

Correctional Facility Siting



**Report to Prison Relocation
Commission**

July 16, 2015

AGENDA

Correctional Facility Siting: Report to PRC

- Location and Project Requirements
- Sites Under Consideration
- Technical Studies Performed
- Findings
- Summary

Location and Project Requirements

Location Requirements

- Proximity to workforce, volunteers, visitors, medical/legal services
- Minimize environmental impacts
- Access to community services
- Avoid natural and man-made hazards
- Avoid conflicts with state economic development projects
- Consider path of future population and development



Project Requirements

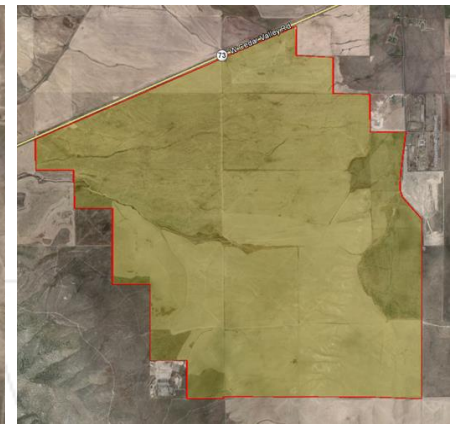
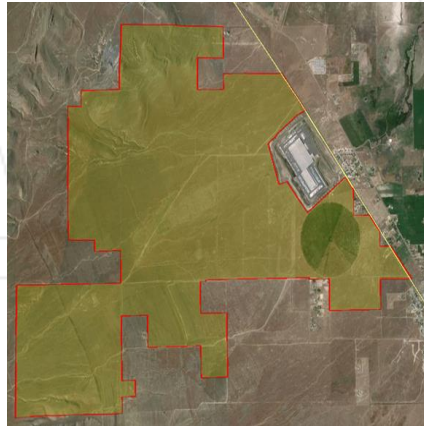
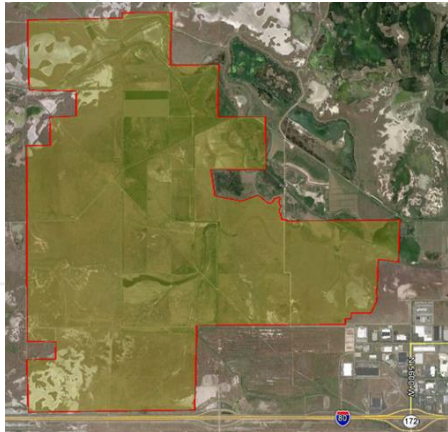
- Minimum of 500 acres of land
- Ability to access regional highway network
- Ability to access or develop water supply of approximately 600,000 gallons per day.
- Ability to access or develop wastewater system to treat approximately 500,000 gallons per day
- Access to electric transmission system operating at 136 KV or higher to deliver 6-8 MW from 2 independent substations
- Access to natural gas systems
- Access to communications systems and services

Sites Under Consideration

Sites Under Consideration

Four Sites Under Consideration (from among 50 offered):

- I-80 / 7200 West (Salt Lake County)
- SR 138 Industrial Park (Tooele County)
- Lake Mountains West (Utah County)
- Cedar Valley South (Utah County)



Technical Studies Performed

Technical Studies Performed

Technical Evaluations

- Cultural resources research
- Phase I Environmental Site Assessments
- Wetland delineations
- Special status species studies
- Geotechnical investigations
- Property appraisals
- Title research



Technical Studies Performed

Technical Evaluations

- Boundary and topographic surveys
- Well development feasibility study
- Utility system studies
- Water rights research
- Road access studies
- Cost estimates
- Permits research

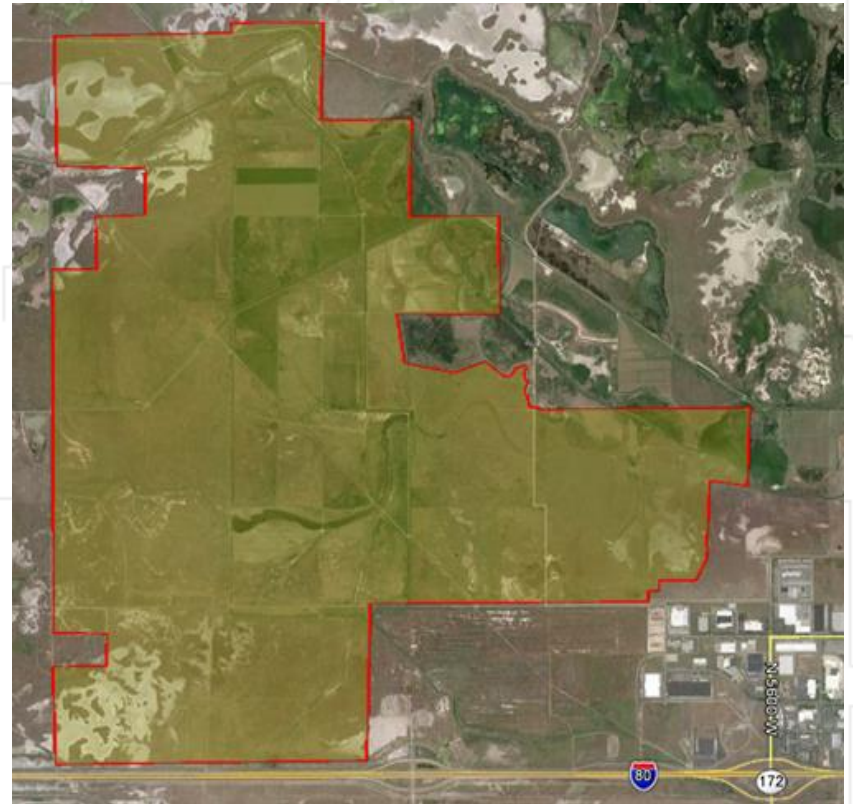


Findings

Findings – I-80 / 7200 West

I-80 / 7200 West

- 5,000+ acres in Salt Lake City
- Multiple, cooperating owners
- Access via I-80 to 5600 West
- Level topography
- Isolated location



Findings – I-80 / 7200 West

Cultural Resources

- 10 studies conducted within 1-mile radius; 21 cultural resources recorded (eg. historic-period canals and ditches, former homestead, railroad, etc.)
- 1 site within proximity (Goggin Drain)
- There may be cultural resource sites identified, evaluated, avoided and/or mitigated

Minor consideration affecting correctional facility development

Findings – I-80 / 7200 West

Phase I Environmental Site Assessment

- Site and surrounding area used primarily for livestock grazing and other agricultural purposes
- Former RR bisected portion of site; tracks and ties removed
- SLC Army Air Base Gunnery Range operated in 1943 - 1944; investigations conducted to ensure no contamination
- Former landfill borders portion of site (condition unknown)
- Virtually all found outside areas considered suitable for development
- Follow-up underway to confirm conditions will not impede development

Minor consideration affecting correctional facility development

Findings – I-80 / 7200 West

Wetlands and Waters of the U.S.

- USACE methodologies revealed extensive wetland systems, canals, open water features; all well documented and intended as permanent conservation lands
- Most wetlands/WOUS located on periphery of site; areas considered suitable for development within interior
- Compliance with Clean Water Act anticipated; regulatory review and permitting led by USACE
- Follow-up underway to confirm wetland locations and that potential impacts from development can be minimized and mitigated

Moderate consideration affecting correctional facility development

Findings – I-80 / 7200 West

Special Status Species

- Consideration for species protected by State and Federal laws (ESA, MBTA, Bald and Golden Eagle Protection Act, others)
- Impacts to listed species would be a violation with penalties
- Observed Long-billed Curlews and Golden Eagles in area
- Follow-up underway to confirm conditions won't impede development

Minor consideration affecting correctional facility development



Findings – I-80 / 7200 West

Topographic Conditions

- Elevations range from 4,215 feet to 4,225 feet above msl
- Uniformly level conditions (average slope approximately 1%)
- Building area to be raised to 4,222 feet above msl using structural fill to:
 - Mitigate flood potential
 - Provide foundations for buildings

Minor consideration affecting correctional facility development



Findings – I-80 / 7200 West

Geotechnical Conditions

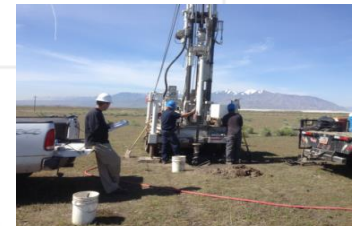
- Located approximately 1 mile from Granger Fault, 6 miles from Wasatch Fault
- Soft soils extend to approximately 125 feet, inconsistent solid bearing layers
- High potential for liquefaction throughout region
- Collapsible soils located throughout area
- Preliminary geotechnical program identified need for soil mitigation
 - Structural fill placed on all building pads prior to construction
 - Deep foundation systems under all structures

Findings – I-80 / 7200 West

Geotechnical Conditions

- Site can be stabilized for proposed development
 - Estimated 18+/- months effort prior to building construction
 - Stabilization can be performed concurrent with other design and construction activities
 - Allows for mat foundation construction
 - Estimated cost of site preparations: \$60+ million depending upon selected approach to stabilization

Elevated consideration; additional geotechnical analysis underway



Findings – I-80 / 7200 West

Utility Systems and Services – Water Supply

- Salt Lake City and western Salt Lake County local districts able to meet water supply and storage requirements (multiple sources with high reliability)
- Extensions to public water supply system infrastructure required
- Water right dedication not a requirement for public water service
- Payment of impact fees expected
- Independent, on-site water system not an option

Findings – I-80 / 7200 West

Utility Systems and Services – Wastewater, Power

- Salt Lake City and western Salt Lake County local districts have wastewater treatment capacity sufficient to meet facility needs (with minor upgrades)
- Connection to Salt Lake City or western Salt Lake County local district system requires construction of collection system improvements
- Connection to a local district may require inter-local agreements
- Power: Improvements to electric transmission infrastructure needed to meet requirements for redundancy

Findings – I-80 / 7200 West

Utility Systems and Services – Natural Gas, Telecom

- Natural Gas: Extension of high pressure gas infrastructure required
- Telecommunications: Extension of telecommunications infrastructure required
- Estimated costs for all utility improvements: \$35 to \$65 million (depending upon selected alternative and service provider)
- Potential for cost sharing with other property owners and developers: up to 50% (estimated)
- Long-term operational costs for water and wastewater services estimated to be second lowest among alternative locations

Moderate consideration; further study underway to facilitate water and wastewater solutions

Findings – I-80 / 7200 West

Roadway Access

- Access available from multiple roadways allowing for emergency response from several directions and routes (weather, road closures, etc.)
- Access proposed from I-80 to 5600 West and North Temple as interim solution during early years of correctional facility operation
- Permanent access via I-80/7200 West interchange
- No paved roads within site



Findings – I-80 / 7200 West

Roadway Access

- 2 locations for interim ingress/egress planned
 - Extend John Cannon Drive between 5600 West and 7500 West
 - Construct 7500 West alignment from North Temple north to site
- Coordinate access road planning with Salt Lake City transportation plan for area
- Collaborate with Salt Lake City and property owners on 7200 West extension as permanent access solution
- Estimated cost of interim road improvements: \$6 to \$8 million
- Potential for cost sharing with other property owners and developers

Minor consideration; interim access solution necessary until permanent solution can be implemented

Findings – I-80 / 7200 West

Property Acquisition

- Properties controlled by multiple Owners
- Title reports and boundary survey in process
- Purchase and Sale Agreement terms provided to Owners
- Discussions on-going with Owners concerning property sales

Minor consideration; multiple Owners working cooperatively and facilitating property acquisition discussions

Findings – I-80 / 7200 West

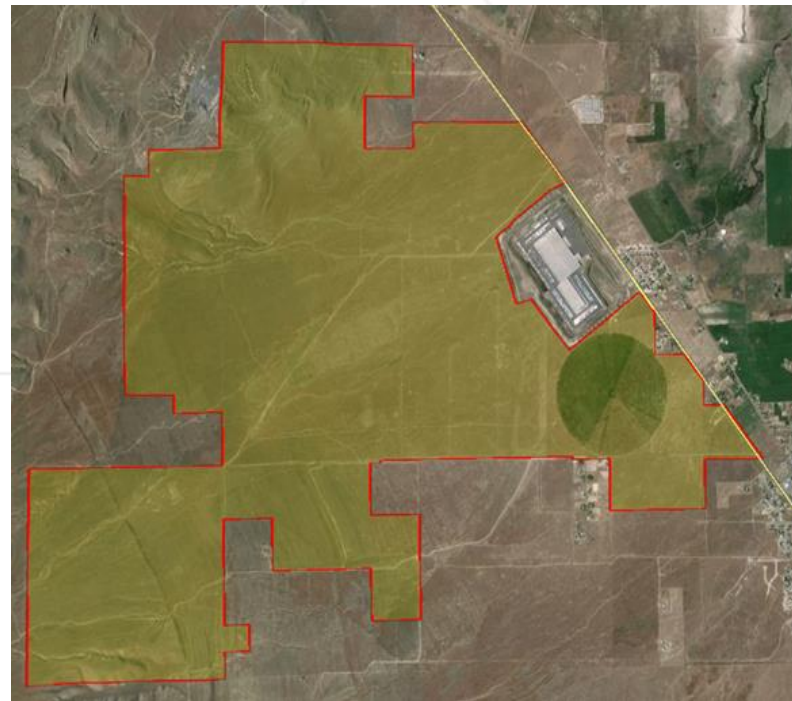
Summary of Findings

- Cultural Resources: Minor consideration
- Phase I ESA: Minor consideration
- Wetlands/WOUS: Moderate consideration
- Special Status Species: Minor consideration
- Topographic Conditions: Minor consideration
- Geotechnical Conditions: Elevated consideration
- Utility Services: Moderate consideration
- Roadway Access: Minor consideration
- Property Acquisition: Minor consideration

Findings – SR 138 Industrial Park

SR 138 Industrial Park

- 4,000+/- acres in Grantsville
- Single, cooperating owner
- Access via I-80 to SR 138
- No environmental limitations
- Moderate sloping topography



Findings – SR 138 Industrial Park

Cultural Resources

- 10 studies conducted within 1-mile radius; 4 cultural resource sites identified
- 1 cultural resource site recorded within property; most located outside property boundaries (eg. historic roads)
- Low probability of cultural resource sites to be identified, evaluated, avoided and/or mitigated

Minor consideration affecting correctional facility development

Findings – SR 138 Industrial Park

Phase I Environmental Site Assessment

- Site used for livestock grazing and agricultural purposes
- Surrounding lands used for livestock grazing and agricultural purposes, Walmart Distribution Center, commercial and rural residential developments
- Results: No Recognized Environmental Conditions, Historical Recognized Environmental Conditions, or Controlled Recognized Environmental Conditions
- Low potential for contamination

Minor consideration affecting correctional facility development

Findings – SR 138 Industrial Park

Wetlands and Waters of the U.S.

- USACE methodologies revealed one small open water feature and no jurisdictional wetlands/WOUS on site
- Field visit by USACE confirmed findings; awaiting written concurrence

Not a consideration affecting correctional facility development



Findings – SR 138 Industrial Park

Special Status Species

- Consideration for species protected by State and Federal laws (ESA, MBTA, Bald and Golden Eagle Protection Act, others)
- Observed Long-billed Curlews and Burrowing Owl in area
- Follow-up underway to confirm conditions won't impede development

Minor consideration affecting correctional facility development



Findings – SR 138 Industrial Park

Topographic Conditions

- Elevations range from 4,300 feet to 5,000 feet above msl
- Site slopes moderately downward from NW to SE
- Topography varies widely; 150+/- foot change over building area
- Cut and fill slopes proposed at 4:1; requires 6 to 7 million cubic yards of earthwork
- Estimated site grading cost: \$32 to \$34 million

Elevated consideration; further study underway to find lower cost alternatives to allow for correctional facility development

Findings – SR 138 Industrial Park

Geotechnical Conditions

- Preliminary geotechnical program identified dense coarse grained soils with small boulders
- Ideal conditions for conventional shallow foundation system
- Low liquefaction potential
- Minimal foundation design and construction costs

Minor consideration affecting correctional facility development

Findings – SR 138 Industrial Park

Utility Systems and Services – Water Supply, Wastewater

- Grantsville water system requires upgrades including new water sources, increased storage, water line extension to site
- Water right dedication required; sufficient water rights available for public or private water use
- Development of water supply system independent from Grantsville system is feasible
- Grantsville wastewater treatment facility not capable of meeting project requirements; requires new treatment process and collection system improvements
- Long-term operational costs for water and wastewater services estimated to be lowest among alternative locations

Findings – SR 138 Industrial Park

Utility Systems and Services – Power, Natural Gas, Telecom

- Power: Improvements to electric transmission infrastructure needed to meet requirements for redundancy
- Natural Gas: Extension of high pressure gas infrastructure needed
- Telecommunications: Extension of telecommunications infrastructure needed
- Estimated costs for all utility improvements: \$43 to \$79 million (depending upon selected alternative and service provider)
- Potential for cost sharing with other property owners and developers: up to 15% (estimated)

Elevated consideration; further study underway to find lower cost alternatives to support correctional facility development

Findings – SR 138 Industrial Park

Roadway Access

- Primary site access from I-80 to SR 138 (avoids population center)
- Entranceway improvements from SR 138 necessary (acceleration/deceleration lanes, turning lanes, traffic controls)
- Estimated cost of roadway improvements: \$1 to \$1.5 million
- Access to/from Tooele County dependent upon unimpeded travel on I-80. With few alternative routes, significant risks arise during emergencies

Moderate consideration affecting correctional facility development



Findings – SR 138 Industrial Park

Property Acquisition

- Property controlled by single Owner
- Option Agreement executed
- Title report and boundary survey in process
- Purchase and Sale Agreement terms provided to Owner
- Discussions on-going with Owner concerning property sale

Minor consideration; Owner working cooperatively and facilitating property acquisition discussions

Findings – SR 138 Industrial Park

Summary of Findings

- Cultural Resources: Minor consideration
- Phase I ESA: Minor consideration
- Wetlands/WOUS: Not a consideration
- Special Status Species: Minor consideration
- Topographic Conditions: Elevated consideration
- Geotechnical Conditions: Minor consideration
- Utility Services: Elevated consideration
- Roadway Access: Moderate consideration
- Property Acquisition: Minor consideration

Findings – Lake Mountains West

Lake Mountains West Site

- 600+ acres in southern-most Eagle Mountain
- Single, cooperating owner
- Level topography
- No environmental limitations
- Master Development Agreement



Findings – Lake Mountains West

Cultural Resources

- 5 studies conducted within 1-mile radius; 2 cultural resource sites identified (none on-site)
- Low probability of cultural resource sites to be identified, evaluated, avoided and/or mitigated

Minor consideration affecting correctional facility development

Findings – Lake Mountains West

Phase I Environmental Site Assessment

- Site and surroundings historically used for agricultural purposes
- Surrounding lands comprise agricultural uses, Eagle Mountain town center, former air strip, sewage treatment plant
- Results: No Recognized Environmental Conditions, Historical Recognized Environmental Conditions, or Controlled Recognized Environmental Conditions
- Low potential for contamination

Minor consideration affecting correctional facility development

Findings – Lake Mountains West

Wetlands and Waters of the U.S.

- USACE methodologies revealed no jurisdictional wetlands/ WOUS present on site
- Field visit by USACE confirmed findings; awaiting written concurrence

Not a consideration affecting correctional facility development

Findings – Lake Mountains West

Special Status Species

- Consideration for species protected by State and Federal laws (ESA, MBTA, Bald and Golden Eagle Protection Act, others)
- Did not observe any special status species during field studies
- Follow-up underway to confirm lack of habitats for special status species

Minor consideration affecting correctional facility development

Findings – Lake Mountains West

Topographic Conditions

- Elevations range from 4,835 feet to 4,850 feet above msl
- Uniformly consistent conditions
- Site has slight slope upward towards center (averages 1%)
- Minimal grading necessary to prepare site for development

Minor consideration affecting correctional facility development



Findings – Lake Mountains West

Geotechnical Conditions

- Preliminary geotechnical program identified stiff, fine-grained soils throughout site
- Collapsible soils and expansive soils distributed throughout site
- Low liquefaction potential
- Soil mitigation costs range from \$5 to \$8 million
- Allows for conventional shallow foundation system design and construction

Moderate consideration affecting correctional facility development

Findings – Lake Mountains West

Utility Systems and Services – Water Supply, Wastewater

- Eagle Mountain system has limited transmission and storage capacity; requires upgrades and improvements
- Extension of distribution mains needed to create looped system with redundant supply
- Water right dedication required; sufficient water rights available to allow for public or private use
- Capability exists to develop water supply system independent from Eagle Mountain system
- Wastewater treatment facility (within 2 miles) able to support facility requirements with improvements
- Long-term operational costs for water and wastewater services estimated to be second highest among alternative locations

Findings – Lake Mountains West

Utility Systems and Services - Power, Natural Gas, Telecom

- Power: Improvements to power transmission infrastructure needed to support facility requirements for redundancy
- Natural Gas: Extension of nearby high pressure natural gas system infrastructure needed to support facility requirements
- Telecommunications: Extension of telecommunications infrastructure needed to support facility requirements
- Estimated costs for all utility improvements: \$38 to \$45 million
- Potential for cost sharing with other property owners and developers: up to 25% (estimated)

Elevated consideration; further study underway to find lower cost alternatives to support correctional facility development

Findings – Lake Mountains West

Roadway Access

- Two principal entries into Eagle Mountain via SR 73
- Primary access at SR 73 and Eagle Mountain Boulevard
- Minimal intersection improvements anticipated
- 2 locations for ingress/egress to site planned
 - Eagle Mountain Boulevard widening proposed
 - New intersection and roadway from Eagle Mountain Blvd along new alignment to site
 - Extend/widen portions of Pony Express Parkway to site (as backup access)
 - Estimated cost of roadway improvements: \$19 to \$23 million

Findings – Lake Mountains West

Roadway Access

- Access to/from Eagle Mountain dependent upon unimpeded travel on SR 73. With few alternative routes, significant risks arise during emergencies

Moderate consideration affecting correctional facility development



Findings – Lake Mountains West

Property Acquisition

- Property controlled by single Owner
- Option Agreement executed
- Title report and boundary survey in process
- Purchase and Sale Agreement terms provided to Owner
- Discussions on-going with Owner concerning property sale
- Potential for property acquisition and infrastructure improvements in single transaction

Minor consideration; Owner working cooperatively and facilitating property acquisition discussions

Findings – Lake Mountains West

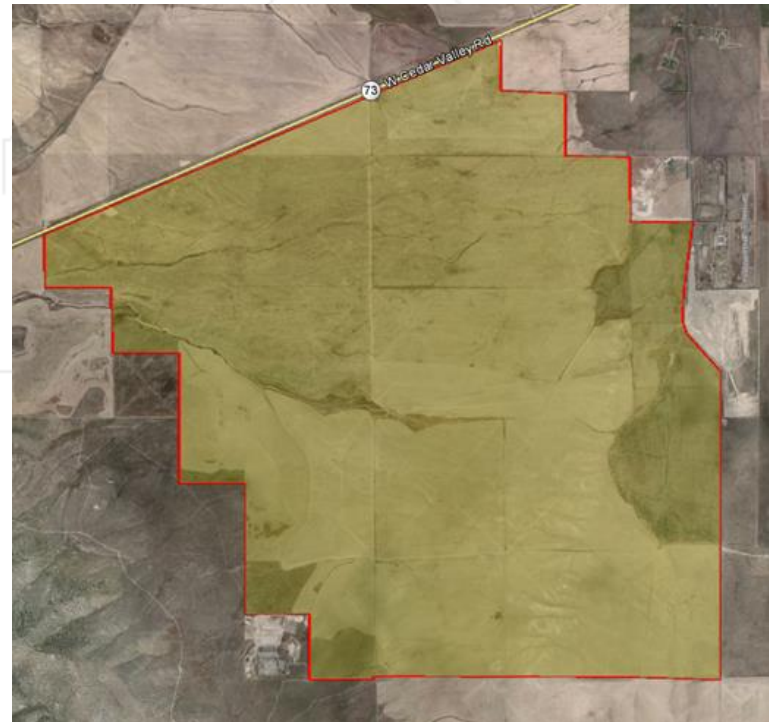
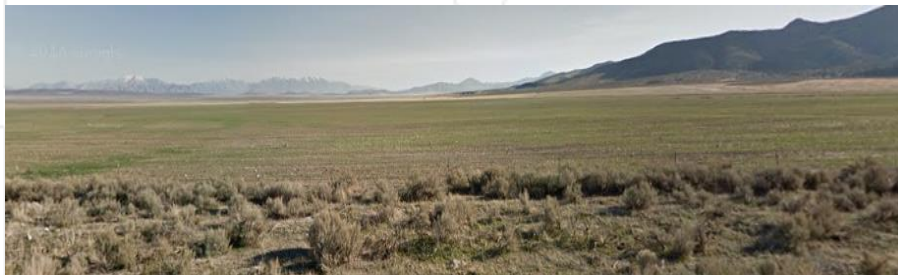
Summary of Findings

- Cultural Resources: Minor consideration
- Phase I ESA: Minor consideration
- Wetlands/WOUS: Not a consideration
- Special Status Species: Minor consideration
- Topographic Conditions: Minor consideration
- Geotechnical Conditions: Moderate consideration
- Utility Services: Elevated consideration
- Roadway Access: Moderate consideration
- Property Acquisition: Minor consideration

Findings – Cedar Valley South

Cedar Valley South

- 2,700 acres near Town of Fairfield
- Single, cooperating owner
- Level topography
- No environmental limitations



Findings – Cedar Valley South

Cultural Resources

- 12 studies conducted within 1-mile radius; 8 cultural resource sites identified (none on-site)
- Historic-period homestead, debris scatters, cemetery, Camp Floyd (listed in NRHP), others nearby
- Unrecorded prehistoric sites nearby increases likelihood of prehistoric sites in or around area
- High probability of cultural resource sites to be identified, evaluated, avoided and/or mitigated

***Elevated consideration affecting
correctional facility development***



Findings – Cedar Valley South

Phase I Environmental Site Assessment

- Site historically used for agricultural purposes
- Surroundings comprise agricultural uses, Town of Fairfield, small air strip and aircraft manufacturer, operating landfill
- Results: No Historical Recognized Environmental Conditions or Controlled Recognized Environmental Conditions found
- Low potential for contamination

Minor consideration affecting correctional facility development

Findings – Cedar Valley South

Wetlands and Waters of the U.S.

- USACE methodologies revealed no jurisdictional wetlands/WOUS present on site
- Field visit by USACE confirmed findings; awaiting written concurrence

Not a consideration affecting correctional facility development

Findings – Cedar Valley South

Special Status Species

- Consideration for species protected by State and Federal laws (ESA, MBTA, Bald and Golden Eagle Protection Act, others)
- Did not observe any special status species during field studies
- Follow-up underway to confirm lack of habitats for special status species

Minor consideration affecting correctional facility development

Findings – Cedar Valley South

Topographic Conditions

- Elevations across site range from 4,870 feet to 5,160 feet above msl (slopes downward from west to east)
- Uniform conditions; average slope approximately 1% - 2%
- Minimal grading necessary to prepare site for development

Minor consideration affecting correctional facility development



Findings – Cedar Valley South

Geotechnical Conditions

- Expect stiff, fine-grained soils throughout the site
- Expect collapsible soils and expansive soils throughout site
- Low liquefaction potential
- Estimated soil mitigation costs: \$5 to \$10 million

Moderate consideration affecting correctional facility development

Findings – Cedar Valley South

Utility Systems and Services – Water, Wastewater, Power

- Fairfield relies upon springs for culinary and irrigation water (insufficient to meet facility requirements)
- Only minimal water rights available (insufficient to meet requirements); poses significant challenge to water service
- Nearest water supply system infrastructure to support facility requirements located in Eagle Mountain (10+ miles)
- Nearest public wastewater system to support facility requirements located in Eagle Mountain (7+ miles)
- Power: Improvements to power transmission infrastructure needed to support facility requirements for redundancy (15+ miles)

Findings – Cedar Valley South

Utility Systems and Services - Natural Gas, Telecom

- Natural Gas: Extension of high pressure natural gas system infrastructure needed to support facility requirements (6+ miles)
- Telecommunications: Extension of telecommunications infrastructure needed to support facility requirements
- Estimated costs for all utility improvements: \$67 to \$84 million
- Potential for cost sharing with other property owners and developers: up to 10% (estimated)
- Long-term operational costs for water and wastewater services estimated to be highest among alternative locations

Elevated consideration; further study underway to find lower cost alternatives to support correctional facility development

Findings – Cedar Valley South

Roadway Access

- Access via SR 73 (2 lanes with paved/gravel/earthen shoulders in vicinity)
- Entranceway improvements from SR 73 necessary: acceleration/deceleration lanes, turning lanes, signage, other
- Estimated cost of roadway improvements:\$1 to \$1.5 million
- Access to/from Eagle Mountain dependent upon unimpeded travel on SR 73. With few alternative routes, significant risks arise during emergencies

Moderate consideration affecting correctional facility development

Findings – Cedar Valley South

Property Acquisition

- Property controlled by single entity
- Option Agreement executed
- Title report and boundary survey in process
- Purchase and Sale Agreement terms provided to Owner
- Discussions on-going with Owner concerning property sale

Minor consideration; Owner working cooperatively and facilitating property acquisition discussions

Findings – Cedar Valley South

Summary of Findings





































- Cultural Resources: Elevated consideration
- Phase I ESA: Minor consideration
- Wetlands/WOUS: Not a consideration
- Special Status Species: Minor consideration
- Topographic Conditions: Minor consideration
- Geotechnical Conditions: Moderate consideration
- Utility Services: Elevated consideration
- Roadway Access: Moderate consideration
- Property Acquisition: Minor consideration

Summary

Summary - Preliminary Site Development Costs (millions)

Category	I-80/7200 West	SR 138 Industrial Park	Lake Mountains West	Cedar Valley South
Utilities	\$31 - \$64	\$43 - \$79	\$38 - \$45	\$67 - \$84
Roadways	\$6 - \$8	\$1 - \$1.5	\$19 - \$23	\$1 - \$1.5
Geotechnical	\$60+	\$0	\$5 - \$8	\$5 - \$10
Site Work	\$0	\$32 - \$34	\$0	\$0

Summary

Criterion	I-80 / 7200 West		SR 138 Industrial Park		Lake Mountains West		Cedar Valley South	
Cultural Resources		Minor consideration		Minor consideration		Minor consideration		Elevated consideration
Phase I ESA		Minor consideration		Minor consideration		Minor consideration		Minor consideration
Wetlands/WOUS		Moderate consideration		Not a consideration		Not a consideration		Not a consideration
Special Status Species		Minor consideration		Minor consideration		Minor consideration		Minor consideration
Topography		Minor consideration		Elevated consideration		Minor consideration		Minor consideration
Geotechnical Conditions		Elevated consideration		Minor consideration		Moderate consideration		Moderate consideration
Utility Services		Moderate consideration		Elevated consideration		Elevated consideration		Elevated consideration
Roadway Access		Minor consideration		Moderate consideration		Moderate consideration		Moderate consideration
Property Acquisition		Minor consideration		Minor consideration		Minor consideration		Minor consideration

Thank you

