



PO Box 987 • Ontario, OR 97914 • Phone: (503) 830-1448  
E-Mail: [brian@brs-legal.com](mailto:brian@brs-legal.com)

Brian R. Sheets  
Licensed in Idaho & Oregon

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***VIA EMAIL ONLY***

Malheur County Planning Commission  
c/o Tatiana Burgess, Interim Planning Director  
*Email: [Tatiana.Burgess@malheurco.org](mailto:Tatiana.Burgess@malheurco.org)*

RE: Addendum to Malheur County Land Use Application 2023-12-010

Dear Malheur County Planning Commission:

This letter is an addendum to the application for Planning Department File 2023-12-010 submitted by Darren Lee for aggregate mining in an Exclusive Range Use zone. At the January 25, 2024 Planning Commission hearing, the Planning Commission continued the hearing to February 22, 2024 in order for the applicant to provide additional information to the Planning Commission.

At the hearing, the Planning Commission requested additional information from the applicant on the following items:

1. Oregon Department of Fish & Wildlife mitigation concerns;
2. Concerns from neighbors with mitigation measures;
3. Traffic analysis and related business volume estimates;
4. Irrigation pipeline mitigation to adjoining properties;
5. Water table intrusion concerns;
6. Department of Geology and Mining Industries concerns;
7. Property impact area and mitigation measures;
8. Verification of Goal 5 resource data.

This addendum will address the above issues and present proposed findings and conditions for the Planning Commission to consider for adoption. At the Planning Commission hearing, we will present any additional information and data available that may become available following transmittal of this letter.



## **1. Oregon Department of Fish & Wildlife (ODFW) mitigation concerns.**

On January 25, 2024 ODFW provided comments to the Planning Commission that identified portions of the Head property as limited Habitat Category 2 for Mule Deer winter range. (Exhibit 19). Addendum Exhibit 1 details ODFW's Big Game Habitat criteria and mitigation measures. Habitat Criteria 2 identifies habitat that has been reduced based on conflicts with primary land uses. Based on the mitigation measures identified in ODFW's comment, Mr. Lee proposes the following mitigation measures to achieve a no-net loss/habitat quality improvement plan.

- a. Current property conditions:
  - i. The current property conditions are of limited pasture/dryland farming over a majority of the area subject to the application. Multiple gravel extraction operations have operated in the immediate vicinity to the north and west of the property. Properties to the south and east are engaged in sparsely populated residential areas with agricultural practices in the vicinity.
- b. Identified Impacts:
  - i. Scraping and excavating and overburden reducing vegetative coverage and forage;
  - ii. Noise and disturbance of mule deer during winter time periods including excavating activities, hauling, and crushing operations;
  - iii. Invasive weed growth (cheet grass/medusahead);
  - iv. Vehicle by-product environmental impacts.
- c. Mitigation Measures:
  - i. Minimize open gravel extraction to two or less acres at a time;
  - ii. Topsoil removed will be stockpiled for reapplication to the surface of the reclaimed ground and reseeded with native forbs and grasses.



- iii. Limit winter operations of hauling and extraction to a maximum of 10 days per month between November 1 and March 31. Operations during that time will only take place from one hour after sunrise to one hour before sunset.
- iv. Concrete recycling and crushing will not take place between November 1 and March 31. Concrete recycling will take place in the spring and fall.
- v. Spot treatment of roadsides, parking, and dump sites with non-persistent herbicides for invasive species applied by man-pack type dispensers. Reclaimed land will be immediately re-seeded following reclamation to reduce establishment of invasive grass species.
- vi. Petroleum and oil spill kits will be available for any fuel/oil/hydraulic spills and all potentially contaminated soil will be segregated and disposed of per DEQ regulations and guidelines.

Based on the current condition of the property, and the timeline of the operation (multi-year) and reclamation/replanting, the net result will be a reduction of invasive species and replanting of the worksite with native grasses and forbs following reclamation. The intent is to allow for continued dryland farming/pasture following reclamation practices that will harmonize with winter mule deer habitat and provide for on-site, in-kind mitigation.

## **2. Concerns from neighbors with mitigation measures.**

Impacts for neighbors will be addressed concurrently in Section 7 “Property Impact Area and Mitigation Measures.”

## **3. Traffic analysis and related business volume estimates.**

Traffic volume and business volume estimates are presented here concurrently to describe the estimated vehicular trips and operation during extraction and hauling of aggregate.

- a. Monthly traffic volume estimates

Aggregate extraction and hauling operations is a seasonal operation with higher volume during the spring and fall seasons and reflects construction activity in the vicinity. Figure 1 (below) estimates traffic volumes by month.

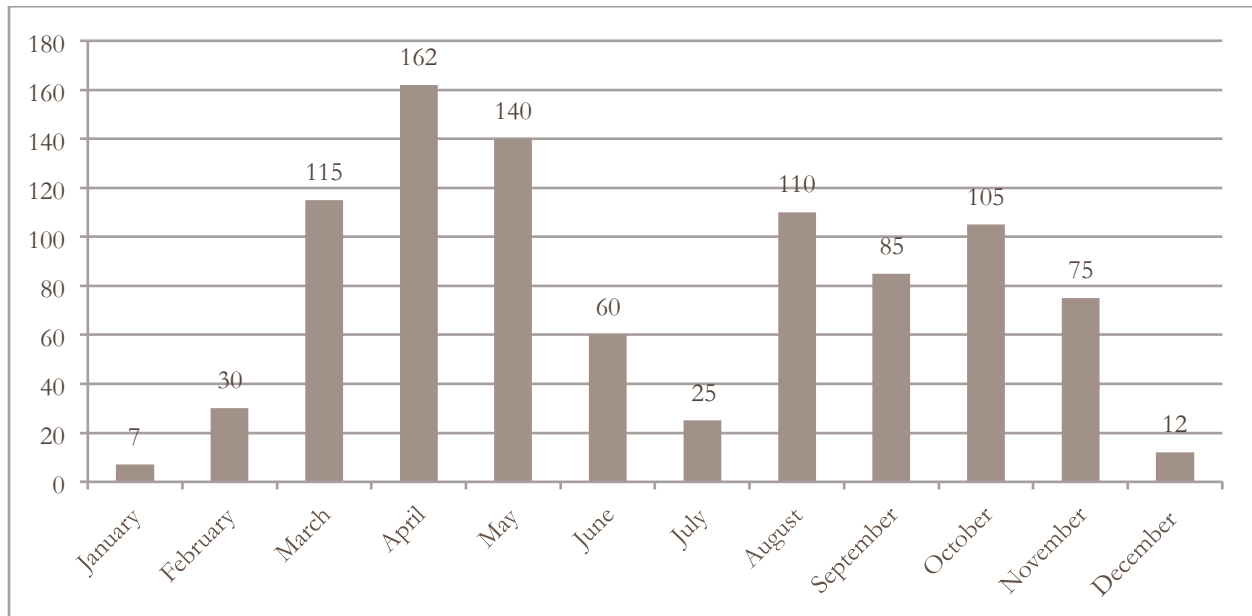


Fig. 1 Estimated Trips Per Month

This analysis is based off a 3-year historical average of truck traffic from the adjacent DeHaven quarry. The data used in this analysis was obtained from quarry logs required by DOGAMI for tax purposes. The total mean average was 924 truck trips in a 12-month period. Additional truck traffic for decorative rock as well as concrete recycling is estimated at 12 loads average per month with a total additional impact of 144 loads per year. Typical low season activity utilizes a single 12-yard dump truck or a 32-foot end dump and high seasons may employ up to 3 trucks utilizing belly dumps trailers. This is dependent on the project being supported.

b. Equipment Type and Use

i. Extraction & Hauling

1 Caterpillar 992C wheel loader

1 John Deere 744 wheel loader

1 D-7 Caterpillar Dozer

1 892 John Deere Excavator

1 Powerscreen Cheiftain Screen plant with dust spray bar

1 AC 500 cone crusher

4 60 foot portable elevators



- 1 Service truck Ford F-550
- 1 Caterpillar D-350 articulating truck
- 2 belly dump trailers
- 1 32 foot end dump trailers
- 2 12 yard dump trucks
- 2 truck tractors

ii. Decorative Rock

- 1 40 foot flat bed trailer
- 1 articulating forklift

iii. Concrete Recycling

- 1 Extec c-12 jaw crusher with dust spray bar and metal separator
- 1 John Deere 200CLC excavator with thumb
- 1 60 foot elevator

\* Concrete processing will take no longer than 3 days annually unless higher than expected volume is encountered. Then this equipment will move to an Idaho location.

iv. Staff vehicles

- 3-4 privately owned staff vehicles

c. Mitigation Measures

Typical water trucks in the area are 2,500 and 3,600 gallon capacity trucks. This operation will be utilizing a 5,000 gallon truck for dust abatement. The graveled quarry road is 2,800 feet from the hardball on to Mesquite to the intersection at Jasmine. This would allow for the potential application of 1.78 gallons of water per linear foot of roadway, which under most circumstances would be an excessive amount. During dusty conditions one to two truckloads of water would effectively control any dust produced on the roadway and have capacity for additional dust suppression for other operations that may require water.



The use of water on roads is a common practice for various purposes, such as dust control, road maintenance, and controlling certain pollutants. Recommendations for use of water on roads may vary depending on specific circumstances, and the general guidelines used at this operation will take into account:

i. Dust Suppression:

Water is often used to control dust on unpaved roads. This helps to improve air quality and visibility for drivers. Operators will use water in sufficient quantities to effectively suppress dust. The frequency of application will depend on the local climate and road conditions.

a. Environmental Considerations:

During application, operators will be mindful of environmental impacts. Excessive water use can lead to soil erosion and runoff, potentially causing water pollution. There is no specific formula for the use of water for dust abatement. Environmental conditions and the surface where the water are applied can be variable. The volume of water applied for dust suppression is a balance of a correct volume to mitigate dust with the avoidance of an over application of water that can create erosion or muddy surfaces.

b. Evaluation Standards:

Prior to arrival at the site, management will review the weather report for past recent precipitation. Management will also note the prior days' road conditions for evaluation of dryness of the roadway. If there has not been recent precipitation, and prior conditions have indicated potential dust issues, management will have water ordered/prepared prior to initiating hauling operations at the site. This may include having a truck obtaining water from Weiser municipal sources, or using the staged water truck already laden with water at the site available to apply water prior to initiating hauling operations. Water will be applied at a rate that adequately abates dust while avoiding erosion and runoff. The roadway will be evaluated throughout the day to determine if additional application is necessary to abate dust.

**4. Irrigation pipeline mitigation to adjoining properties.**

An adjoining property owner Agreserves/Treasure Valley Farms utilizing a buried irrigation pipeline raised concerns about water delivery systems in and around the project area (Exhibit 15), specifically:

- i. Open canal shown in section 1 is not lined. Water seepage will occur around the canal with digging.
- ii. Canal crossings may not be rated/built to withstand heavy equipment and trucks.
- iii. Mining right up to the canal would degrade its integrity.



- iv. Underground pipe in section 2 is not deep. We are concerned about heavy equipment/trucks over the top.

The applicant is prepared to address these concerns in the following ways:

- i. A 200-foot extraction buffer will be applied to open canals to keep the historical water delivery system from being impacted. All ditch maintenance roads will be prohibited from this project's use and a buffer of 200 feet from ditch maintenance roads will be maintained and are not contemplated for extraction or use on this property. Operations will not be using any irrigation water from the canal or buried pipeline.
- ii. Canal crossings refurbishment/strengthening will be coordinated with the local irrigation district to standards meeting their specifications and the applicant will obtain all approvals necessary for improving crossings that do not meet or exceed the design capacity needed for hauling operations.
- iii. Underground pipeline delivery systems will be marked and a 200 foot buffer for extractive operations will be applied to minimize impacts to the buried pipeline. No equipment will be parked on this pipeline and no equipment will be stationed on top of the pipeline. Where hauling operations will cross the pipeline, these areas will be marked and reinforced through a 15-foot wide, 4-inch thick asphalt pad sufficient to distribute the load installed over the steel pipe in the area crossed by the improved road. The applicant will work with engineering staff to design and/or improve pipeline crossings that will support both the use of the road and the irrigation pipeline.
- iv. Management will daily inspect the marked pipeline area and open canal for leaks caused by the aggregate extraction and hauling operations or any other cause and report leaks to Agreserves/Treasure Valley Farms and/or the irrigation district. The applicant will coordinate any repairs necessary with Agreserves/Treasure Valley Farms and/or the irrigation district.
- v. Relocation of the pipeline is not contemplated at this time, however any relocation will be by mutual consent and subject to the terms of any easement agreements and/or irrigation district rules and regulations.

## **5. Water table intrusion concerns.**

Prior to the February 22, 2024 Planning Commission hearing, the applicant will submit additional information regarding groundwater impacts and mitigation plans. However, below the applicant will address alleged "wetlands" on the Head property.



To the extent there are depressions in the ground that may channel water, claiming that they are “wetlands” within any consideration of Malheur County’s inventory of significant wetlands resources, and the lack of concern from ODFW for “wetlands” indicate that the concern may be overstated in terms of significance. There are no fish in the depressions, and what vegetation is there is of the same type as the general area. OAR 660-023-0090(b)-(c) defines “Riparian area” is the area adjacent to a river, lake, or stream, consisting of the area of transition from an aquatic ecosystem to a terrestrial ecosystem,” and “‘Riparian corridor’ is a Goal 5 resource that includes the water areas, fish habitat, adjacent riparian areas, and wetlands within the riparian area boundary.

OAR 660-023-0100 (a) defines “wetland” as “an area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”

OAR 660-023-0090(5) allows a local jurisdiction to designate “significant” riparian areas under a safe harbor provision when the following conditions are met:

“a local government may determine the boundaries of significant riparian corridors within its jurisdiction using a standard setback distance from all fish-bearing lakes and streams shown on the documents listed in subsections (a) through (f) of section (4) of this rule, as follows:

(a) Along all streams with average annual stream flow greater than 1,000 cubic feet per second (cfs) the riparian corridor boundary shall be 75 feet upland from the top of each bank.

(b) Along all lakes, and fish-bearing streams with average annual stream flow less than 1,000 cfs, the riparian corridor boundary shall be 50 feet from the top of bank.

(c) Where the riparian corridor includes all or portions of a significant wetland as set out in OAR 660-023-0100 (Wetlands), the standard distance to the riparian corridor boundary shall be measured from, and include, the upland edge of the wetland.

(d) In areas where the top of each bank is not clearly defined, or where the predominant terrain consists of steep cliffs, local governments shall apply OAR 660-023-0030 (Inventory Process) rather than apply the safe harbor provisions of this section.”

Simply stated, none of these conditions exist at the proposed project site. There are no fish on the property, there is no “bank,” it is not a lake or a stream, nor is it a “wetland” within the definition because the plant species are not aquatic plants. There is no aquatic ecosystem, and minor ponding on caliche does not make a wetland.





## **6. Department of Geology and Mining Industries (DOGAMI) concerns.**

There are still unresolved issues with DOGAMI, particularly pertaining to jurisdictional authority of DOGAMI for a multi-purpose road. ORS 517.750(16)(b)(A) states:

(b) “Surface mining” does not include:

(A) Excavations of sand, gravel, clay, rock or other similar materials conducted by the landowner or tenant for the primary purpose of construction, reconstruction or maintenance of access roads on the same parcel or on an adjacent parcel that is under the same ownership as the parcel that is being excavated. . . .

As stated at the January 25, 2024 Planning Commission hearing, Mr. Head is not allowing the removal of the multi-purpose road, and the applicant is still under a stop-work order by DOGAMI at the site. Additional non-reclamation work will not be performed at the site until the issues with DOGAMI are resolved, and resolving issues with DOGAMI are suggested as a condition of approval for this application. Once these issues are addressed, the applicant will work with DOGAMI on an approved reclamation plan.

## **7. Property impact area and mitigation measures.**

Under OAR 660-023-0180(7), the applicant is required to identify conflicting uses and provide mitigation for surrounding properties. The application at Page 5 provides rudimentary analysis, however this addendum will provide further analysis.

OAR 660-023-0040(1) identifies the steps to take in analyzing the Economic, Social, Environmental, and Energy (ESEE) analysis to include (a) Identify conflicting uses; (b) Determine the impact area; (c) Analyze the ESEE consequences; and then providing mitigation for those conflicts.

### **i. Determine the Impact Area.**

The Impact Area is determined by OAR 660-023-0180(5)(a), stating “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.” The 1,500 foot impact area is identified in Exhibit 2 of the staff report.

### **ii. Identifying conflicting uses.**

The applicant recognizes the uses in the area as generally descriptive of the uses found on pages 6-7 of the staff report, and has no reason to dispute those findings. The properties and uses identified are as follows:



Assessor's Map 16S4707			
<u>Tax Lot</u>	<u>Zone</u>	<u>Acres</u>	<u>Use</u>
100	EFU	77.15	Dwelling/Agriculture
300	EFU	7.90	Dwelling/Public Land
400	EFU	.34	Dwelling
Assessor's Map 16S4717			
<u>Tax Lot</u>	<u>Zone</u>	<u>Acres</u>	<u>Use</u>
200	EFU	76.14	Agriculture
300	ERU	6.67	Agriculture
400	ERU	21.13	Dwelling/Agriculture
600	ERU	5.0	Non-Farm Dwelling
700	EFU	7.14	Non-Farm Dwelling
800	EFU/ERU	39.4	Dwelling/Agriculture
1000	EFU	39.5	Agriculture
1300	EFU/ERU	39.24	Dwelling/Agriculture
1400	EFU/ERU	31.41	Agriculture
1500	ERU	7.89	Dwelling/Agriculture
1600	EFU	26.5	Dwelling/Agriculture
1700	ERU	39.31	Dwelling/Agriculture
1800	ERU	39.7	Agriculture
Assessor's Map 16S47E:			
<u>Tax Lot</u>	<u>Zone</u>	<u>Acres</u>	<u>Use</u>
2300	ERU	476.7	Agriculture



2700	EFU	77.8	Dwelling/Agriculture
2800	EFU	39.4	Agriculture
2900	EFU	38.7	Agriculture
3000	EFU	109.7	Farm Dwelling/Agriculture
3100	EFU	41.45	Agriculture
3300	EFU	38.75	Agriculture
3400	EFU	118.46	Dwelling/Agriculture
5900	EFU/ERU	39.4	Public Land
6000	EFU/ERU	38.1	Public Land
6100	ERU	154.5	Dwelling/Agriculture
6200	ERU	157.5	Public Land
6400	ERU	39.35	Public Land
6500	ERU	157.9	Dwelling/Agriculture

From this analysis of the affected properties, the following uses are identified:

1. Dwelling, Non-Farm Dwelling, and Farm Dwelling;
2. Agriculture;
3. Public Land.

Uses in the area are aggregate mining, agriculture, and rural residential, and public land uses allowed in an EFU/ERU zoned area. EFU and ERU zoning and allowed uses are identified and described in MCC 6-3A-2, and include farm uses as defined in ORS 215.203(2), including exploration only for geothermal, gravel and mineral deposits.

Dwellings in the EFU/ERU zone are conditioned on the use of the dwelling as being “only where it is shown that the dwelling will be situated on a parcel currently employed for farm use as defined in ORS 215.203. Land is not in farm use unless the day to day activities on the subject land are principally directed to



the farm use of the land. Where land would be principally used for residential purposes rather than for farm use, a proposed dwelling would not be ‘customarily provided in conjunction with farm use’ and could only be approved according to ORS 215.213(3) or 215.283(3).” MCC 6-3A-4(C)(2). Therefore, dwellings in the area are generally agriculture-related and provide residential purposes for the local residents.

ORS 215.203(2)(a) gives examples of agriculture/farm use as “the current employment of land for the primary purpose of obtaining a profit in money by raising, harvesting and selling crops or the feeding, breeding, management and sale of, or the produce of, livestock, poultry, fur-bearing animals or honeybees or for dairying and the sale of dairy products or any other agricultural or horticultural use or animal husbandry or any combination thereof.”

Public Lands include those owned by the United States and uses include recreation, open space, federal projects, and military use. Indications of the property listed as public property do not identify specific uses and aerial imagery does not indicate significant activity on the public land property, so for purposes of this evaluation, the public lands will be assumed to be vacant/recreation uses.

iii. Identifying Impacts.

Specific impacts for Goal 5 aggregate mining is identified in OAR 660-023-0180(5)(b)(A-F):

(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;

(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;

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



(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;

(E) Conflicts with agricultural practices; and

(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.

OAR 660-023-0180(5)(c) “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.” ORS 215.296 sets standards to evaluate mitigation factors for agricultural practices to determine if the change will:

(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.

iv. Analyzing Impacts

In analyzing the impacts, the use will be contrasted to the impacts of the 660-023-0180(5)(b)(A-F) factors and will provide mitigation for the impacts.

Use	Identified Impact	Affect on Use	Mitigation Method
Dwelling, Non-Farm Dwelling, and Farm Dwelling	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 from extraction can include mechanical noise from equipment, backup alarms, truck engines, scraping gravel, hauling operations, voice communication, concrete crushing operations, vibration from earthmoving equipment.	1. Setbacks to include prohibition of aggregate production 100’ from property lines and 500’ from any dwelling. 2. Visual and Sound suppression berms installed gradually constructing a berm 12-foot high along a portion of Jasmine Rd. bordering



			<p>Applicant’s proposed area #2 and along a portion of the perimeter of Applicant’s proposed area #1.</p> <p>3. Dust suppression will be carried out in accordance with water application as described in Section 3 of this addendum. Additionally, the pit floor will be graveled and operations will take place below ground to shield surrounding residences from dust and noise. Traffic speed will be limited to 15MPH to reduce noise and dust emissions.</p>
<p>Dwelling, Non-Farm Dwelling, and Farm Dwelling</p>	<p>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</p>	<p>Large vehicles entering the roadway with heavy loads; movement through residential locations with large trucks, sightlines impaired by large trucks in residential settings, conflicts with smaller vehicles on the roadway, pedestrian and bicycle traffic in residential settings, road weight</p>	<p>Relocation of mine access point to Mesquite Rd. to avoid residential traffic and pedestrian traffic. Approach aprons installed at Mesquite Rd. pursuant to Rural Road Assessment District No. 3 standards including that the two approaches where Jasmine Rd. and the haul road intersect be</p>



	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;	capacity issues and road damage by trucks on roads not contemplated handling large capacity vehicles.	asphalted as well with a minimum of a 2 inch compacted asphalt apron.
Dwelling, Non-Farm Dwelling, and Farm Dwelling	Safety conflicts with existing public airports due to bird attractants, i.e., open water impoundments as specified under OAR chapter 660, division 013;	No airports are within the vicinity of the proposed project.	Not applicable.
Dwelling, Non-Farm Dwelling, and Farm Dwelling	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	Although not on Goal 5 inventory, ODFW has identified portions of the project area as Class 2 Winter Mule Deer Habitat. Impacts to winter mule deer habitat can include disturbance from noise, human presence, vibration and movement.	Winter Mule Deer Habitat mitigation is discussed in detail in Section 1 of this addendum.



	initiated;		
Dwelling, Non-Farm Dwelling, and Farm Dwelling	Conflicts with agricultural practices; and	Noise from extraction can include mechanical noise from equipment, backup alarms, truck engines, scraping gravel, hauling operations, voice communication, concrete crushing operations, vibration from earthmoving equipment.	<ol style="list-style-type: none"> <li>1. Hours of operation will be daytime only to allow for livestock undisturbed night rest.</li> <li>2. Setbacks to include prohibition of aggregate production 100' from property lines and 500' from any dwelling.</li> <li>3. Visual and Sound suppression berms installed by gradually constructing a berm 12-foot high along a portion of Jasmine Rd. bordering Applicant's proposed area #2 and along a portion of the perimeter of Applicant's proposed area #1.</li> <li>4. Dust suppression will be carried out in accordance with water application as described in Section 3 of this addendum. Additionally, the pit floor will be graveled and operations will take place below ground to shield surrounding residences from dust and noise. Traffic speed will be</li> </ol>





			<p>limited to 15MPH to reduce noise and dust emissions.</p> <p>5. Buffer zones of 100’ from property lines and 500’ from dwellings will provide buffering from drift of prohibited substances, and weed control will be spot treatment applied by an-pack type dispensers rather than large spray deliveries to minimize drift.</p> <p>6. Concrete Recycling will take place limited to three days annually to minimize noise disturbance.</p>
<p>Dwelling, Non-Farm Dwelling, and Farm Dwelling</p>	<p>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.</p>	<p>The County’s ordinances do not supersede the Oregon Department of Geology and Mineral Industries (DOGAMI) regulations. Pursuant to County ordinance (Malheur Code 6-6-8-4) Applicant must obtain DOGAMI approval for his reclamation plan as a condition of approval. DOGAMI has the final decision on approval of a</p>	<p>See Section 9 of this Addendum.</p>



		reclamation plan.	
Agriculture	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;	<p>Noise from extraction can include mechanical noise from equipment, backup alarms, truck engines, scraping gravel, hauling operations, voice communication, concrete crushing operations, vibration from earthmoving equipment.</p> <p>Organic agricultural production could be affected by drift for prohibited substances including weed control measures pursuant to ODFW requests for weed mitigation. Organic considerations are discussed further below.</p>	<ol style="list-style-type: none"> <li>1. Setbacks to include prohibition of aggregate production 100' from property lines and 500' from any dwelling.</li> <li>2. Visual and Sound suppression berms installed gradually constructing a berm 12-foot high along a portion of Jasmine Rd. bordering Applicant's proposed area #2 and along a portion of the perimeter of Applicant's proposed area #1.</li> <li>3. Dust suppression will be carried out in accordance with water application as described in Section 3 of this addendum. Additionally, the pit floor will be graveled and operations will take place below ground to shield surrounding residences from dust and noise. Traffic speed will be limited to 15MPH to reduce noise and dust emissions.</li> </ol>



			<p>Buffer zones of 100’ from property lines and 500’ from dwellings will provide buffering from drift of prohibited substances, and weed control will be spot treatment applied by an-pack type dispensers rather than large spray deliveries to minimize drift.</p> <p>Concrete recycling will be limited on 3 days annually to minimize noise impacts.</p>
<p>Agriculture</p>	<p>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</p>	<p>Large vehicles entering the roadway with heavy loads; movement through agricultural locations with large trucks, sightlines impaired by large trucks in agricultural settings, conflicts with farm vehicles on the roadway, pedestrian and bicycle traffic in agricultural settings, road weight capacity issues and road damage by trucks on roads not contemplated handling large capacity vehicles.</p>	<p>Relocation of mine access point to Mesquite Rd. to avoid residential traffic and pedestrian traffic. Approach aprons installed at Mesquite Rd. pursuant to Rural Road Assessment District No. 3 standards including that the two approaches where Jasmine Rd. and the haul road intersect be asphalted as well with a minimum of a 2 inch compacted asphalt apron.</p>



	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;		
Agriculture	Safety conflicts with existing public airports due to bird attractants, i.e., open water impoundments as specified under OAR chapter 660, division 013;	No airports are within the vicinity of the proposed project.	Not Applicable.
Agriculture	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;	Although not on Goal 5 inventory, ODFW has identified portions of the project area as Class 2 Winter Mule Deer Habitat. Impacts to winter mule deer habitat can include disturbance from noise, human presence, vibration and movement.	See Section 1 of this Addendum for detailed mitigation measures.
Agriculture	Conflicts with agricultural practices; and	Noise from extraction can impact livestock and can include mechanical noise from equipment, backup	1. Hours of operation will be daytime only to allow for livestock undisturbed night rest.



		<p>alarms, truck engines, scraping gravel, hauling operations, voice communication, concrete crushing operations, vibration from earthmoving equipment.</p> <p>Organic agricultural production could be affected by drift for prohibited substances including weed control measures pursuant to ODFW requests for weed mitigation. Organic considerations are discussed further below.</p>	<p>2. Setbacks to include prohibition of aggregate production 100’ from property lines and 500’ from any dwelling.</p> <p>3. Visual and Sound suppression berms installed by gradually constructing a berm 12-foot high along a portion of Jasmine Rd. bordering Applicant’s proposed area #2 and along a portion of the perimeter of Applicant’s proposed area #1.</p> <p>4. Dust suppression will be carried out in accordance with water application as described in Section 3 of this addendum. Additionally, the pit floor will be graveled and operations will take place below ground to shield surrounding residences from dust and noise. Traffic speed will be limited to 15MPH to reduce noise and dust emissions.</p> <p>5. Buffer zones of 100’ from property lines and</p>
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			<p>500' from dwellings will provide buffering from drift of prohibited substances, and weed control will be spot treatment applied by an-pack type dispensers rather than large spray deliveries to minimize drift.</p> <p>6. Concrete Recycling will take place limited to three days annually to minimize noise disturbance.</p>
Agriculture	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 County's ordinances do not supersede the Oregon Department of Geology and Mineral Industries (DOGAMI) regulations. Pursuant to County ordinance (Malheur Code 6-6-8-4) Applicant must obtain DOGAMI approval for his reclamation plan as a condition of approval. DOGAMI has the final decision on approval of a reclamation plan.	
Public Land.	Conflicts due to noise, dust, or other discharges	Noise from extraction can include mechanical noise	1. Setbacks to include prohibition of aggregate



	<p>with regard to those existing and approved uses and associated activities (e.g., houses and schools) that are sensitive to such discharges;</p>	<p>from equipment, backup alarms, truck engines, scraping gravel, hauling operations, voice communication, concrete crushing operations, vibration from earthmoving equipment.</p>	<p>production 100' from property lines and 500' from any dwelling.</p> <p>2. Visual and Sound suppression berms installed gradually constructing a berm 12-foot high along a portion of Jasmine Rd. bordering Applicant's proposed area #2 and along a portion of the perimeter of Applicant's proposed area #1.</p> <p>3. Dust suppression will be carried out in accordance with water application as described in Section 3 of this addendum. Additionally, the pit floor will be graveled and operations will take place below ground to shield surrounding residences from dust and noise. Traffic speed will be limited to 15MPH to reduce noise and dust emissions.</p> <p>Concrete Recycling will take place limited to three days annually to minimize noise</p>
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			disturbance.
Public Land.	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;	Large vehicles entering the roadway with heavy loads; movement through recreational locations with large trucks, sightlines impaired by large trucks in recreational settings, conflicts with recreational vehicles on the roadway, pedestrian and bicycle traffic in recreational settings, road weight capacity issues and road damage by trucks on roads not contemplated handling large capacity vehicles.	Relocation of mine access point to Mesquite Rd. to avoid residential traffic and pedestrian traffic. Approach aprons installed at Mesquite Rd. pursuant to Rural Road Assessment District No. 3 standards including that the two approaches where Jasmine Rd. and the haul road intersect be asphalted as well with a minimum of a 2 inch compacted asphalt apron.
Public Land.	Safety conflicts with existing public airports due to bird attractants, i.e., open water	No airports are within the vicinity of the proposed project.	Not Applicable.





	impoundments as specified under OAR chapter 660, division 013;		
Public Land.	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;	Although not on Goal 5 inventory, ODFW has identified portions of the project area as Class 2 Winter Mule Deer Habitat. Impacts to winter mule deer habitat can include disturbance from noise, human presence, vibration and movement.	Winter Mule Deer Habitat mitigation is discussed in detail in Section 1 of this addendum.
Public Land.	Conflicts with agricultural practices; and	Agricultural practices are not observed on Public Lands, however impacts can be similar to agricultural practices as with agricultural and dwelling uses.	See above mitigation measures for agricultural conflicts in with Dwelling and Agricultural uses.
Public Land.	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 County's ordinances do not supersede the Oregon Department of Geology and Mineral Industries (DOGAMI) regulations. Pursuant to County ordinance (Malheur Code 6-6-8-4) Applicant must obtain DOGAMI approval for his reclamation plan as a condition of approval. DOGAMI has the final	



		decision on approval of a reclamation plan.	
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Regarding organic certification possibilities for adjacent properties, the regulations governing organic certification are found in 7 CFR § 205. Under 7 CFR § 205.105,

“To be sold or labeled as “100 percent organic,” “organic,” or “made with organic (specified ingredients or food group(s)),” the product must be produced and handled without the use of:

- (a) Synthetic substances and ingredients, except as provided in § 205.601 or § 205.603;
- (b) Nonsynthetic substances prohibited in § 205.602 or § 205.604;
- (c) Nonagricultural substances used in or on processed products, except as otherwise provided in § 205.605;
- (d) Nonorganic agricultural substances used in or on processed products, except as otherwise provided in § 205.606;
- (e) Excluded methods, except for vaccines: Provided, that, the vaccines are approved in accordance with § 205.600(a);
- (f) Ionizing radiation, as described in Food and Drug Administration regulation, 21 CFR 179.26; and
- (g) Sewage sludge.”

These regulations govern what is used in the production of organically certified agricultural products. The proposed aggregate mining project will not be applying any prohibited substance to any adjacent properties.

Under 7CFR § 205.202,

“Any field or farm parcel from which harvested crops are intended to be sold, labeled, or represented as “organic,” must:

- (a) Have been managed in accordance with the provisions of §§ 205.203 through 205.206;
- (b) Have had no prohibited substances, as listed in § 205.105, applied to it for a period of 3 years immediately preceding harvest of the crop; and
- (c) Have distinct, defined boundaries and buffer zones such as runoff diversions to prevent the unintended application of a prohibited substance to the crop or contact with a prohibited substance applied to adjoining land that is not under organic management.”



7 CFR§ 205.2 defines “ drift” and “buffer zones” as:

**Drift.** The physical movement of prohibited substances from the intended target site onto an organic operation or portion thereof.

**Buffer zone.** An area located between a certified production operation or portion of a production operation and an adjacent land area that is not maintained under organic management. A buffer zone must be sufficient in size or other features (e.g., windbreaks or a diversion ditch) to prevent the possibility of unintended contact by prohibited substances applied to adjacent land areas with an area that is part of a certified operation.

The project area has 100-foot buffers from any adjacent property lines and 500-foot buffers from dwelling, and will be installing dust and visual buffers to mitigate any escape of dust from the worksite. Even then, the dust from an aggregate extraction operation does not utilize prohibited substances, and any petroleum/fuel spills will be contained on site and disposed of according to DEQ regulations. There will not be any drift from any prohibited substances and any weed control measures will be spot treatments by man-pack type applicators to minimize volume of herbicide applied and drift potential.

The aggregate mining operation will not be using any of the non-synthetic substances prohibited in 7 CFR § 205.602:

- (a) Ash from manure burning.
- (b) Arsenic.
- (c) Calcium chloride, brine process is natural and prohibited for use except as a foliar spray to treat a physiological disorder associated with calcium uptake.
- (d) Lead salts.
- (e) Potassium chloride—unless derived from a mined source and applied in a manner that minimizes chloride accumulation in the soil.
- (f) Rotenone (CAS # 83–79–4).
- (g) Sodium fluoaluminate (mined).
- (h) Sodium nitrate—unless use is restricted to no more than 20% of the crop's total nitrogen requirement; use in spirulina production is unrestricted until October 21, 2005.
- (i) Strychnine.



(j) Tobacco dust (nicotine sulfate).

In summary, the proposed project will not be emitting prohibited substances that could jeopardize organic agricultural certification, and to the extent that any prohibited substances are used on-site, any prohibited substances will be contained on-site and disposed of appropriately.

#### **8. Verification of Goal 5 resource data.**

At the January 25, 2024 Planning Commission hearing, the credentials of the parties verifying aggregate quality and quantity were brought into question by concerned neighbors. In addressing these issues, the standards for verifying the qualitative and quantitative results in Oregon should be explained.

There is no requirement that a person be an Oregon Licensed Geologist in certifying quantity or quality of aggregate resources. That requirement does not exist. An Oregon Registered Professional Engineer and an Idaho Geologist signed the Strata analysis. Idaho Professional Engineers performed the Atlas analysis. The letter submitted by Mr. Hastings' Attorney cites to *Protect Grand Island Farms v. Yamhill County*, 64 Or LUBA 179 (2011) for the proposition that a geologist must make the determination of quantity or quality. The case cited used geologists as their expert testimony. It is not required that they be Oregon Professional Geologists. The LUBA court additionally discussed that expert or lay testimony could be utilized in making factual finding when it cited to *Wal-Mart Stores, Inc. v. City of Bend*, 52 Or LUBA 261, 276 (2006): "the critical issue for the local decision maker will generally be whether any expert or lay testimony offered by \* \* \* opponents raises questions or issues that undermine or call into question the conclusions and supporting documentation that are presented by the applicant's experts and, if so, whether any such questions or issues are adequately rebutted by the applicant's experts." *Protect Grand Island Farms v. Yamhill County*, 64 Or LUBA 179, 187 (2011). The critical issue is whether the findings can be rebutted with opposing information, and in this case, there is not rebuttable information about the quantity or quality of the aggregate. There is substantial evidence in the record to find that the quantity and quality of the aggregate exceeds the standards to find it a significant Goal 5 resource.

Given the proximity to professional services in the area, and the lack of geological services in Eastern Oregon, timing has proven to be difficult to obtain Oregon Geologist support since the January 25, 2024 hearing. The applicant is working to obtain Oregon Geologist support to re-verify the findings of Strata and Atlas. Substantial evidence that significant aggregate resources in the area are already present is demonstrated by the two Rural Road Assessment mining resources on Page 10 of the Staff Report reinforce that they contain significant aggregate resources. Professional engineers and geologists performed the analysis. Substantial evidence is in the record to find that quantity and quality exceed thresholds required.



## 9. Proposed Conditions of Approval

Based on the application and the above addendum information, the applicant proposes the following conditions of approval:

1. The development shall comply with all applicable federal, state, and county laws, ordinances, rules and regulations that pertain to the subject property and the proposed use.
2. The operation permitted is for mineral extraction and processing on approximately 80-acres identified as “Area 1” to include mining activities including excavations, staging, access, and stockpile areas with gravel resources processed onsite. Concrete recycling will take place on “Area 3.” Equipment staging, rock and gravel staging, and scale shall be located on “Area 2.” There will be employee and mining equipment parking and mobile fuel storage located on the site. A scale will be utilized. The operator shall be in substantial conformance with the proposed site plan and mining area extents as described in the application.
3. The operator shall maintain a minimum 100-foot undisturbed perimeter along the external property boundaries other than permitted approach to public roads. There shall be a minimum 500-foot undisturbed buffer from residences.
4. Development shall not impede, disrupt or destroy irrigation canals, ditches, laterals, drains, and associated irrigation works and rights-of-way. Any alteration of irrigation structures located on the properties shall be conducted with written approval from Owyhee Irrigation District. The alterations shall not impede or affect water delivery to adjacent properties/water users.
5. Water: surface and groundwater, shall be discharged in accordance with state, federal, and local standards and/or regulations.
6. The duration of the proposed operation on the subject properties shall be 20 years (February 22, 2044). The properties shall be operated as conditioned.
7. The properties shall be mined as conditioned and reclaimed in accordance with an approved DOGAMI reclamation plan. Mining may only take place following release of the DOGAMI stop work order.
8. Dust, noise, vibration, and water mitigation shall take place in accordance with the application addendum plan as described and attached as Exhibit 1.
9. Normal business hours of operation shall be Monday through Saturday 7:00 a.m. to 5:00 p.m. Operation at night is prohibited. In the months of November through March, maximum number



of workdays shall be 10 days per month and shall take place from one hour after sunrise to one hour before sunset to mitigate Mule Deer Winter Habitat disturbance.

10. Concrete crushing is limited to a maximum of three days per year to take place between April and October.

11. The storage of diesel fuel, petroleum products, and any other hazardous materials must meet the standards set forth by the applicable agencies.

12. Noise emissions shall follow the regulations and standards of OSHA and MSHA.

13. The mine access onto Mesquite Rd. and affected intersections shall comply with all requirements of Rural Road Assessment No. 3.

14. Dust suppression shall be performed in accordance with the methods and frequency described in the application addendum.

We appreciate the opportunity to present additional information to the Planning Commission and will continue to provide additional information and proposed findings as it becomes available prior to the February 22, 2024 hearing.

Sincerely,

Brian R. Sheets  
BRS Legal, LLC  
Attorney for Applicant

Cc: Client

## 2013 ODFW OREGON BIG GAME WINTER HABITAT

This document summarizes the Oregon Department of Fish and Wildlife's (Department) criteria and rationale for identifying, categorizing, and mapping big game winter habitat in Oregon.

### Content:

1. Overview
  2. Species
  3. General Big Game Habitat Description and Winter Habitat Definition
  4. Other Habitat Definitions Used to Categorize Big Game Winter Habitat per the Department's Fish and Wildlife Habitat Mitigation Policy
  5. Designation of Big Game Winter Range as Habitat Category 2
  6. Identifying and Mapping Big Game Winter Habitat
- Appendix A: ODFW Big Game Winter Habitat Map

### 1. Overview:

The Department's mission includes managing big game populations at healthy and sustainable levels compatible with the primary uses of the land (ORS 496.012). The Department has no authority to regulate land uses and must rely on a variety of other federal, state and county agencies to address habitat needs and/or concerns. Sustainable habitats for big game populations are considered essential and/or important for their long-term conservation and persistence.

### 2. Species:

This document addresses one species of deer (mule deer: *Odocoileus hemionus hemionus*), one species of elk (Rocky Mountain elk: *Cervus elaphus nelsoni*), and two subspecies of bighorn sheep (California bighorn sheep: *Ovis canadensis californicus* and Rocky Mountain bighorn sheep *O. canadensis canadensis*). Winter habitats for the four species/subspecies are considered both limited and essential for the long-term conservation of the species and populations.

Other big game species, including black-tailed and white-tailed deer, pronghorns and mountain goats are not addressed in this document.

### 3. General Big Game Habitat and Winter Habitat:

Generally, big game species need habitat which provides a combination of food, water, and security to survive and reproduce. Abundance, distribution, and connectivity of these habitats are crucial to species survival and may vary seasonally depending on a specific species dependence on migratory or non-migratory behavior to fulfill life history requirements.

Winter Habitat: Winter habitat includes areas identified and mapped as providing essential and limited function and values (e.g. thermal cover, security from predation and harassment, forage quantity, adequate nutritional quality, escape from disturbance, etc.) for certain big

game species from December through April. Winter Habitat includes mapped areas of “Winter Range” use by predominately migratory mule deer and Rocky Mountain elk and mapped areas of “Occupied Habitat” use by predominately non-migratory bighorn sheep use areas from December through April.

**4. Other Habitat Definitions Used to Categorize Big Game Winter Habitats per the Department Fish and Wildlife Habitat Mitigation Policy (OAR 635-415-0000 through 0025):**

Essential Habitat: Any habitat condition or set of habitat conditions which, if diminished in quality or quantity, would result in depletion of a fish and wildlife species.

Habitat: The physical and biological conditions within the geographic range of occurrence of a species, extending over time, which affect the welfare of the species or any sub-population or members of the species.

Important Habitat: Any habitat recognized as a contributor to sustaining fish and wildlife populations on a physiographic province basis over time.

Limited Habitat: An amount of habitat insufficient or barely sufficient to sustain fish and wildlife populations over time.

Physiographic Province: Any of one of the ten major geographical areas within the State of Oregon based on differences in topography, climate, and vegetation as defined in the Oregon Wildlife Diversity Plan (OAR 635-100-0001 through 0040).

**5. Designation of Big Game Winter Range as Habitat Category 2:**

Definition:

As defined in the ODFW Fish and Wildlife Habitat Mitigation Policy (OAR 635-415-0025(2), “**Habitat Category 2**” is essential habitat for a fish or wildlife species, population, or unique assemblage of species and is limited either on a physiographic province or site-specific basis depending on the individual species, population, or unique assemblage.

Process:

Designating fish or wildlife habitats into the appropriate Habitat Category (1-6) requires answering a sequence of yes or no questions, also known as a dichotomous key, ultimately resulting in a specific habitat categorization based on the relative function and value the habitat provides for the specie(s) and the relative scarcity of the habitat on the landscape. (Figure 1).



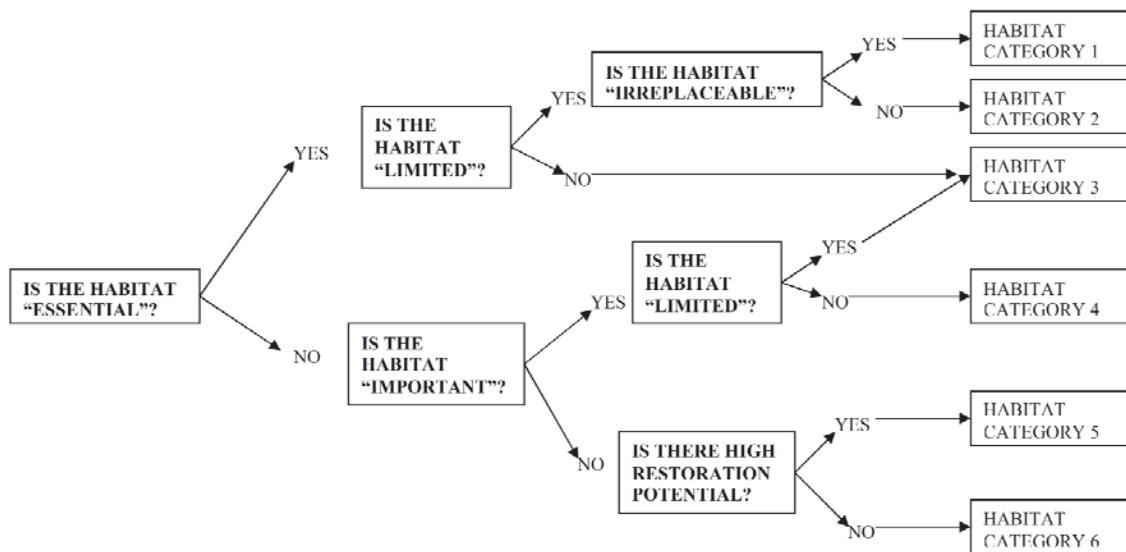


Figure 1. Decision process for identification of habitat function and value relative to habitat category designation.

**Step 1: Is the Habitat “Essential”? Yes.**

“Essential Habitat” means any habitat condition or set of habitat conditions which if diminished in quality or quantity, would result in depletion of a fish or wildlife species.

Winter survival and subsequent reproduction of big game is the primary limiting factor influencing species abundance and distribution in Oregon. Not all winter habitats provide the same functions and values year to year (e.g. thermal cover, security from predation and harassment, forage quantity, adequate nutritional quality, escape from disturbance, etc.) Winter habitats vary in area, elevation, aspect, precipitation, and vegetation association all influencing the relative quantity and quality of available habitat on both an annual and seasonal basis. Factors such as habitat abundance, distribution, and species access to relatively undisturbed winter habitat dictate the specific functions and values winter habitat provides to big game.

Periodic severe winters can result in events of high adult mortality known as “winter die-offs.” Individuals that survive severe winters may not recover adequate body condition or health to successfully reproduce later that spring or become reproductive again the following fall. Specific big game distribution and patterns of essential winter habitat use vary greatly depending on site specific influences. Depending on the year, big game animals may use many portions of their winter range. During severe winters, lower elevation portions of the range may become essential and the only remaining available winter habitat. However, even in mild winters, big game will make seasonal movements up/down slope to take advantage of new plant growth with warmer temperatures at lower elevations, to move out of temporary heavy

snow zones and to move out of areas of heavy mud. In other areas, big game may be required to make daily up/down slope movement between draws providing essential thermal cover and wind-blown ridges which provide the only accessible forage during deeper snow periods.

Step 2: Is the Habitat “Limited”? **Yes.**

“Limited Habitat” means an amount insufficient or barely sufficient to sustain fish and wildlife populations over time.

In areas of increasing land use development and human disturbance, big game have been forced to alter historic patterns and use winter habitats that are less suitable and more fragmented. Many of the highest quality historic big game winter habitats have been converted to cultivated agriculture, housing developments, subdivisions, or fragmented by highways and are no longer suitable for use by wintering big game due to conflict with primary land uses. Remaining available big game habitat is often less functional. This is generally due to lower productivity soils, steeper slopes, and less precipitation, all of which make these areas less suitable for intensive farmed agriculture or other development. However, these lands are frequently important forage areas for private livestock operations, further limiting available forage quality and quantity for big game. Additionally, increasing human disturbance diminishes function and value of habitat for big game. In some areas of Oregon, big game winter habitats occur only within very specific narrow elevation bands between higher snow dominated elevations and lower and dryer elevations incapable of supporting significant forage quantity or quality.

Step 3: Is the Habitat “Irreplaceable”? **No.**

“Irreplaceable” means that successful in-kind habitat mitigation to replace lost habitat quantity and/or quality is not feasible within an acceptable period of time or location, or involves an unacceptable level of risk or uncertainty, depending on the habitat under consideration and the fish and wildlife species or populations that are affected. “Acceptable”, for the purposes of this definition, means in a reasonable time frame to benefit the affected fish and wildlife species.

In some areas, opportunities may exist to successfully mitigate for impacts to big game winter habitats. Restoration of less suitable or degraded existing winter habitats to a functional vegetative condition or allowing wintering big game access to these habitats can increase quality and/or quantity of winter habitats and ultimately, the specific functions and values those habitats provide for the species. Both have been successfully accomplished in the past and can occur within an “acceptable” period of time considering the life history of big game. However, in areas where big game winter habitats are limited due to very specific narrow elevation bands between higher snow dominated elevations and lower and dryer elevations, mitigation should focus in these areas as much as possible.

Cultivated Agriculture: Although some areas of historic big game winter habitat which have been converted to cultivated agriculture could still support wintering big game from a forage quantity and quality perspective, most landowners are unwilling to allow wintering big game to occupy and “damage” cultivated agriculture. Therefore, specific historic big game winter habitat parcels which have been converted to cultivated agriculture should be excluded from habitats otherwise categorized as big game winter habitat Category 2 Habitats and categorized based on functions and values provided to other species using the habitat.

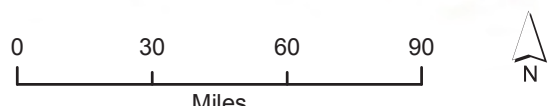
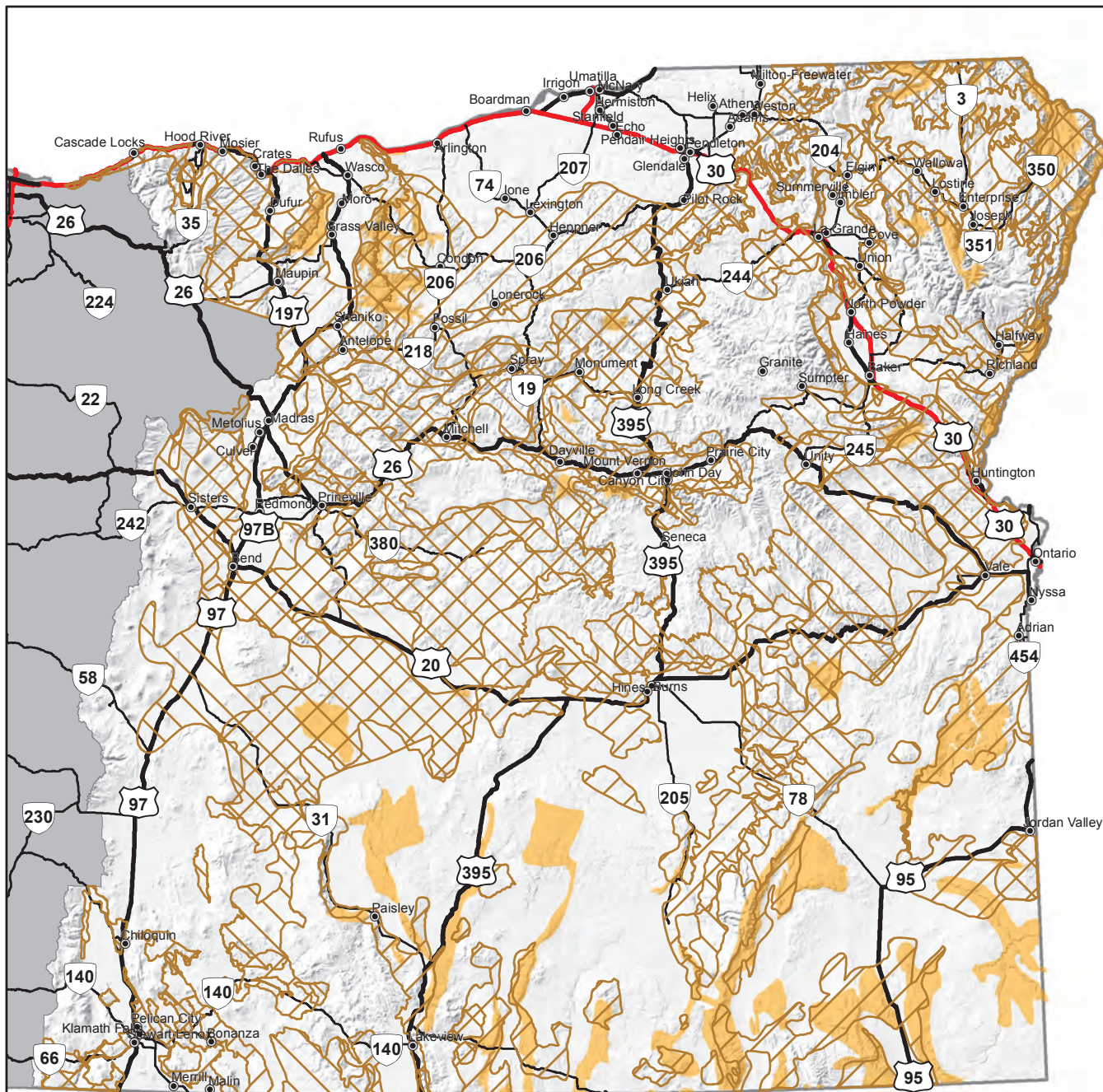
Department Elk De-emphasis Areas: The Department has identified a few Wildlife Management Units as Elk De-emphasis Areas (EDAs). These areas are typified by a very high percentage of private land with extensive areas of agricultural uses that may incur severe damage as elk populations increase or concentrate. In EDAs there is no elk population Management Objective for elk and the primary emphasis is to address property damage. However, winter habitat is important in these areas, because it may still provide an alternative to elk concentrating on lands where they cause property damage. Currently, the two identified EDAs are in the East Beulah Management Unit and in the Columbia Basin Management Units (Columbia Basin, Biggs, and Maupin Management Units).

#### **6. Identifying and Mapping Big Game Winter Habitats:**

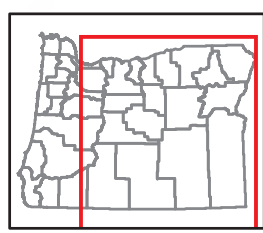
The Department has iteratively identified and mapped big game winter habitats over the past half a century or more as information has become available, research has been completed, and as observations of big game winter habitat use have been collected. A statewide effort to systematically collect historic and current data as well as analyze and map current winter range habitats for mule deer and Rocky Mountain elk using GIS shape files was completed in 2009 and subsequently updated in 2012 to refine maps for The Lower Deschutes Watershed and add GIS shape files for bighorn sheep occupied habitats (Appendix A).

These mapping efforts included the comprehensive review of both existing internal and external mapped big game winter habitats and incorporated agency research data, observational big game winter use habitat (both air and ground observations), and professional judgment as available for each individual game management unit. Existing mapped big game winter habitats also included incorporation of information from district specific Department big game winter range maps, big game occupied habitat maps, County Land Use Goal 5 winter habitat maps, Western Association of Fish and Wildlife Agencies (WAFWA) Mule Deer Habitats of the West maps, and Rocky Mountain Elk Foundation (RMEF).

# ODFW Big Game Winter Habitat: Deer & Elk Winter Range, Bighorn Sheep Occupied Habitat for Eastern Oregon



- ODFW Deer Winter Range 2009 (Updates to the Dalles & Heppner Districts 2012)
- ODFW Elk Winter Range 2009 (Updates to The Dalles District 2012)
- Bighorn Sheep Occupied Habitat
- Winter Habitat Not Mapped



ODFW GIS; July 29, 2013; Deer and elk data are available from:  
<https://nrmp.dfw.state.or.us/DataClearinghouse/default.aspx?p=202&XMLname=885.xml>