



Solid Waste Management Facility Siting Study

Solid Waste Advisory Committee (SWAC) Meeting

March 21, 2023





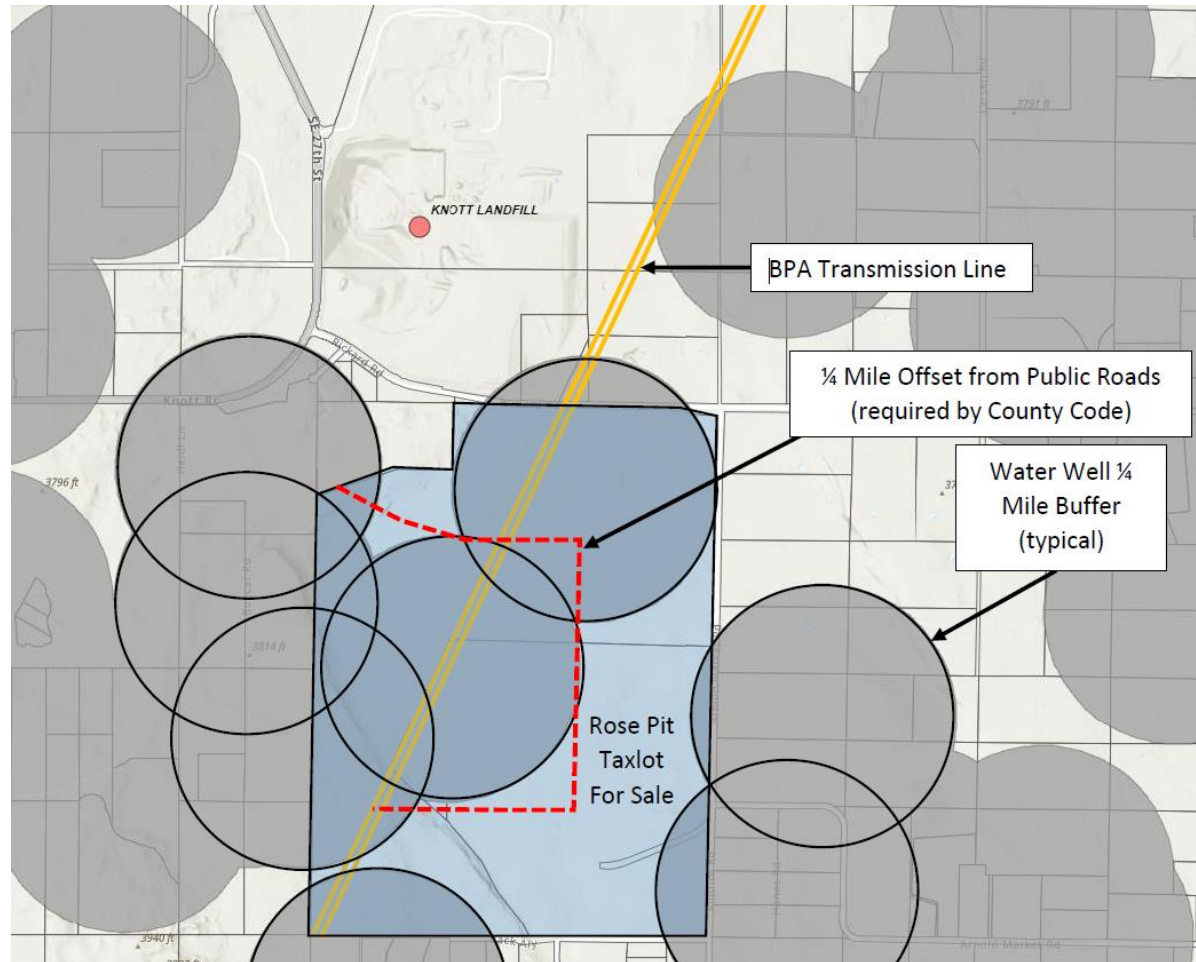
Agenda

1. Welcome
2. Review/ Approve February Meeting Minutes
3. Rose Pit Site Discussion
4. Bureau of Land Management (BLM) Site Update
5. Focused Site Screening Results
6. Communications Update
7. Public Comment
8. Adjourn

Note: After this regular SWAC meeting, SWAC Members will be attending a tour of potential sites. The tour is not considered a regular meeting of the SWAC.

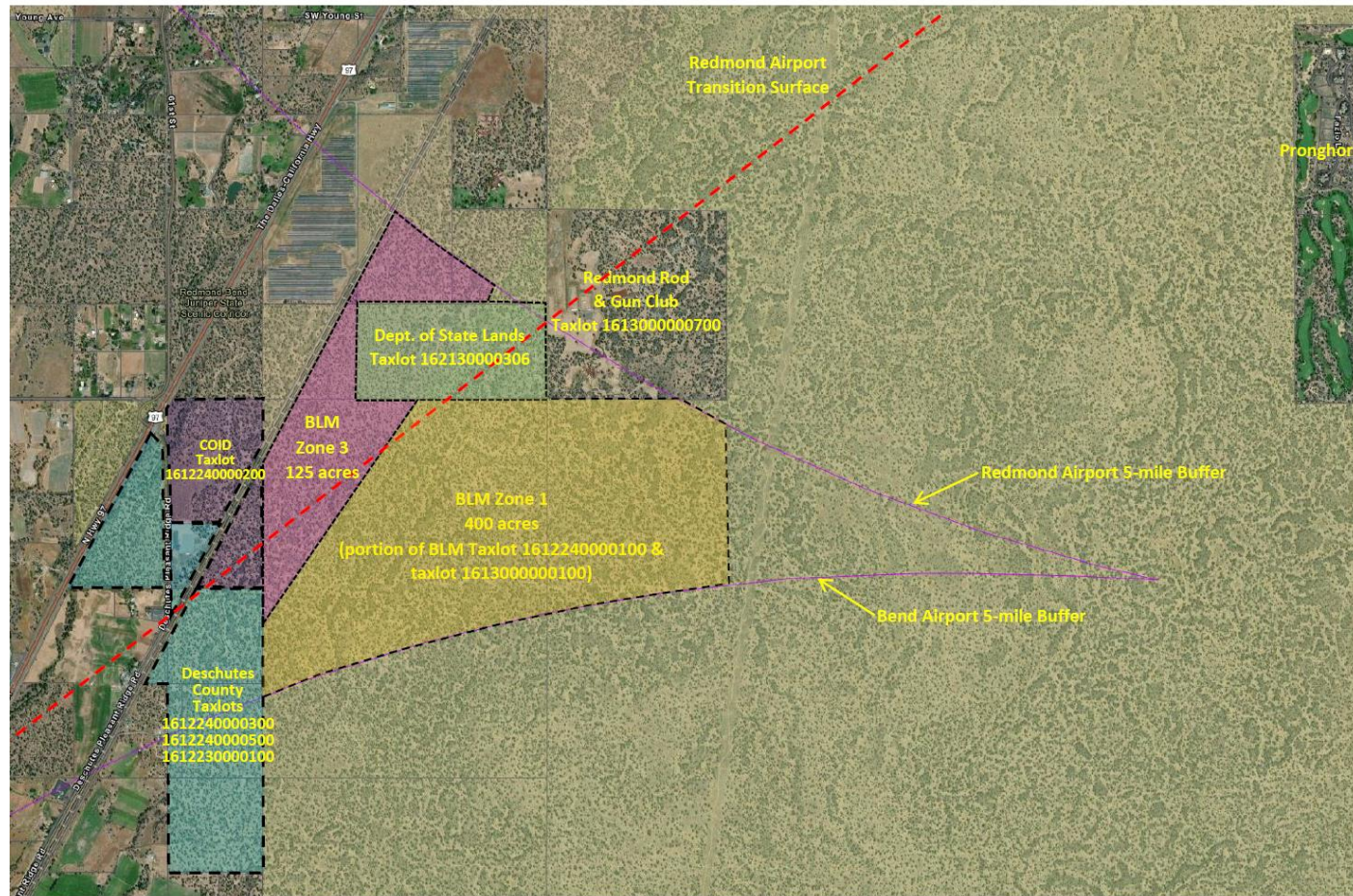


Rose Pit Site Discussion





Bureau of Land Management (BLM) Site Update

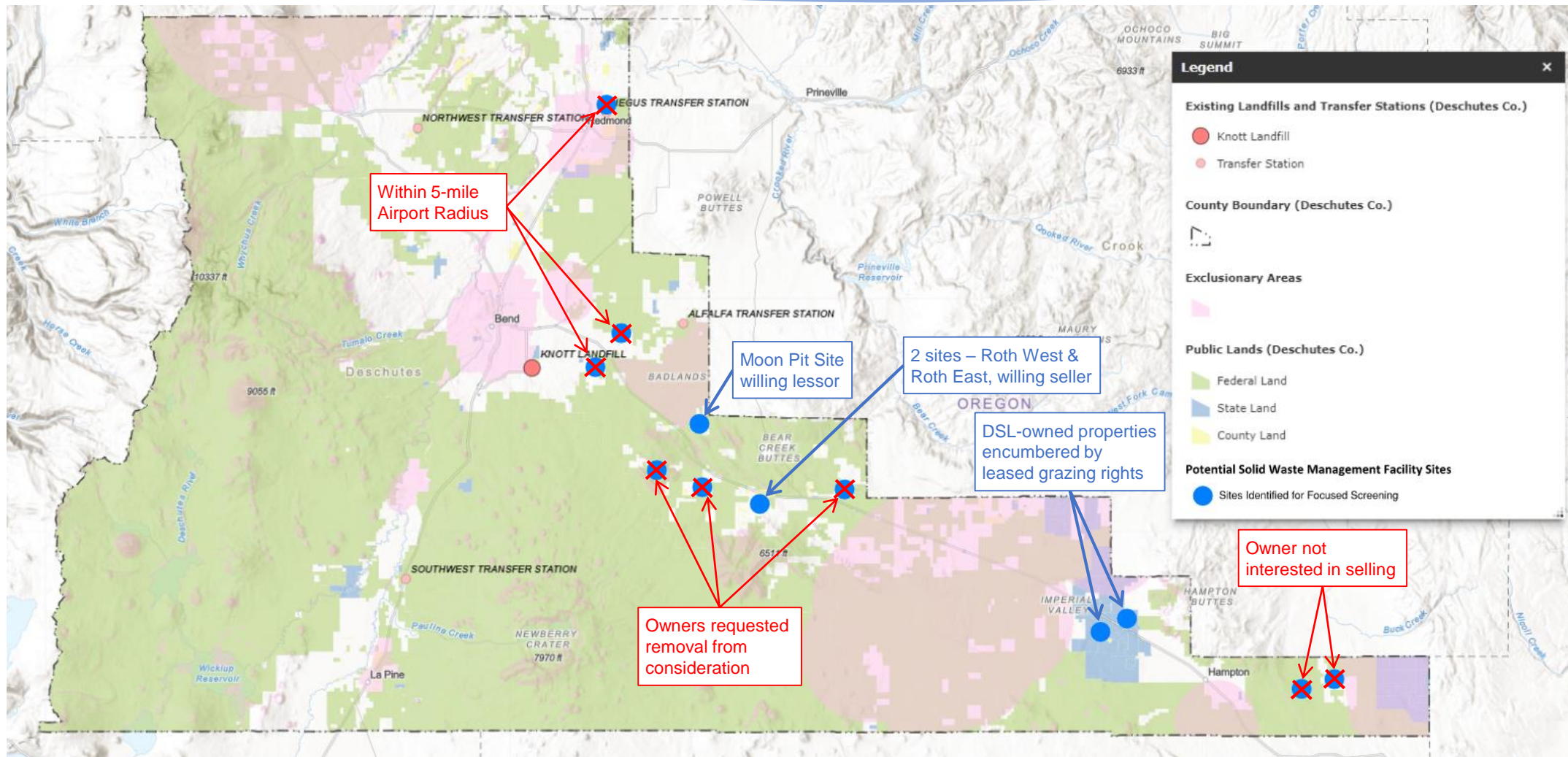




Focused Site Screening Results

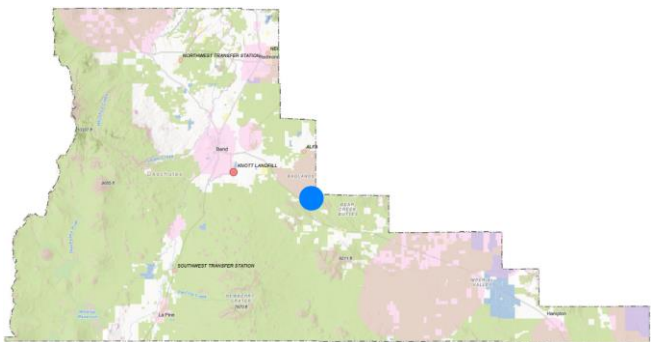


Focused Screening Updates

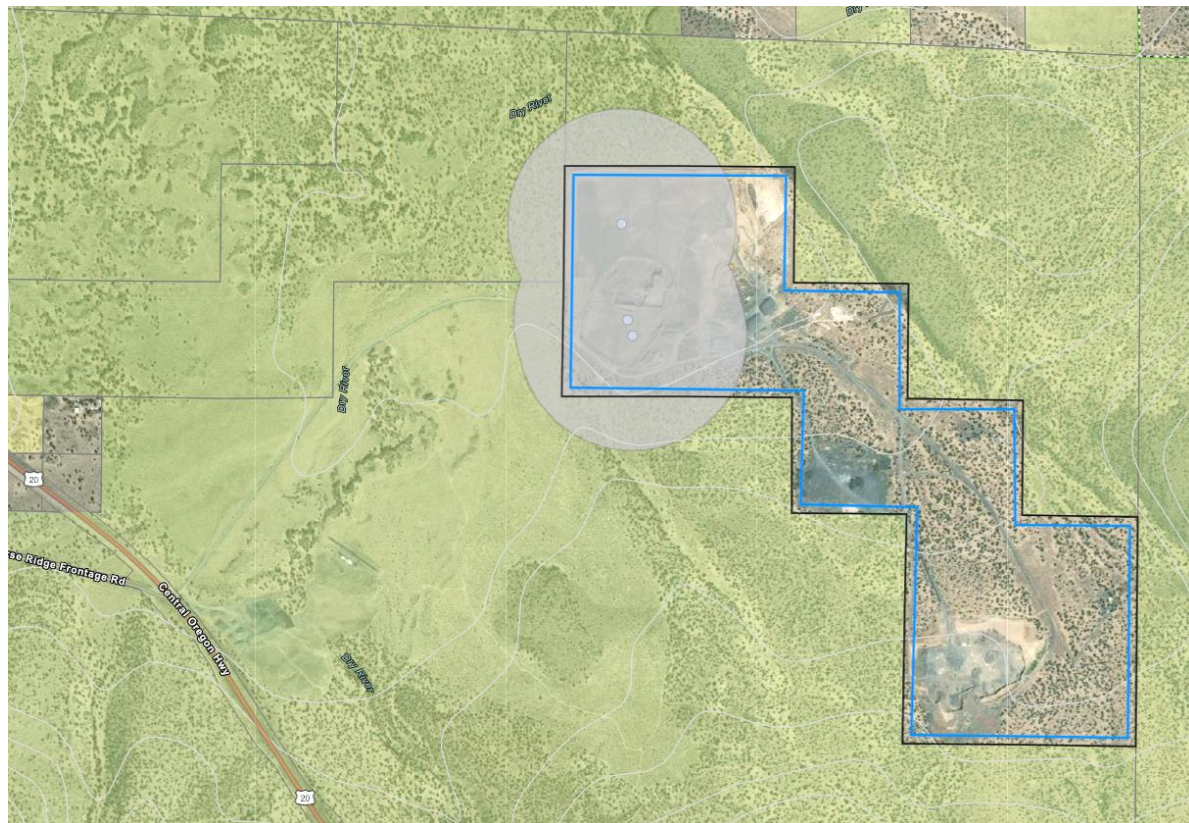
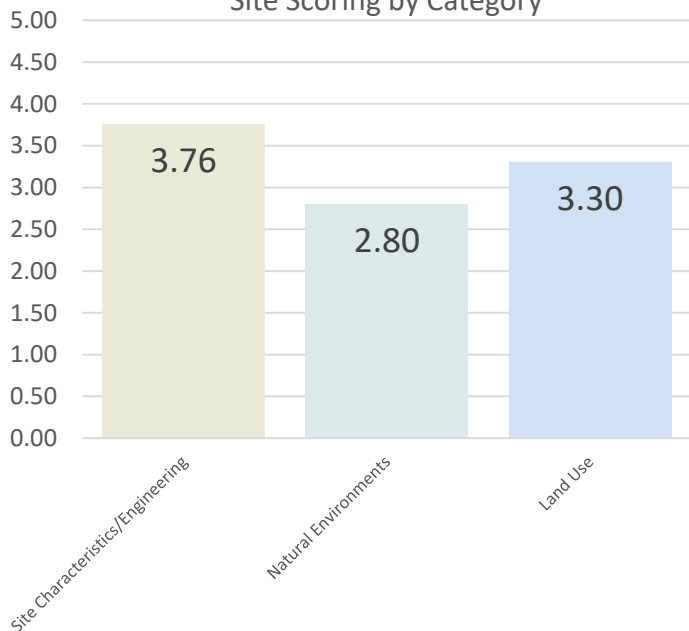




Moon Pit Site (191400-200)



Site Scoring by Category

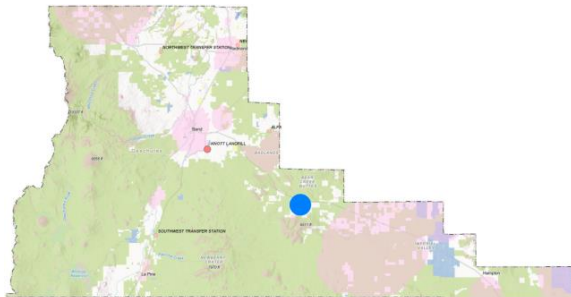


Considerations:

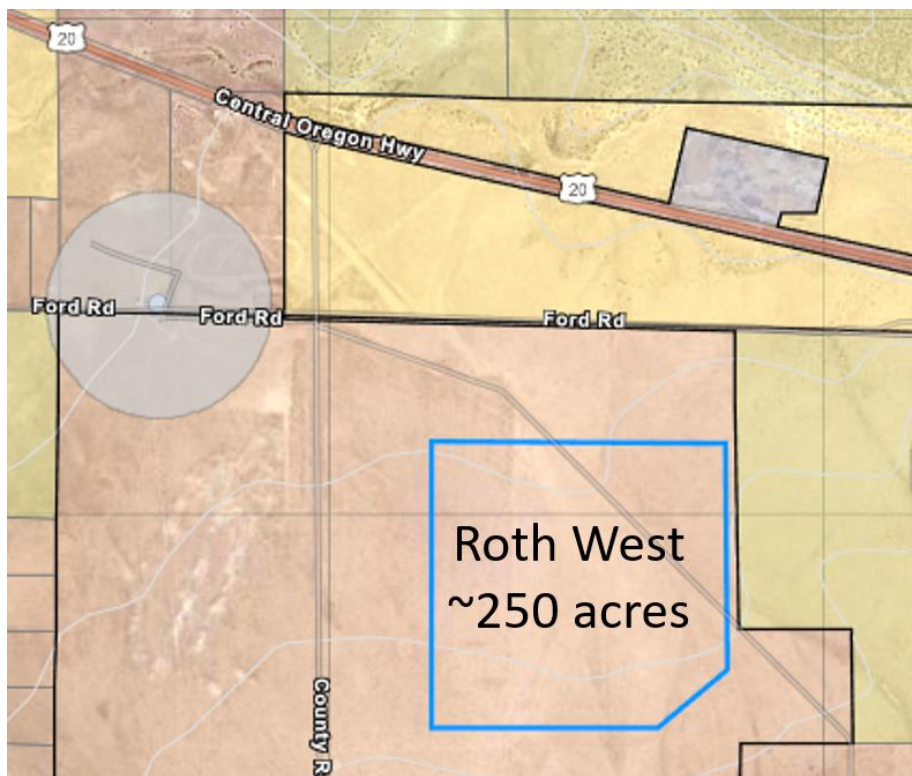
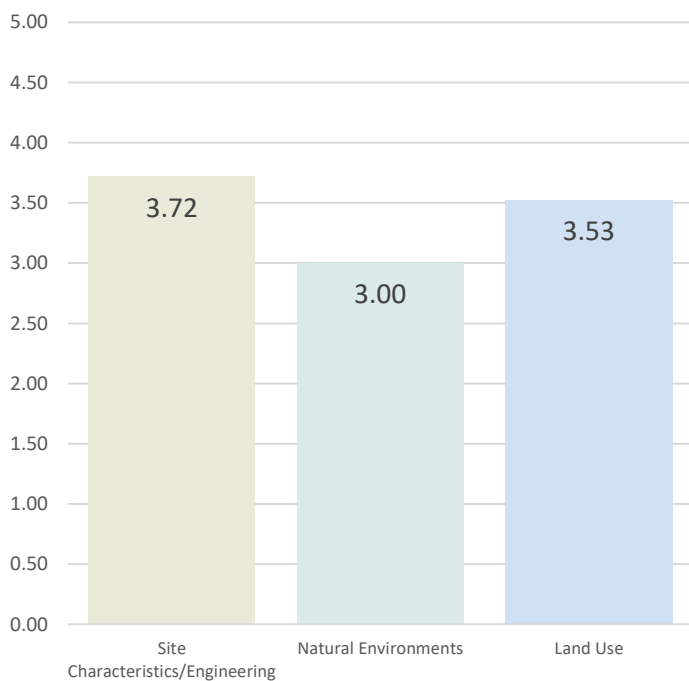
- Existing surface mine site
- Onsite industrial wells
- Paved Rd from highway 20
- Deep groundwater ~1000' BGS
- Owner willing to lease land for SWMF operations
- 0 residences within 1 mile
- 1 residence within 2 miles
- Potential for landfill cells to be excavated by gravel mining operations
- Environmental and Cultural resources and related impacts already studied and monitored
- Adjacent to Badlands Wilderness Area & Trailhead
- Not visible from Highway 20
- Established prior to designation of Badlands Wilderness Area
- 20 miles from waste centroid



Roth West Site (201500-300)



Site Scoring by Category

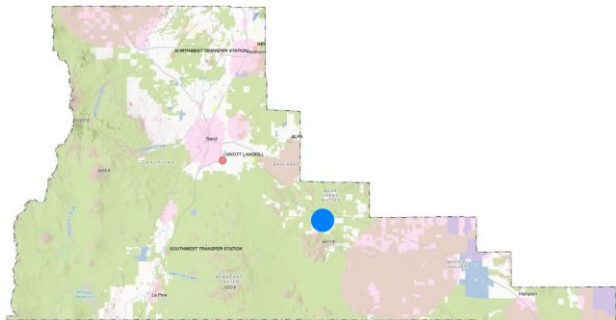


Considerations:

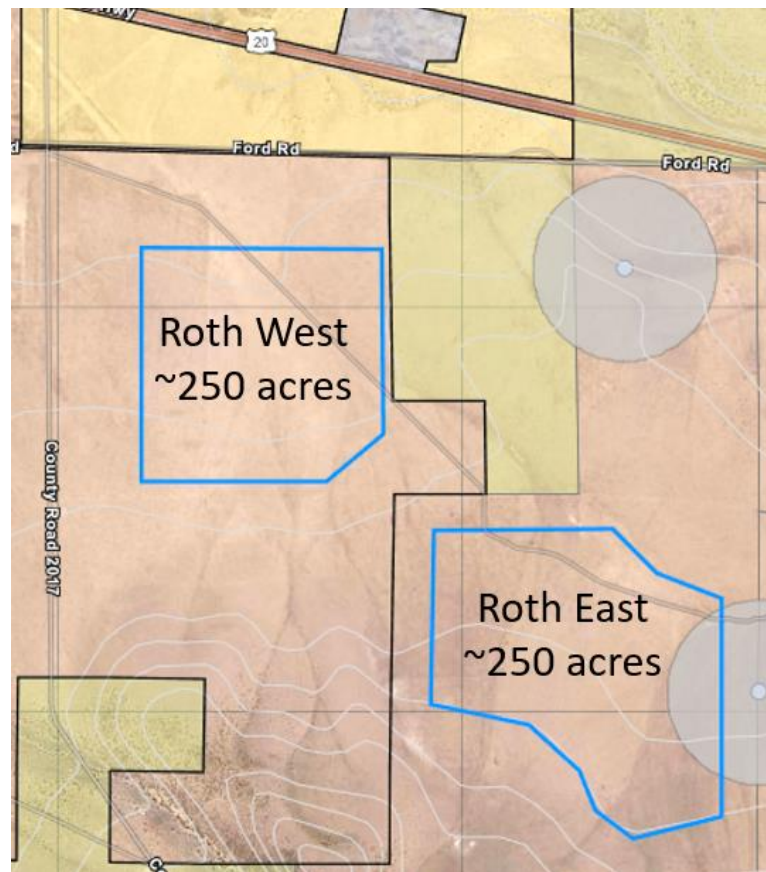
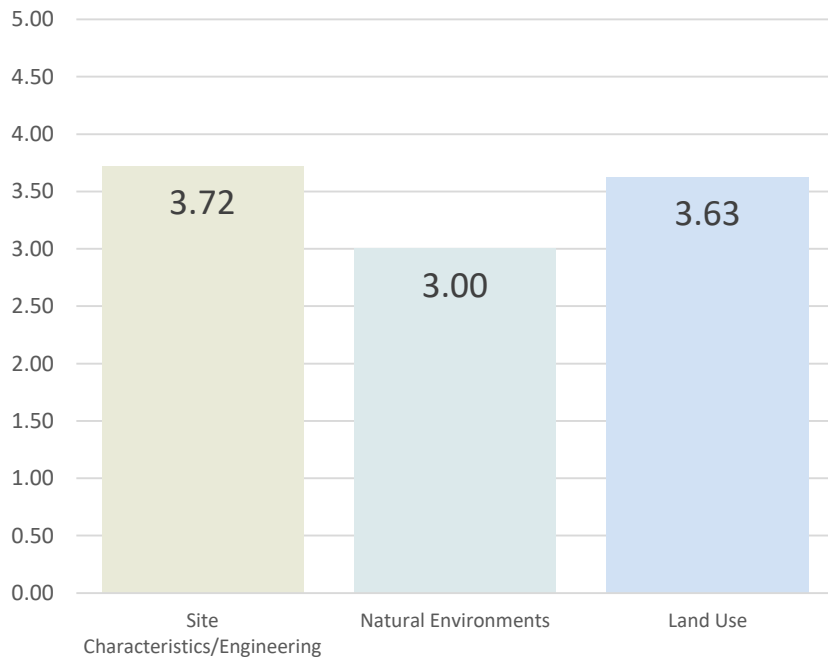
- Parcel area: 1,783 acres
- Owner is interested in selling
- Within Millican Valley / Plateau
- Within Low Density Sage Grouse Habitat Area
- Variety of recreational uses in broad vicinity
- 3 residences within 1 mile
- 26 residences within 2 miles
- Highly visible from Hwy 20 and Pine Mountain access road
- 28 miles from waste centroid



Roth East Site (201500-301)



Site Scoring by Category

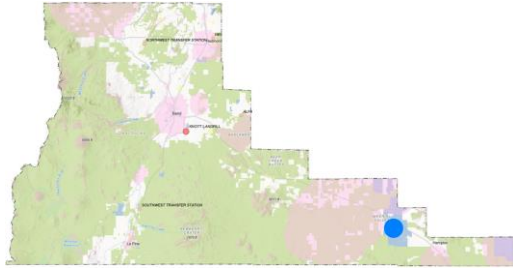


Considerations:

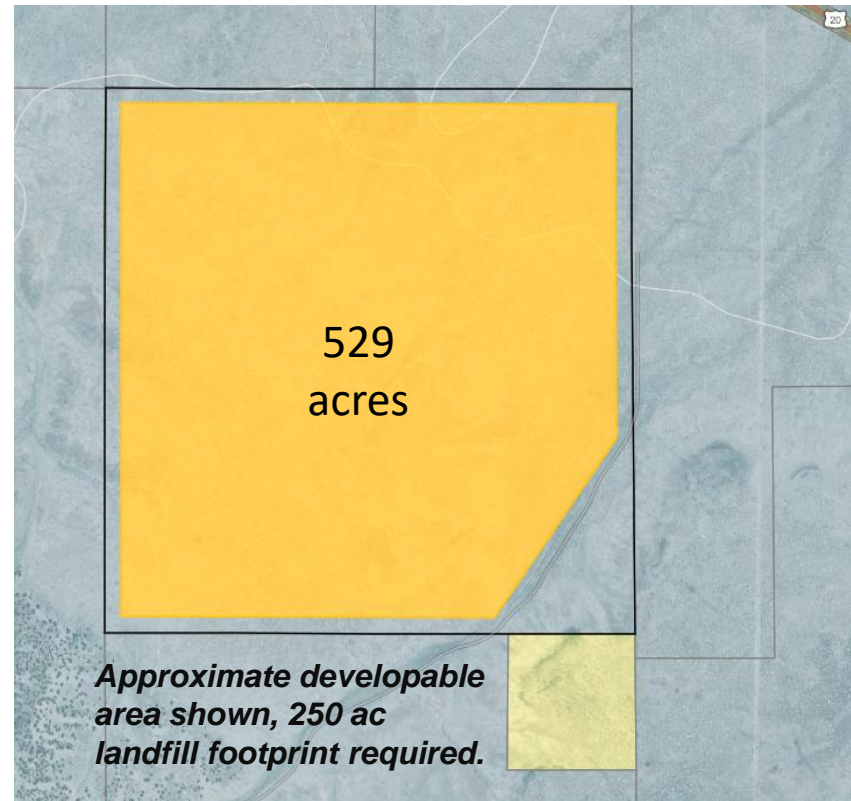
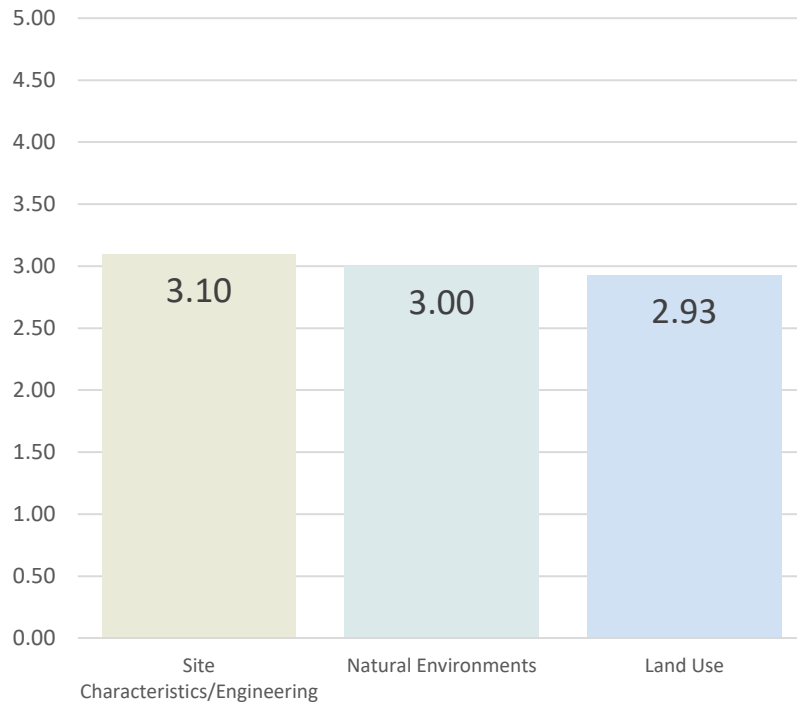
- Parcel area: 1,706 acres
- Owner is interested in selling
- Within Millican Valley / Plateau
- Within Low Density Sage Grouse Habitat Area
- Variety of recreational uses in broad vicinity
- 2 residences within 1 mile
- 8 residences within 2 miles
- Less visual impacts from Pine Mountain Rd and Hwy 20 (compared to Roth West) due to distance and topographic screening in some directions.
- 29 miles from waste centroid



DSL South Site (211900)



Site Scoring by Category

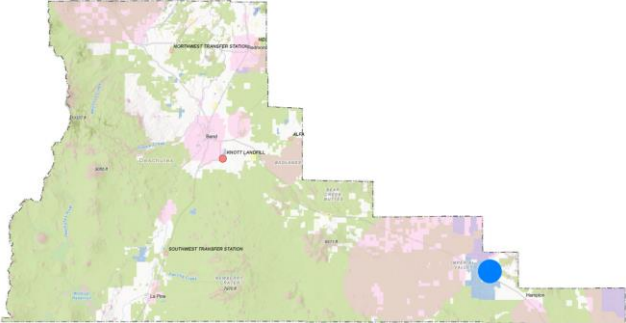


Considerations:

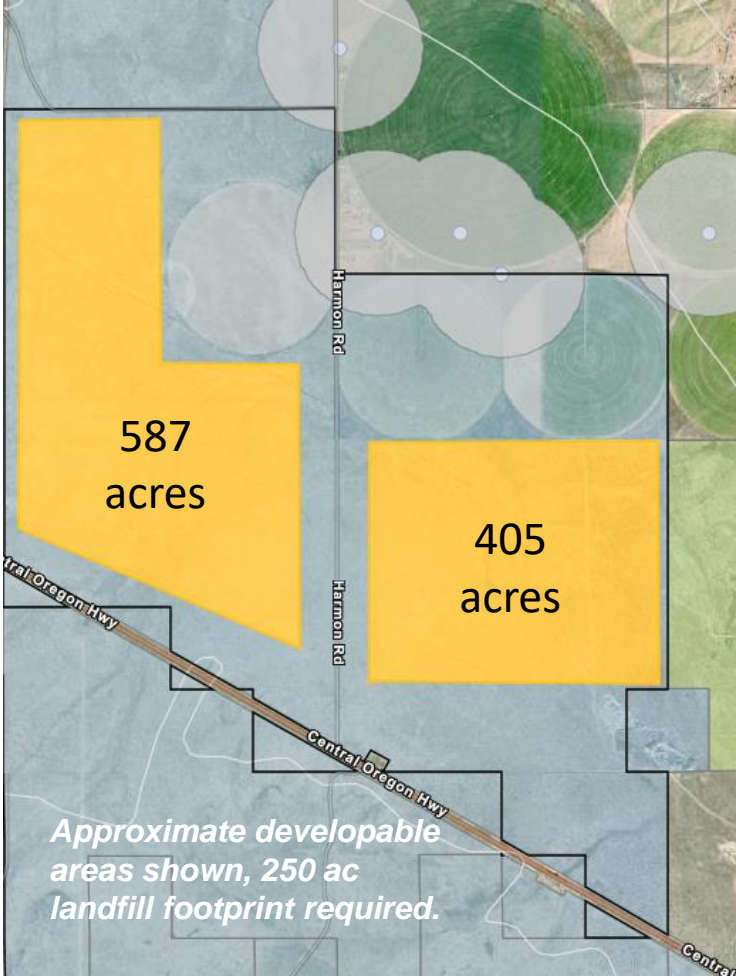
- Acquisition Potential is challenging due to ownership by Division of State Lands (DSL)
- Property encumbered by existing grazing land leases
- Property area is 625 acres
- Access easement required for truck access from Hwy 20
- 0 residences within 1 mile
- 1 residence within 2 miles
- No known existing wells or water rights onsite
- Powerline along Highway 20
- 52-56 miles from waste centroid



DSL North Site (212000)



Site Scoring by Category



Considerations:

- Acquisition Potential is challenging due to ownership by Division of State Lands (DSL)
- Property encumbered by existing grazing land leases
- Property area is 2117 acres, with multiple options for potential disposal site
- Existing access via Hwy 20 and gravel road
- 2 residences within 1 mile
- 3 residences within 2 miles
- Existing wells and residences nearby
- Adjacent to alfalfa farming
- No known wells or water rights onsite
- No nearby power infrastructure
- 52-56 miles from waste centroid



Focused Site Scoring Results

SITE ID: **191400-200** 201500-300 201500-301 211900 212000
 NAME: **MOON PIT** ROTH WEST ROTH EAST HAMPTON SOUTH HAMPTON NORTH

Site Characteristics/Engineering	35%	3.76	3.72	3.72	3.10	3.08
Site Availability/Acquisition Potential	35%	3.40	4.20	4.20	3.40	3.40
<i>Ownership</i>	40%	3	3	3	1	1
<i>Number of Parcels</i>	20%	5	5	5	5	5
<i>Total Site Acreage</i>	40%	3	5	5	5	5
Geotechnical Location Factors	10%	2.10	2.60	2.60	3.60	3.60
<i>Fault Hazards</i>	25%	3	3	3	5	5
<i>Seismic Impact Zones/Hazards</i>	30%	3	3	3	3	3
<i>Unstable Areas – Mass Movement</i>	25%	1	3	3	5	5
<i>Unstable Areas – Poor Foundation</i>	20%	1	1	1	1	1
Floodplains	5%	3.00	3.00	3.00	5.00	5.00
Groundwater Protection/Hydrogeology	20%	5.00	3.90	3.90	3.40	2.20
<i>Depth to Groundwater</i>	25%	5	3	3	1	1
<i>Proximity to Drinking Water Wells</i>	30%	5	3	3	5	1
<i>Proximity to Wellhead Protection Areas</i>	15%	5	5	5	5	5
<i>Site Hydrogeologic Framework</i>	30%	5	5	5	3	3
Development	15%	5.00	5.00	5.00	2.65	4.15
<i>Soils</i>	45%	5	5	5	3	5
<i>Topography</i>	30%	5	5	5	1	3
<i>Capacity/Site Configuration</i>	25%	5	5	5	4	4
Operation	15%	3.05	2.05	2.05	1.45	1.45
<i>Haul Distance to Waste Centroid</i>	60%	2	2	2	1	1
<i>Annual Precipitation</i>	15%	4	4	4	4	4
<i>Onsite Water Supply and Management</i>	25%	5	1	1	1	1



Focused Site Scoring Results

SITE ID: 191400-200 201500-300 201500-301 211900 **212000**
 NAME: MOON PIT ROTH WEST ROTH EAST HAMPTON SOUTH **HAMPTON NORTH**

<u>Natural Environment</u>	<u>35%</u>	<u>2.80</u>	<u>3.00</u>	<u>3.00</u>	<u>3.00</u>	<u>3.20</u>
Wetlands and Waters Impacts	10%	5.00	5.00	5.00	5.00	5.00
Threatened and Endangered Species	20%	5.00	5.00	5.00	5.00	5.00
Wildlife Area Combining Zone	10%	1.00	1.00	1.00	1.00	1.00
Greater Sage-Grouse Area Combining Zone	40%	1.00	1.00	1.00	1.00	2.00
Sensitive Bird and Mammal Habitat Combining Zone and Migratory Birds	20%	4.00	5.00	5.00	5.00	4.00
<i>Sensitive Bird and Mammal Habitat Combining Zone</i>	50%	5	5	5	5	5
<i>Migratory Birds, Including Bald and Golden Eagles</i>	50%	3	5	5	5	3



Focused Site Scoring Results

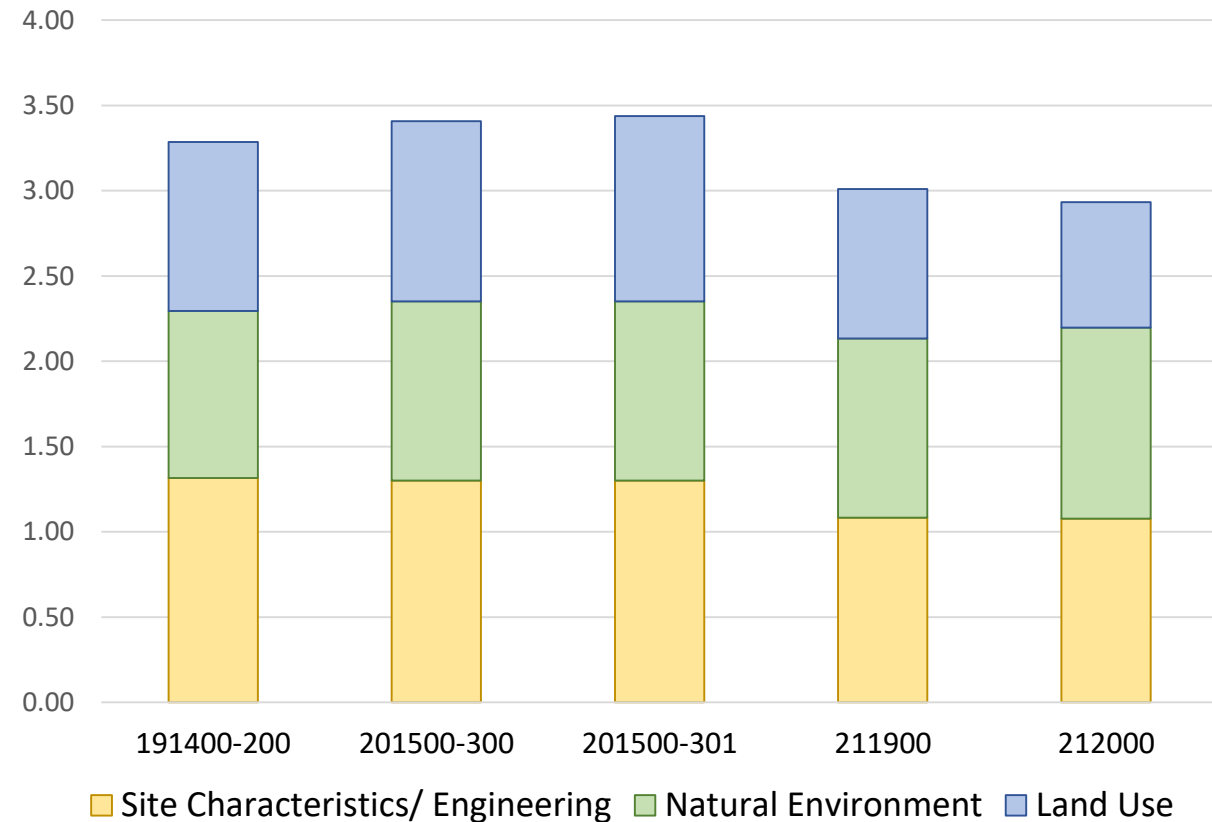
SITE ID: 191400-200 201500-300 **201500-301** 211900 212000
 NAME: MOON PIT ROTH WEST **ROTH EAST** HAMPTON SOUTH HAMPTON NORTH

<u>Land Use</u>	<u>30%</u>	<u>3.30</u>	<u>3.53</u>	<u>3.63</u>	<u>2.93</u>	<u>2.45</u>
Proximity to Airports	15%	5.00	5.00	5.00	5.00	5.00
Site Zoning	20%	3.00	5.00	5.00	1.00	1.00
Adjacent Land Use Impacts	20%	3.00	3.50	3.50	4.00	2.50
<i>Existing Adjacent Use</i>	25%	1	1	1	1	1
<i>Planned Adjacent Use</i>	25%	1	5	5	5	5
<i>Distance to Nearest Residence</i>	25%	5	3	3	5	3
<i>Distance to Nearest Public Road</i>	25%	5	5	5	5	1
Site Visibility/Aesthetic Impact	10%	2.00	1.00	2.00	3.00	2.00
<i>Visibility Based on Topography/Vegetation</i>	50%	1	1	1	1	1
<i>Remoteness</i>	50%	3	1	3	5	3
Transportation System Needs/Opportunity	5%	1.00	1.00	1.00	1.00	1.00
Haul Route Impacts	5%	5.00	5.00	5.00	5.00	5.00
On-Site Land Use Impacts	25%	3.40	2.70	2.70	2.30	2.00
<i>Displacement</i>	40%	4	3	3	2	2
<i>Known Cultural Resources</i>	30%	1	2	2	2	1
<i>Potential for Buried Archaeological Sites</i>	30%	5	3	3	3	3



Focused Site Scoring Results

Site ID	Site Name	Site Characteristics/ Engineering 35%	Natural Environment 35%	Land Use 30%	Total Weighted Site Score:
191400-200	Moon Pit	3.76	2.80	3.30	3.29
201500-300	Roth West	3.72	3.00	3.53	3.41
201500-301	Roth East	3.72	3.00	3.63	3.44
211900	DSL South	3.10	3.00	2.93	3.01
212000	DSL North	3.08	3.20	2.45	2.93





Comparative Cost Factor Analysis

Five major cost factors were identified, which influence the costs to develop and operate a solid waste management facility.

These cost factors include (with estimated weighting):

- Excavation (30%)
- Waste hauling (25%)
- Road infrastructure (15%)
- Power infrastructure (15%)
- Water infrastructure (15%)



Comparative Cost Factor Analysis

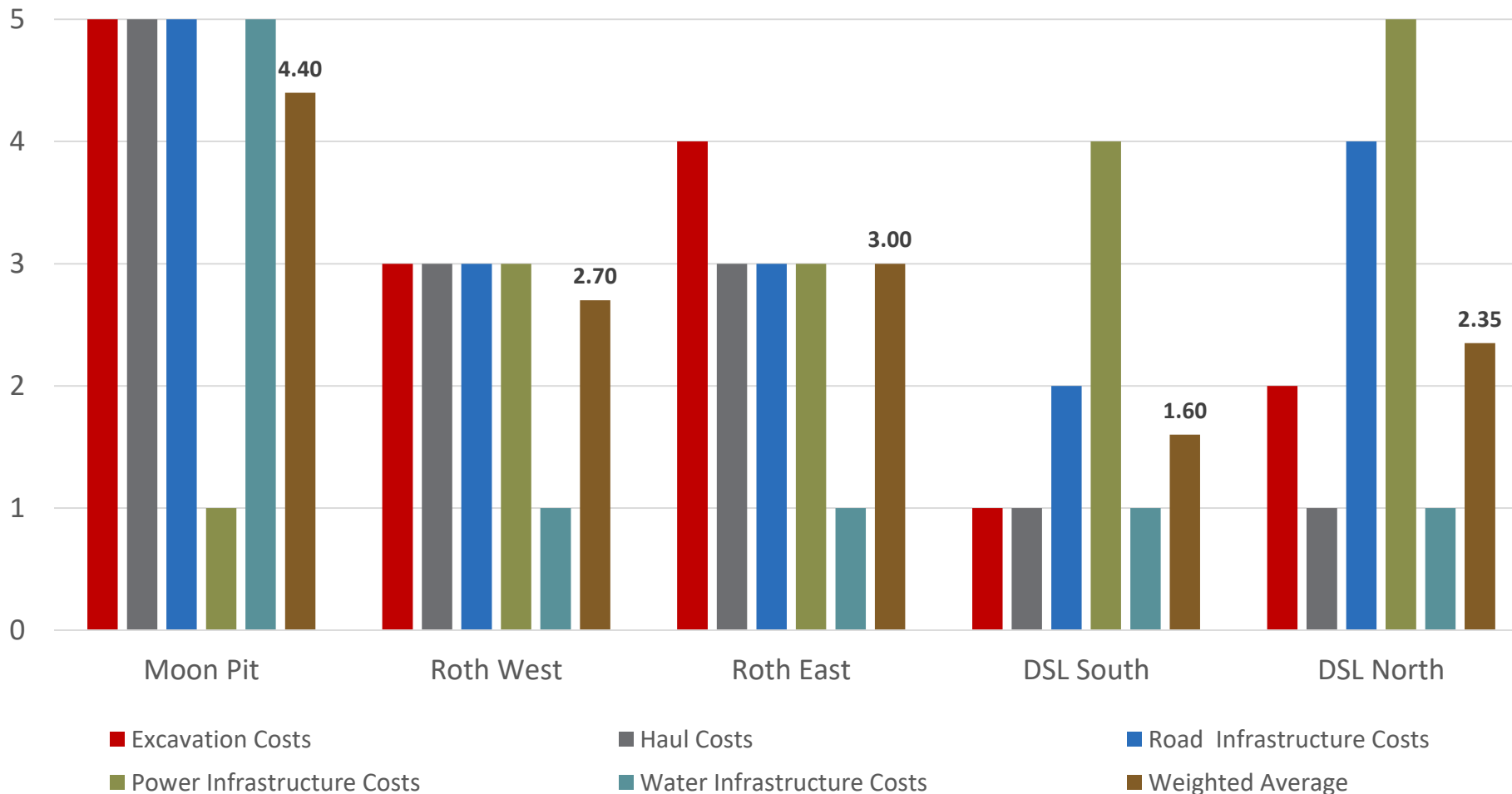
Cost Factor Weighting:		30%	25%	15%	15%	15%	
Site ID	Site Name	Excavation Costs	Haul Costs	Road Infrastructure Costs	Power Infrastructure Costs	Water Infrastructure Costs	Weighted Average
191400-200	Moon Pit	5	5	5	1	5	4.4
201500-300	Roth West	3	3	3	3	1	2.7
201500-301	Roth East	4	3	3	3	1	3
211900	DSL South	1	1	2	4	1	1.6
212000	DSL North	2	1	4	5	1	2.35

Each site was given a score of 1 to 5 with respect to each cost factor, where 1 represents the *highest* cost and 5 represents the *lowest* cost.

As a result, the sites with higher weighted total scores are anticipated to be relatively less expensive to develop and operate, while the sites with lower weighted total scores are anticipated to be relatively more expensive to develop and operate.



Comparative Cost Factor Analysis



Based on this cost factor analysis, it is estimated that SWMF development and operational costs could likely be the lowest for the Moon Pit site and highest for the DSL sites. The SWMF development and operational costs related to the Roth sites are expected to fall between these two extremes, being more expensive than the Moon Pit site and less expensive than the DSL sites.



Residential Proximity Analysis

It is well understood that a new solid waste management facility could negatively impact nearby residences.

Unsurprisingly, residents and property owners near candidate sites have expressed opposition to the prospect of a new SWMF site near their homes.



Residential Proximity Analysis

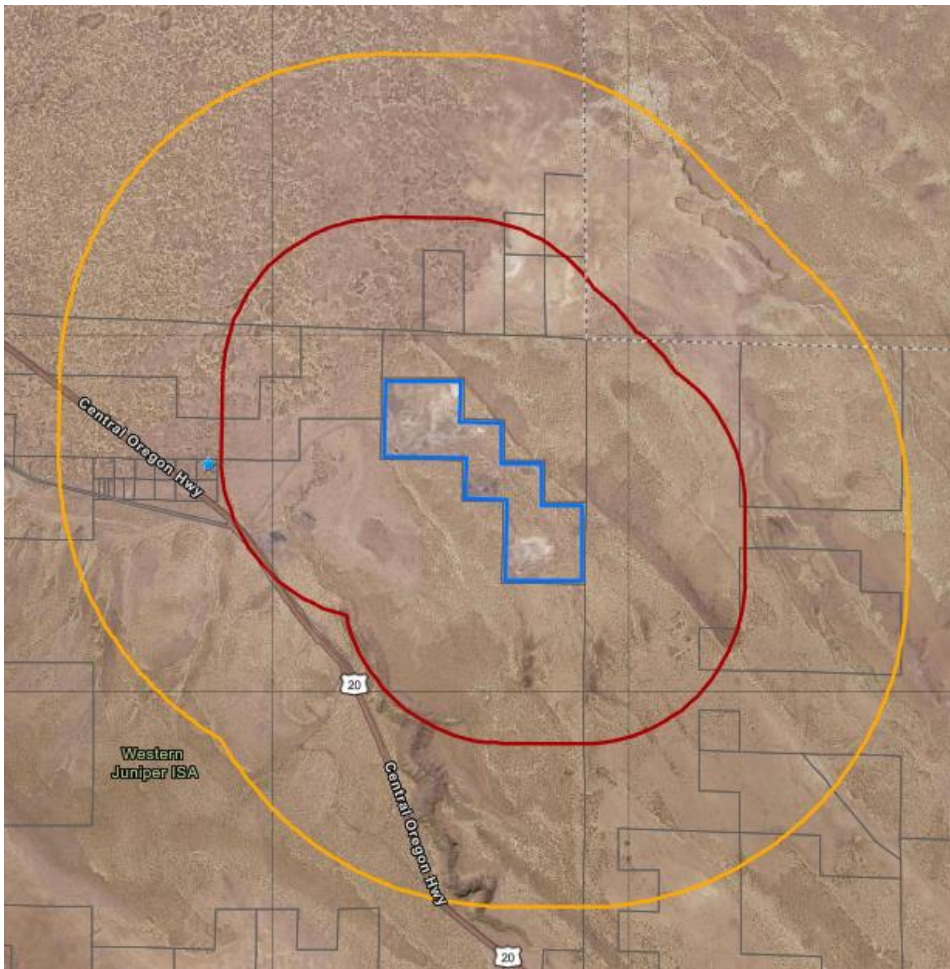
Concerns of nearby residents are generally that a new SWMF facility could have several adverse impacts within the vicinity, including:

- Haul truck traffic
- Noise
- Dust
- Air pollution
- Odors
- Litter
- Invasive species
- Groundwater contamination
- Scenic impacts
- Decreased property values

These potential adverse impacts would generally be more severe for residences in closer proximity to the SWMF and have less or no impact on residences further away.



Residential Proximity Analysis



Moon Pit Site (191400-200)

Known Residences



Workable Site Area (Focus Screen)



Workable Site Area Distance Buffers



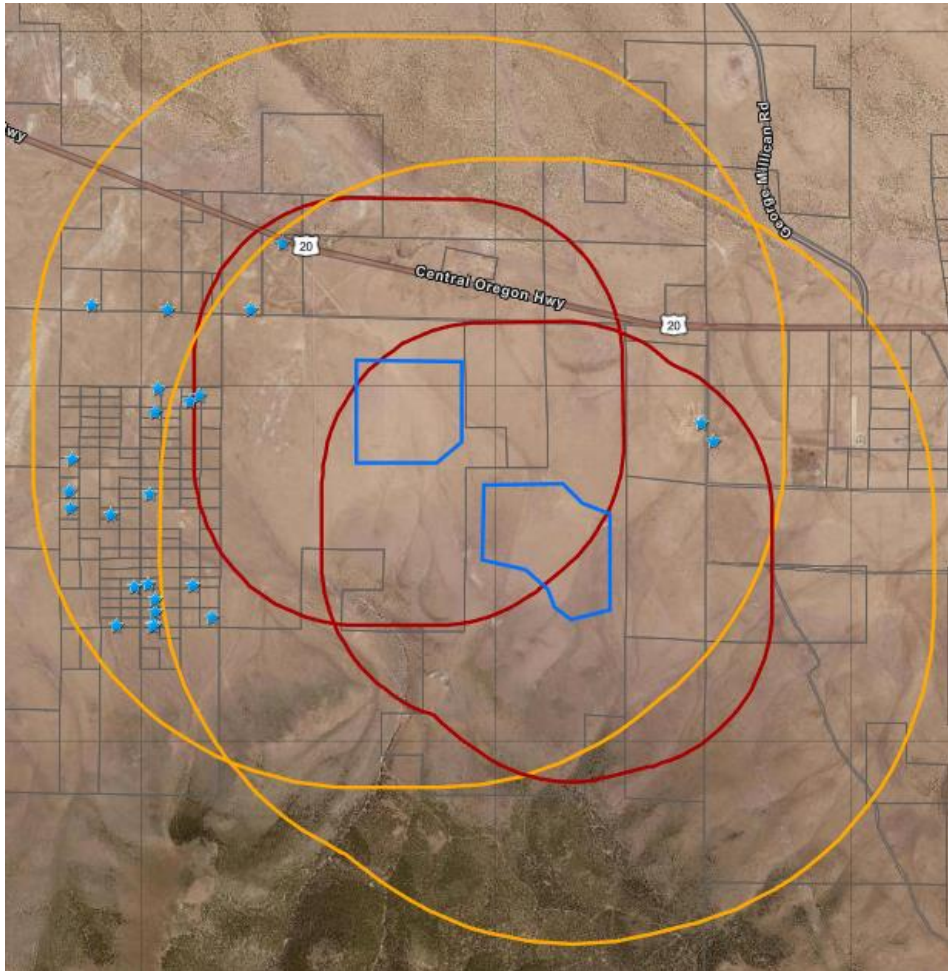
1 mile



2 miles



Residential Proximity Analysis



Roth West Site (201500-300)

Roth East Site (201500-300)

Known Residences



Workable Site Area (Focus Screen)



Workable Site Area Distance Buffers



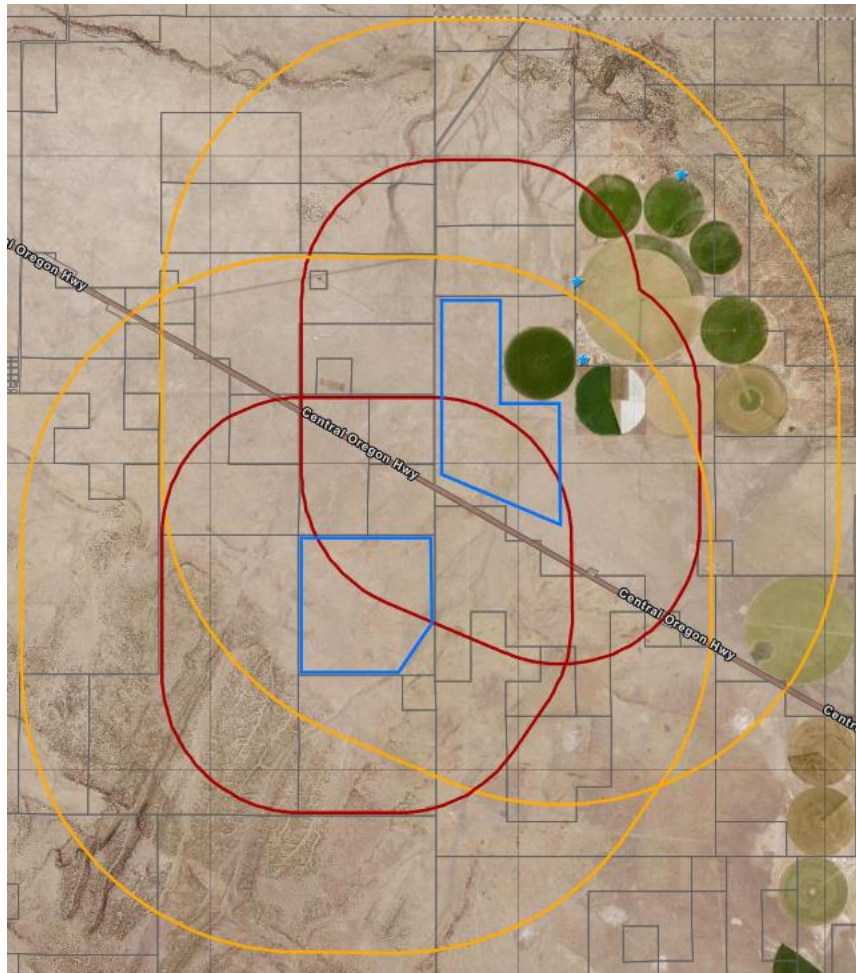
1 mile



2 miles



Residential Proximity Analysis



DSL South Site (211900)

DSL North Site (212000)

Known Residences



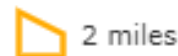
Workable Site Area (Focus Screen)



Workable Site Area Distance Buffers



1 mile



2 miles



Residential Proximity Analysis

Site ID	Site Name	Known Residences within 1 Mile	Known Residences within 2 Miles
191400-200	Moon Pit	0	1
201500-300	Roth West	3	26
201500-301	Roth East	2	8
211900	DSL South	0	1
212000	DSL North	2	3



Communications Update



Public Outreach

- The County is committed to ongoing community outreach and engagement.
- Project webpage, monthly Solid Waste Advisory Committee meetings, Board of County Commissioners updates, community group briefings and events, direct mailings, presentations, project information booths at Fair, small group meetings during 2022/2023
- Continued communications to over 400 interested parties via email
- New information, continued stakeholder engagement – pared down list of sites
- Dialogue with Oregon Department of Fish and Wildlife and US Department of Fish and Game
- Potentially additional BLM sites considered
- Project Story Map prepared and planned to go public shortly after SWAC mtg

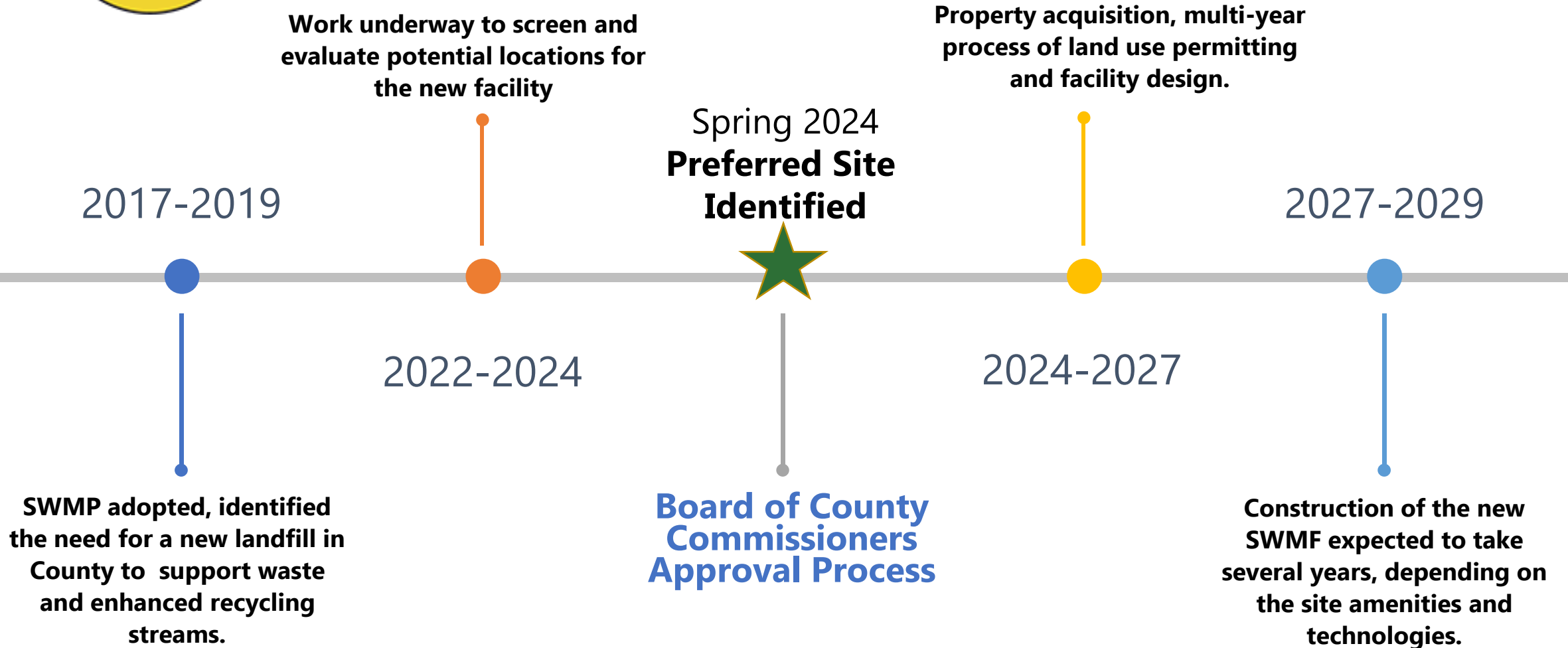


Combined Site Concerns- through January 16, 2023

Communications Concerns Residence Impacts Noise Wildfire Concerns OHV
Truck Access Route Wildlife Zoning Antelope Airports Hiking
Soils Dust Air Recreation (general) Badlands Impact Rodent Problems
Pine Mtn Observatory Eagles, other raptors Light Vectors (Birds, Rats)
Selection Process Traffic Deer Wildlife (general) Odor Growth Biking
Topography Property Value Cultural Resources
Hanggliders Paragliders Litter Deer Wildlife (general) Self Haul Distance
Visual Horses Groundwater Cougar Sage Grouse Zoning General
Haul Distance Health Elk Bats Raven Impact Floodplain



Roadmap to Opening in 2029





Next Steps

- April SWAC Meeting – recommendation of 2-3 finalist sites for Due Diligence
- Project Open House- May 6, 2023 ?
- Site Due Diligence services, on-site cultural work, geotechnical evaluations on 3-5 finalist sites
- Continued targeted outreach to affected property owners
- ★ Finalist site chosen by Board of County Commissioners- Spring 2024



Public Comments

3 minutes per person

Based on number of people wishing to comment

Written comments can also be sent to:

managethefuture@deschutescounty.gov



Adjourn

