



# Solid Waste Management Facility Siting

## DESCHUTES COUNTY SOLID WASTE ADVISORY COMMITTEE (SWAC) MEETING

Tuesday, April 21, 2026, 9:00 a.m.-11:00 a.m.

Deschutes County Road Department Conference Room (61150 SE 27<sup>th</sup> St., Bend, OR 97702) **or** Zoom

**Zoom Meeting Information:** This meeting may be accessed via Zoom using a phone or computer.

- To join the meeting from a computer, copy and paste this link: <https://bit.ly/4iMi1NB>
- To join by phone, call 253-215-8782 and enter webinar ID #812 0402 6361 followed by the passcode 773333.
- If joining by a browser, use the raise hand icon to indicate you would like to provide public comment, if and when allowed. If using a phone, press \*6 to indicate you would like to speak and \*9 to unmute yourself when you are called on.

### April Meeting Agenda

1. Introductions/Welcome
2. Review/Approve August 2025 Meeting Minutes
3. Public Outreach Updates
4. Property Acquisition Updates
5. [Updated SWMF Site Evaluation Report](#) Review
6. Public Comment
7. SWAC Discussion and Deliberation
8. Adjourn

[Managing the Future of Solid Waste](#): Solid Waste Management Facility resource information

[Story Map](#): Deschutes County Managing the Future of Solid Waste informational story map including Frequently Asked Questions

[Solid Waste Advisory Committee Meetings](#) – Past Meeting agendas and summaries prior to August 2023

[Deschutes County Meeting Portal - Solid Waste Advisory Committee Meetings](#): August 2023 and later meeting agendas and summaries



*Deschutes County encourages persons with disabilities to participate in all programs and activities. This location is accessible to people with disabilities. If you need accommodation to make participation possible, please call the Solid Waste office at (541) 317-3163, or send an email to [solidwaste@deschutes.org](mailto:solidwaste@deschutes.org).*



*Condado de Deschutes alienta a las personas con discapacidad a participar en sus programas y actividades. Este lugar es accesible para personas con discapacidad. Si necesita hacer arreglos para hacer posible la participación, llame a Solid Waste la oficina a (541) 317-3163, o envíe un correo electrónico a [solidwaste@deschutes.org](mailto:solidwaste@deschutes.org).*



# Solid Waste Management Facility Siting Study

Solid Waste Advisory Committee (SWAC) Meeting

April 21, 2026





# Agenda

- Introductions/Welcome
- Review/Approve August 2025 Meeting Minutes
- Public Outreach Updates
- Property Acquisition Updates
- [Updated SWMF Site Evaluation Report](#) Review
- Public Comment
- SWAC Discussion and Deliberation
- Adjourn



# SWAC Members

## **City Representatives (Primary / Alternate):**

- **Bend:** Cassie Lacy / Chris Ogren
- **Redmond:** Clifford Evelyn (*new appointment*)
- **Sisters:** Jackson Dumach / Paul Bertagna
- **La Pine:** vacant

## **Franchise Haulers:**

- **Cascade Disposal:** Erwin Swetnam / Michael Grove
- **Republic Services:** Erica Haitzma / John Heylin (*new alternate*)

## **Citizen Members:**

- **Technical:** Timm Schimke
- **Financial:** Luke Dynes
- **At-Large:** Keith Kessarlis & Robin Vora
- **The Environmental Center:** Neil Baunsgard / Lindsey Hardy (alternate)



# Project Team Members

## Deschutes County

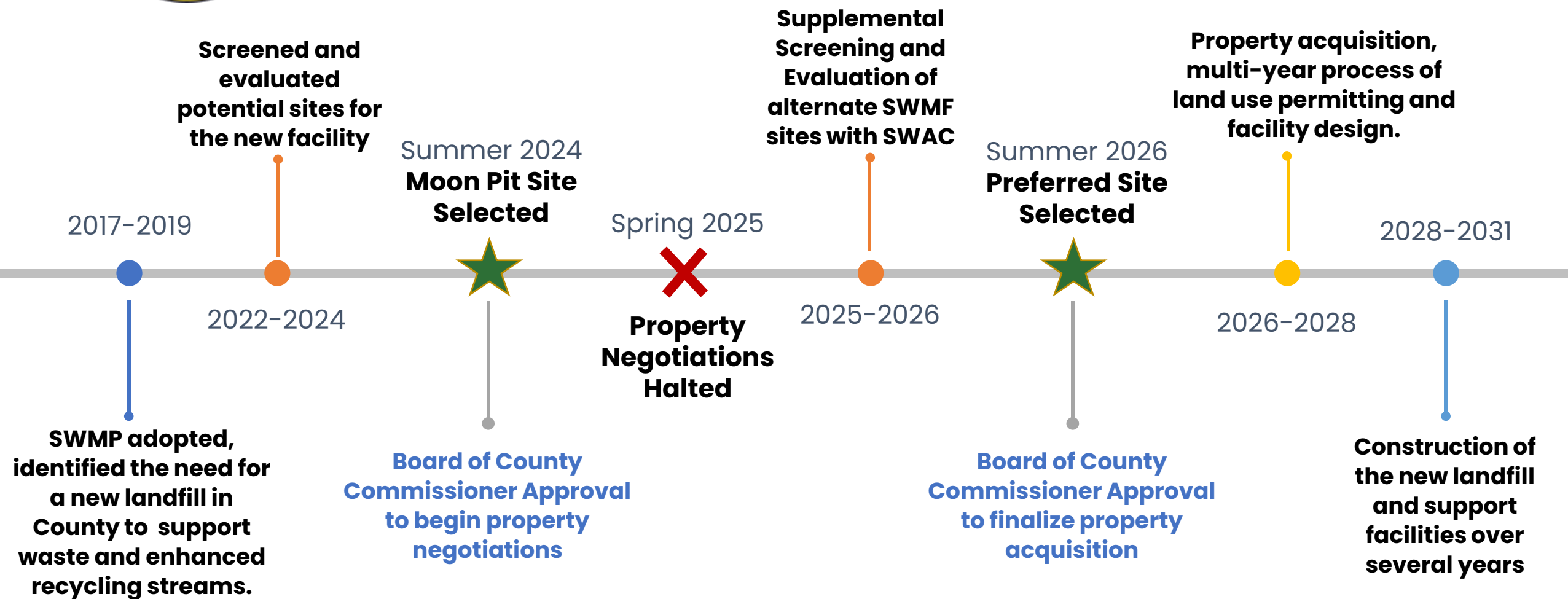
- **Jeff Merwin** – Solid Waste Department Director (new)
- **Alex Clark** – Solid Waste Operations Manager
- **Sue Monette** – Management Analyst
- **Ming Triulzi** – Administrative Support
- **Stephanie Marshall** – County Legal Counsel
- **Kristie Bollinger** – County Property Manager

## Parametrix (Consultant):

- **Dwight Miller, PE** - Project Principal
- **Ryan Rudnick, PE** - Project Manager
- **Sabrina Robinson** – Public Outreach



# Roadmap to Opening in 2031





# Steps to SWAC Recommendation

- April 21, 2026 (Today)**  
**Updated Final Site Evaluation Report Review and Discussion**

Opportunity for the SWAC to discuss and provide input on the updated Site Evaluation Report and appendices, which now compare the Horse Ridge and Roth East candidate sites.

- May 19, 2026**  
**Finalist SWMF Site Recommendation**

The SWAC will vote on recommendation to the BOCC for a preferred SWMF location.

- June 16, 2026: (if needed)**  
**Finalist SWMF Site Recommendation**

The SWAC will vote on recommendation to the BOCC for a preferred SWMF location.



# Public Outreach Updates

- **Neighbor Mailings:** Letters were mailed to private owners of property within a 2-mile radius of the Horse Ridge site.
- **BLM Outreach:** A letter was emailed to the Deschutes Field Office, sharing updates about the Supplemental Site Screening process. Coordination with BLM regarding the Horse Ridge Recreation Area Project.
- **Updates to Special Interest Groups:** Email updates sent to tribal representatives (Warm Springs, Burns-Paiute, and Klamath Tribes), Central Oregon Trail Alliance, Deschutes Trail Coalition, and the Central Oregon Conservation Network
- **Reviewing public comments and distributing to the SWAC**



# Public Outreach Updates

## Public Input Overview

Stakeholder Group	Roth East Sentiment	Horse Ridge Sentiment
Conservation Organizations	● Strongly Opposed	● Cautiously Supportive (if no better options exist)
Local Residents	● Strongly Opposed	● Awaiting input
Recreational Organizations (hang gliding, mtn biking)	● Concerned (Pine Mountain impact)	● Concerned (bike trails nearby)
Indigenous Groups (CTWS)	● Awaiting input	● Awaiting input
ODFW	● Costly mitigation; sage-grouse impact	● Prefer over Roth East, less habitat impacts
General Public / Other	● Critical of Roth East	● viewed as "disturbed" site, but trail concerns



# Public Outreach Updates

## Representative Comments

*"The Roth East site would threaten wildlife, fragment habitat, degrade recreational opportunities, and involve excessive transportation and infrastructure costs." — Oregon Natural Desert Association & Central Oregon LandWatch*

*"The estimated sage-grouse mitigation cost for Roth East is over \$7.6 million. This site is directly adjacent to Core habitat."  
— ODFW, June 2025 Letter to SWAC*

*"The Horse Ridge Site is already a disturbed site, currently used for gravel mining... making it a good candidate for a landfill... Please, no landfill on Pine Mountain." — Steve Wright*

*"If negotiations with Moon Pit cannot be restarted, please consider Horse Ridge. Again, it is already disturbed." — Skye Kimel*

*"Compared to Roth East, Horse Ridge is preferable from a wildlife mitigation perspective and would likely incur far lower costs."  
— ODFW Summary of June 2025 Site Screening*

*"Horse Ridge trails are popular for winter riding. While we understand landfills must go somewhere, siting here could provoke mountain biker backlash." — Ben Taber, Central Oregon Trail Alliance (COTA)*



# Property Acquisition Updates

## Horse Ridge Site

- Met with Horse Ridge Pit, LLC several times in 2025. Discussions are ongoing.
- Met with Hap Taylor & Sons, LLC pit owner (Knife River Corporation) twice in 2025.
- Met with ODOT several times regarding 20-acre aggregate pit – open to selling and will initiate process through ODOT property management department if site is selected for further study.
- Awaiting property appraisals for continued acquisition discussions.

## Roth Sites

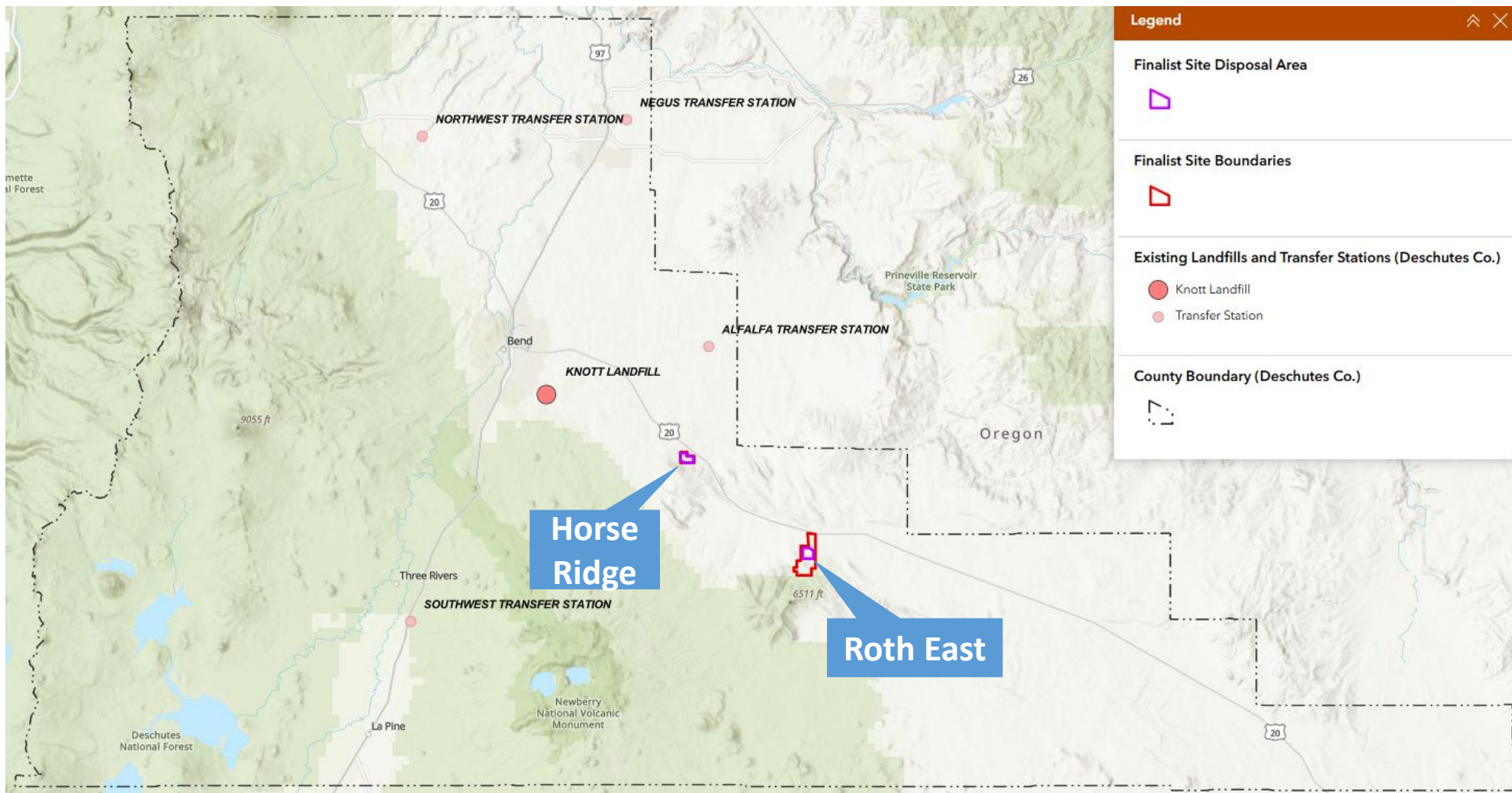
- Motivated sellers, offering all Roth property holdings at reduced price. Ready to negotiate.
- Awaiting property appraisals for continued acquisition discussions.



# Overview of Finalist Sites Horse Ridge & Roth East



# Finalist Sites Locations





# Finalist Site Photos

**Horse Ridge**



**Roth East**





# Horse Ridge Site Additional Photos





# Horse Ridge Site Additional Photos





# Horse Ridge Site Additional Photos





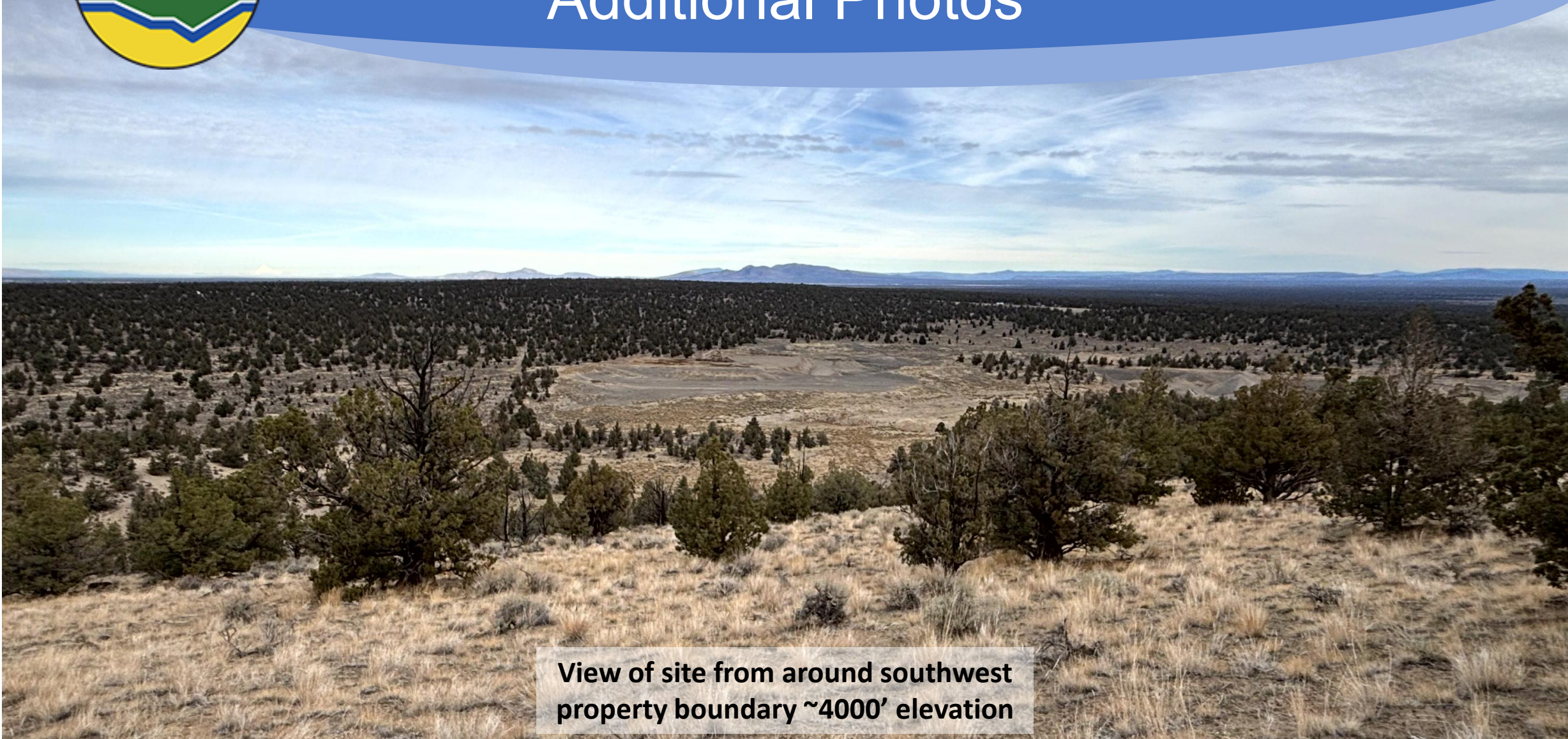
# Horse Ridge Site Additional Photos



**Horse Ridge Pit Aggregate  
Mining Infrastructure**



# Horse Ridge Site Additional Photos



**View of site from around southwest  
property boundary ~4000' elevation**



# Roth East Site Additional Photos





# Roth East Site Additional Photos





# Roth East Site Additional Photos





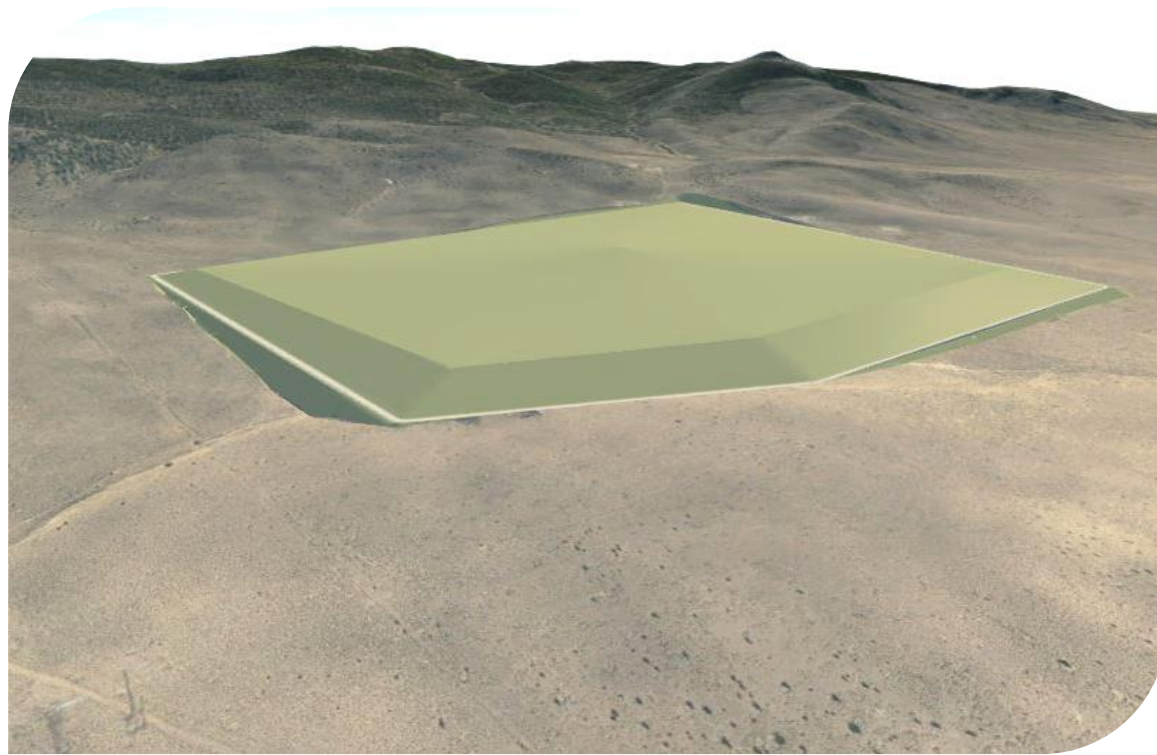
# Finalist Sites

## Conceptual Design Renderings

**Horse Ridge**



**Roth East**





# Key Considerations: Horse Ridge

## Schedule Considerations

- Surface Mining (SM) zoning requires land use approval pathway (zone change or amendment) prior to Conditional Use permitting (1–2+ years)
- Site acquisition involves multiple property owners, requiring separate appraisals and negotiation of purchase agreements across several parcels, increasing coordination complexity

## Cost Considerations

- Initial development costs estimated to be approximately \$12M higher due to roadway reconstruction and rock excavation (drill, blast, crush)
- Lower long-term hauling costs due to proximity to transfer stations (~\$800k less per year)
- Potential economic benefit from excess aggregate materials (not assumed in cost estimates)



# Key Considerations: Roth East

## Schedule Considerations

- EFU zoning requires Conditional Use Permit and Farm Impacts Test, which may lead to LUBA appeals (1–2+ years).
- The mitigation plan needed for land use approval must meet sage-grouse impact avoidance criteria in OAR 660-023-0115, which require avoidance of sage-grouse habitat impacts if other viable and less impactful locations exist for the proposed development.
- Single ownership with a motivated seller may streamline acquisition and reduce pre-permitting timeline.

## Cost Considerations

- Additional ~9 mile distance (+18 miles per round trip) results in increased haul costs over the 100+ year life of the facility, approximately \$800,000 per year.
- Roughly 10x the acreage for millions less than the (anticipated) Horse Ridge property costs.
- Elevated hauling costs for interim water truck delivery to the site and long-term cost for water rights permitting/mitigation and well development.

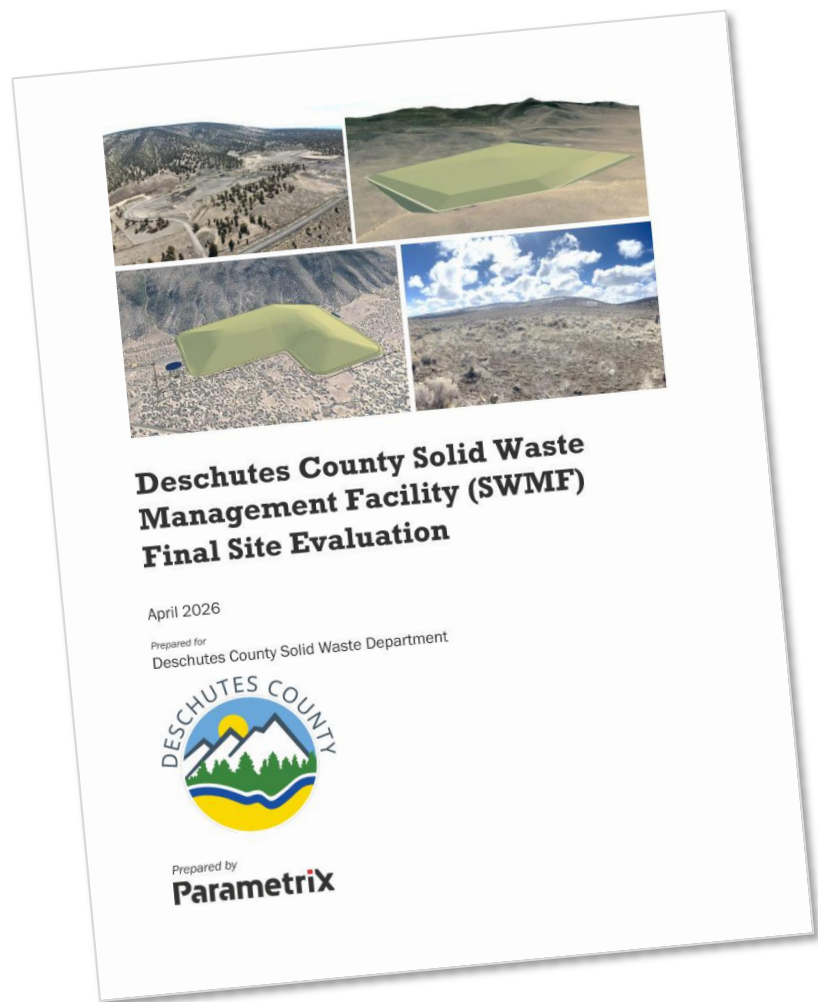


# Site Evaluation Report SWAC Review & Discussion



# Finalist Site Evaluation Report

## Key Topics Overview



1. Conceptual Site Layouts
2. Site Development and Permitting Assessment
3. Transportation System Assessment
4. Water Infrastructure Assessment
5. Electrical Power Supply Review
6. Flood Risk Desktop Review
7. Geology/Hydrogeology Assessment
8. Preliminary Geotechnical Feasibility
9. Environmental Assessment Phase I
10. Weather and Air Quality Desktop Review
11. Natural Resources Assessment
12. Archaeology and Cultural Heritage Assessment
13. Community Assessment
14. Cost Analysis



# Key Topics Discussion Conceptual Site Layouts

1

2

## Horse Ridge

3

4

5

6

7

8

9

- Hillside topography and existing surface mine excavations provide “free airspace” for disposal
- Areas with shallow basalt bedrock will be more difficult and expensive to excavate
- Irregular geometry makes phasing and internal circulation relatively more complicated
- Disposal Area: 300 acres
- Property Area: 433 acre

10

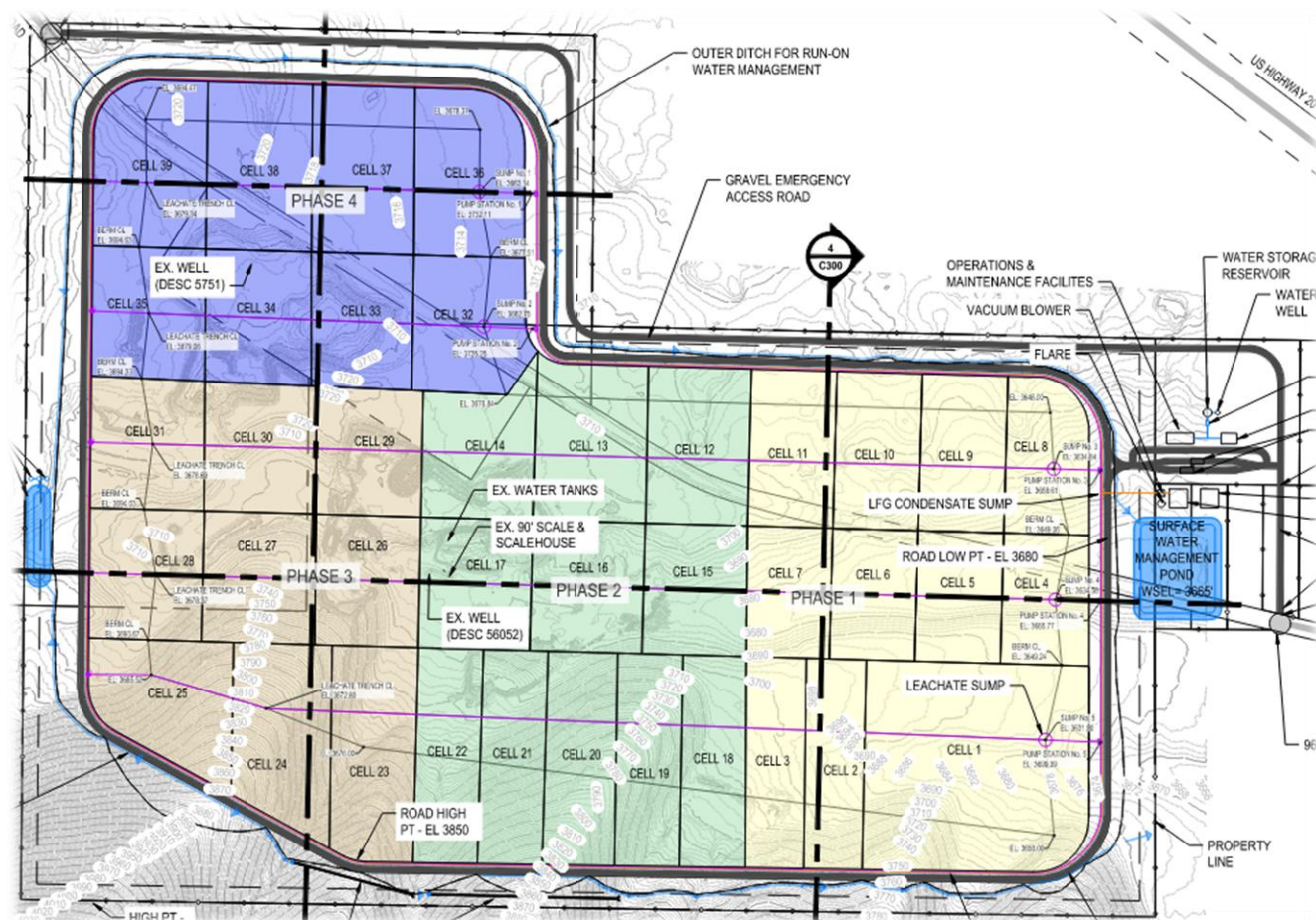
11

12

13

14

LANDFILL PHASING SUMMARY – HORSE RIDGE			
PHASE	AIR SPACE AVAILABLE	PROJECTED LIFE	FILL PERIOD
PHASE 1	12,000,000 CY	33 YEARS	2029-2062
PHASE 2	17,000,000 CY	33 YEARS	2062-2089
PHASE 3	20,000,000 CY	27 YEARS	2089-2124
PHASE 4	31,000,000 CY	32 YEARS	2124-2155
<b>TOTAL</b>	<b>80,000,000 CY</b>	<b>125 YEARS</b>	





# Key Topics Discussion

## Conceptual Site Layouts

1

2

3

4

5

6

7

8

9

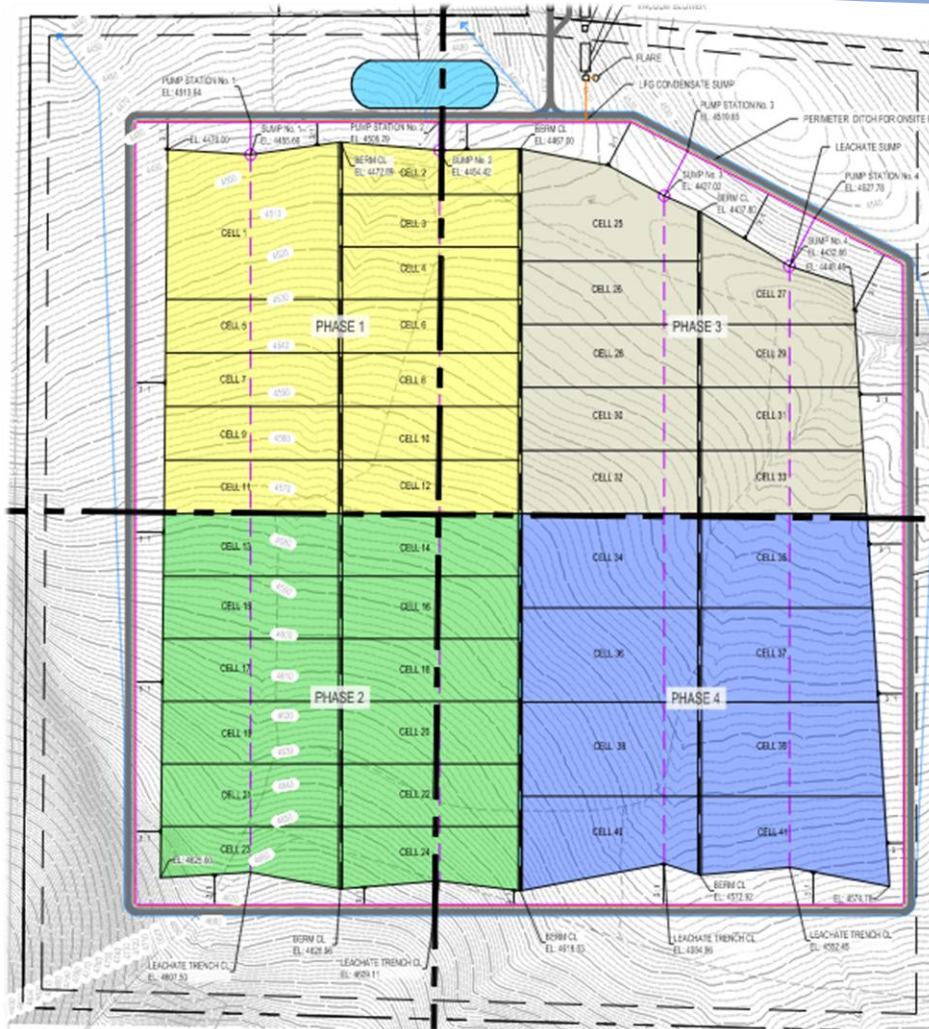
10

11

12

13

14



### Roth East

- Advantages: Favorable square geometry and suitable soil
- Disposal Area: 387 acres
- Available airspace: 80,000,000 cy

LANDFILL PHASING SUMMARY - ROTH EAST			
PHASE	AIR SPACE AVAILABLE	PROJECTED LIFE	FILL PERIOD
PHASE 1	21,000,000 CY	33 YEARS	2029-2062
PHASE 2	17,000,000 CY	27 YEARS	2062-2089
PHASE 3	22,000,000 CY	34 YEARS	2089-2123
PHASE 4	20,000,000 CY	21 YEARS	2123-2155
<b>TOTAL</b>	<b>80,000,000 CY</b>	<b>125 YEARS</b>	



# Key Topics Discussion

## Site Development & Permitting Assessment

1

2

### Horse Ridge

3

4

5

6

7

8

9

10

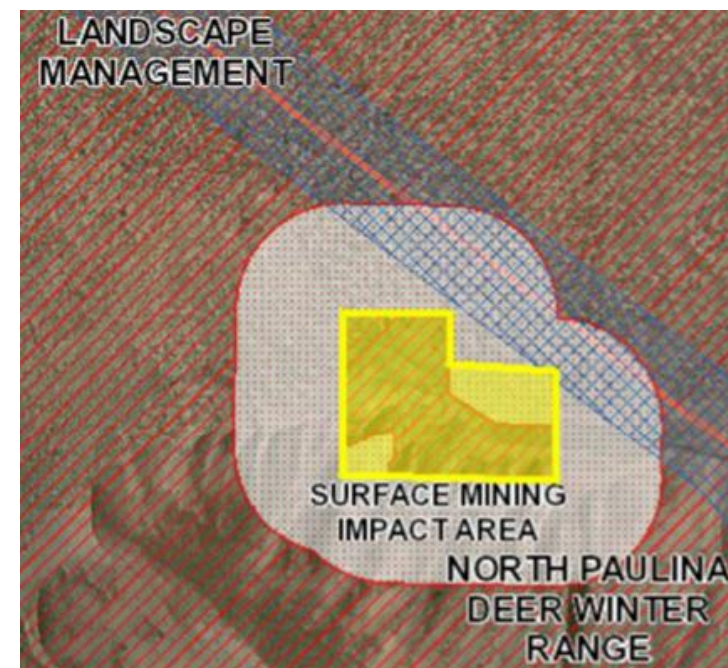
11

12

13

14

- Surface Mining (SM) base zone, with the following overlays:
  - Wildlife Area (WA) combining zone
  - Surface Mining Impact Area (SMIA) combining zone
- Additional zoning present at site margins:
  - Exclusive Farm Use (EFU) in limited areas (NE and SW corners)
  - Landscape Management (LM) overlay in NE corner
- Current use: active surface mine (aggregate extraction)
- Surrounding Area
  - Horse Ridge Recreation Area and trail system (Big Sagebrush and Horse Ridge Trailheads)
  - Oregon Badlands Wilderness and associated trails/trailheads
  - U.S. Highway 20 and associated frontage road corridor





# Key Topics Discussion

## Site Development & Permitting Assessment

1

2

3

4

5

6

7

8

9

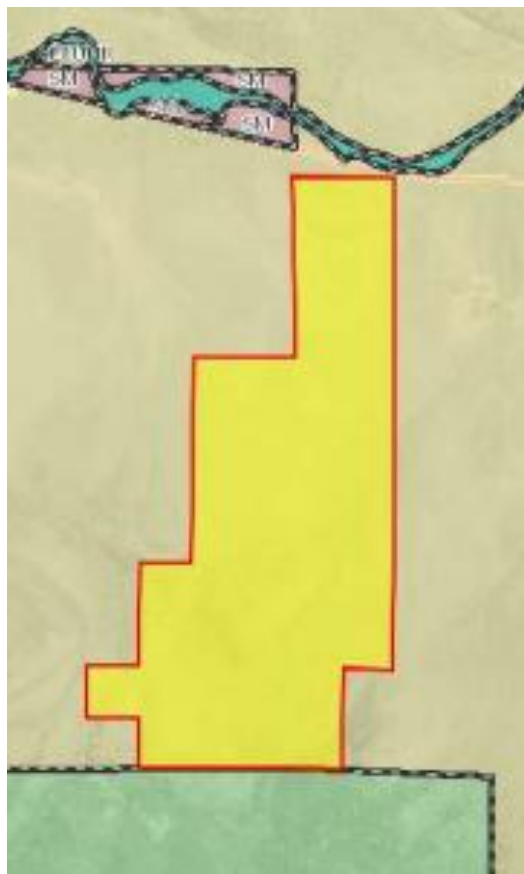
10

11

12

13

14



### Roth East

- Exclusive Farm Use Horse Ridge base zone, with the following overlays:
  - Landscape Management combining zone
  - Sage Grouse Habitat Area – Low Density
  - Surface Mining Impact Area
  - Wildlife Area Combining Zone
- Current use: rural undeveloped/grazing
- Surrounding Area:
  - Rural residential properties
  - Millican Valley OHV trails
  - Deschutes National Forest and Pine Mountain Observatory



# Key Topics Discussion

## Site Development & Permitting Assessment

1

2

3

4

5

6

7

8

9

10

11

12

13

14

### Horse Ridge Permitting

- Surface Mining (SM) zoning does not allow new landfills use under current code, so land use changes are needed upfront (i.e. zone change, overlay, or code amendment)
- County land use approval permits (Conditional Use Permit and Site Plan Review)
- Coordination with ODOT and BLM for Frontage Rd ROW
- DOGAMI Transfer of Surface Mining Permit or an Operating Permit
- Oregon DEQ Solid Waste Disposal Permit
- Oregon Title V Air Quality Operating Permit
- Natural Resource permits or compliance approvals:
  - Eagle Incidental Take Permit
  - ODFW Wildlife Habitat Mitigation Policy (OAR 635-415-0000)
  - Greater Sage-Grouse Area Combining Zone (DCC 18.89.060)
  - Wildlife Area Combining Zone (DCC 18.88.030)

### Roth East Permitting

- County land use approvals or permits (Conditional Use Permit, Site Plan Review, and Landscape Management Review)
  - Including Farm Impacts Test for EFU Zoning
- Oregon DEQ Solid Waste Disposal Permit
- Oregon's Title V Air Quality Operating Permit
- Natural Resource permits or compliance approvals:
  - ODFW's Wildlife Habitat Mitigation Policy (OAR 635-415-0000)
  - Wildlife Area Combining Zone (DCC 18.88.030)
  - Greater Sage-Grouse Area Combining Zone (DCC 18.89.060)
  - Sage-Grouse (OAR 635-140-0000)



# Key Topics Discussion

## Site Development & Permitting Assessment

1

2

3

### Horse Ridge Permitting

4

#### Key Constraints / Risks

5

- Multiple property owners require coordinated acquisition
- Land use pathway adds upfront process complexity
- Overall moderate permitting risk

6

7

8

9

10

*Horse Ridge involves a more complex upfront land use pathway, but presents lower permitting risk due to reduced habitat impacts and existing site disturbance.*

11

12

13

14

### Roth East Permitting

#### Key Constraints / Risks

- Greater overlap with sage-grouse habitat increases mitigation requirements
- Higher likelihood of LUBA appeal during land use process
- Overall higher permitting complexity and risk

*Roth East benefits from a more straightforward zoning pathway, but carries higher permitting risk due to habitat impacts, mitigation requirements, and LUBA appeal.*



# Key Topics Discussion

## Transportation System Assessment

1

2

3

### Horse Ridge

4

- *Estimated ~7 employee trips + 35 transfer truck trips per day + up to ~10 additional special waste disposals*

5

6

- Existing access via Horse Ridge Frontage Road (~5.3 miles) used by quarry, residential, and recreation traffic

7

8

- Shared access with recreation (trailheads and parking along frontage road)

9

10

- Roadway not built to County standards; reconstruction assumed (~\$9M, conservative)

11

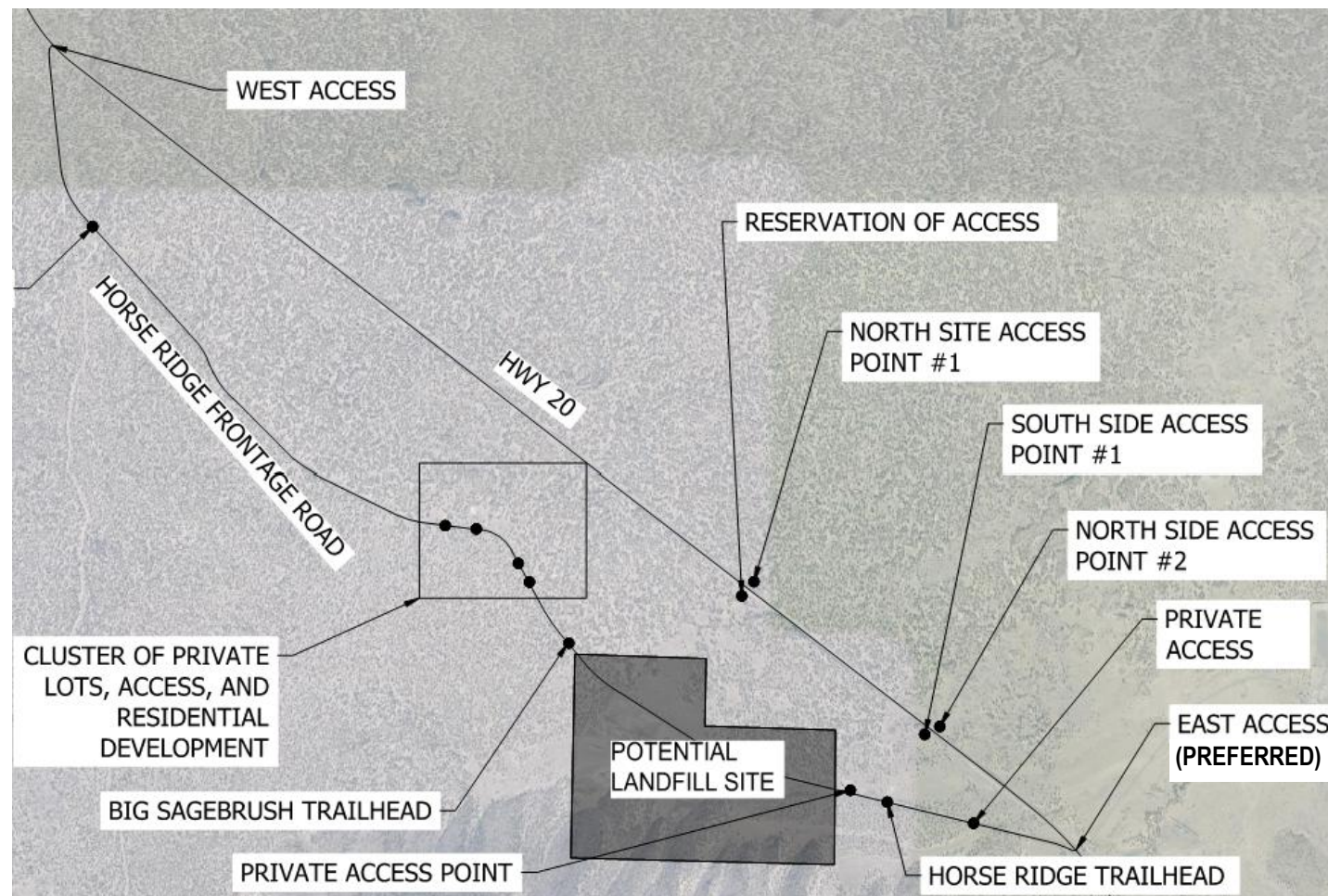
- County Road department may consider reducing costs by rebuilding eastern segment and resurfacing western portion

12

13

- US 20 access improvements may be needed (e.g., acceleration/deceleration lanes)

14

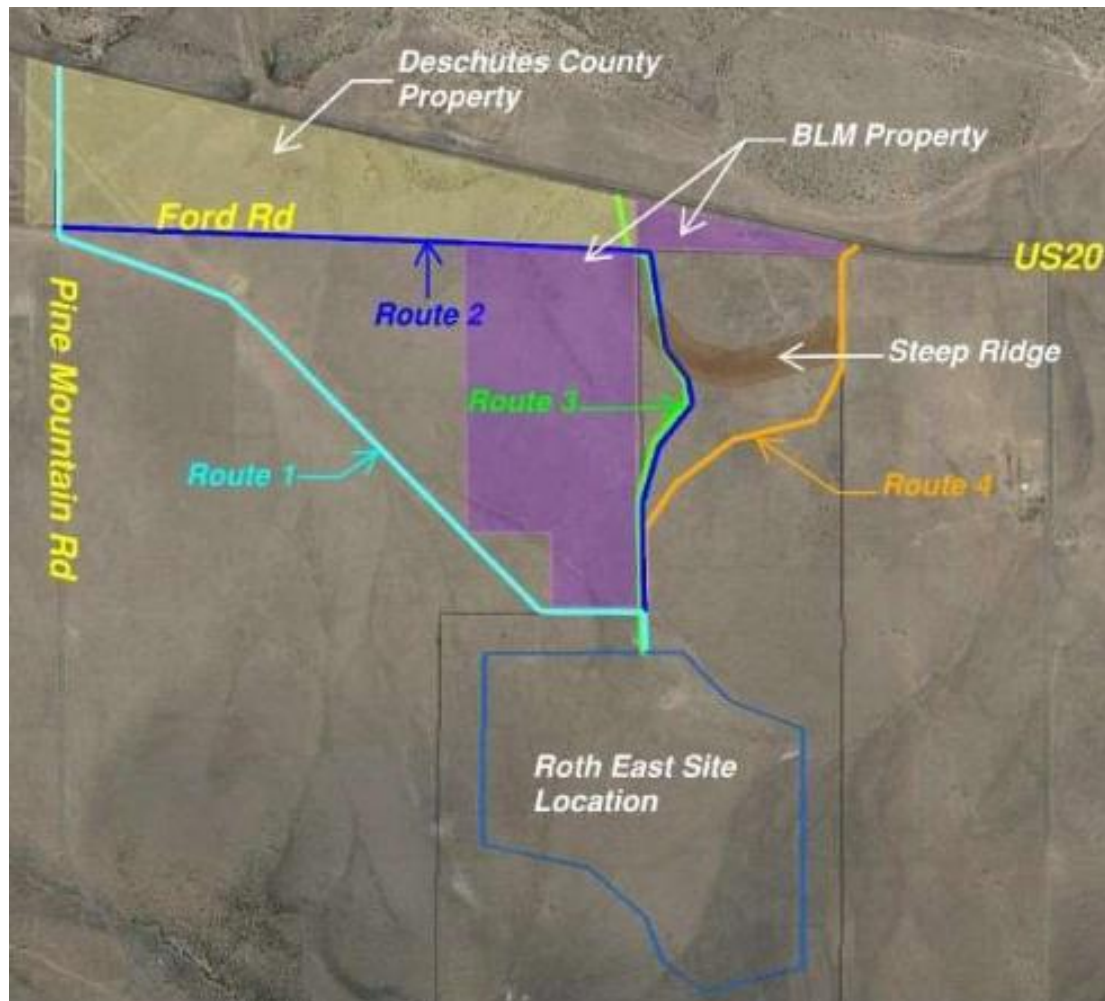




# Key Topics Discussion

## Transportation System Assessment

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14



### Roth East

- *Estimated ~7 employee trips +35 transfer truck trips per day + up to ~10 occasional special waste disposals*
- Several options for preferred access route to site
- Routes range from:
  - 1.2 – 2.9 miles
  - ~\$1.2M - \$2.9 million to construct
- Relatively flat, with areas to up to 8-10% grade
- Alternate access points to the east would need to consider available sight distance at US 20



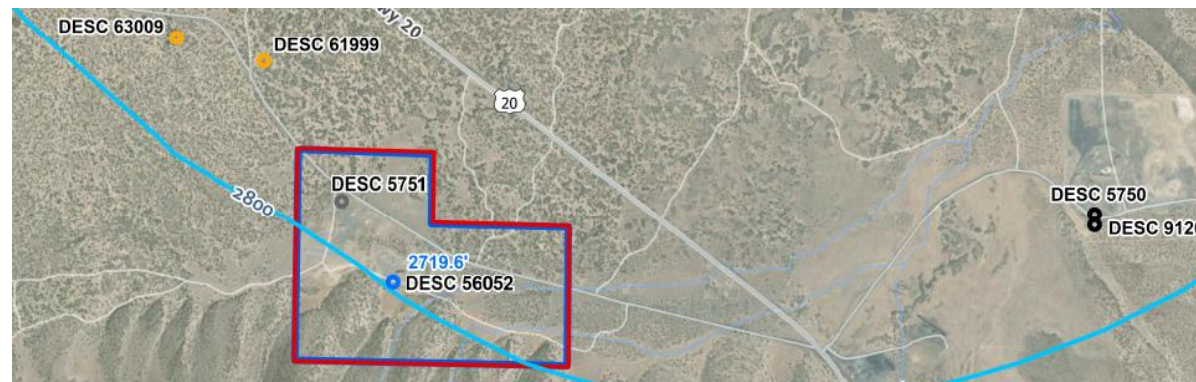
# Key Topics Discussion

## Water Infrastructure Assessment

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14

### Horse Ridge Pit

- 2 existing onsite wells and prior industrial water use associated with mining operations, but no water rights
- Groundwater depth ~850–950 ft bgs (deeper drilling required)
- Existing infrastructure provides practical starting point for early water supply
- Proximity to nearby water rights holders improves feasibility of future water right transfer
- Long-term strategy includes upgrading onsite wells/storage and securing or transferring groundwater rights

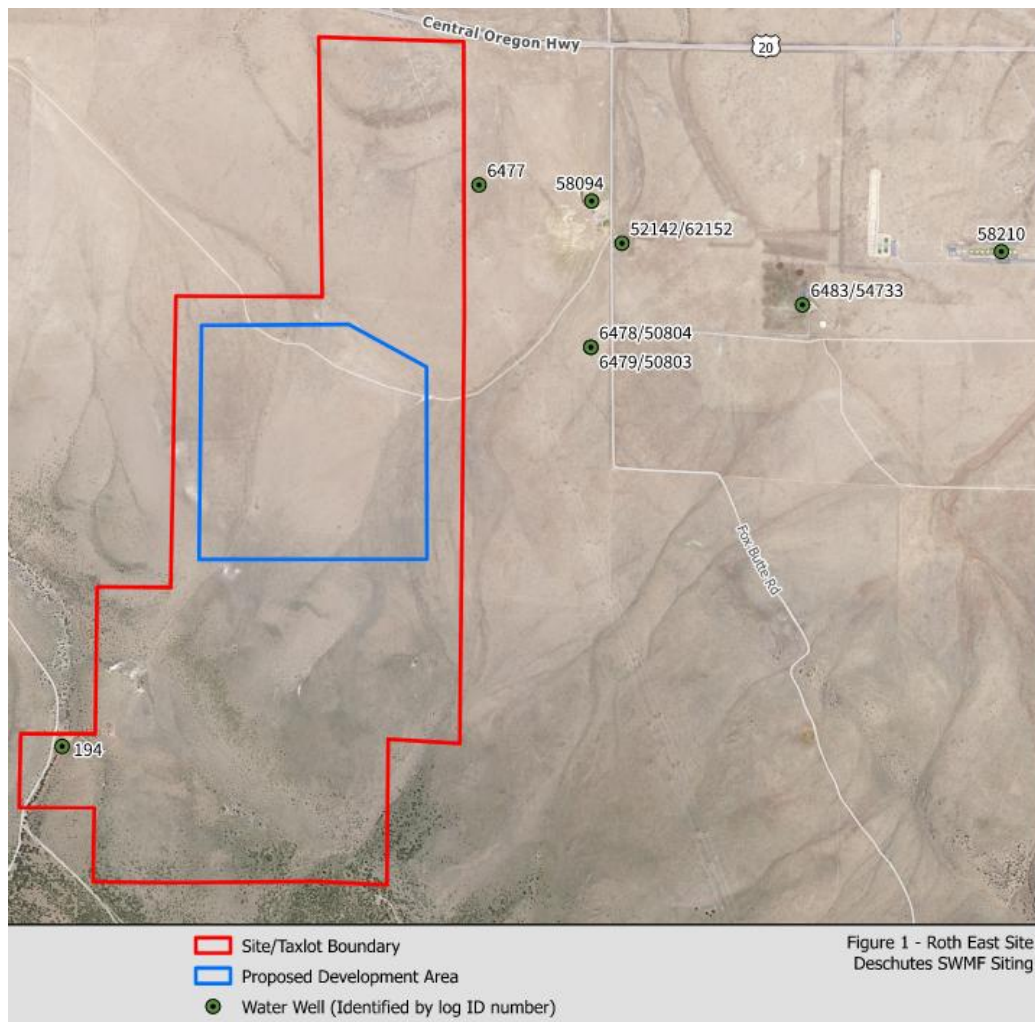




# Key Topics Discussion

## Water Infrastructure Assessment

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14



### Roth East

- No existing permitted water supply suitable for landfill operations
- Groundwater depth ~450–650 ft bgs (shallower than Horse Ridge)
- New well, storage, and distribution infrastructure required for development
- Limited potential for water right transfer due to upgradient location relative to existing rights
- Greater reliance on hauled water during construction and early operations

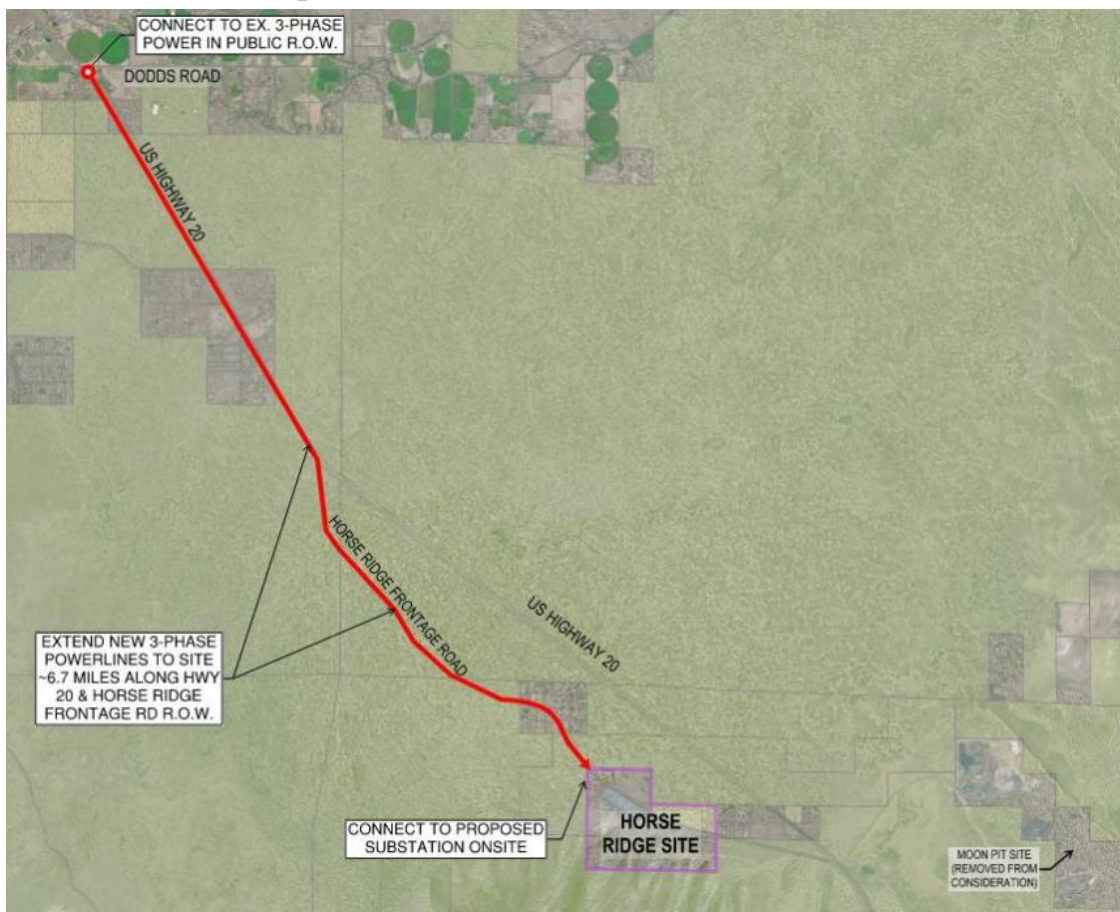


# Key Topics Discussion

## Electrical Power Supply Review

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14

### Horse Ridge



### Electrical Requirements

- 3-phase electrical connection
- Capacity for up to 5 MW power generation
- Onsite substation

### Power Infrastructure Needs:

- Extension of 3-phase power ~6.7 miles from existing overhead power lines
- 12+ month lead time for materials

Estimate of Probable Cost: ~\$2 million



# Key Topics Discussion

## Electrical Power Supply Review

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14

### Electrical Requirements

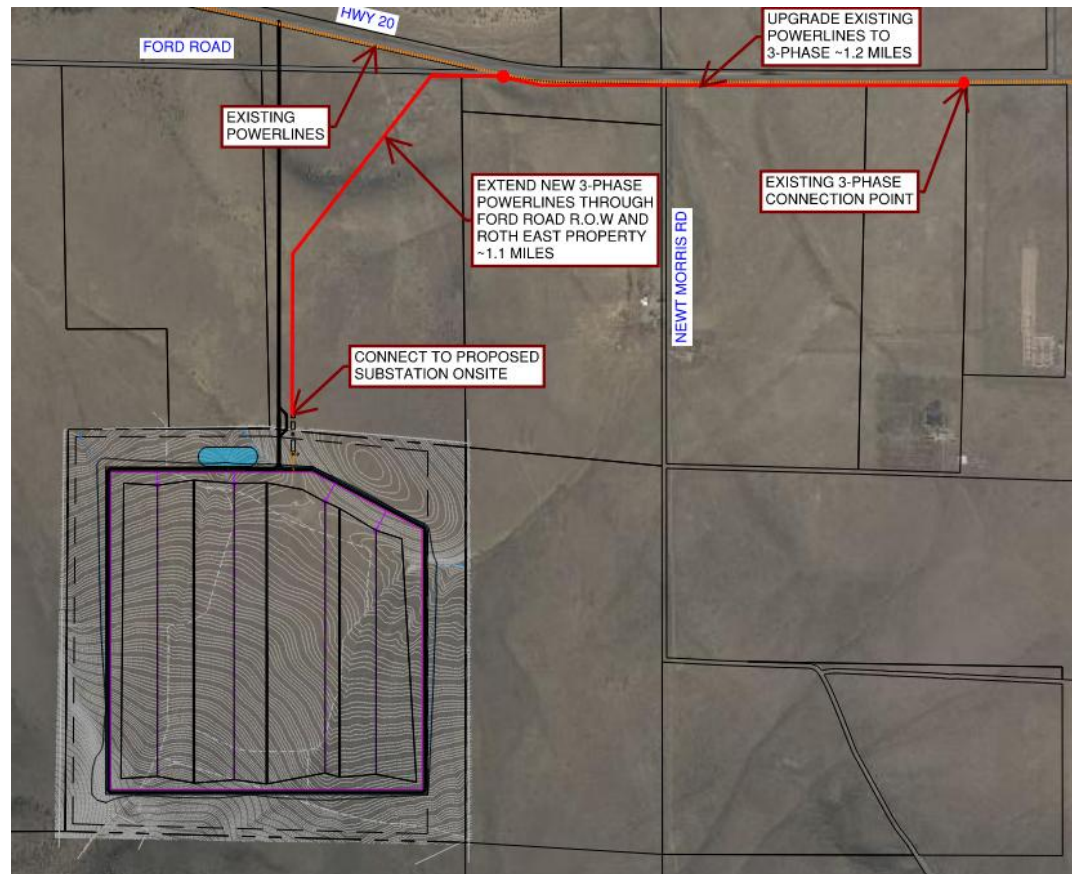
- 3-phase electrical connection
- Capacity for up to 5 MW power generation
- Onsite substation

### Power Infrastructure Needs:

- Extension of 3-phase power ~2.3 miles from existing overhead power lines
- \*easements required through private property for extensions
- \*50-60 week lead time for materials

Estimate of Probable Cost: ~\$700,000

### Roth East

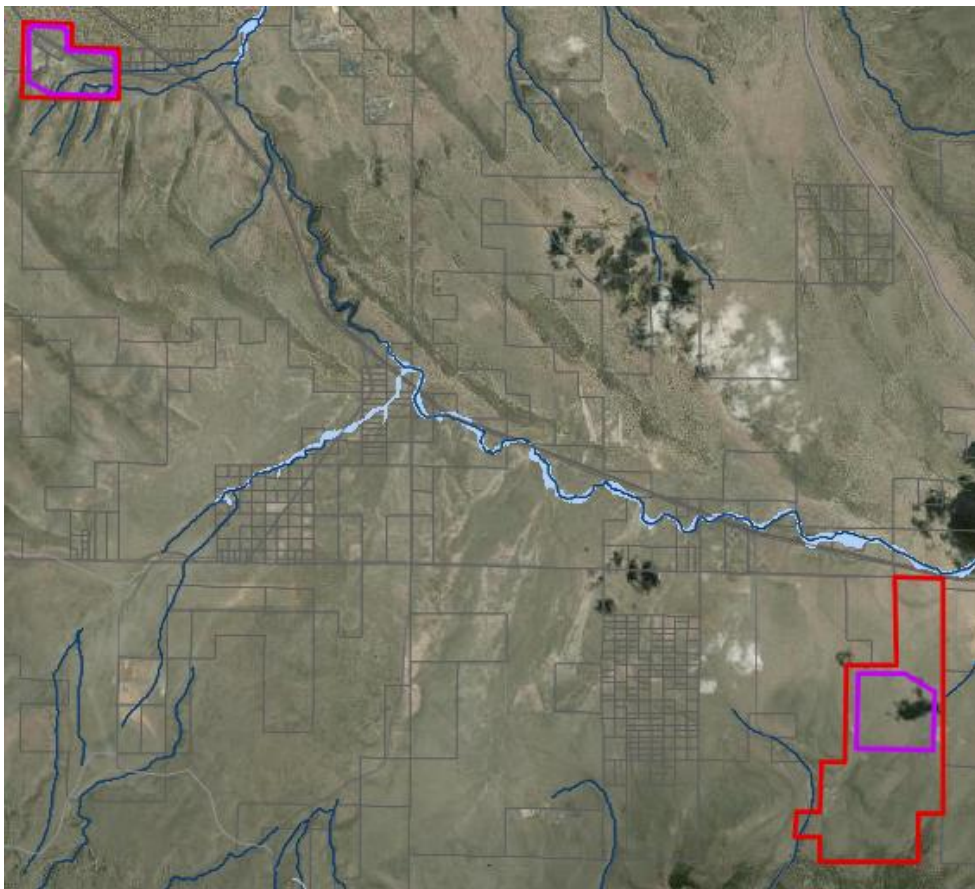




# Key Topics Discussion

## Flood Risk Desktop Review

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14



### Horse Ridge

- Outside FEMA floodplain (~1 mile from Dry River)
- Larger upstream basin (~2–3 sq mi) → higher flash flood potential
- Requires on-site drainage controls (diversions, perimeter systems)
- Secondary risk: US 20 access disruption

### Roth East

- Outside FEMA floodplain
- Smaller upstream basin (~1 sq mi) → moderate flood risk
- Fewer on-site drainage constraints
- Primary risk: US 20 floodplain crossings affecting access



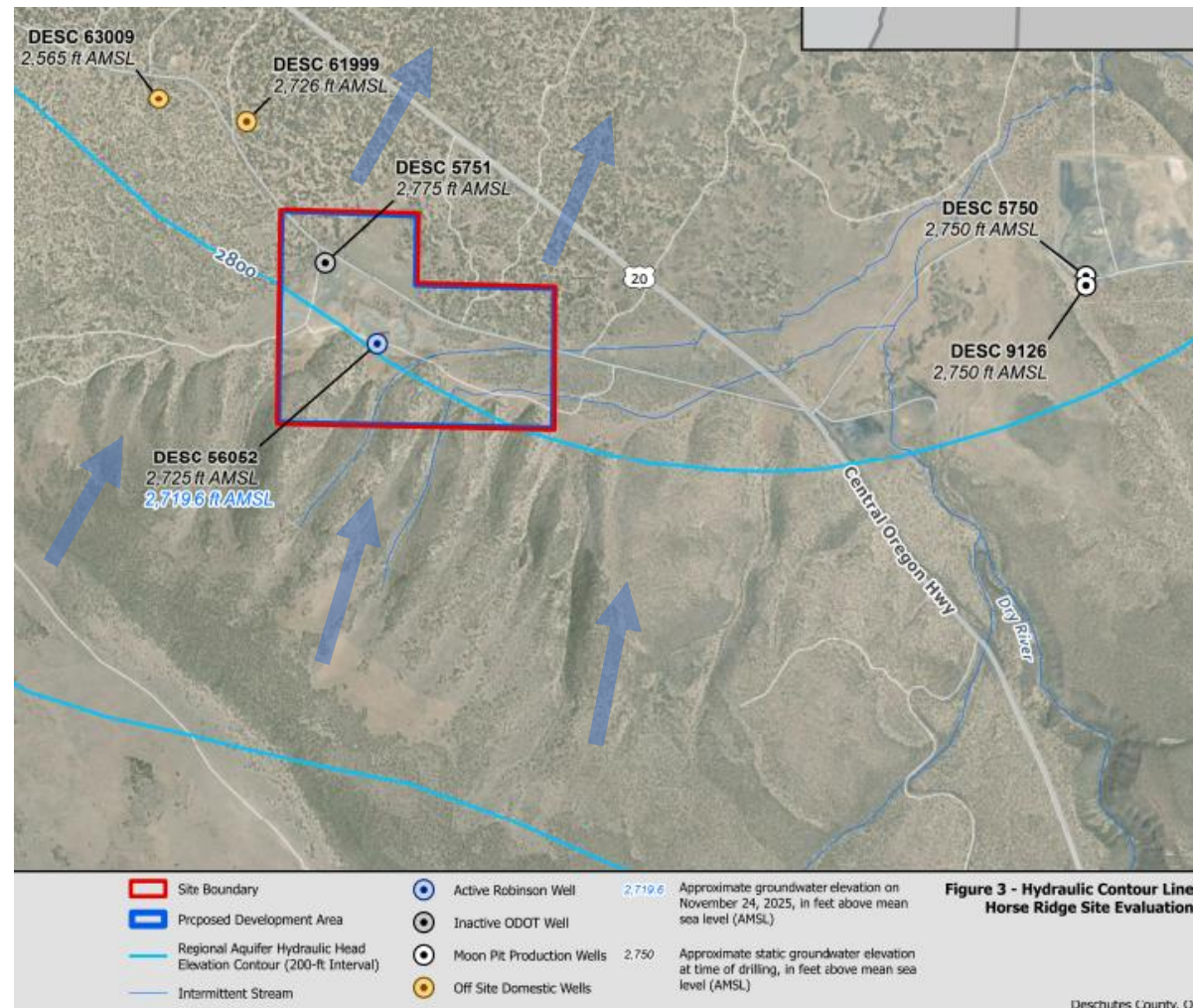
# Key Topics Discussion

## Geology/Hydrogeology Assessment

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14

### Horse Ridge

- Shallow basalt bedrock with thin overburden (5–50 ft)
- Deep, confined groundwater (~950 ft bgs)
- Low-permeability volcanic units provide strong natural containment
- High degree of natural groundwater protection
- Demonstrated high-yield groundwater supply
- Limited number of nearby down-gradient domestic wells

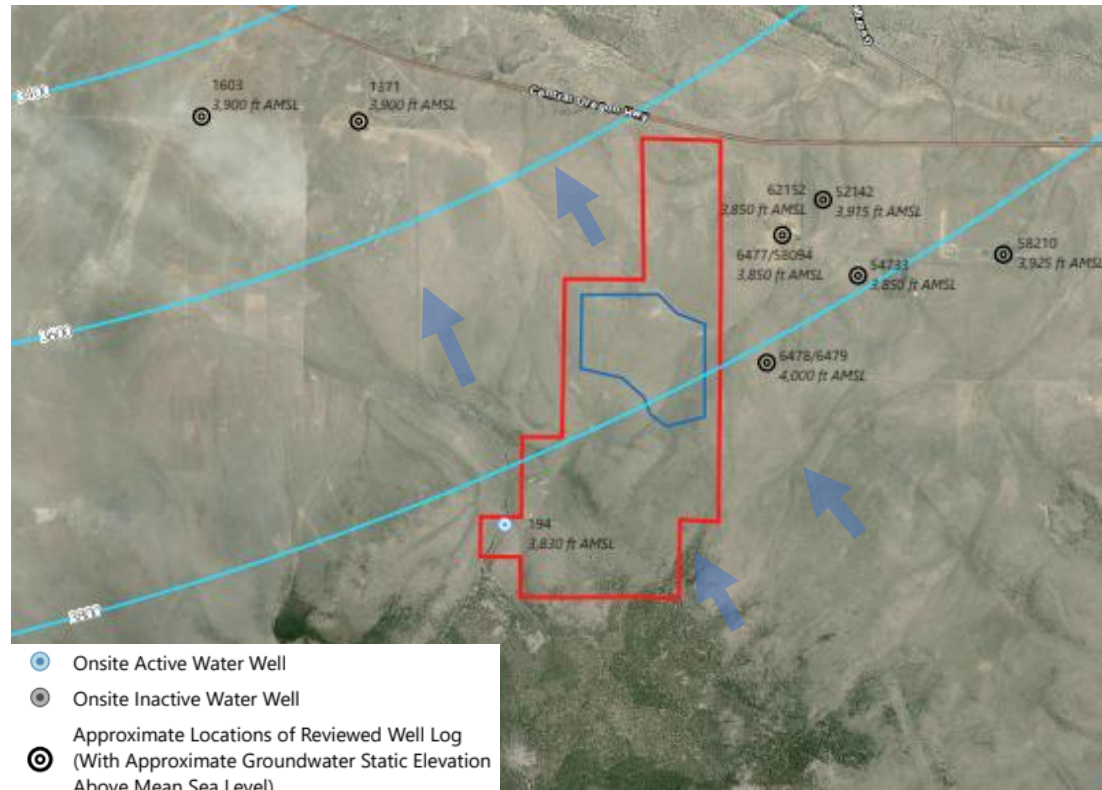




# Key Topics Discussion

## Geology/Hydrogeology Assessment

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14



- Onsite Active Water Well
- Onsite Inactive Water Well
- ⊙ Approximate Locations of Reviewed Well Log (With Approximate Groundwater Static Elevation Above Mean Sea Level)
- Regional Aquifer Hydraulic Head Elevation Contour (200 ft Interval) (USGS, 2002)
- ▭ Proposed Development Area
- ▭ Site/Taxlot Boundary

### Roth East

- Thick alluvial deposits (~300–400+ ft of sand/gravel)
- Groundwater shallower (~450–650 ft bgs)
- Less confined system with limited natural attenuation
- Good water quality, but less natural protection than Horse Ridge
- Regional aquifer present, but production-scale yield less well defined
- Greater number of domestic wells nearby and down-gradient



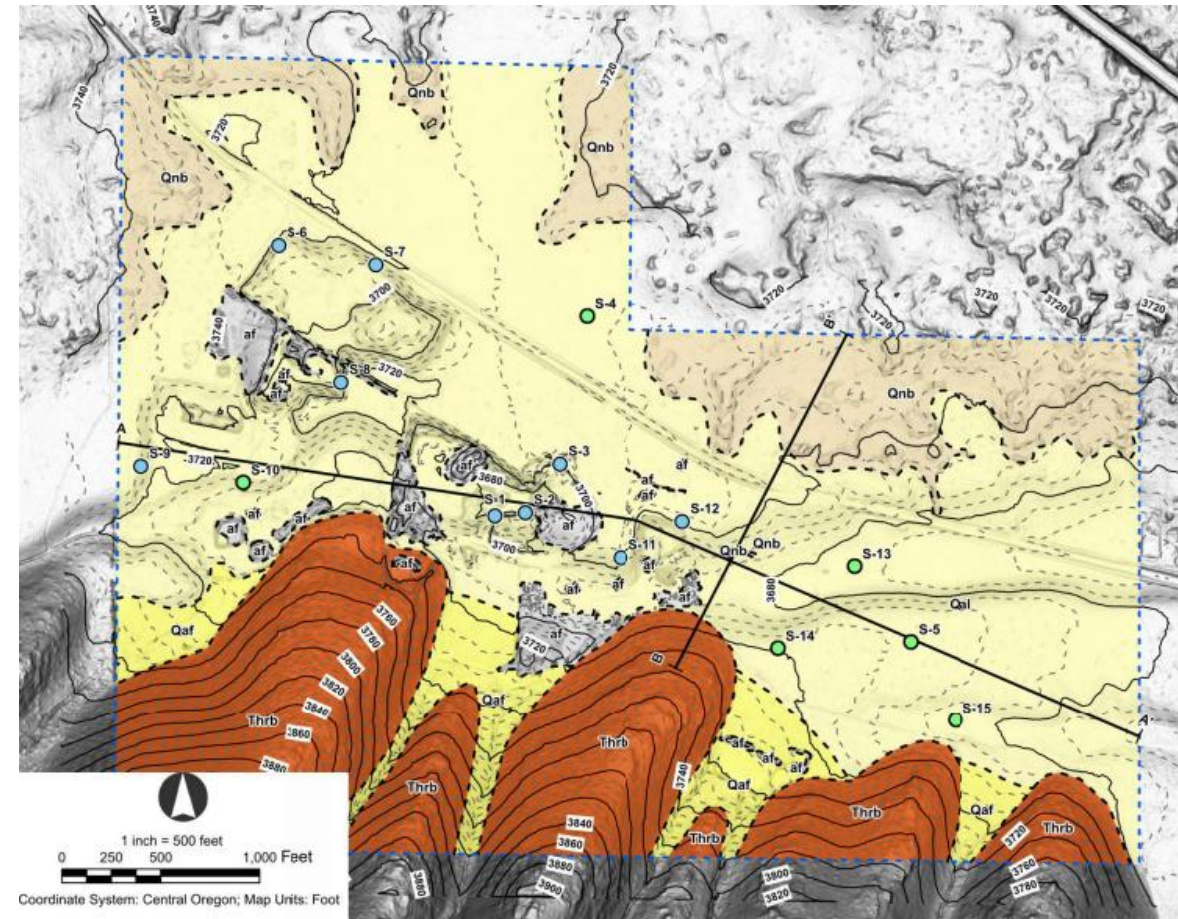
# Key Topics Discussion

## Preliminary Geotechnical Feasibility

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14

### Horse Ridge

- 6 geophysical surveys + 15 soil samples + 64 prior borings test/pits reviewed
- No geotechnical fatal flaws identified
- 5–50 ft soils over basalt bedrock (variable depth)
- Drill-and-blast required for cell excavation (~\$1.15M/acre)
- On-site materials suitable for cover, fill, and drainage (with processing)
- Low geologic hazard risk; no settlement concerns

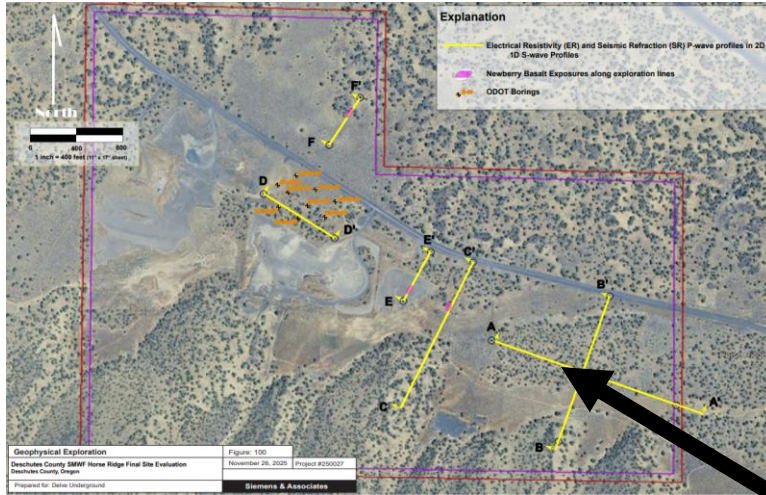




# Key Topics Discussion

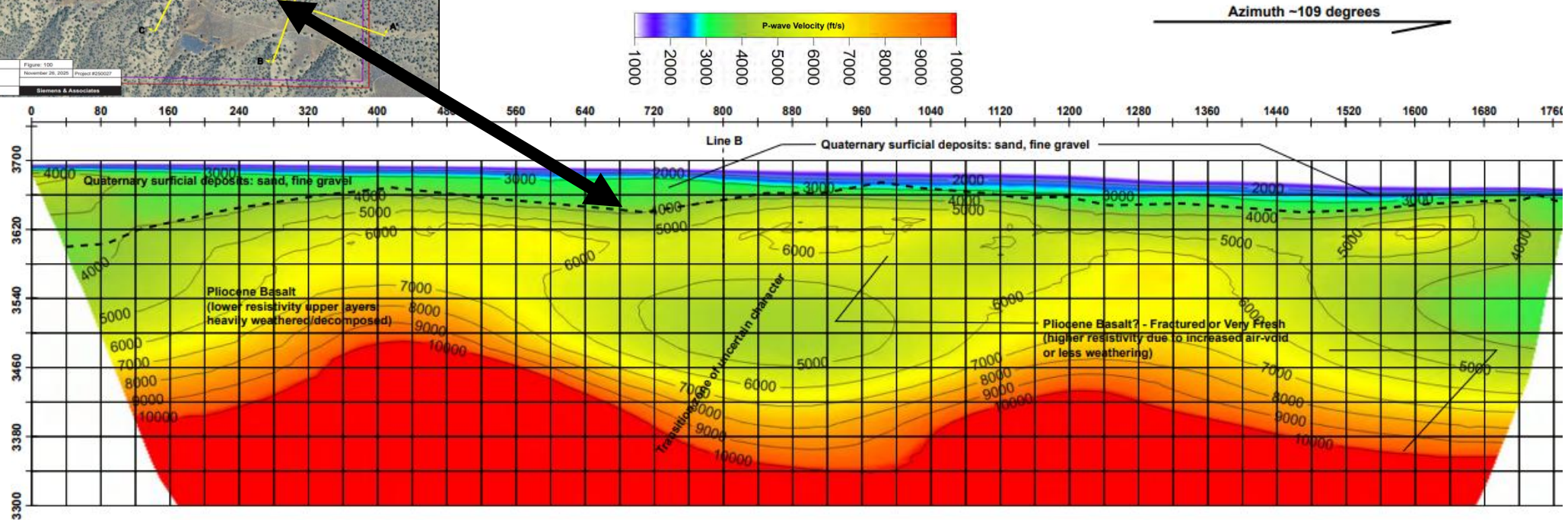
## Preliminary Geotechnical Feasibility

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



### P-wave Seismic Refraction Tomography (SR): Line A

(Two 48 geophone spreads with 12 receiver overlap, 20 foot spacing, 54 shots on 40 ft spacing)





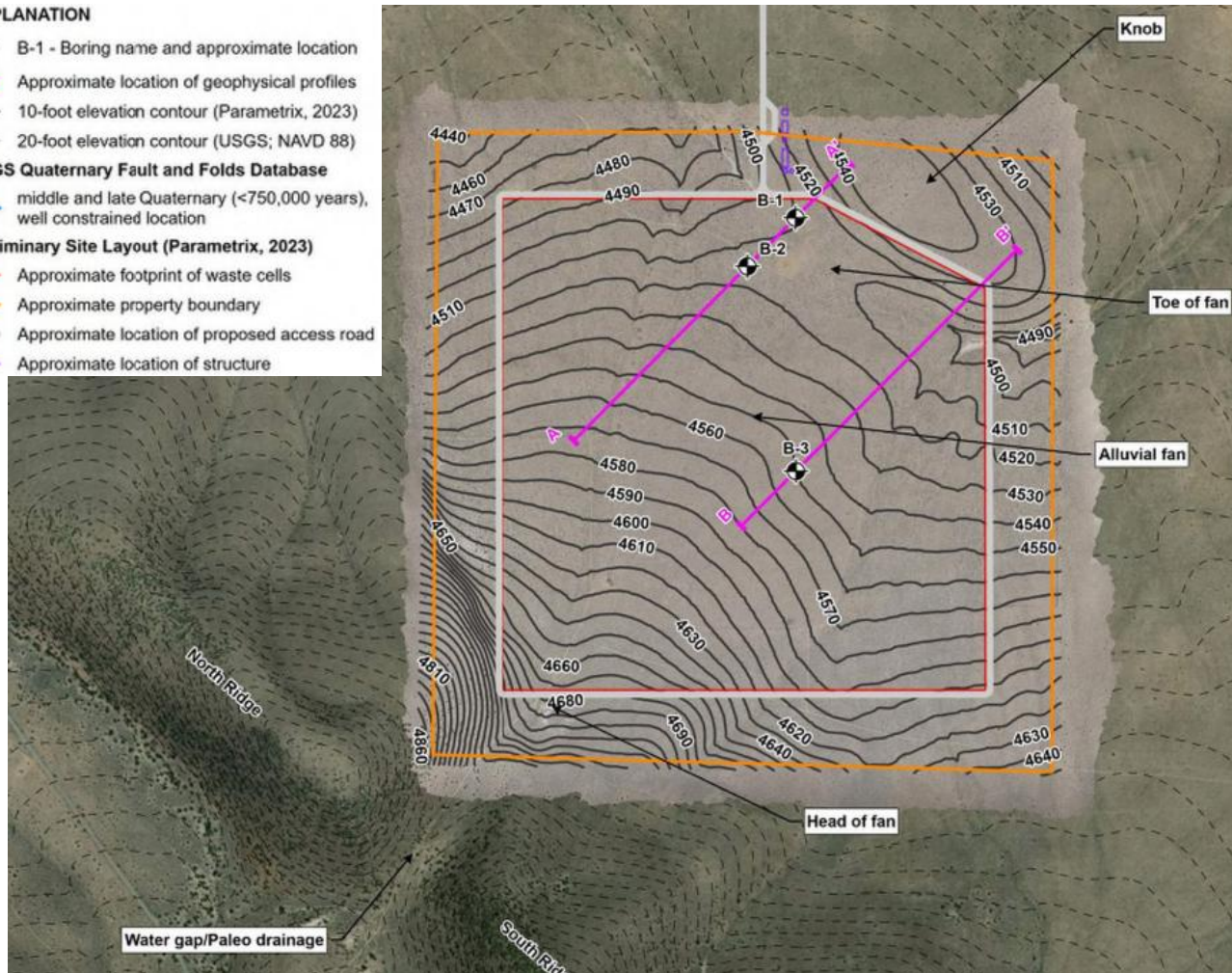
# Key Topics Discussion

## Preliminary Geotechnical Feasibility

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14

### EXPLANATION

- ◆ B-1 - Boring name and approximate location
- ▬ Approximate location of geophysical profiles
- 10-foot elevation contour (Parametrix, 2023)
- - - 20-foot elevation contour (USGS; NAVD 88)
- USGS Quaternary Fault and Folds Database**
- middle and late Quaternary (<750,000 years), well constrained location
- Preliminary Site Layout (Parametrix, 2023)**
- Approximate footprint of waste cells
- Approximate property boundary
- Approximate location of proposed access road
- Approximate location of structure



## Roth East

- Site located on alluvial fan
- 2 geophysical profiles + 3 geotechnical borings
- Thick alluvial deposits (~300–400+ ft of sand and gravel); no bedrock encountered within exploration depths
- Conventional earthmoving equipment suitable for excavation and mass grading (~\$393K/acre)
- Gravels could be used as aggregate for site development pending further investigation
- Inferred fault and offsite faults likely inactive within last 12,000 years
- Substantially lower per-acre excavation cost but less natural groundwater protection than Horse Ridge



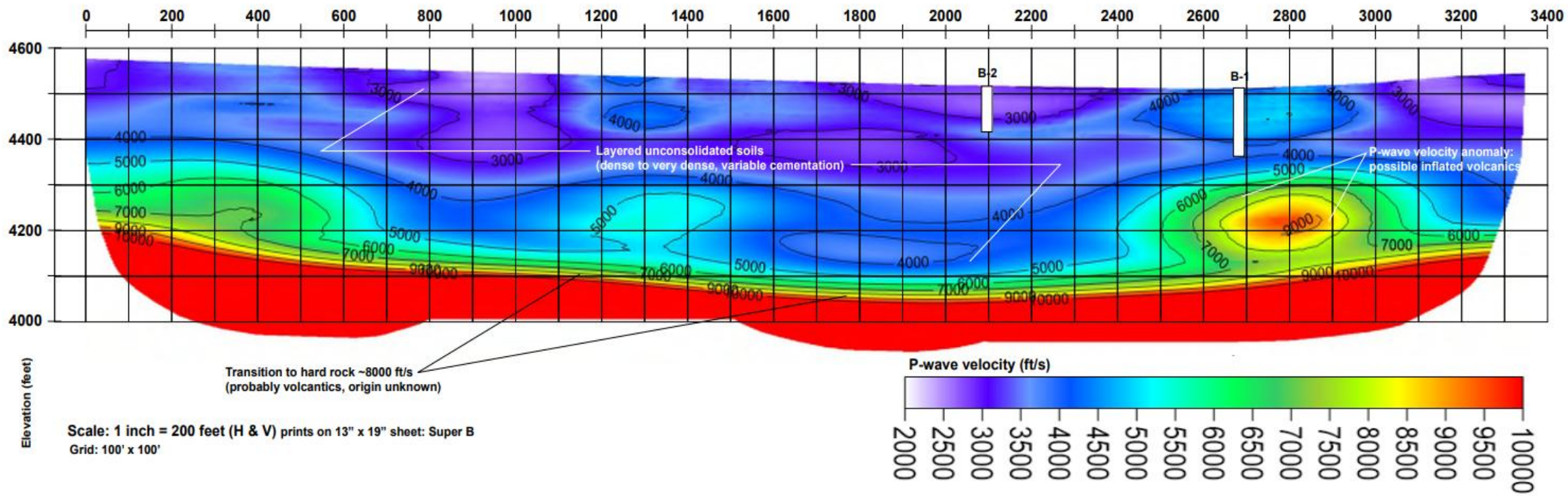
# Key Topics Discussion

## Preliminary Geotechnical Feasibility

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

**P-wave Seismic Refraction Tomography: Line A**  
(167 receivers on 20 foot spacing, 81 shots)

Azimuth ~45 degrees





# Key Topics Discussion

## Environmental Assessment Phase I

### Horse Ridge

- Not listed on environmental regulatory databases for hazardous substance releases.
- Two diesel ASTs in active use, equipment storage areas, and minor petroleum staining observed during reconnaissance.
- Former 1990s asphalt plant on site represents a Recognized Environmental Condition (REC).
- Limited Phase II soil sampling recommended; overall environmental risk manageable with targeted investigation prior to development.

### Roth East

- Not listed in any environmental databases.
- Two fuel ASTs near other ranch related infrastructure. No staining or other indications of contamination.
- Existing 1990s ranch house is unlikely to contain hazardous building materials.
- No Recognized Environmental Conditions (as defined by ASTM 1527-21) and no further environmental investigation recommended.

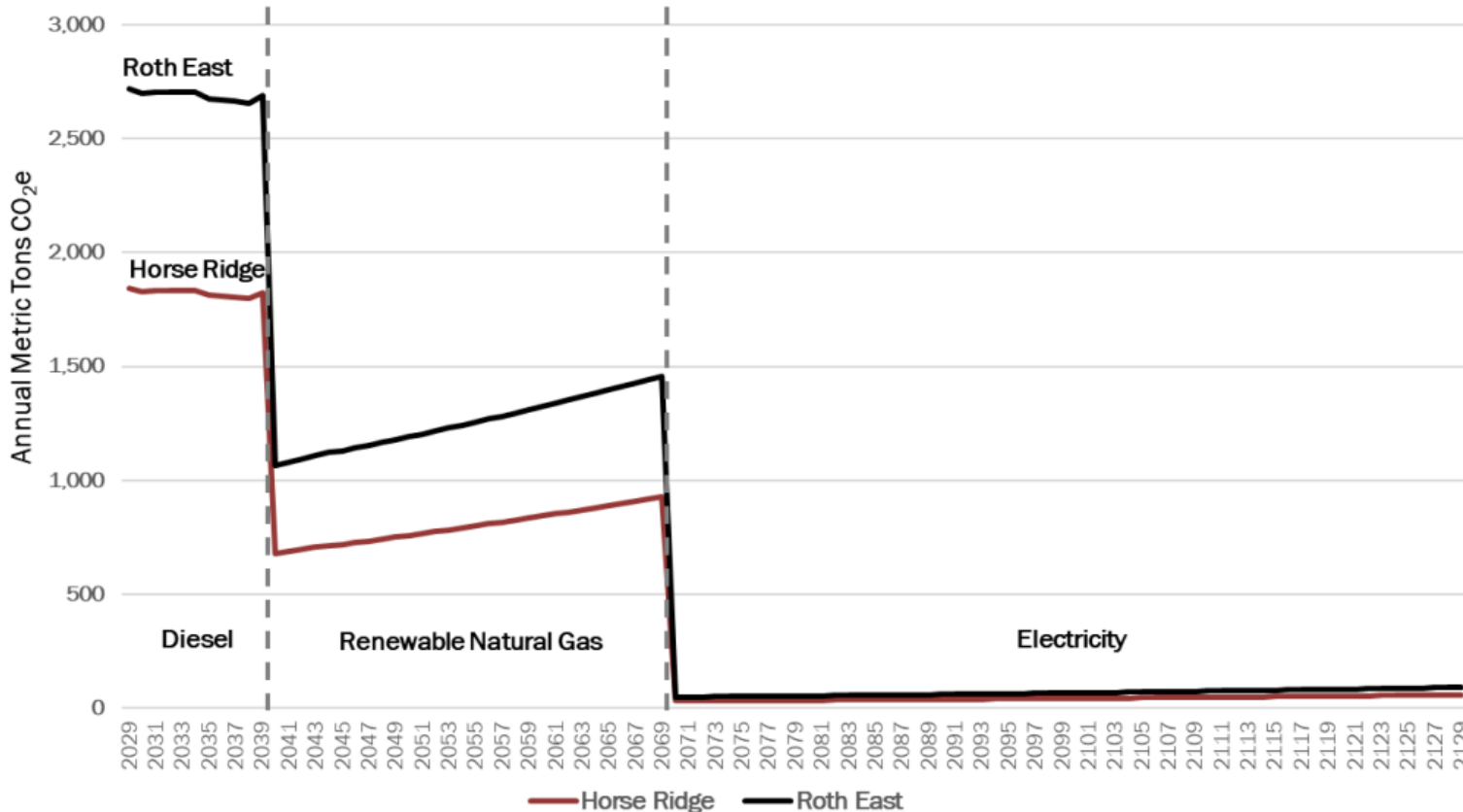
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14



# Key Topics Discussion

## Weather and Air Quality Desktop Review

Waste Hauling Greenhouse Gas Emissions Profiles by Landfill Location and Energy Source



### Climate/Weather Factors by Site:

#### Horse Ridge:

- Moderate wind exposure
- Less vegetation & wildfire fuel loading
- Similar low precipitation (<12 in/yr)
- Less dust and debris control challenges

#### Roth East

- Higher wind exposure and gust potential
- More open terrain and higher winds, so increased dust and litter risk
- Similar low precipitation (<12 in/yr)
- Higher wildfire potential due to sage-steppe vegetation

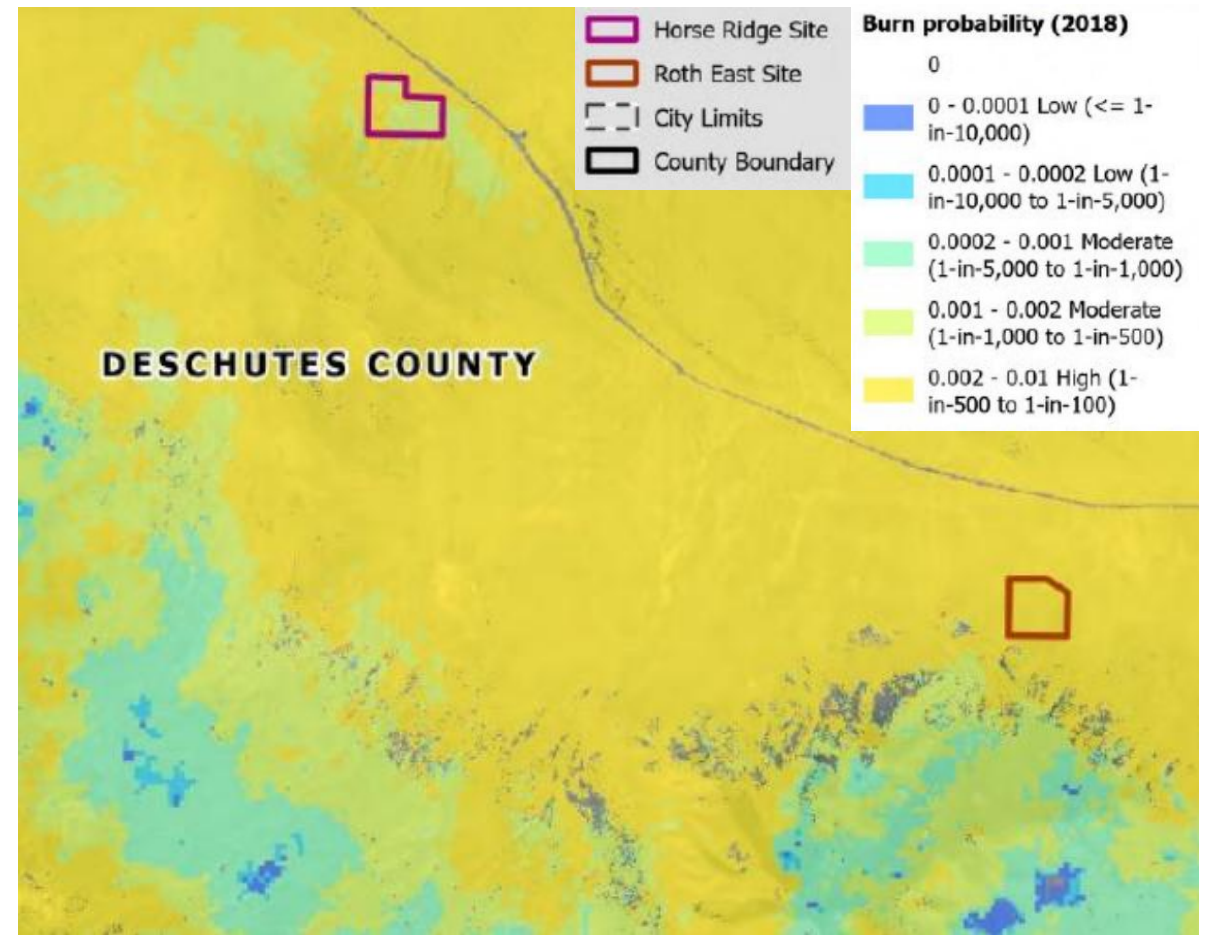
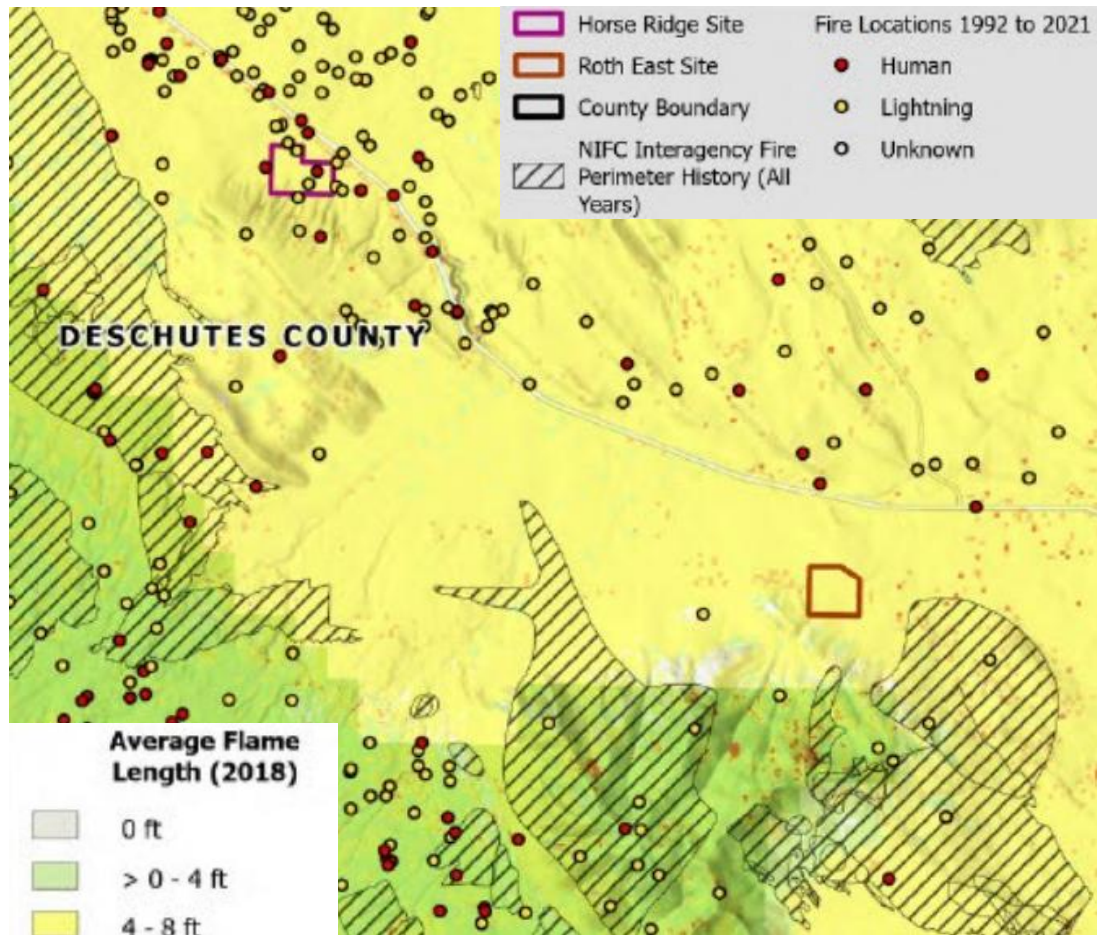
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14



# Key Topics Discussion

## Weather and Air Quality Desktop Review

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14





# Key Topics Discussion

## Natural Resources Assessment – Horse Ridge

### Horse Ridge



249.8 ac juniper woodland  
101.7 ac shrub steppe

- No waters, wetlands, or ESA-listed species on site
- **Sage-grouse (limited impact)**
  - ~16.6 functional acres (indirect)
  - **Mitigation: ~\$0.4M–\$0.8M**
- **Big game (primary impact)**
  - Mule deer/elk winter range (~351 ac)
  - **Mitigation: ~\$1.3M–\$2.5M**
- Raptors
  - Golden eagle nest ~1.2 miles SW
  - Eagle Incidental Take Permit required – mitigation expected to be minor.

**Total Estimated Mitigation: ~\$1.7M–\$3.3M**

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14



# Key Topics Discussion

## Natural Resources Assessment – Roth East

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14

### Roth East



309.3 acres intact sage brush steppe

- No waters, wetlands, or ESA-listed species on site
- **Sage-grouse (major impact)**
  - ~173.7 functional acres (direct + indirect)
  - **Mitigation: ~\$4M–\$8M+** (primary driver)
- **Big game (secondary impact)**
  - Mule deer/elk winter range and pronghorn habitat present
  - **Mitigation: ~\$1M–\$2M**
    - (included above range depending on approach)
- Raptors
  - No nesting raptors within ~2 miles

**Total Estimated Mitigation: ~\$5M–\$9M+**



# Key Topics Discussion

## Archaeology and Cultural Heritage Assessment

### Horse Ridge

#### Reconnaissance Survey Results

- Surveyed approximately 100 of ~400 project acres
- Identified 5 archaeological resources – 3 precontact sites and 2 historic isolates
- Previously disturbed mining areas reduce surface integrity; undisturbed areas have moderate to high probability for additional resources

#### Recommendations

- Conduct formal systematic survey of all areas not directly impacted by mining/quarry activities to identify archaeological resources.



*If a resource will be impacted by the project, the resource's significance must be formally evaluated under Oregon state law. Evaluation will require an Oregon SHPO archaeological permit.*



# Key Topics Discussion

## Archaeology and Cultural Heritage Assessment

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14



### Roth East

#### Reconnaissance Survey Results

- Surveyed 128 of ~645 project acres.
- Identified 12 archaeological resources–6 sites and 6 isolates, majority precontact.
- Entire parcel has a high probability for archaeological resources.

#### Recommendations

- Conduct formal systematic archaeological survey of the entire project area.

*If a resource will be impacted by the project, the resource's significance must be formally evaluated under Oregon state law. Evaluation will require an Oregon SHPO archaeological permit.*



# Key Topics Discussion Community Assessment

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14

## Horse Ridge

### Interested Parties:

- Recreation users (mountain bikers, hikers, equestrian, etc.)
- Bureau of Land Management
- Environmental and wildlife interest groups

### Expressed concerns:

- Traffic and shared access safety along Horse Ridge Frontage Road
- Potential impacts to recreation experience (noise, visual, and access)
- Disruption to habitat and wildlife

## Roth East

### Interested Parties:

- Millican Valley residents
- Pine Mountain Observatory and University of Oregon
- recreation users (paragliders, etc);
- environment, wildlife, and other interests

### Expressed concerns:

- Dust, litter, odor + wind
- Groundwater contamination
- Potential cultural artifacts/sites
- Disruption to habitat and wildlife



# Key Topics Discussion

## Cost Analysis

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14

Item	Horse Ridge	Roth East
Operating Period	2031–2155	2031–2155
Estimated Lifespan (years)	125 years	125 years
Land Acquisition Costs	\$8,430,000	\$5,500,000
Initial Development Costs	\$52,844,000	\$40,619,000
Total Initial Costs (Land + Development)	\$61,274,000	\$46,119,000
Landfill Cell Development Costs	\$274,178,000	\$142,905,000
Closure Costs	\$109,819,000	\$146,548,000
Operating Costs	\$1,856,167,000	\$2,070,596,000
Post-Closure Operations Costs	\$9,068,000	\$9,068,000
Total Lifespan Costs	\$2,310,506,000	\$2,415,236,000
Total Waste Disposal Projection (tons)	56,042,000 tons	56,042,000 tons
Avg. Cost per Ton over Lifespan	<b>\$41</b>	<b>\$43</b>

### Assumptions:

- Landfill density – 1650 lbs per cubic yard air space consumed
- 17.5% Cover to Airspace Ratio
- Two thirds of cell excavation would occur as a part of daily cover borrow operations at Roth East
- 60% of excavation at Horse Ridge would require rock drilling, blasting, and processing at a cost of \$12/ton.
- 40% of excavation (in alluvial material) at Horse Ridge can be removed as a part of operations to borrow daily cover materials



# Key Topics Discussion

## Cost Analysis

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14

Item	Horse Ridge	Roth East
Operating Period	2031–2155	2031–2155
Estimated Lifespan (years)	125 years	125 years
Land Acquisition Costs	\$8,430,000	\$5,500,000
Initial Development Costs	\$52,844,000	\$40,619,000
<b>Total Initial Costs (Land + Development)</b>	<b>\$61,274,000</b>	<b>\$46,119,000</b>
Upfront Cost Financing (Interest)*	\$54,919,000	\$41,336,000
<b>Total Upfront Capital Costs Financed*</b>	<b>\$116,193,000</b>	<b>\$87,455,000</b>
30-yr Capital & Operational Costs (2031–2060)**	\$324,484,000	\$317,162,000
<b>30-yr Total Costs (2026–2060)</b>	<b>\$440,677,000</b>	<b>\$404,617,000</b>
30-yr Waste Disposal Projection (2031-2060)	7,520,000 tons	7,520,000 tons
<b>30-yr Average Disposal Cost per Ton</b>	<b>\$59</b>	<b>\$54</b>

### Assumptions:

\*Acquisition and development costs financed with 30-yr bond at a 4.75% annual interest rate.

\*\*Includes costs for cell expansions, cell closures, and annual operations.

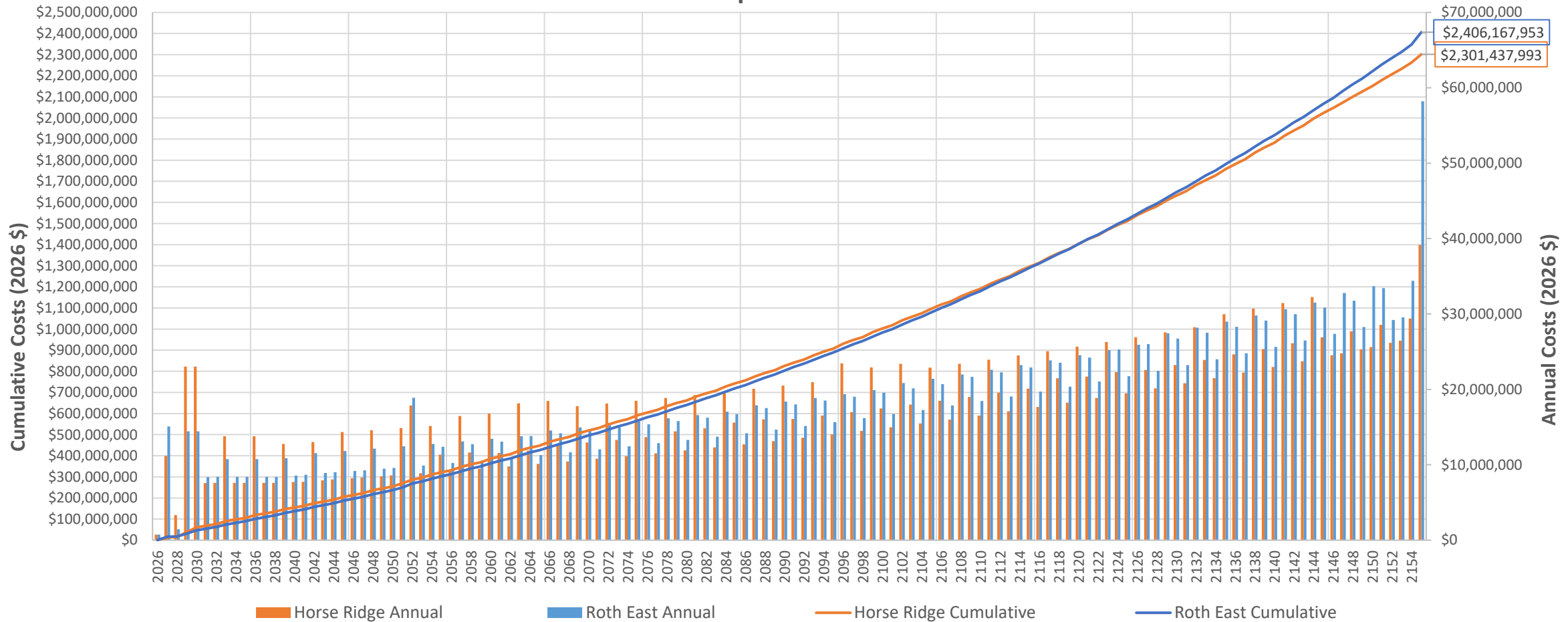


# Key Topics Discussion

## Cost Analysis

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13

### Cost Forecast Comparison of Final SWMF Sites





# Public Comments



# Public Comments

3 minutes per person

Based on number of people wishing to comment

Written comments can also be sent to:

[managethefuture@deschutescounty.gov](mailto:managethefuture@deschutescounty.gov)



# SWAC Discussion



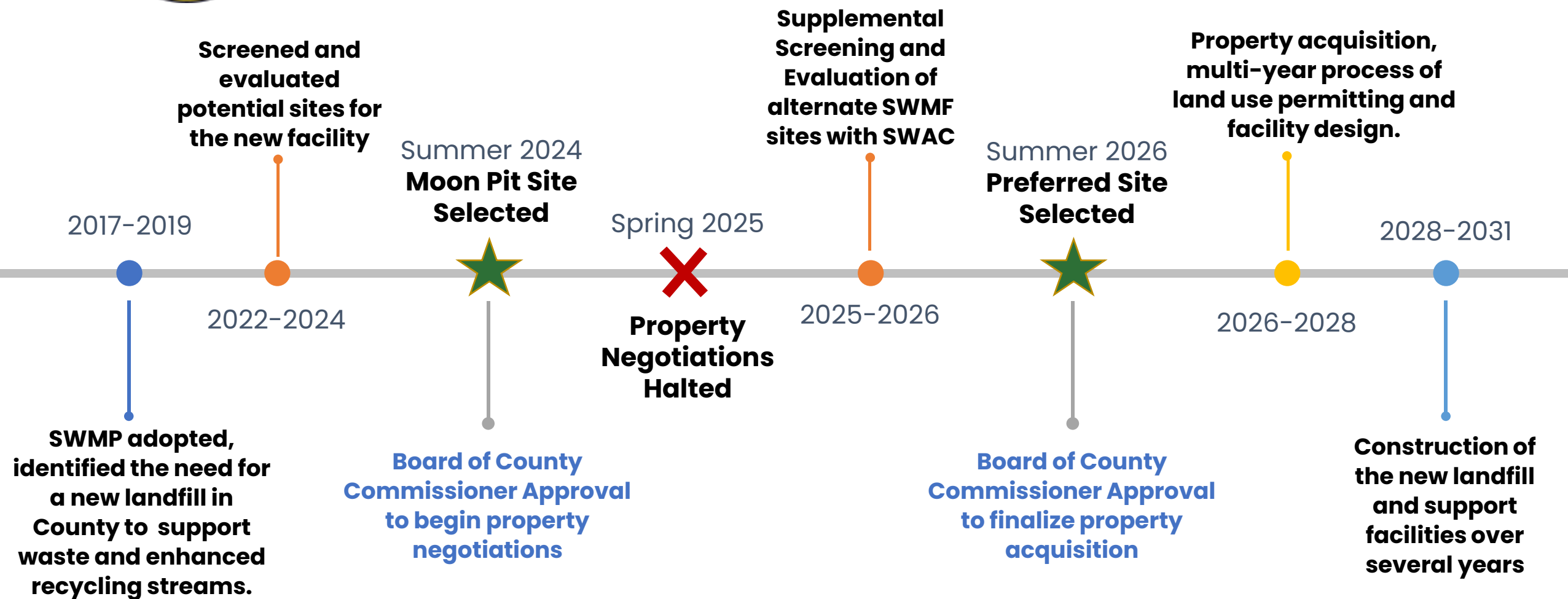
# Discussion Prompts

*(optional)*

- *Are any clarifications needed to make a recommendation?*
- *How should a “robust and comprehensive mitigation strategy” be defined?*
- *Are you inclined to recommend a preferred site in this meeting or the next?*
- *What site do you think would best serve the County long-term, based on the information presented to date?*



# Roadmap to Opening in 2031





# Steps to SWAC Recommendation



**April 21, 2026 (Today)**

**Updated Final Site Evaluation Report Review and Discussion**

Opportunity for the SWAC to discuss and provide input on the updated Site Evaluation Report and appendices, which now compare the Horse Ridge and Roth East candidate sites.



**May 19, 2026**

**Finalist SWMF Site Recommendation**

The SWAC will vote on recommendation to the BOCC for a preferred SWMF location.



**June 16, 2026: (if needed)**

**Finalist SWMF Site Recommendation**

The SWAC will vote on recommendation to the BOCC for a preferred SWMF location.



# What happens next...

## SWAC Meetings:

- **May 19, 9-11 am:** finalist site recommendation (tentative)
- *June 16, 9-11 am: finalist site recommendation (additional meeting if needed)*

## Board of County Commissioners Approval Process:

- Late Summer – Early Fall 2026 (tentative): public hearing(s) prior to BOCC decision

## Public Input:

- Public comment reviews & responses
- Correspondence & meetings with interested parties

## Ways to stay up to date:

- Visit: [deschutes.org/managethefuture](https://deschutes.org/managethefuture)
- Email: [managethefuture@deschutescounty.gov](mailto:managethefuture@deschutescounty.gov)



**Deschutes  
County:  
Managing  
the Future of  
Solid Waste**

Informational Story Map

Deschutes County Department of Solid Waste | August 2024



# Adjourn

