is a negative energy consequence of not allowing the mine.

Limiting Mine: The Board finds that limiting the mine will limit the positive and negative energy consequences described above. The Board finds that the degree to which these consequences are limited will be directly tied to the degree to which the mine itself is limited.

The Board finds the energy consequences slightly favor allowing the mine, as trucks will have to travel further distances to the road projects.

ESEE Analysis of Identified Consequences

Considerations

Having identified these ESEE consequences with the Big Game resource, the applicable Oregon Administrative Rule (OAR 660-023-0180(5)(d)) directs that they be weighed, “with consideration of the following”:

- (A) The degree of adverse effect on existing land uses within the impact area;
- (B) Reasonable and practicable measures that could be taken to reduce the identified adverse effects; and
- (C) The probable duration of the mining operation and the proposed post-mining use of the site.

The three “considerations” listed above allow the ESEE analysis to drill down into the actual adverse effects or impacts of the proposed mining operation on the use of the land by big game. Those adverse effects include indirect impacts to big game habitat, impacts to foraging, overwintering, fawning, and an increase in mortality, resulting from the need to reduce elk populations as a consequence of the redistribution of elk causing increased damage and conflicts. The adverse effects are significant, if not dire. From ODFW’s standpoint, the redistribution of elk from the project area would result in elk mortality. Also, the expected duration of the mining operation (30-50 years) only exacerbates the degree of the adverse effect. Further, the applicant has been unable to identify reasonable and practicable measures that would be adequate to reduce those adverse effects. The proposed conditions of approval mitigate other adverse impacts of the mining operation, but do not minimize conflicts to big game habitat that are reduced to a level that is no longer significant. The applicant’s negotiations with ODFW might uncover mitigation measures that would adequately address the impacts to habitat, but any such measures have

yet to be identified. Accordingly, the Board finds adverse effects to the use of the impact area by Big Game will be long-term and measurable.

ESEE Analysis

At the outset, the Board acknowledges the applicant's statement that any limitation of the proposed scope of mining will be tantamount to complete disallowance because it is not financially feasible to conduct mining operations on the Property in such a limited area and manner. Accordingly, the Board will not discuss further the option of limiting mining.

Economic: As discussed above, the Board acknowledges the economic benefits that the mine will bring to the applicant and the region in the way of employment. Negative consequences of allowing the mine include possible damage to nearby private properties from relocated elk herds. The negative impacts to the mountain biking tourism within the impact area are so small as to be considered insignificant. On balance, the Board concludes that the positive economic consequences of allowing the mining slightly outweigh the negative ones.

Social: The applicant identifies the positive social consequences to the self-esteem of the workers of being employed at the quarry. As discussed above, the Board does not view this as a positive consequence. Further, the ability to complete needed road projects is not considered a positive social consequence because the applicant has not demonstrated that the projects would not be completed without this quarry. Finally, the Board acknowledges the "existence value" of the Big Game Habitat as a positive social consequence of disallowing the mining. Accordingly, disallowing the mine will negate the negative social consequences, such as "existence value," but will not provide any benefit on the positive social consequences end, at least no positive social consequences that the applicant has been able to identify.

Environmental: The negative environmental consequences associated with allowing the mining on site are clear and dire. Major Big Game Habitat, as identified in the County Goal 5 inventory, is entitled to a great degree of protection. According to ODFW, this habitat is intended to be protected to ensure no net loss of habitat quantity or quality. The County's protection level for Major Big Game is not "no net loss." The County's standard is not as protective as the state's; however, the County's direction per the Mining & Aggregate Rule is to minimize conflicts such that those conflicts are no longer significant. The applicant has not demonstrated that the identified conflicts can be minimized to a level that is no longer significant. The applicant has also failed to demonstrate any positive environmental consequences whatsoever associated with allowing the mining. In this case, the negative environmental consequences to Big Game habitat outweigh the positive environmental consequences, because there are none. Furthermore, the negative consequences will be extreme, measurable, and long lived.

Energy: The Board agrees with the applicant that a negative energy consequence of not allowing the mine is the additional fuel that would be expended in transporting rock from a more distant quarry for work on needed roads in the vicinity of the proposed mine. On balance, allowing the mine at this location will have some positive energy consequences.

Conclusion: Based upon the foregoing analysis, the Board concludes that two of the elements-- energy and economic--lean in favor of allowing the mine. The environmental and social consequences favor not allowing the mining operation. The Board takes particular note of the unique Big Game resource and the call to preserve Major Big Game Habitat, which exists within the impact area. The energy and economic benefits of allowing the mining cannot be said to overcome these other considerations. On balance, the

positive economic, social, environmental, and energy consequences associated with allowing the mine are outweighed by the negative consequences both in number and degree. For these reasons, the Board finds that the ESEE analysis supports not allowing mining on the Property. Furthermore, the Board finds that the applicant has not provided argument and evidence to fully address significant conflicts to Big Game that were raised by ODFW. In conclusion, the Board has determined that denial of the application is appropriate.