

SW394

Division of
Solid and Hazardous Waste

APR 21 2014

2014-006718

Franklin Hill Regional Landfill

Class I Permit Application

April 18, 2014

Utah Class I and V Permit Application Checklist

APR 21 2014

Part I General Information						APPLICANT: PLEASE COMPLETE ALL SECTIONS.									
I. Landfill Type		<input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class V		II. Application Type		<input checked="" type="checkbox"/> New Application <input type="checkbox"/> Renewal Application		<input type="checkbox"/> Facility Expansion <input type="checkbox"/> Modification							
For Renewal Applications, Facility Expansion Applications and Modifications Enter Current Permit Number _____															
III. Facility Name and Location															
Name of Facility Franklin Hill Regional Landfill															
Site Address (street or directions to site) Approximately 3/4 of a mile north of exit 16 off I-84								County Box Elder County							
City Appr. 8 miles southeast of Snowville, Utah				Zip Code 84336		Telephone (801) 725-2722									
Township 14N		Range 6W		Section 30 & Section 31		Quarter/Quarter Section			Quarter Section						
Main Gate Latitude		Degrees 41		minutes 54		seconds 21		Longitude		degrees 112		minutes 35		seconds 4	
IV. Facility Owner(s) Information															
Name of Facility Owner Moulding Investments LLC															
Address (mailing) 10485 West 900 South															
City Ogden			State UT		Zip Code 84404			Telephone (801) 725-2722							
V. Facility Operator(s) Information															
Name of Facility Operator Moulding Investments LLC															
Address (mailing) 10485 West 900 South															
City Ogden			State UT		Zip Code 84404			Telephone (801) 725-2722							
VI. Property Owner(s) Information															
Name of Property Owner Moulding Investments LLC															
Address (mailing) 10485 West 900 South															
City Ogden			State UT		Zip Code 84404			Telephone (801) 725-2722							
VII. Contact Information															
Owner Contact Name Randy Moulding						Title President									
Address (mailing) 10485 West 900 South															
City Ogden			State UT		Zip Code 84404			Telephone (801) 725-2722							
Email Address						Alternative Telephone (cell or other)									
Operator Contact Name Randy Moulding						Title President									
Address (mailing) 10485 West 900 South															
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Utah Class I and V Permit Application Checklist

Part I General Information (Continued)																																															
VIII. Waste Types (check all that apply)	IX. Facility Area																																														
<input type="checkbox"/> All non-hazardous solid waste (see R315-315-7(3) for PCB special requirements) OR the following specific waste types: <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Waste Type</td> <td style="width: 33%;">Combined Disposal Unit</td> <td style="width: 33%;">Monofill Unit</td> </tr> <tr> <td><input checked="" type="checkbox"/> Municipal Waste</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Construction & Demolition</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Industrial</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Incinerator Ash</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Animals</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Asbestos</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> PCB's (R315-315-7(3) only)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Other _____</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	Waste Type	Combined Disposal Unit	Monofill Unit	<input checked="" type="checkbox"/> Municipal Waste	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Construction & Demolition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Industrial	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Incinerator Ash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Animals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Asbestos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> PCB's (R315-315-7(3) only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">Facility Area.....</td> <td style="width: 10%; text-align: right;"><u>2200</u></td> <td style="width: 10%; text-align: right;">acres</td> </tr> <tr> <td>Disposal Area.....</td> <td style="text-align: right;"><u>225</u></td> <td style="text-align: right;">acres</td> </tr> <tr> <td>Design Capacity</td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Years.....</td> <td style="text-align: right;"><u>65</u></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Cubic Yards.....</td> <td style="text-align: right;"><u>31,400,000</u></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Tons.....</td> <td style="text-align: right;"><u>21,800,000</u></td> <td></td> </tr> </table>		Facility Area.....	<u>2200</u>	acres	Disposal Area.....	<u>225</u>	acres	Design Capacity			Years.....	<u>65</u>		Cubic Yards.....	<u>31,400,000</u>		Tons.....	<u>21,800,000</u>	
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X. Fee and Application Documents																																															
Indicate Documents Attached To This Application		<input type="checkbox"/> Application Fee: Amount \$																																													
<input type="checkbox"/> Facility Map or Maps <input type="checkbox"/> Facility Legal Description <input type="checkbox"/> Plan of Operation <input type="checkbox"/> Waste Description <input type="checkbox"/> Ground Water Report <input type="checkbox"/> Closure Design <input type="checkbox"/> Cost Estimates <input type="checkbox"/> Financial Assurance	Class V Special Requirements <input type="checkbox"/> Documents required by UCA 19-6-108(9) and (10)																																														
I HEREBY CERTIFY THAT THIS INFORMATION AND ALL ATTACHED PAGES ARE CORRECT AND COMPLETE.																																															
Signature of Authorized Owner Representative		Title President																																													
 <u>Randy Moulding</u> Name typed or printed		Date 4/18/2014																																													
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Utah Class I and V Permit Application Checklist

Important Note: The following checklist is for the permit application and addresses only the requirements of the Division of Solid and Hazardous Waste. Other federal, state, or local agencies may have requirements that the facility must meet. The applicant is responsible to be informed of, and meet, any applicable requirements. Examples of these requirements may include obtaining a conditional use permit, a business license, or a storm water permit. The applicant is reminded that obtaining a permit under the *Solid Waste Permitting and Management Rules* does not exempt the facility from these other requirements. Please take note of the heading of each section for the facilities that the section applies to.

An application for a permit to construct and operate a landfill is the documentation that the landfill will be located, designed, constructed, operated, and closed in compliance with the requirements of Utah Administrative Code R315-301 through 320 (*Utah Solid Waste Permitting and Management Rules*) and Utah Code Annotated 19-6-101 through 123 (*Utah Solid and Hazardous Waste Act*). The application should be written to be understandable by regulatory agencies, landfill operators, and the general public. The application should also be written so that the landfill operator, after reading it, will be able to operate the landfill according to the requirements with a minimum of additional training.

Copies of the *Solid Waste Permitting and Management Rules*, the *Utah Solid and Hazardous Waste Act*, along with many other useful guidance documents can be obtained by contacting the Division of Solid and Hazardous Waste at 801-536-0200. Most of these documents are available on the Division's web page at www.hazardouswaste.utah.gov. Guidance documents can be found at the solid waste section portion of the web page.

When the Director has determined that the application is complete, submit two paper copies of the application as determined complete by the Director, and an electronic copy of the application.

Part II Application Checklist

I. Facility General Information	
Description of Item	Location In Document
1a. Information Required for All Class I and V Landfills	
Completed Part I General information Form (See form above)	Front Cover
General description of the facility (R315-310-3(1)(b))	Part II, Section 1.2
Legal description of property (R315-310-3(1)(c))	Part II, Section 2
Proof of ownership, lease agreement, or other mechanism (R315-310-3(1)(c))	Appendix B
Area served by the facility including population (R315-310-3(1)(d))	Part II, Section 1.3
If the permit application is for a class I landfill a demonstration that the landfill is not a commercial facility	Part II, Section 1.2 Appendix C
Waste type and anticipated daily volume (R315-310-3(1)(d))	Part II, Section 1.4 Part II, Section 1.2
1b. Information Required for All New Or Laterally Expanding Class I and V Landfills	
Intended schedule of construction (R315-302-2(2)(a))	Part II, Section 3.1
Name and address of all property owners within 1000 feet of the facility boundary (R315-310-3(2)(a)(i))	Appendix B
Documentation that a notice of intent to apply for a permit has been sent to all property owners listed above (R315-310-3(2)(ii))	Appendix B
Name of the local government with jurisdiction over the facility site (R315-310-3(2)(iii))	Part II, Section 1.3

Utah Class I and V Permit Application Checklist

I. Facility General Information	
Description of Item	Location In Document
Ic. Location Standards for All New Or Laterally Expanding Class I and V Landfills (R315-302-1)	
Documentation that the facility has met the historical survey requirement of R315-302-1(2)(f)	Part III, Section 3.1.1 Appendix K
Land use compatibility (R315-302-1(2)(a))	Part III, Section 3.1.1
Maps showing the existing land use, topography, residences, parks, monuments, recreation areas or wilderness areas within 1000 feet of the site boundary	Appendix A
Certifications that no ecologically or scientifically significant areas or endangered species are present in site area	Part III, Section 3.1.1 Appendix K
List of airports within five miles of facility and distance to each	Part III, Section 3.1.1
Geology (R315-302-1(2)(b))	Part III, Section 2.1
Geologic maps showing significant geologic features, faults, and unstable areas	Part III, Section 2.1 Appendix G
Maps showing site soils	Appendix G Appendix H
Surface water (R315-302-1(2)(c))	Part III, Section 3.1.3
Magnitude of 24 hour 25 year and 100 year storm events	Part III, Section 3.5.1 Appendix I
Average annual rainfall	Part III, Section 3.5 Appendix I
Maximum elevation of flood waters proximate to the facility	Part III, Section 3.5 Appendix I
Maximum elevation of flood water from 100 year flood for waters proximate to the facility	Part III, Section 3.5 Appendix I
Wetlands (R315-302-1(2)(d))	Part III, Section 3.1.4
Ground water (R315-302-1(2)(e))	Part III, Section 2.2 Appendix G
Id. Plan of Operations Requirements for All Class I And V Landfills (R315-310-3(1)(e) and R315-302-2(2))	
Forms and other information as required in R315-302-2(3) including a description of on-site waste handling procedures and an example of the form that will be used to record the weights or volumes of waste received (R315-302-2(2)(b) And R315-310-3(1)(f))	Appendix E Part II, Section 3.2
Schedule for conducting inspections and monitoring, and examples of the forms that will be used to record the results of the inspections and monitoring (R315-302-2(2)(c), R315-302-2(5)(a), and R315-310-3(1)(g))	Part II, Section 3.4 Appendix E
Contingency plans in the event of a fire or explosion (R315-302-2(2)(d))	Part II, Section 3.5
Corrective action programs to be initiated if ground water is contaminated (R315-302-2(2)(e))	Part II, Section 3.5.5
Contingency plans for other releases, e.g. explosive gases or failure of run-off collection system (R315-302-2(2)(f))	Part II, Section 3.5

Utah Class I and V Permit Application Checklist

I. Facility General Information	
Description of Item	Location In Document
Plan to control fugitive dust generated from roads, construction, general operations, and covering the waste (R315-302-2(2)(g))	Part II, Section 3.8.4
Plan for litter control and collection (R315-302-2(2)(h))	Part II, Section 3.8.5
Description of maintenance of installed equipment (R315-302-2(2)(i))	Part II, Section 3.7
Procedures for excluding the receipt of prohibited hazardous or PCB containing wastes (R315-302-2(2)(j))	Part II, Section 3.3
Procedures for controlling disease vectors (R315-302-2(2)(k))	Part II, Section 3.8
A plan for alternative waste handling (R315-302-2(2)(l))	Part II, Section 3.6
A general training plan for site operations (R315-302-2(2)(o))	Part II, Section 3.10
Any recycling programs planned at the facility (R315-303-4(6))	Part II, Section 3.9
Closure and post-closure care Plan (R315-302-2(2)(m))	Part III, Section 4 Part III, Section 5
Procedures for the handling of special wastes (R315-315)	Part II, Section 3.2.4
Plans and operation procedures to minimize liquids (R315-303-3(1))	Part II, Section 3.3.2
Plans and procedures to address the requirements of R315-303-3(7)(c) through (i) and R315-303-4	Part II, Section 3.2 Part II, Section 3.5 Part II, Section 3.
Any other site-specific information pertaining to the plan of operation required by the Director (R315-302-2(2)(p))	Part II, Section 3
II. Special Requirements for New Or Laterally Expanding Class V Landfill (R315-310-3(3))	
Submit information required by the <i>Utah Solid and Hazardous Waste Act</i> Subsections 19-6-108(9) and 19-6-108(10) (R315-310-3(2)(a))	NA
<i>Note the following information must be provided following issuance of the permit but prior to Director approval to take waste for a new Class V facility.</i>	NA
Approval from the local government within which the solid waste facility sits	NA
Approval from the Legislature and the Governor	NA

II Facility Technical Information	
Description of Item	Location In Document
IIa. Maps for All Class I and V Landfills	
Topographic map drawn to the required scale with contours showing the boundaries of the landfill unit, ground water monitoring well locations, gas monitoring points, and the borrow and fill areas (R315-310-4(2)(a)(i))	Appendix A
Most recent U.S. Geological Survey topographic map, 7-1/2 minute series, showing the waste facility boundary; the property boundary; surface drainage channels; any existing utilities and structures within one-fourth mile of the site; and the direction of the prevailing winds (R315-310-4(2)(a)(ii))	Appendix A
IIb. Geohydrological Assessment for All Class I and V Landfills	

Utah Class I and V Permit Application Checklist

// Facility Technical Information	
Description of Item	Location In Document
(R315-310-4(2)(b))	
Local and regional geology and hydrology including faults, unstable slopes and subsidence areas on site (R315-310-4(2)(b)(i))	Part III, Section 2 Appendix G
Evaluation of bedrock and soil types and properties including permeability rates (R315-310-4(2)(b)(ii))	Appendix G Appendix H
Depth to ground water (R315-310-4(2)(b)(iii))	Part III, Section 2 Appendix G
Direction and estimated flow rate of ground water (R315-310-4(2)(b)(iv))	Part III, Section 2 Appendix G
Quantity, location, and construction of any private or public wells on-site or within 2,000 feet of the facility boundary (R315-310-4(2)(b)(v))	Appendix G Appendix I
Tabulation of all water rights for ground water and surface water on-site and within 2,000 feet of the facility boundary (R315-310-4(2)(b)(vi))	Appendix I
Identification and description of all surface waters on-site and within one mile of the facility boundary (R315-310-4(2)(b)(vii))	Part III, Section 2.3
Background ground water and surface water quality assessment and, for an existing facility, identification of impacts upon the ground water and surface water from leachate discharges (R315-310-4(2)(b)(viii))	Part III, Section 2.5 Appendix G
Ground Water Monitoring (R315-303-3(7)(b) and R315-308)	Part II, Section 3.4.1 Appendix F
Statistical method to be used (R315-308-2(8))	Part II, Section 3.4.1 Appendix F
Calculation of site water balance (R315-310-4(2)(b)(ix))	Appendix I
IIc. Engineering Report - Plans, Specifications, And Calculations for All Class I and V Landfills	
Documentation that the facility will meet all of the performance standards of R315-303-2	Part II, Section 3.4.4
Engineering reports required to meet the location standards of R315-302-1 including documentation of any demonstration or exemption made for any location standard (R315-310-4(2)(c)(i))	Part III, Section 3.1
Anticipated facility life and the basis for calculating the facility's life (R315-310-4(2)(c)(ii))	Appendix D
Cell design to include liner design, cover design, fill methods, elevation of final cover including plans and drawings signed and sealed by a professional engineer registered in the State of Utah (R315-303-3(3), R315-303-3(6) and (7)(a), R315-310-3(1)(b) and R315-310-4(2)(c)(iii))	Appendix A
Leachate collection system design and calculations showing system meets the requirements of R315-303-3(2)	Appendix A Part III, Section 3.4.3
Equipment requirements and availability (R315-310-4(2)(c)(iii))	Appendix A Part II & Part III
Identification of borrow sources for daily and final cover and for soil liners (R315-310-4(2)(c)(iv))	Part III, Section 3.3

Utah Class I and V Permit Application Checklist

// Facility Technical Information	
Description of Item	Location In Document
Run-On and run-off diversion designs (R315-303-3(1)(c), (d) and (e))	Part III, Section 3.5
Leachate collection, treatment, and disposal and documentation to show that any treatment system is being or has been reviewed by the Division of Water Quality (R315-310-4(2)(c)(v) and R315-310-3(1)(i))	NA
Ground water monitoring plan that meets the requirements of Rule R315-308 including well locations, design, and construction (R315-310-4(2)(b)(x) and R315-310-4(2)(c)(vi))	Part II, Section 3.4.1 Appendix F
Landfill gas monitoring and control plan that meets the requirements of Subsection R315-303-3(5) (R315-310-4(2)(c)(vii))	Part III, Section 3.4
Slope stability analysis for static and under the anticipated seismic event for the facility (R315-310-4(2)(b)(i) and R315-302-1(2)(b)(ii))	Part III, Section 3.1.2.2 Appendix I
Design and location of run-on and run-off control systems (R315-310-4(2)(c)(viii))	Appendix I
II d. Closure Plan for All Class I and V Landfills (R315-310-3(1)(h))	
Closure Plan (R315-302-3(2) and (3))	Part III, Section 4
Closure schedule (R315-310-4(2)(d)(i))	Part III, Section 4
Design of final cover (R315-303-3(4) and R315-310-4(2)(c)(iii))	Part III, Section 3.3.3.2
Capacity of site in volume and tonnage (R315-310-4(2)(d)(ii))	Appendix D
Final inspection by regulatory agencies (R315-310-4(2)(d)(iii))	Part III, Section 4.4.3
II e. Post-Closure Care Plan for All Class I and V Landfills (R315-310-3(1)(h))	
Post-Closure Plan (R315-302-3(5) and (6))	Part III, Section 5
Site monitoring of landfill gases, ground water, and surface water, if required (R315-310-4(2)(e)(i))	Part III, Section 5.2.2
Changes to record of title, land use, and zoning restrictions (R315-310-4(2)(e)(v))	Part III, Section 5.2.1
Maintenance activities to maintain cover and run-on/run-off control systems (R315-310-4(2)(e)(iii))	Part III, Section 5.2.3
List the name, address, and telephone number of the person or office to contact about the facility during the post-closure care period (R315-310-4(2)(e)(vi))	TBD
II f. Financial Assurance for All Class I and V Landfills (R315-310-3(1)(j))	
Identification of closure costs including cost calculations (R315-310-4(2)(d)(iv)) and (R315-302-2(2)(n))	Appendix M
Identification of post-closure care costs including cost calculations (R315-310-4(2)(e)(iv))	Appendix M
Identification of the financial assurance mechanism that meets the requirements of Rule R315-309 and the date that the mechanism will become effective (R315-309-1(1))	Part III, Section 7



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Alan Matheson
Executive Director

DIVISION OF WASTE MANAGEMENT
AND RADIATION CONTROL
Scott T. Anderson
Director

August 19, 2015

Randy Moulding, President
Moulding Investments, LLC
10485 West 900 South
Ogden, UT 84404

RE: Franklin Hill Regional Landfill Permit Application Review

Dear Mr. Moulding:

The Division of Solid and Hazardous Waste has completed its review of the Franklin Hill Regional Landfill permit application. In general, the application is well prepared. The following information items and revisions to the application are needed before a draft permit can be issued.

1) Ecologically Significant Natural Areas

Part III, p. 11 of the permit application indicates that the Utah Division of Wildlife Resources has determined that the proposed landfill site is “crucial” habitat for chukar, sharp-tailed grouse and mule deer, as well as “substantial” habitat for Hungarian partridge and pronghorn.

Location standards for disposal facilities in the Solid Waste Permitting and Management Rules state that no new facility shall be located within “ecologically and scientifically significant natural areas” (R315-302-1(2)(a)(ii) Utah Administrative Code).

The Permit application needs to provide evidence that “crucial” and “substantial” habitats are not ecologically significant natural areas.

2) Historic Preservation Survey Requirement

Part III, p. 12 of the permit application states that the proposed landfill “site is not located on any known archeological sites,” although no archeological survey has been performed. The State Historical Preservation Officer (SHPO) has been contacted by the applicant to determine if any additional study is needed.

The solid waste rules require that either a notice of concurrence be issued by the SHPO or that the applicant show that the SHPO did not respond within 30 days to the submittal of an evaluation (R315-

302-1(2)(f)(i)(A) and (B) of the Utah Administrative Code). Because no survey or evaluation of the site was submitted to the SHPO, concurrence from the SHPO regarding the lack of archeological sites will be necessary for the permit application to be considered complete.

3) Leachate Collection

Drawing 3, Landfill Excavation in Appendix A shows three phases of landfill development. A single leachate sump is shown in the southeast corner of Phase 2. The application needs to indicate where leachate and run-off that has come into contact with waste generated during Phase 1 will be collected, in the years prior to excavation of Phase 2.

4) Run-Off Control

Part III, pp. 23 and 27 address run-off from the final cover to be managed by a combination of ditches and berms associated with access roads on the final cover. The drawing of the final cover (Drawing 4, Appendix A) does not show any of these features. While it is understood that, prior to construction of the cover, an engineering design package will be submitted, a final cover drawing showing the general configuration of the erosion control features would be helpful. Please provide a revised drawing that shows the approximate layout of access roads and ditches.

5) Animals

In the Permit Application Checklist, the box for animals under Waste Types is checked (Part I, Section VIII). However, the permit application states that no dead animals will be accepted at the Landfill (Part II, p. 10). Please clarify this discrepancy.

6) Farmland

Appendix K of the permit application includes the USDA Soil Resource Report for Box Elder County, Eastern Part. The report shows two areas with a farmland classification of "Farmland of statewide importance." These areas cover 102.7 acres of the 228.6 acres proposed for the Landfill, or 45 percent. The Red Rock silt loam (RdA) constitutes 99.2 acres, or 43.4 percent, of the site and covers much of the northern and central parts, extending across the site from the west boundary to the east boundary.

The location standards in the solid waste rules prohibit any new facility from being located within "farmland classified or evaluated as 'prime,' 'unique,' or of 'statewide importance' " by the USDA under the Prime Farmland Protection Act (R315-302-1(2)(a)(iii) of the Utah Administrative Code). For a solid waste permit to be issued for this site, Moulding Investments must apply to the Director for an exemption to this location standard, as described in R315-302-1(3) of the Utah Administrative Code.

If you have any questions, please call Phil Burns at (801) 536-0253.

Sincerely,



Scott T. Anderson, Director
Division of Waste Management and Radiation Control

STA/PEB/kl

c: Lloyd C. Berentzen, MBA, Health Officer, Bear River Health Department
Grant Koford, EHS, Environmental Health Director, Bear River Health Department
Brett Mickelsen, IGES

JUL 26 2016

July 25, 2016

DSHW-2016-011655

Mr. Scott T. Anderson, Director
Utah Division of Solid and Hazardous Waste
Department of Environmental Quality
State of Utah
195 North 1950 West
P.O. Box 144880
Salt Lake City, Utah 84114-4880

RE: Franklin Hill Regional Landfill Permit Application Review

Dear Mr. Anderson,

This letter is a response to your letter of August 19, 2015 regarding the review of the Franklin Hill Regional Landfill permit application. As indicated in your letter there are six items that required additional information. The six items and associated responses to those items are as follows:

1) Ecologically Significant Natural Areas

Part III, p. 11 of the permit application indicates that the Utah Division of Wildlife Resources has determined that the proposed landfill site is "crucial" habitat for Chukar, sharp-tailed grouse and mule deer, as well as "substantial" habitat for Hungarian partridge and pronghorn.

Location standards for disposal facilities in the Solid Waste Permitting and Management Rules state that no new facilities shall be located within "ecologically and scientifically significant natural areas" (R315-302-1(2)(a)(ii) Utah Administrative Code).

The Permit application needs to provide evidence that "crucial and "substantial" habitats are not ecologically significant natural areas.

Response:

The April 14, 2014 response from Sarah Lindsey, Information Manager, Utah Natural Heritage Program stated that "The Utah Division of Wildlife Resources (UDWR) does not have records of occurrence for any threatened, endangered, or sensitive species within the project area noted above. However, within a two-mile radius there are recent records of occurrence for burrowing owl and short-eared owl."

Staff from the UDWR reviewed the landfill permit application and visited the project site in order to address several potential wildlife concerns. A letter from Kathleen Clarke, Director of the Public Lands Policy Coordinating Office dated February 22, 2016 provided the comments from the UDWR personnel. The technical comments from UDWR staff indicate "UDWR does not find the proposed project to be especially harmful to wildlife if proper practices are employed". A copy of the February 22, 2016 letter is included as Attachment 1.

2) Historic Preservation Survey Requirements

Part III, p. 12 of the permit application states that the proposed landfill "site is not located on any known archeological sites," although no archeological survey has been performed. The State Historical Preservation Officer (SHPO) has been contacted by the applicant to determine if any additional study is needed.

The solid waste rules require that either a notice of concurrence be issued by the SHPO or that the applicant show that the SHPO did not respond within 30 days to the submittal of an evaluation (R315-302-1(2)(f)(i)(A) and (B) of the Utah Administrative Code). Because no survey or evaluation of the site was submitted to the SHPO, concurrence from the SHPO regarding the lack of archeological sites will be necessary for the permit application to be considered complete.

Response:

A site specific archeological survey was performed on the site by Wendy Simmons Johnson of Sagebrush Consultants during November of 2015. The results of the archeological survey (Cultural Resource Survey of the Franklin Hill Regional Landfill Permit Project) was that the "construction of this project will have No Adverse Effect to historic properties. A copy of the archeological survey was sent to the State Historical Preservation Officer (SHPO) on June 24th of 2016. A copy of the submittal to the SHPO that includes the Cultural Resource Survey of the Franklin Hill Regional Landfill Permit Project is included as Attachment 2. Attachment 3 is the response from the Utah Division of State History, Deputy State Historic Preservation Officer that indicates concurrence with the No Adverse Effect presented in the Cultural Resource Survey.

3) Leachate Collection

Drawing 3, Landfill Excavation in Appendix A shows three phases of landfill development. A single leachate sump is shown in the southeast corner of Phase 2. The application needs to indicate where leachate and run-off that has come into contact with waste generated during Phase 1 will be collected, in the years prior to excavation of Phase 2.

Response:

Drawing 3, Landfill Excavation of Appendix A has been modified to show a leachate pond in Phase 1. Phase 2 of the landfill will have a leachate sump that will pump leachate out of Phase 2 to the Long-Term leachate storage pond. The updated Drawing 3 is included as Attachment 4.

4) Run-Off Control

Part III, pp. 23 and 27 address run-off from the final cover to be managed by a combination of ditches and berms associated with access roads on the final cover. The drawing of the final cover (Drawing 4, Appendix A) does not show any of these features. While it is understood that, prior to construction of the cover, an engineering design package will be submitted, a final cover drawing showing the general configuration of the erosion control features would be helpful. Please provide a revised drawing that shows the approximate layout of access roads and ditches.

Response:

Drawing 4 was intended to show the cover geometry and serve as a reference for the elevations shown on Drawing 6 and Drawing 7. The location of the final cover access roads (with

associated run-on/run-off berms/ditches) as well as the locations of drop structures are presented on a modified Drawing 9, Surface Run-Off Controls. The updated Drawing 9 is included as Attachment 5.

5) Animals

In the Permit Application Checklist, the box for animals under Waste Types is checked (Part I, Section VIII)> However, the permit application states that no dead animals will be accepted at the Landfill (Part II, p. 10). Please clarify this discrepancy.

Response:

The Checklist box for animals under Waste Types was inadvertently checked, no dead animals will be accepted at the landfill.

6) Farmland

Appendix K of the permit application includes the USDA Soil Resource Report for Box Elder County, Eastern Part. The report shows two areas with a farmland classification of "Farmland of statewide importance". These areas cover 102.7 acres of the 228.6 acres proposed for the Landfill, or 45 percent. The Ted Tock silt loam (RdA) constitutes 99.2 acres, or 43.4 percent, of the site and covers much of the northern and central parts, extending across the site from the west boundary to the east boundary.

The location standards in the solid waste rules prohibit any new facility from being located within "farmland classified or evaluated as 'prime', 'unique', or of 'statewide importance'" by the USDA under the Prime Farmland Protection Act (R315-302-1(2)(a)(iii) of the Utah Administrative Code). For a solid waste permit to be issued for this site, Moulding Investments must apply to the Director for an exemption to this location standard, as described in R315-302-1(3) of the Utah Administrative Code.

Response:

A site specific Farmland Assessment for Proposed Franklin Hill Regional Landfill (Farmland Assessment) was performed by SWCA Environmental Consultants in the spring of 2016. The SWCA Farmland Assessment presents the history of the USDA Farmland Protection Policy Act (FPPA) and the intended scope of the programs policies and procedures. The FPPA was established "to minimize the impact of federal programs on the irreversible and unnecessary conversion of farmland to nonagricultural uses". The FPPA program does not authorize the federal government to regulate the use of nonfederal or private land or to affect property rights of owners (NRCS 2016a).

Moulding Investments LLC (Moulding) owns 2,200 acres of property at the Franklin Hill vicinity with only 225 acres associated with the potential landfill. None of the 2,200 acres will be utilized for farming, the property will be utilized for grazing cattle and to support wildlife habitat. As mentioned in the letter from the Public Lands Policy Coordinating Office (Attachment 1), "The project proponent has enhanced approximately 800 acres of dry farm surrounding the 200-acre proposed landfill site with a seed mix which will be beneficial to wildlife". In addition to reseeding hundreds of acres of the site with a wildlife seed mix, Moulding has constructed a stock watering system that includes over 17,000' of HDPE pipe, 4 stock watering troughs and a 10,000-gallon water tank to support grazing operations.

The SWCA Farmland Assessment presents the percentage of the proposed landfill site that is listed as either prime if irrigated, farmland of statewide importance, farmland of local importance or land that is not designated as farmland. Table 1 of the SWCA Farmland Assessment presents the NRCS Farmland designations for the proposed landfill, the HUC-12 (Headwaters Hansel Valley Wash) watershed, and Box Elder County. The Farmland Assessment for Proposed Franklin Hill Regional Landfill is included as Attachment 6.

Moulding Investments requests that an exemption to the location standards be given for the following reasons:

- The FPPA was established to govern federal projects not to regulate private land or affect the property rights of land owners.
- The property is not irrigated, not used for farming, and is being transformed to support cattle grazing (wildlife habitat) as demonstrated by the construction of the stock watering system and the revegetation efforts in the surrounding ground.
- The amount of property associated with the landfill is a small amount (2.1%) of the HUC-12 watershed and only 0.05% of the mapped acres of Farmland of Statewide importance in Box Elder County.

If you or members of your staff have any questions regarding this response to the Franklin Hill Regional Landfill Permit Application Review, please call at your earliest convenience.

Respectfully submitted,



Randy Moulding, President
Moulding Investments, LLC

Cc: Brett Mickelson, P.E., IGES

ATTACHMENT 1



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
*Lieutenant
Governor*

Office of the Governor
PUBLIC LANDS POLICY COORDINATING OFFICE

KATHLEEN CLARKE
Director

February 22, 2016

Sent via electronic mail: standerson@utah.gov

Scott T. Anderson
Director
Utah Division of Waste Management Radiation Control
P.O. Box 144880
Salt Lake City, UT 84114-4880

Subject: Franklin Hill Regional Landfill Permit Applications
Box Elder County

Dear Mr. Anderson:

The Public Lands Policy Coordinating Office provides the Utah Division of Waste Management and Radiation Control (Dshw) the attached comments as requested from the Utah Division of Wildlife Resources (UDWR) by the proponent for the Franklin Hill Regional Landfill in order to address several potential wildlife concerns with the project. UDWR reviewed the landfill permit application, as well as visited the site with the project proponent and their consultant.

Thank you for the opportunity to characterize the values of the sage-grouse and other wildlife habitat considerations. Please direct any questions regarding this correspondence to the Public Lands Policy Coordinating Office at the address below, or call to discuss any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Kathleen Clarke", written over a horizontal line.

Kathleen Clarke
Director

cc: Phil Burns, Dshw
pburns@utah.gov

Technical Comments

Franklin Hill Regional Landfill

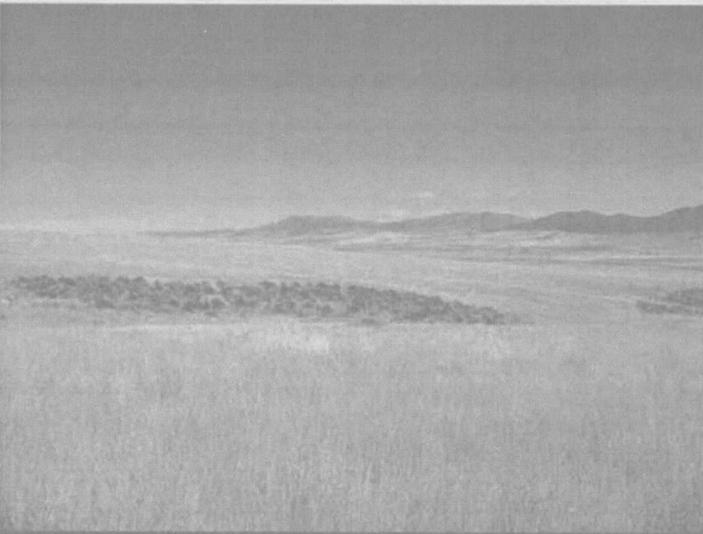
The project proponent has enhanced approximately 800 acres of dry farm surrounding the 200-acre proposed landfill site with a seed mix which is beneficial to wildlife. In addition, the proponent has drilled a water well and constructed a pipeline with 4 water troughs for livestock and wildlife use. The majority of this property is sagebrush-steppe habitat. Although the area has been managed as a dry farm in the past, it provides important mule deer winter range during high snow years.

A Columbian sharp-tailed grouse lek historically occurred on adjacent property north of the landfill site, although that lek is no longer active. UDWR biologists do not know whether the lek has shifted to an alternate location or simply been abandoned. Sharp-tailed grouse may or may not be using nearby areas at present. A greater sage-grouse lek and associated nesting habitat are located several miles north of the site, although this vicinity does not occur in a Sage Grouse Management Area ("SGMA") as identified in the *Conservation Plan for Greater Sage-grouse in Utah*. Like sharp-tailed grouse, the sage-grouse may not be using the area immediately surrounding the proposed landfill. Greater sage-grouse and Columbian sharp-tailed grouse are both considered "Species of Greatest Conservation Need" in the *Utah Wildlife Action Plan (2015-2025)*. UDWR and other partners are striving to benefit both of these species when possible.

UDWR does not find the proposed project to be especially harmful to wildlife if proper practices are employed. However, the project may displace and disturb wildlife species. To minimize impacts of the project on wildlife, the following mitigation measures could be considered in association with issuance of the landfill permit:

- The standard vector control for burrowing animals should be modified to include the control of avian predators, and specifically corvids (ravens, crows, magpies) which can prey upon the eggs and even the young of both species of grouse using the broader area.
- Allow one water trough to remain full following livestock removal from the property, if feasible. This will provide surface water to benefit wildlife during the later fall months.
- Allow the sagebrush in the 800 acres of restored habitat to grow and mature into a condition where it provides 15-20% canopy cover. This will improve understory conditions and provide better cover to hide grouse nests if Columbian sharp-tailed grouse or greater sage-grouse are then using the property.
- Reclamation for the landfill and all disturbance activities should use the attached sharp-tailed grouse seed mix which will provide balanced benefits for multiple wildlife species.
- The 800 acres of wildlife habitat improvements should remain in place for the life of the landfill to continue to provide wildlife habitat and offset disturbance impacts.
- Night-time lighting should be greatly reduced, if used at all, to reduce impacts to night-migrating birds.

Guidelines for the Management of
Columbian Sharp-tailed Grouse
Populations and their Habitats



A Product of the **Western Agencies Sage and Columbian Sharp-tailed Grouse Technical Committee**

Sponsored by the **Western Association of Fish and Wildlife Agencies**

2015

Table 11. Recommended plant species for Conservation Reserve Program lands within occupied and potential range of Columbian sharp-tailed grouse in the western United States¹.

Category and scientific name	Common name	Status
Grasses ²		
<i>Nassella viridula</i>	Green needlegrass	Native
<i>Pseudoroegneria spicata</i>	Bluebunch wheatgrass	Native
<i>Elymus trachycaulus</i>	Slender wheatgrass	Native
<i>Bromus marginatus</i>	Mountain brome	Native
<i>Leymus cinereus</i>	Basin wildrye	Native
<i>Festuca idahoensis</i>	Idaho fescue	Native
<i>Poa secunda</i>	Sandberg bluegrass	Native
<i>Poa secunda</i> (formerly, <i>P. ampla</i>)	Sherman big bluegrass	Native
<i>Poa fendleriana</i>	Muttongrass	Native
<i>Achnatherum hymenoides</i>	Indian ricegrass	Native
<i>Elymus elymoides</i>	Squirreltail	Native
<i>Melica bulbosa</i>	Oniongrass	Native
<i>Elymus wawawaiensis</i>	Snake River wheatgrass	Native
Forbs ²		
<i>Medicago sativa</i>	Alfalfa	Introduced
<i>Vicia americana</i>	American vetch	Native
<i>Astragalus cicer</i>	Chickpea milkvetch	Introduced
<i>Balsamorhiza sagittata</i>	Arrowleaf balsamroot	Native
<i>Hedysarum boreale</i>	Utah sweetvetch	Native
<i>Onobrychis viciifolia</i>	Sainfoin	Introduced
<i>Lupinus argenteus</i>	Silvery lupine	Native
<i>Sanguisorba minor</i>	Small burnet	Introduced
<i>Eriogonum umbellatum</i>	Sulphur-flower buckwheat	Native
<i>Linum lewisii</i>	Lewis flax	Native
<i>Penstemon strictus</i>	Rocky Mountain penstemon	Native
<i>Trifolium</i> spp.	Clover	Native
<i>Crepis acuminata</i>	Tapertip hawkbeard	Native
<i>Polygonum</i> spp.	Knotweed	Native
Shrubs ²		
<i>Artemisia tridentata</i>	Big sagebrush	Native
<i>Amelanchier</i> spp.	Serviceberry	Native
<i>Prunus virginiana</i>	Chokecherry	Native
<i>Rosa woodsii</i>	Woods' rose	Native
<i>Ericameria nauseosa</i>	Rubber rabbitbrush	Native

¹See Monsen (2005) and Benson et al. (2011) for additional seed mixes and recommendations regarding site preparation, planting methods, and weed control.

²Grasses should comprise (by weight) 65–80% of the seed mixture, forbs 15–25%, and shrubs 3–5%.

ATTACHMENT 2



Intermountain GeoEnvironmental Services Inc.
4153 South 300 West Salt Lake City, Utah 84107 ~ T: (801) 270-9400 ~ F:(801)270-9401
www.igesinc.com

June 24, 2016

Chris Merritt
300 Rio Grande St.
Salt Lake City, UT 84101

RE: Franklin Hill Regional Landfill – Box Elder County

Chris,

IGES is completing a permit application with the State of Utah Division of Waste Management and Radiation Control (DWMRC) for a Class I landfill (Franklin Hill Regional Landfill) approximately 8 miles east of Snowville in Box Elder County, Utah (Lat.: 41.921429°N Long.: -112.582959°W).

During the review process for the Franklin Hill Regional Landfill (FHRL) Permit Application, the State of Utah had several items that needed to be clarified. The question that the State DWMRC personnel had regarding historic presentation is as follows:

Historic Preservation Survey Requirements

Part III, p. 12 of the permit application states that the proposed landfill “site is not located on any known archeological sites,” although no archeological survey has been performed. The State Historical Preservation Officer (SHPO) has been contacted by the applicant to determine if any additional study is needed.

The solid waste rules require that either a notice of concurrence be issued by the SHPO or that the applicant show that the SHPO did not respond within 30 days to the submittal of an evaluation (R315-302-1(2)(f)(i)(A) and (B) of the Utah Administrative Code). Because no survey or evaluation of the site was submitted to the SHPO, concurrence from the SHPO regarding the lack of archeological sites will be necessary for the permit application to be considered complete.

The submittal of the Cultural Resource Survey for the Franklin Hill Regional Landfill appears to not have been sent to your office for your review. A cultural survey of the proposed landfill site was performed by Wendy Simmons Johnson of Sagebrush Consultants in November of 2015. Please see the attached Cultural Resource Survey and IMACS Site Form.

If you concur with the **No Adverse Effect** results presented by Sagebrush Consultants, could you please let me know of your concurrence with this opinion? If you have any other questions about the proposed landfill project, would like to discuss the project further, or need additional information, please call me at your earliest convenience.

Respectfully submitted,

A handwritten signature in cursive script that reads "Brett Mickelson".

Brett Mickelson, P.E.
IGES, Inc.



Case No. _____

State Project No. U15SJ0792p

Report Title: A CULTURAL RESOURCE SURVEY OF THE FRANKLIN HILL REGIONAL LANDFILL PERMIT PROJECT
BOX ELDER COUNTY, UTAH

State Project No.: U15SJ0792p **Organization Project No.:** 2113

Report Date: 11/5/2015 **County(ies):** Box Elder

Report Author(s): Wendy Simmons Johnson

Principal Investigator: Wendy Simmons Johnson **Field Supervisor(s):** Wendy Simmons Johnson

Records search date(s): 10/20/2015 **Preservation Pro Used?** Yes No

Acres Surveyed: Intensive (≤ 15 m intervals): 225 **Recon/Intuitive (> 15 m intervals):** _____

USGS 7.5' Series Rattlesnake Pass, Utah (1968)
Map Reference(s):

SITES REPORTED	COUNT	SMITHSONIAN SITE NUMBERS
Revisits (no site form updates)		
Updates (updated site forms attached)		
New recordings (site forms attached)	2	42BO2212, 42BO2213
Total Count of Archaeological Sites in APE	2	42BO2212, 42BO2213
Historic Structures (structure forms attached)		
Total National Register Eligible Sites	1	42BO2212

- CHECKLIST OF REQUIRED ITEMS FOR SUBMITTAL TO SHPO**
- Copy of the final report
 - Copy of USGS 7.5' Series basemap with investigated area clearly identified
 - Completed site forms
 - IMACS Encoding Form
 - Site Sketch Map
 - Photographs adhering to UDSH standards
 - Copy of USGS 7.5' Series basemap with site location and Smithsonian site number clearly labeled
 - CD of digital report and site documents, including shapefiles (optional)
 - Completed "Cover Page" accompanying final report and form

For UDSH office use only

IMACS SITE FORM

PART A – ADMINISTRATIVE DATA

INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM

Form approved for use by
BLM – Utah, Idaho, Wyoming, Nevada
Division of State History – Utah, Wyoming
USFS – Intermountain Region
NPS – Utah, Wyoming

*1. State No.: 42BO2213
*2. Agency No.:
*3. Temp No.:

4. State: Utah County: Box Elder
5. Project:
*6. Report No.: Utah State Antiquities Project No. U15SJ0792 p/ Sagebrush Report No. 2113
7. Site Name/Property Name:
8. Class [] Prehistoric [X] Historic [] Paleontologic [] Ethnographic
9. Site Type: Historic Road
*10. Elevation: 5200 ft asl

*11. UTM Grid Zone 12 368847 mE 4642421 mN NAD83 north
Zone 12 368485 mE 4642000 mN NAD83 south
*12. SW of the NW of the NW of Section 30 T. 14N R. 6W
SE of the SE of the SW of Section 30 T. 14N R. 6W

*13. Meridian: Salt Lake (1)
*14. Map Reference: USGS 7.5' Quadrangle Rattlesnake Pass, Utah (1968)
*15. Aerial Photo: N/A

16. Location and Access: This site is located on private lands, and can only be accessed with owner permission, and access to gate keys. To get to the site, travel 8.94 miles southeast on HWY 30 from Snowville to a ranch exit. Turn north and then west, following the dirt road for 0.15 miles to a fenced dirt road. Turn north onto the road and travel 0.05 miles to a homestead. From there the trash scatter lies 1221 m to the northwest.

*17. Land Owner: Private
*18. Federal Administrative Units: N/A
*19. Location of Curated Materials: N/A

20. Site Description: This site consists of a segment of a historic road. The road has been abandoned for many years, and is mainly visible based on the different vegetation growing along the road. The road measures approximately 20-to-25 ft wide and 2040 ft long. The road disappears at the southern and northern ends of the project. This road may be the same as an unnamed road shown on the 1888 GLO map for this area. However, after differential correcting the GLO plat map, the GLO road location falls about 300 ft east of the current site. Despite the 300 ft difference, it is possible that this is the same road.

*21. Site Condition: [] Excellent [] Good [] Fair [X] Poor
*22. Impact Agent(s): This site has been impacted by wind water erosion, disuse, and agricultural activities.

*23. National Register Status: [] Significant [X] Non-Significant [] Unevaluated
Justify: This site consists of an unnamed historic GLO road. A 2040 ft long segment of this road was recorded in the current project area, but fades out at the northern and southern ends of the project. This road is unnamed on the 1888 GLO plat map. It is a local road, likely for farming or ranching access. This road cannot be associated with a significant event or pattern in our history, nor can it be associated with the life of a significant person. The site does not embody the distinctive characteristic of a type or method of construction, nor is it likely to contain subsurface deposits that could reveal additional information important to the understanding of the region. Therefore, this site is recommended Not Eligible under any criteria.

24. Photos: 2112:10-53
25. Recorded by: Wendy Simmons Johnson
*26. Survey Organization: Sagebrush Consultants *28. Survey Date: 10/28/2015
27. Assisting Crew Members:

List of Attachments: [] Part B [X] Topo Map [X] Photos [] Continuation Sheets
[X] Part C [] Site Sketch [] Artifact/Feature Sketch [] Other:
[] Part E

PART A – ENVIRONMENTAL DATA

State No.: 42BO2212
Agency No.:
Temp No.:

- *29. Slope: 0 (Degrees) Aspect: 0 (Degrees)
- *30. Distance to Permanent Water: 10.81 x 100 Meters
Type of Water Source: Spring/Seep Stream/River Lake Other
Name of Water Source: The nearest permanent water source is the well located 1081 m to the southeast of the site.
- *31. Geographic Unit: Hansel Mountains West Hills(BEM)
- *32. Topographic Location - See Guide for additional information:
Primary Landform: Valley (E) Secondary Landform: Valley (E)
Describe: This site is located in a valley of a former dry-farmed field
- *33. On-site Depositional Context: Alluvial
Description of Soil: Soils consist of a tan sandy-silt intermixed with a large amount of small-to-medium angular gravels.
34. Vegetation:
*a. Life Zone: Upper Sonoran (E)
*b. Community: Primary On-Site Secondary On-Site Surrounding Site
Describe: The site is situated in a sagebrush community species with a former wheat field full of introduced invasive thistle bushes and other plants located to the north and east of the site.
- *35. Miscellaneous Text:
36. Comments/Continuations:

Reference(s) Cited:

PART C – HISTORIC SITES

State No.: 42BO2213
Agency No.:
Temp No.:

1. **Site Type:** Historic Road
- *2. **Historic Themes:** Farming/Ranching
3. **Culture:** Cultural Affiliation Dating Method Cultural Affiliation Dating Method
 Euro-American Artifact Cross-dating
- Describe:** The type of road is of a known European-American style and time period.
- *4. **Oldest Date:** 1888 **Recent Date:** 1910
How Determined? This road is shown on a GLO map dating to 1888.
5. **Site Dimensions:** 621.8 m (N-S) x 7.62 m (E-W) ***Area** 4738.11 sq. m.
 * Area obtained using GIS data collected with a Trimble Juno GPS unit.

- *6. **Surface Collection/Method:** None (A) Designed Sample (C)
 Grab Sample (B) Complete Collection (D)
- Sampling Method:** None
- *7. **Estimated Depth of Fill:** Surface (A) 20-100 cm (C) Fill noted but unknown
 0-20 cm (B) 100 cm + (D) Depth Suspected, but not tested (F)
- How Estimated (if tested, show location on site map):** All artifacts appear to be surficial.
- *8. **Excavation Status:** Excavated (A) Tested (B) Unexcavated
- Testing Method:** N/A

- *9. **Summary of Artifacts and Debris (Refer to Guide for additional categories):**
- | | | | | |
|--------------------------------|-----------------------------------|-----------------------------------|-------------------------------------|---|
| <input type="checkbox"/> Glass | <input type="checkbox"/> Bone | <input type="checkbox"/> Leather | <input type="checkbox"/> Ammunition | <input type="checkbox"/> Domestic Items |
| <input type="checkbox"/> Metal | <input type="checkbox"/> Ceramics | <input type="checkbox"/> Wire | <input type="checkbox"/> Wood | <input type="checkbox"/> Kitchen Utensils |
| <input type="checkbox"/> Nails | <input type="checkbox"/> Fabric | <input type="checkbox"/> Tin Cans | <input type="checkbox"/> Rubber | <input type="checkbox"/> Car/Car Parts |
- Describe:** No artifacts were found in association with this road.

10. **Ceramic Artifacts:**
- | | | | | | |
|----------|--------------|-------------------|-------------------|----------------|-----------------------|
| # | Paste | Glaze/Slip | Decoration | Pattern | Vessel Form(s) |
|----------|--------------|-------------------|-------------------|----------------|-----------------------|
- a. **Estimated Number of Ceramic Trademarks:** N/A
Describe:

11. **Glass:**

#	Manufacture	Color	Function	Trademark(s)	Decoration

- Describe:**
12. **Maximum Density – #sq.m (glass and ceramics):** N/A

13. **Tin Cans:**

#	Type	Opening	Size	Modified	Label/Mark	Function

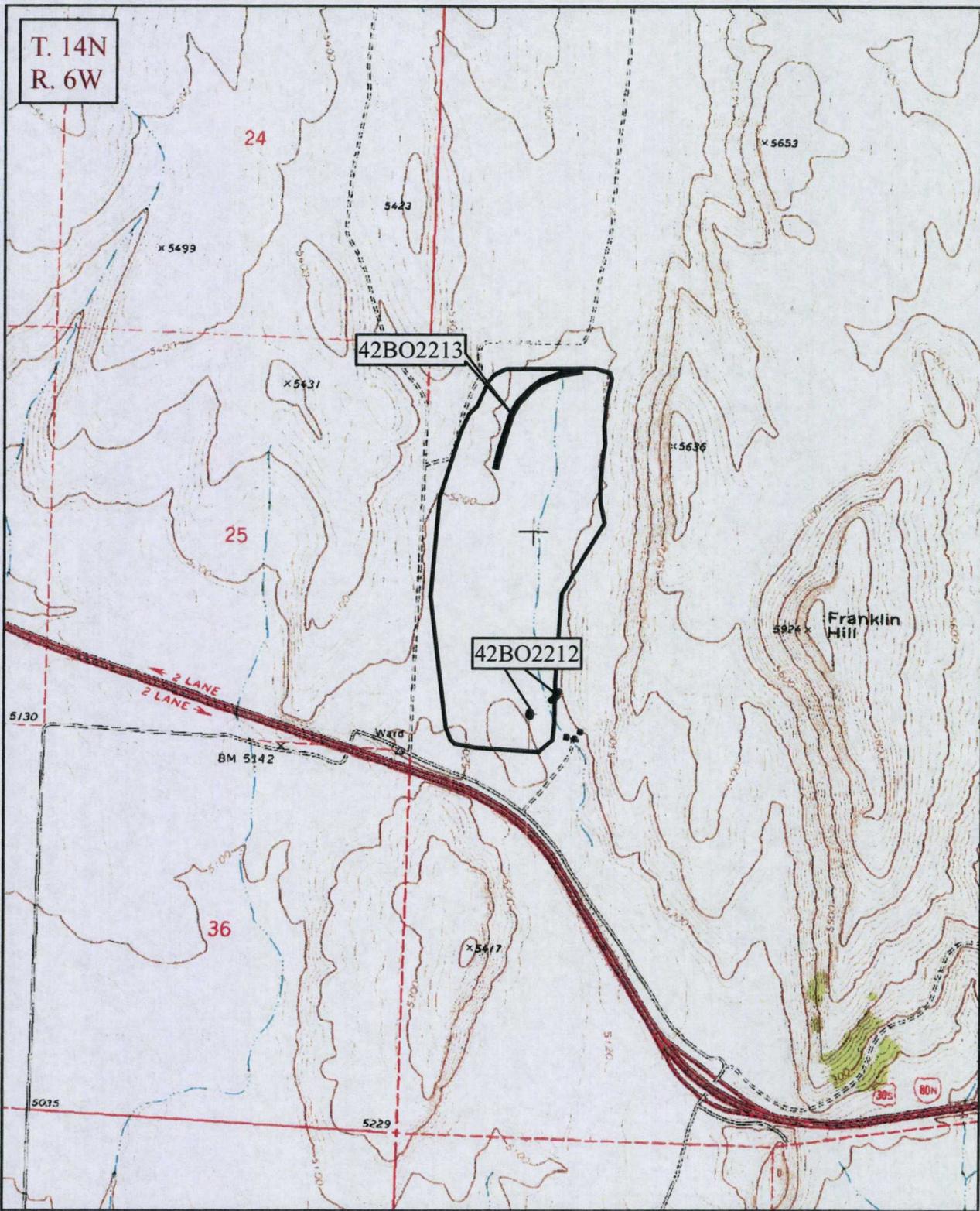
- Describe:**
- *14. **Landscape and Constructed Features (locate on site map) – (Refer to Guide for additional categories):**
- | | | | |
|--|--|---------------------------------------|--|
| <input checked="" type="checkbox"/> Trail/Road | <input type="checkbox"/> Dump | <input type="checkbox"/> Dam, Earthen | <input type="checkbox"/> Hearth/Campfire |
| <input type="checkbox"/> Tailings | <input type="checkbox"/> Depression | <input type="checkbox"/> Ditch | <input type="checkbox"/> Quarry |
| <input type="checkbox"/> Rock Alignment | <input type="checkbox"/> Cemetery/Burial | <input type="checkbox"/> Inscriptions | <input type="checkbox"/> Other: |

Describe: This site consists of a historic dirt road. It has been abandoned for many years and is mainly visible by its slight uplift in the valley and the vegetation differences. This road measures approximately 25 ft wide and 2040 ft long. It fades out at the northern end of the project area and at the southern end of the site.

- *15. **Buildings and Structures (locate on site map):**
- | | | | | | |
|----------|-----------------|-------------|----------|-----------------|-------------|
| # | Material | Type | # | Material | Type |
|----------|-----------------|-------------|----------|-----------------|-------------|
- Describe:**

16. **Comments/Continuations – Please make note of any Historic Record searches performed (for example – County Records, General Land Office, Historical Society, Land Management Agency Records, Oral Histories/Interview):**

Reference(s) Cited:



T. 14N
R. 6W

Location of sites 42BO2212 and 42BO2213.



Site 42BO2213. Overview of road; view to the southwest.



Site 42BO2213. Overview of historic road; view to the north-northeast.

1990

IMACS ENCODING FORM

Encoder's Name Wendy Simmons Johnson

To be completed for each site form
For Instructions and codes, see IMACS Users Guides

A

1	4 2	B O	2 2 1 3	2		6	5 2 2 0	11	1 2	3 6 8 8 4 7	4 6 4 2 4 2 1										
	State Site Number			Agency Site Number		Agency Report Number		Elevation		Zone		Easting		Northing							
12	S W	N W	N W	3 0	1 4	N	6	W	1 2	3 6 8 4 8 5	4 6 4 2 0 0 0										
	S E	S E	S W	3 0	1 4	N	6	W													
	1/4	1/4	1/4	Sec.	T.	R.															
13	1	14 R A T T L E S N A K E P A S S U T										17	P R								
	Merid.	USGS Map										Owner									
18			19		21	D	22	E R	G R	O T	23	D	26	S J	28	1 0	2 8	1 5	29	0	0 0 0
	Forest	Dist. Park	Loc. Curated Materials	Cond.	Impacts	N.R.	Organ.	Survey Date	Slope	Aspect											
30	1 0	D	31	B E M	32	E R	33	I	34	E Q Q U	35	N A D 8 3									
	Water distance/type	Geog. Unit	Topographic Location	1st	2nd	Dep.	Vegetation	Misc. Text/Site Name													

B

2		3		4		5		6		7				
Culture/Dating Method		Area		Collect	Depth	Excav. Status	Prehistoric Artifacts							
8		9		11		13		14						
Lithic Tools: #/type		#	Flaking Stages	Ceramics: #/type	Features: #/type	Architecture: #/material/type								

C

2	F R	3	E A I	4	1 8 8 8	1 9 1 0	5	4 7 3 8	6	A	7	A	8		9			
Historic Themes		Cultures/Dating Method		Dates		Area		Collect.	Depth	Excav. Status	Artifacts							
14	1 T R	15																
Features: #/type		Architecture: #/material/type																

**A CULTURAL RESOURCE SURVEY OF THE
FRANKLIN HILL REGIONAL LANDFILL PERMIT PROJECT
BOX ELDER COUNTY, UTAH**

by

Wendy Simmons Johnson
Principal Investigator

Prepared for:

Moulding Investments, LLC
10485 W 900 S
Ogden UT 84404

Prepared by:

Sagebrush Consultants
3670 Quincy Avenue, Suite 203
Ogden, Utah 84403

Utah State Antiquities Project No. U15SJ0792p

Utah Public Lands Policy Coordination Office Permit No. 58

Cultural Resource Report No. 2113

November 10, 2015

ABSTRACT

In October of 2015, Randy Moulding requested that Sagebrush Consultants complete a cultural resources inventory for the Franklin Hill Regional Landfill Project near Rattlesnake Pass in Box Elder County, Utah. This project consists of approximately 225 acres of land that will be used for a landfill. The project is located in T. 14 N., R. 6 W. Sec 30 on the USGS 7.5' Quadrangle Rattlesnake Pass, Utah (1968). The purpose of the cultural resources survey is to identify, record, and evaluate any cultural resources for eligibility to the NRHP. This survey was conducted under the authority of Public Lands Policy Coordination Office (PLPCO) Permit No. 58.

During this survey, two new historic sites (42BO2212 and 42BO2213) were documented. These sites have been evaluated for eligibility to the NRHP. Site 42BO2213, a historic road, was recommended NOT eligible to the NRHP. Site 42BO2212, a historic homestead site with two archaeological loci, was recommended Eligible. Locus 1 is recommended non-contributing and there should be no effect to this locus from construction of the project. Locus 2; however, is recommended contributing to the site and could potentially be effected by construction of the landfill project. This site is located partially within the western project boundary, and partially out of the project area. Because it lies along the boundary, Moulding Investments, Inc. is going to move the project boundary further to the west, so that this site will be avoided. Therefore, Sagebrush recommends that construction of this project will have **No Adverse Effect** to historic properties.

TABLE OF CONTENTS

ABSTRACT.....	ii
LIST OF TABLES.....	iii
LIST OF FIGURES.....	iii
PROJECT PURPOSE.....	1
ENVIRONMENT.....	1
RECORDS SEARCH.....	1
HISTORIC CONTEXT.....	3
METHODOLOGY.....	6
RESULTS.....	6
42BO2212 – Homestead Site.....	8
42BO2213 – Historic Road.....	8
RECOMMENDATIONS.....	8
42BO2212 – Homestead Site.....	9
42BO2213 – Historic Road.....	9
DISCUSSION OF EFFECTS.....	10
REFERENCES CITED.....	11

LIST OF TABLES

Table 1. Previously Completed Project within One Mile of the Current Project Area.....	1
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LIST OF FIGURES

Figure 1. Location of Project Area.....	2
Figure 2. Location of Sites 42BO2212 and 42BO2213.....	7

PROJECT PURPOSE

In October of 2015, Randy Moulding requested that Sagebrush Consultants complete a cultural resources inventory for the Franklin Hill Regional Landfill Project near Rattlesnake Pass, about seven miles west of Snowville, in Box Elder County, Utah. This project consists of approximately 225 acres of land that will be used for a landfill. The project is located in T. 14 N., R. 6 W. Sec 30 on the USGS 7.5' Quadrangle Rattlesnake Pass, Utah (1968). The purpose of the cultural resources survey is to identify, record, and evaluate any cultural resources for eligibility to the NRHP. This survey was conducted under the authority of Public Lands Policy Coordination Office (PLPCO) Permit No. 58.

ENVIRONMENT

The project area is located in Box Elder County near Rattlesnake Pass in a valley with Franklin Hill to the east and low ranging hills to the west. The elevation of the area surveyed is fairly flat at about 5200 ft a.s.l. Sediments consist of coarse tan sandy silts with a moderate content of small to medium-sized gravels. The project is situated in an area that was historically dry farmed. The area was allowed to lie fallow and invasive species have taken over. Vegetation consists of some remaining stalks of wheat and a large percentage of introduced weeds and thistle. Natural disturbance in the area consists primarily of wind and water erosion. Cultural disturbance includes road building, fence building, and agricultural development.

RECORDS SEARCH

Arie Leeflang, with the Antiquities Section, Division of State History, Utah State Historic Preservation Office (SHPO), in Salt Lake City, conducted a Geographical Information Systems (GIS) file search on October 20, 2015. Only one cultural resource project was identified within one mile of the current project area (Table 1).

Report #	Company	Project	Author and Date
U96NR0131	Northwest Archaeological Associates, Inc.	WorldCom Fiberoptic Seattle to Salt Lake City	Hudson Staff 1996

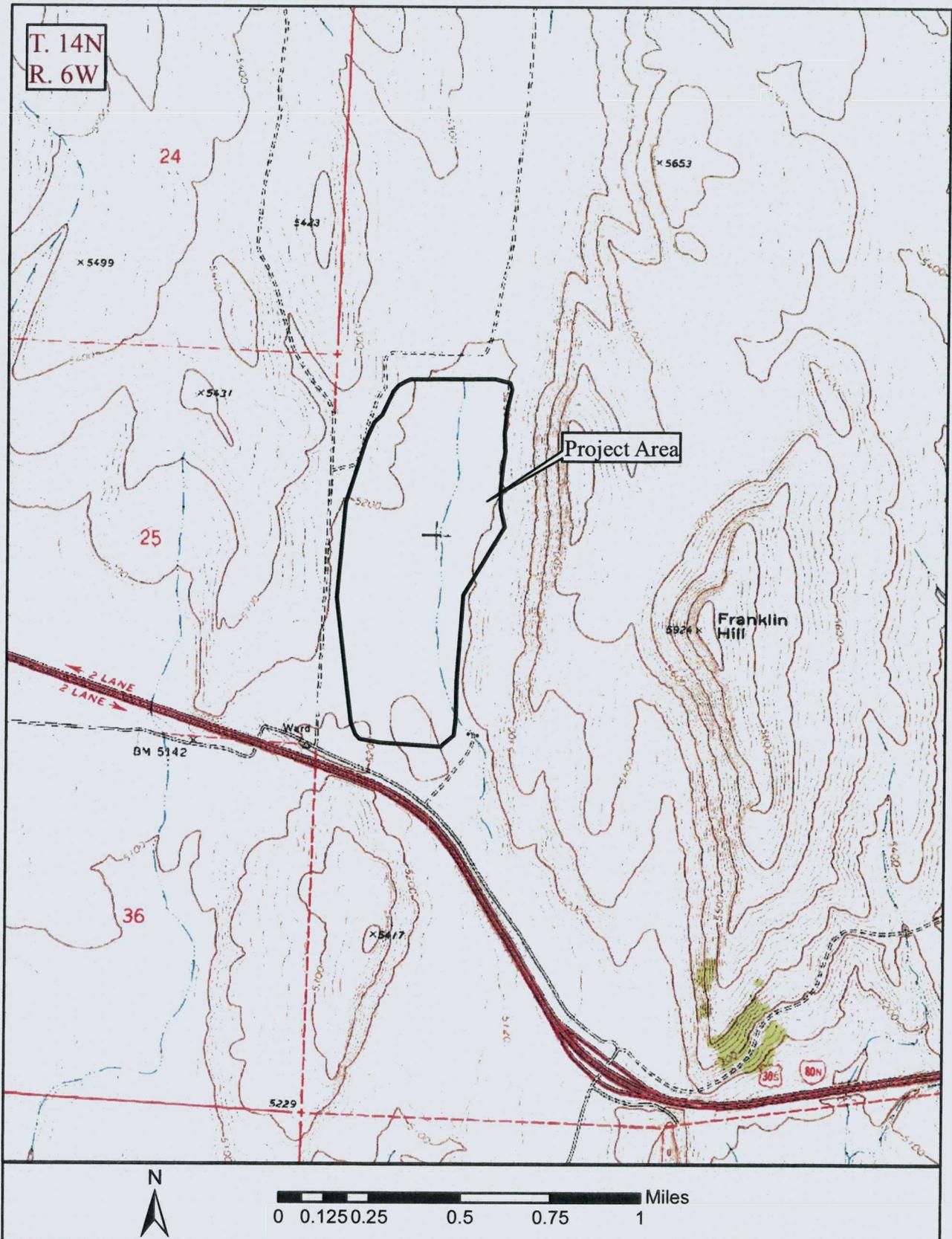


Figure 1. Location of Franklin Hill Regional Landfill Project. Taken from USGS 7.5' Quadrangle Rattlesnake Pass, Utah (1968).

No other cultural resource projects have been conducted in the vicinity of the current project area. The NRHP and General Land Office Cadastral Survey Plat Maps (GLO maps) were examined for historic resources plotted in the vicinity of the current project. One historic unnamed road was noted on the GLO map. No NRHP listed properties were noted in or near the current project.

HISTORIC CONTEXT

The earliest record of Euro-American incursion into the area coincides with the earliest exploration of Utah. The eastern and northern parts of present day Box Elder County were explored by fur trappers including Peter Skene Ogden and Joseph R. Walker as early as the 1820s and 1830s (Powell 1994:50). Hats made of beaver fur were popular in England and Europe in the early nineteenth century and were in great demand, so entrepreneurs rapidly formed fur companies to exploit the vast, untapped North American beaver supply (Bartlett and Goetzmann 1982:26-30). The area along the Bear River was explored by James Bridger and Jedediah Smith and was exploited by fur trappers "...until the streams were depleted of beaver, and the stylishness of beaver hats declined" (Huchel 1999:46). These trappers provided information about the native Shoshone inhabitants and reports of the region's fertile land and abundant water.

With the formation of the Western Emigration Society, organized in Missouri in 1841, there was a marked increase in emigration to Oregon and California. The first planned overland emigrant party to head for California was formed by John Bidwell and John Bartleson. Although the route the Bidwell-Bartleson party traveled in 1841 did not become the famed California Trail, sections of it were used by the Harlan-Young, Hoppe-Lienhard, and Donner-Reed parties in 1846, as well as several other wagon trains running through northern Utah in later years (DeLafosse 1994:34). In 1848, after a failed attempt at the Hasting's Cutoff of the California Trail, Samuel J. Hensley left Salt Lake City in search of another route. He forged around the north end of the Great Salt Lake and met up with the California Trail at Idaho's City of Rocks. Although the Bidwell-Bartleson party had been through the area in 1841, the route Hensley followed was used more frequently by emigrants in the following years (Korns and Morgan 1994:4-5). Hensley's route became known as the Salt Lake Cutoff, which cut through Pilot Springs, providing drinkable water to weary travelers. The Mormon Church took active measures to promote the route and developed ferries and bridges which the travelers were charged a fee to use. The route was very popular until 1857.

In response to difficulties with the Mormon-run territorial government under Brigham Young, "President Buchanan dispatched federal troops to Utah, and the approach of Johnston's Army put a pox on overland travel via the City of the Saints." (DeLafosse 1994: 97) In 1849, Captain Howard Stansbury passed through the southern portion of the Curlew Valley during his reconnaissance of the Great Salt Lake for the Corps of Topographical Engineers. Stansbury's Party created some of the first maps of the Great Salt Lake and surrounding region (Madsen 1989; Utah State Historical Society 1998).

The 1847 arrival of Mormon pioneers in the Salt Lake Valley brought about the rapid settlement of surrounding lands before outsiders could move in. Settlement in present day Box Elder County began within sixteen days of their arrival in Utah when Mormon leader Brigham Young sent out scouts to explore the surrounding lands. Orrin Porter Rockwell homesteaded what became known as Porter Spring in 1849, and was followed by others in the fall of 1850 who created Davis Fort. By 1852, at the location of present day Brigham City, Davis Fort had nearly 1400 residents (Huchel 1999: 55-57). Within a year, the Mormon Church had sent in more settlers to strengthen the community along with a large wave of new converts from Denmark, Sweden, and Norway. This Mormon settlement on traditional Shoshone homelands resulted in raids by Shoshone bands in the ensuing years. The fort became a haven for the white settlers, who only ventured outside its confines to tend to crops or livestock. In 1852, a slight decrease in hostilities led the residents of the fort to move onto farm plots which had been laid out the previous year. The Shoshone raids resumed in 1853, and Brigham Young ordered the settlers to return to the fort. In addition to the original occupants, about two dozen more families had made their homes at Davis Fort by that time (Tullidge 1889:291). In order to strengthen and develop the small settlement, Brigham Young ordered Mormon leader Lorenzo Snow to take 50 families from the Salt Lake Valley to Box Elder, as the settlement is now called, in 1854. The new settlers were specially selected to include a schoolteacher, a mason, carpenters, blacksmiths, and other skilled craftsmen who would ensure the economic success of the community (Arrington 1964:200). The area was known as Brigham City by 1855 (Huchel 1999: 63-71).

With the influx of additional settlers, residents of Brigham City resumed the establishment of farms. Hostilities between whites and the Shoshone increased once again in the early 1860s throughout northern Utah, due to the increasing number of farmers settling in the area and mining parties passing through on their way to Montana. Under the leadership of Chief Bear Hunter, the Shoshone struck back in 1862, raiding Mormon cattle herds and attacking miners. Conflict culminated the following year in the Battle of Bear River. During the battle soldiers dispatched from Camp Douglas in Salt Lake City killed at least 250 Shoshone men, women and children, along with Chief Bear Hunter, near the village of Franklin, Idaho (Christensen 1999:41). The remainder of his band, along with nine other Shoshone bands, signed the Treaty of Box Elder in July of 1863. With the signing of the treaty, Shoshone and white relations began to improve, bringing peace to the region (Powell 1994:498).

The completion of the transcontinental railroad in 1869 at Promontory provided the opportunity to export local goods to outside markets. In order to consolidate the northern Utah Mormon settlements and provide a market for their agricultural and manufactured products, Mormon officials proposed a railroad connecting Brigham City with Ogden, Logan, and Franklin, Idaho (Arrington 1958:283). Seventeen leading church and business leaders of northern Utah organized the Utah Northern Railroad in 1871. The company broke ground in a ceremony held in Brigham City and by July of 1872 freight and passenger trains were running twice daily from Brigham City to Hampton's Station, on the edge of the Cache Valley, twenty-three miles away. In 1874 the line from Brigham City to Ogden was completed, linking Brigham City with the Union Pacific and Utah Central lines (Arrington 1958:284). Between the services of the Central Pacific and the Utah Northern Railroads, citizens of rural Box Elder County were provided new opportunities to both receive and transport goods and services.

The Central Pacific segment of the Transcontinental Railroad was built from east to west around the northern tip of the Great Salt Lake, and through the central portion of Box Elder County. Railroad stations along this line became the center of activity and commerce in rural Box Elder County. The station at Kelton became an important starting point for travelers heading north into Idaho (Crofutt 1880:138), and remained important through the construction of the Lucin Cutoff of the Transcontinental Railroad in 1903. In 1869, a Post Office was established at Kelton (Robertson 1986:15). The Utah-Idaho Stage Road was used as a primary mail route by the Utah, Idaho, and Oregon Stage Company heading north from the Central Pacific railhead at Kelton, Utah and on into Idaho (Raymond and Fike 1981:69; Forsgren 1937:20). After construction of the Lucin Cutoff in 1903, railroad traffic to Kelton decreased. In 1942 the tracks to Kelton were removed and recycled for the war effort (Carr 1972:11). As a result, Kelton was abandoned, eventually becoming a railroad ghost town. The stage road appears to have been used, at some level, from ca. 1869 to ca. 1942.

The transcontinental railroad also increased the number and influence of non-Mormons in Utah. The town of Corrine, six miles west of Brigham City, was established in 1869 on the Union Pacific line by non-Mormons in an attempt to break the political and economic monopoly held by Mormons in Utah. Completion of the Utah Northern line from Ogden to Franklin, Idaho effectively cut off Corrine as a link for the shipment of goods to the mining towns of western Montana and by 1879 most non-Mormons had left the town (Powell 1994:118).

One of the first large-scale industrial projects in the county was the Ogden Portland Cement Company plant, which opened northwest of Brigham City in 1909 (Forsgren 1937:31). By 1913 the plant was producing 700 barrels of cement a day. It ceased operation sometime prior to 1937, either because of a fire (Forsgren 1937:53-54) or because the owners put their resources into operations in Ogden (Chestnutwood 1950:119).

Another major industrial development in Box Elder County came with the success of the sugar beet industry. In 1903 the Utah-Idaho Sugar Company opened a factory in Garland and expanded rapidly during its initial years of operation. By 1915 the plant was harvesting over 125,000 tons of beets per year. The company expanded its operation in 1916, opening a factory in Brigham City (Forsgren 1937:53-54). The sugar beet industry declined during a post-World War I agricultural depression and the Great Depression of the 1930s. As a result, the Brigham City factory ceased operation in 1933 (Forsgren 1937:54).

With industrial growth in the eastern portion of the county, an urban transportation network began to develop in the Brigham City area. In 1904 a system of street cars began operating in Brigham City. Six years later the Ogden Rapid Transit Company brought rail service through the center of Brigham City (Forsgren 1937:38). In 1914 this company merged with a company in Logan to form the Ogden, Logan & Idaho Railway, and the new company constructed a 44-mile line connecting Brigham City and Logan (Carr and Edwards 1989:23). The company relocated the track running through the center of Brigham City to a corridor on the west side of town (Forsgren 1937:38). Several railroads operated the line until 1947, when the Utah Idaho Central Railroad Corporation abandoned it and scrapped large portions of the track (Robertson 1986:303).

The Box Elder County economy languished during the Great Depression which gripped the nation in the 1930s. As previously mentioned, the sugar beet industry was adversely affected, contributing to the demise of the Utah-Idaho Sugar Factory in Brigham City in 1931. Because agriculture remained the dominant segment of the economy, Box Elder County did not suffer as severely as other counties in Utah that relied more on manufacturing. Throughout the 1930s, Box Elder County remained reliant on agricultural and livestock production for its livelihood. Comparatively few emergency relief measures were enacted; in 1933 Box Elder County had the lowest relief expenditure in Utah at \$2.31 per capita (Bluth and Hinton 1989:487).

The massive mobilization during World War II helped to revive the local county economy. Demand for agricultural products soared and the community enjoyed the benefits of increased employment. The opening of the Thiokol Chemical plant in 1950 significantly fueled post-war growth in the county. The manufacturer of the Minuteman missile and the space shuttle booster rockets represented the largest manufacturing enterprise in the history of Box Elder County (Powell 1994: 52). By 1988, Thiokol was employing 5,000 people at the Brigham City facility (Utah State Historical Society 1998:5). Other large industrial facilities operating in Box Elder County today include Morton International, Colorado Steel, Nucor, and Vulcraft.

The present day project location has not changed much, and remains a rural agricultural and ranching area. The emigrant trails and historic roads that crossed through the valley leave faint traces of a time when traveling great distances was an adventure of courage and hope for a better life in the West.

METHODOLOGY

The entire project area was surveyed at an intensive Class III level. The project consists of about 225 acres of privately-owned lands. The project was surveyed in late October of 2015 by Wendy Simmons Johnson. The entire area was walked in parallel transects spaced no more than 15 m (50 ft) apart, where vegetation allowed. Cultural resource sites identified during the survey were mapped using a differentially correctable Trimble GeoHT. Sites were recorded on Intermountain Antiquities Computer System (IMACS) forms.

RESULTS

Sagebrush conducted a Class III cultural resource inventory for the Franklin Hill Regional Landfill Project in Box Elder County, Utah. During this survey, two new sites (42BO2212 and 42BO2213) were documented and evaluated for eligibility to the NRHP (Figure 2).

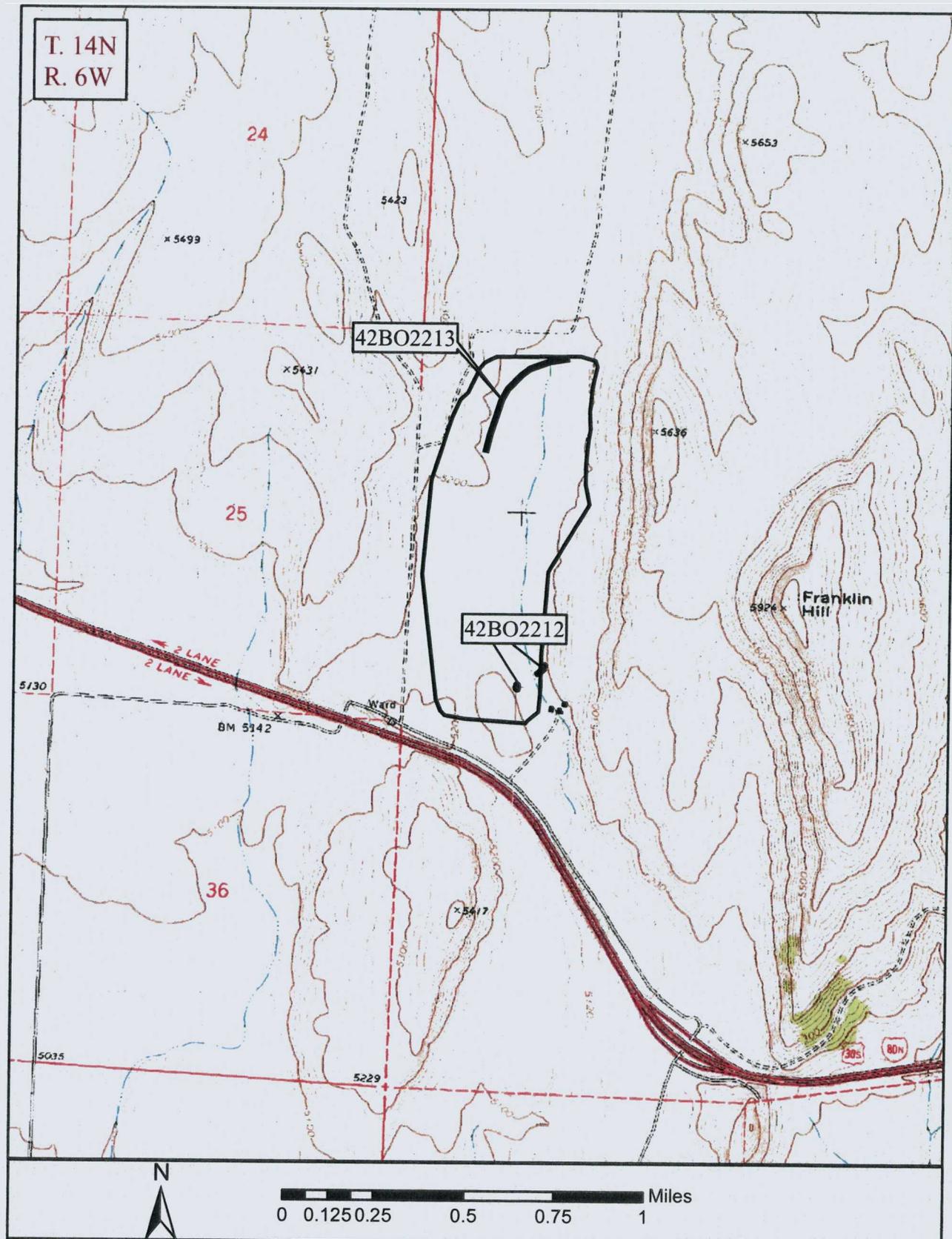


Figure 2. Location of sites 42BO2212 and 42BO2213.

42BO2212 – Homestead Site

This site consists of a historic well house and trash scatter associated with a homestead located to the east of the current project area. The well house and trash scatter are situated on the upper slopes of a fallow dry-irrigation field. The well house (Loci 1) consists of a modern corrugated tin structure with a historic block and tackle system hooked onto the crossbar, which is, in turn, connected to two 30 ft tall poles. Although all of the equipment appears to be modern, there is a scatter of utility poles, historic tin pails, metal fragments and older metal tanks near the modern well house. The trash scatter (Loci 2) consists of two historic water tanks; one of which is welded and the other riveted. There is also abandoned farm equipment at this loci consisting of a mid-1940s truck, a turn-of-the-century harrow, and a 1950s flat-bed trailer. Other artifacts at the site include; milk cans, gas cans, seat springs, barrels, brown and clear glass, sanitary cans, milk cans, food cans, and pails, a shovel head, and the remnants of an old silo. This appears to be primarily a place where old equipment was stored, with some historic and more recent trash. Although some of the artifacts date to the 1910s and 1920s, such as the riveted steel water tank, most of the artifacts date to post 1940. All of the artifacts appear to be surficial.

42BO2213 – Historic Road

This site consists of a segment of a historic road. The road has been abandoned for many years, and is mainly visible based on the different vegetation growing along the road. The road measures approximately 20-to-25 ft wide and 2040 ft long. The road disappears at the southern and northern ends of the project. This road may be the same as an unnamed road shown on the 1888 GLO map for this area. However, after differential correcting the GLO plat map, the GLO road location falls about 300 ft east of the current site. Despite the 300 ft difference, it is possible that this is the same road.

RECOMMENDATIONS

Two new sites (42BO2212 and 42BO2213) were recorded during the current inventory. Sites 42BO2212 and 42BO2213 were evaluated for significance using the following criteria for determining the eligibility of properties as set forth in 36 CFR 60.4:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

(A) that are associated with events that have made a significant contribution to the broad patterns of our history; or

(B) that are associated with the lives of persons significant in our past; or

(C) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(D) that have yielded, or may be likely to yield, information important in prehistory or history.

Following is the recommendation for the site based upon the criteria listed above.

42BO2212 – Homestead Site

This archaeological site, consisting of two loci, is part of a larger historic homestead. Because of this, it is difficult to evaluate these two loci without the larger context of the historic residence and overall homestead. Therefore, a brief evaluation of the residence is presented followed by evaluation of the two archaeological loci.

The residence of this homestead, a standing hall-parlor structure, is located about 600 ft to the east of the loci and outside of the current project area. The hall-parlor appears to have been constructed no later than 1910; based on the concrete block foundation, window openings and the timeframe known for construction of hall-parlor houses. The building was altered at a later time, when two larger windows were cut into the front and side of the building, and asbestos siding was added over the original drop wooden siding. Circa 1940s asbestos siding covers the original siding. It appears the changes were made over 50 years ago and thus fall within the historic period. The rest of the structure retains high integrity of setting, materials, location, feeling, association, workmanship, and design. The residence typifies an early 20th century homestead, of which there are not many remaining examples. Additionally, the site is associated with homesteading events that have made a significant contribution to the broad patterns of our history. There is also good potential that there are intact privy deposits at this site that could yield information important to the history of this area. Therefore this structure would be recommended Eligible to the NRHP under Criteria A, C and D. This homestead site cannot currently be associated with any known significant person in our past. Therefore, this homestead is recommended Not Eligible to the NRHP under Criteria B.

Locus 1, the well house, has been largely replaced with modern materials. Additionally, there do not appear to be any subsurface cultural deposits at this locus. Locus 1 is, therefore, recommended as a non-contributing element to the site. Locus 2, consisting of an old equipment dump and trash scatter, also appears to be completely surficial. Despite this, the locus retains integrity and is recommended as contributing to the eligibility of the homestead site.

42BO2213 – Historic Road

This site consists of an unnamed historic GLO road. A 2040 ft long segment of this road was recorded in the current project area, but fades out at the northern and southern ends of the project. This road is unnamed on the 1888 GLO plat map. It is a local road, likely for farming or

ranching access. This road cannot be associated with a significant event or pattern in our history, nor can it be associated with the life of a significant person. The site does not embody the distinctive characteristic of a type or method of construction, nor is it likely to contain subsurface deposits that could reveal additional information important to the understanding of the region. Therefore, this site is recommended Not Eligible under any criteria.

DISCUSSION OF EFFECTS

During this survey, two new historic sites (42BO2212 and 42BO2213) were documented. These sites have been evaluated for eligibility to the NRHP. Site 42BO2213, a historic road, was recommended NOT eligible to the NRHP. Site 42BO2212, a historic homestead site with two archaeological loci, was recommended Eligible. Locus 1 is recommended non-contributing and there should be no effect to this locus from construction of the project. Locus 2; however, is recommended contributing to the site and could potentially be effected by construction of the landfill project. This site is located partially within the western project boundary, and partially out of the project area. Because it lies along the boundary, Moulding Investments, Inc. is going to move the project boundary further to the west, so that this site will be avoided. Therefore, Sagebrush recommends that construction of this project will have **No Adverse Effect** to historic properties.

This investigation was conducted with techniques that are considered adequate for evaluating cultural resources that are available for visual inspection on the ground surface and could be adversely impacted by the proposed project. Should such resources be discovered during project construction, a report should be made immediately to the NRCS Utah Office Archaeologist in Salt Lake City, Utah.

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Utah State Historical Society

1998 Utah Historic Trails [Map]. Peter H. DeLafosse, ed. State of Utah Automated Geographic Reference Center, Salt Lake City.

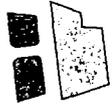
ATTACHMENT 3



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Julie Fisher
Executive Director
Department of
Heritage & Arts



Utah Division of
State History

Brad Westwood
Director

July 11, 2016

Brett Mickelson, P.E.
IGES, Inc.
4153 South 300 West
Salt Lake City, Utah 84107

RE: Franklin Hill Regional Landfill - Box Elder County, Utah

For future correspondence, please reference Case No. 16-0804

Dear Mr. Mickelson:

The Utah State Historic Preservation Office concurs with the determination of effect for this undertaking, if the provisions on page 10 of the consultant's report are followed regarding avoidance of part of 42Bo2212.

This letter serves as our comment on the determinations you have made, within the consultation process specified in §36CFR800.4. If you have questions, please contact me at 801-245-7263 or by email at cmerritt@utah.gov.

Sincerely,

Chris Merritt, Ph.D.
Deputy State Historic Preservation Officer
Archaeology



ATTACHMENT 4

Moulding

10485 West 900 South
 Ogden, Utah 84404
 (801) 399-9994
 (801) 627-2700

CONSULTANTS



4153 South Commerce Drive
 Salt Lake City, Utah 84107
 (801)270-9400 Fax: (801)270-9401

TOTAL EXCAVATION:
 6.87 MCYD

CUT HEIGHT: 20' AVG (55' MAX)

- EXISTING CONTOUR
(10' INTERVAL SHOWN)
- PROPOSED CONTOUR
(10' INTERVAL SHOWN)
- PROPOSED CONTOUR
(2' INTERVAL SHOWN)
- SITE BOUNDARY
(APPROXIMATE)

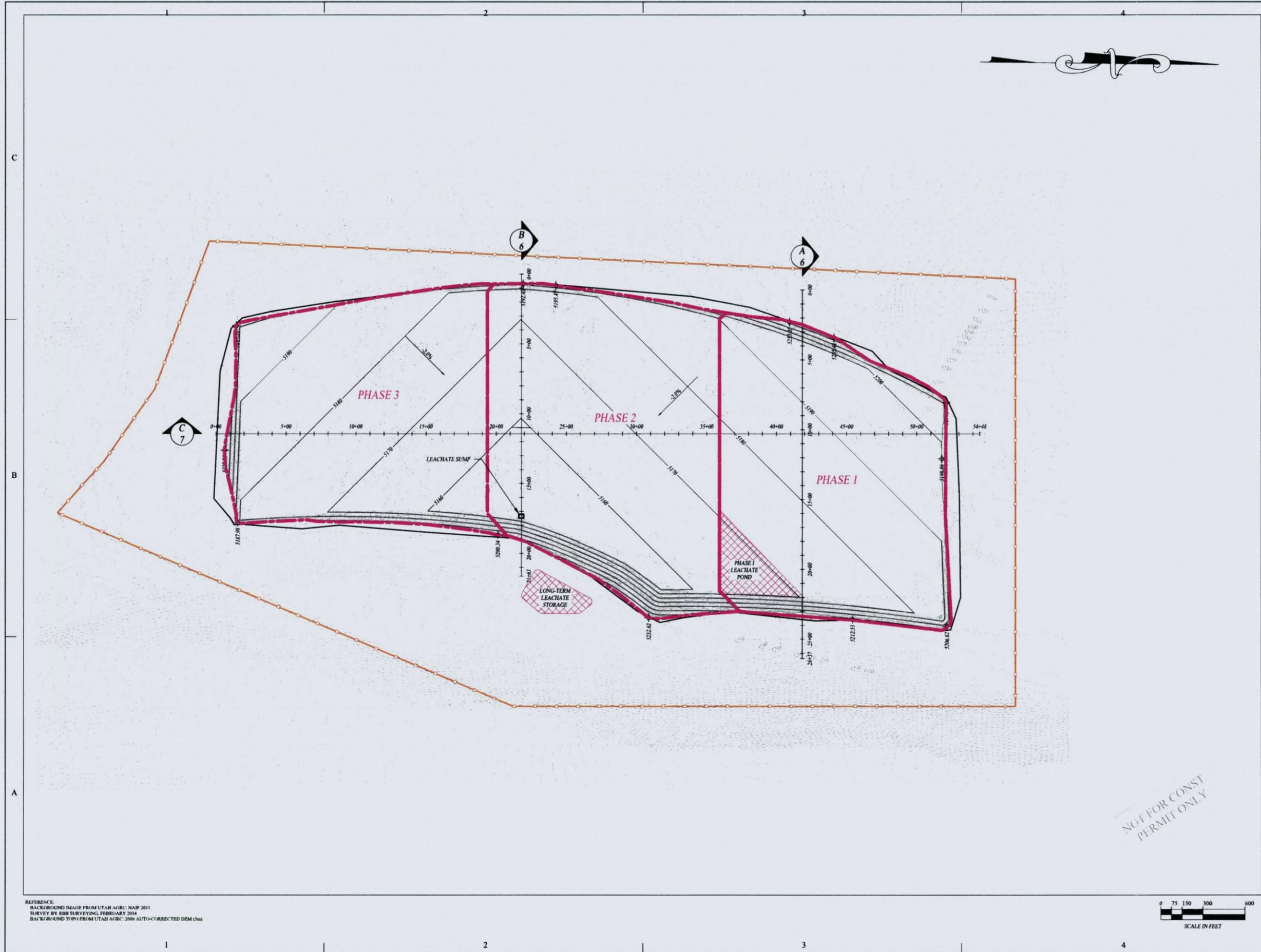
MARK	DATE	DESCRIPTION

ISSUE:
PROJECT NO.: 01877-001
CAD DWG FILE: 01877/001/Moulding_Base.dwg
DRAWN BY: JAH
DESIGNED BY: BDM
CHECKED BY: BDM
COPYRIGHT: IGES 2014

SHEET TITLE

FRANKLIN HILL REGIONAL LANDFILL

LANDFILL EXCAVATION



REFERENCE:
 BACKGROUND IMAGE FROM UTAH AGRC: NAIP 2011
 SURVEY BY RBB SURVEYING, FEBRUARY 2014
 BACKGROUND TOPO FROM UTAH AGRC: 2006 AUTO-CORRECTED DEM (5m)

ATTACHMENT 5

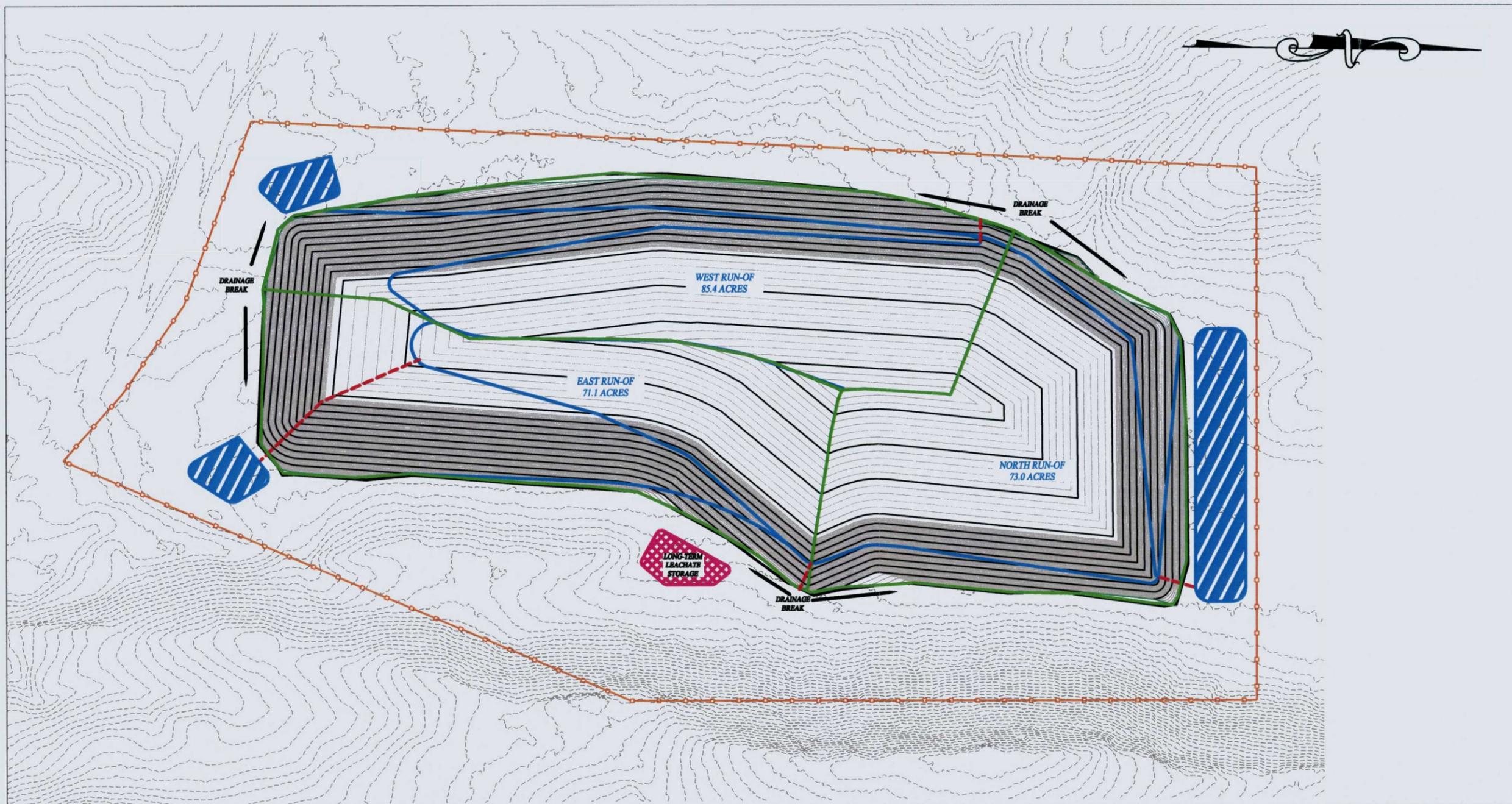
Moulding

10485 West 900 South
Ogden, Utah 84404
(801) 399-9994
(801) 627-2700

CONSULTANTS



4153 South Commerce Drive
Salt Lake City, Utah 84107
(801)270-9400 Fax: (801)270-9401



EXISTING CONTOUR
(10' INTERVAL SHOWN)

PROPOSED CONTOUR
(10' INTERVAL SHOWN)

PROPOSED CONTOUR
(2' INTERVAL SHOWN)

SITE BOUNDARY
(APPROXIMATE)

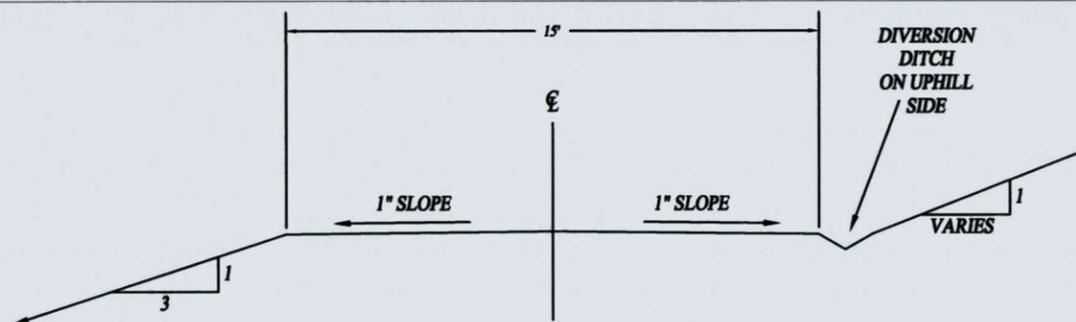
LANDFILL CAP RUN-OFF
DRAINAGE AREAS

ACCESS ROAD WITH
RON-ON/RUN-OFF
CONTROL BERM/DITCH

DROP STRUCTURE
CHANNEL/PIPE TO POND

SURFACE WATER
DETENTION AREAS

LONG TERM LEACHATE
STORAGE



15' ACCESS ROAD SECTION (TYPICAL)

NOT FOR CONST.
PERMIT ONLY

MARK	DATE	DESCRIPTION

ISSUE:

PROJECT NO.: 01877-001

CAD DWG FILE: 01877/001/Moulding_Base.dwg

DRAWN BY: JAH

DESIGNED BY: BDM

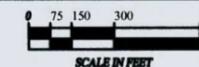
CHECKED BY: BDM

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SHEET TITLE

FRANKLIN HILL REGIONAL LANDFILL

**SURFACE
RUN-OFF CONTROLS**



REFERENCE:
BACKGROUND IMAGE FROM UTAH AGRC, NADP 2011
SURVEY BY RBB SURVEYING, FEBRUARY 2014
BACKGROUND TOPO FROM UTAH AGRC, 2006 AUTO-CORRECTED DEM (5m)

ATTACHMENT 6



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Salt Lake City Office
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MEMORANDUM

To: Brett Mickelson, Intermountain GeoEnvironmental Services, Inc.
From: Brian Nicholson, SWCA Environmental Consultants
Date: May 9, 2016
Re: Farmland Assessment for Proposed Franklin Hill Regional Landfill

BACKGROUND

SWCA Environmental Consultants (SWCA) was contracted by Intermountain GeoEnvironmental Services, Inc. (IGES) on behalf of Randy Moulding (landowner) to provide an assessment of the Natural Resources Conservation Service (NRCS) farmlands and soil classifications on the proposed 227-acre Franklin Hill Regional Landfill in Box Elder County, Utah. SWCA understands that the landowner is seeking a Class I permit to construct and operate a solid waste landfill and that a land use compatibility waiver/exemption might be required because the proposed facility location contains areas of designated farmland by the NRCS. The SWCA Salt Lake City office provides a full range of environmental planning and regulatory compliance services and natural resources assessment and management throughout Utah. Our staff consists of ecologists and botanists with experience working on rangelands in northern Utah.

The Project Area is located in Box Elder County approximately 7 miles southeast of Snowville and directly north of Interstate 84. The Project Area is dominated by sagebrush-steppe vegetation and has been seeded for livestock grazing. The Project Area has upland wildlife habitat value, is currently used for livestock grazing, and does not currently support agricultural crops. The property owner has drilled a water well and constructed a pipeline that feeds several troughs for livestock use. The Project Area is not irrigated and is not equipped with irrigation infrastructure.

NRCS AND THE FARMLAND PROTECTION POLICY ACT

The NRCS, formerly known as the Soil Conservation Service, began in 1935 and is the primary agency of the United States Department of Agriculture (USDA) that works with private landowners to help them maintain, improve, and conserve their natural resources. Through natural resources conservation programs, the NRCS helps landowners, ranchers, and farmers reduce soil erosion, improve water quality, enhance water supplies, and increase wildlife habitat. Congress passed the Farmland Protection Policy Act (FPPA) as part of the Agriculture and Food Act of 1981 (Public Law 97-98) in order to minimize the impact of federal programs on the irreversible and unnecessary conversion of farmland to nonagricultural uses. The FPPA assures that to the extent possible federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland. Federal agencies are

required to develop and review their policies and procedures to implement the FPPA every two years. The FPPA does not authorize the federal government to regulate the use of nonfederal or private land or to affect the property rights of owners (NRCS 2016a). Rather, FPPA establishes a farmland ranking system for the purposes of the FPPA program, including prime farmland, unique farmland, and land of statewide or local importance.

METHODS

NRCS Farmland Designations and Land Capability Classifications

To support a farmland waiver/exemption, SWCA used the following criteria to provide additional context for farmland designations:

1. Acreages of each farmland designation class relative to the designations at the watershed and county scales
2. Acreages of soil erosivity based on the NRCS's land capability classification (LCC) system
3. Potential for irrigation

SWCA reviewed the NRCS Soil Survey Geographic (SSURGO) database geospatial data and literature (NRCS 2016b) for farmland designations and limitations on land capability in the Project Area. Geospatial data for farmland designations and soils were also reviewed for the hydrologic unit code 12 (HUC-12) watershed (Headwaters Hansel Valley Wash) and for Box Elder County. Acreage calculations for each farmland designation and LCC were made using a geographic information system (GIS).

RESULTS

NRCS Farmland Designations and Land Capability Classifications

NRCS Farmland Designations

Farmland, as designated by the NRCS, consists of prime farmland, unique farmland, and farmland of statewide or local importance (defined below). Farmland designations are based on soil type and soil attributes. The SSURGO database has information about soil as collected by the National Cooperative Soil Survey over the past century, and this information can be displayed in tables or as maps. The maps outline areas called map units, which describe soils, characteristic components, unique properties, and productivity. The scale of soils information collected ranges from 1:12,000 to 1:63,360 (NRCS 2016c). Due to this range in scale, SSURGO soils data may be less accurate for smaller project areas.

Table 1 provides acreages of NRCS farmland designations in the Project Area, in the HUC-12 watershed, and in Box Elder County. Table 1 also shows the percentages of NRCS farmland designations that the Project Area represents in the HUC-12 watershed and Box Elder County.

The Project Area contains 204.5 acres of NRCS-designated farmland comprising 101.9 acres of prime farmland and 102.6 acres of farmland of statewide importance (Figure 1). The Project Area contains 1.1%

of the total NRCS-designated farmland in the watershed (Figure 2) and 0.03% of the total farmland in Box Elder County.

Table 1. Acreages of NRCS Farmland Designations and Project Area Percentages of Total Acres

Area	Acres of Prime Farmland If Irrigated (project area percent of total acres)	Acres of Farmland of Unique Importance (project area percent of total acres)	Acres of Farmland of Statewide Importance (project area percent of total acres)	Acres of Farmland of Local Importance (project area percent of total acres)	Acres not designated as farmland (project area percent of total acres)	Total Acres (project area percent of total acres)
Project Area	101.9	0	102.6	0	23.4	227.9
HUC-12 watershed	12,635.9 (0.8%)	333.1 (0%)	4,858.9 (2.1%)	0 (0%)	18,375.5 (0.1%)	36,203.3 (0.6%)
Box Elder County	277,749.0 (0.04%)	8,817.8 (0%)	209,431.9 (0.05%)	239,820.5 (0%)	3,564,890.9 (0.001%)	4,300,710.1 (0.005%)

PRIME FARMLAND IF IRRIGATED

The NRCS defines prime farmland as “land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable or excessive soil erosion,” as determined by the Secretary of Agriculture (NRCS 2005, 2012). Specific technical criteria were established by Congress to identify prime farmland soils. In general, the criteria reflect adequate natural moisture content, low susceptibility to flooding, minimum permeability rates, low risk to wind and water erosion, rooting zone pH between 4.5 and 8.4, specific soil temperature range, and low rock fragment content (NRCS 2000).

There are 101.9 acres (0.04% of Box Elder County) of prime farmland if irrigated in the Project Area, 12,635.9 acres in the HUC-12 watershed, and 277,749.0 acres in Box Elder County (see Table 1, Figures 1 and 2).

FARMLAND OF UNIQUE IMPORTANCE

Farmland of unique importance is defined by the NRCS as “land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, fruits, and vegetables” (NRCS 2005). There is no unique farmland in the Project Area (see Table 1 and Figure 1).

FARMLAND OF STATEWIDE OR LOCAL IMPORTANCE

The NRCS defines farmland of statewide or local importance as “farmland used for the production of food, feed, fiber, forage, or oilseed crops, as determined by the appropriate State or unit of local government agency or agencies, with the approval of the Secretary of Agriculture” (NRCS 2012). There are approximately 102.6 acres (0.05% of Box Elder County) of farmland of statewide importance in the Project Area, 4,858.9 acres in the HUC-12 watershed, and 209,431.9 in Box Elder County (see Table 1, Figures 1 and 2). There is no farmland of local importance in the Project Area (see Table 1 and Figure 1).

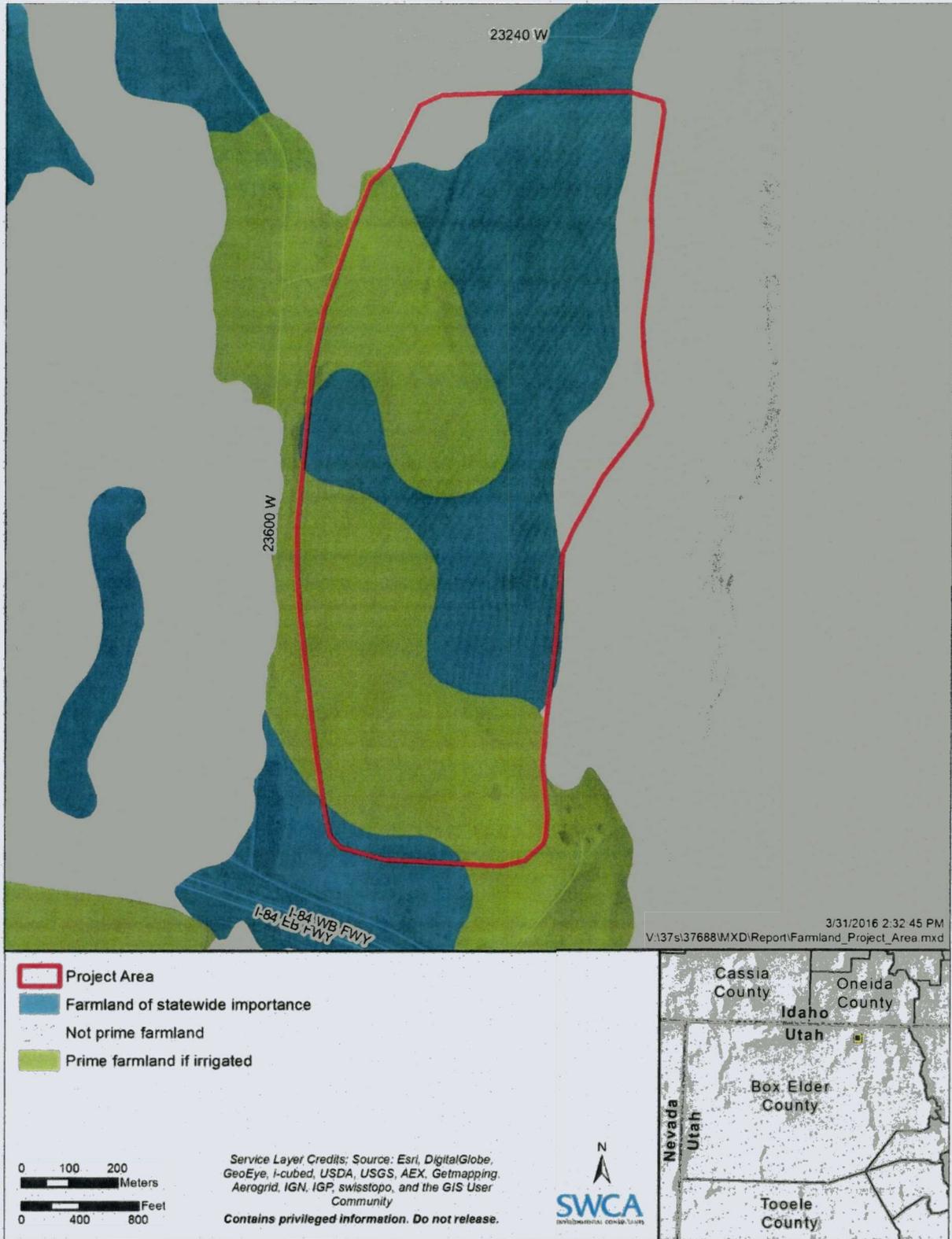


Figure 1. NRCS farmland designations in the Project Area.

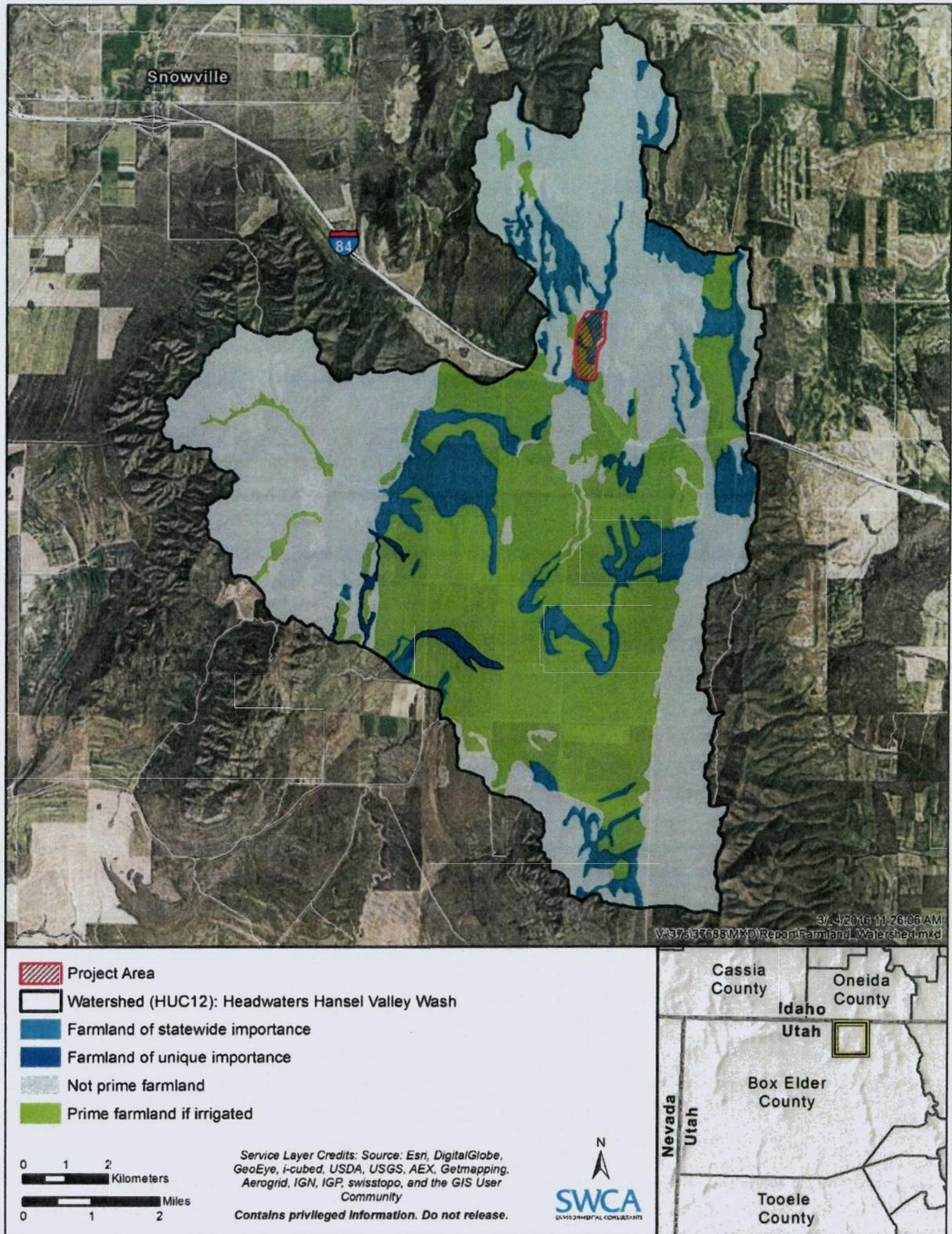


Figure 2. NRCS farmland designations in the HUC-12 watershed.

NRCS Land Capability Classifications

LCC is one method the NRCS uses to identify farmland erosivity based on the location and slope of the landscape and on the depth, texture, and reaction of the soil (NRCS 1992). Currently, the LCC includes eight classes of land designated with roman numerals I through VIII. Classes I through IV are arable land that are suitable for cropland; the limitations on their use and need for careful management and conservation increases from I through IV. Classes V through VIII are not suitable for cropland but may have uses for range, pasture, grazing, wildlife, aesthetic purposes, and recreation (NRCS 1992). Within the classes, subclasses are used to indicate special limitations such as (c) climatic, (e) erosion, (s) rooting zone problems, and (w) wetness (NRCS 1992).

Soil erosion occurs when soil particles are broken down, detached, transported, and redistributed by wind, water, or gravity. Soil erosion on cropland affects soil quality and crop productivity and can cause off-site impacts on water quality, air quality, and biological activity. The economic impact of mitigating soil erosion can be significantly burdensome (NRCS 2007).

Table 2 provides acreages of NRCS LCCs in the Project Area and the percentages of the Project Area that each LCC represents.

Table 2. NRCS LCCs in the Project Area

	LCC II	LCC III	LCC Not Rated
Project Area	101.9	23.4	102.6
% of Project Area	45%	10%	45%

In the Project Area, approximately 101.9 acres (45%) are classified as LCC II (moderate limitations for use as cropland due to erosion) and 23.3 acres (10%) are classified as LCC III (severe limitations for use as cropland due to erosion). Approximately 102.7 acres (45%) have no LCC (see Table 2 and Figure 3). Therefore, 125.3 acres or 55% of the Project Area may not be suitable for use as cropland due to the erodible nature of the soil by wind, rain, and/or surface runoff. If these acres were used as cropland, extensive management and soil conservation measures would be needed to mitigate soil erosion.

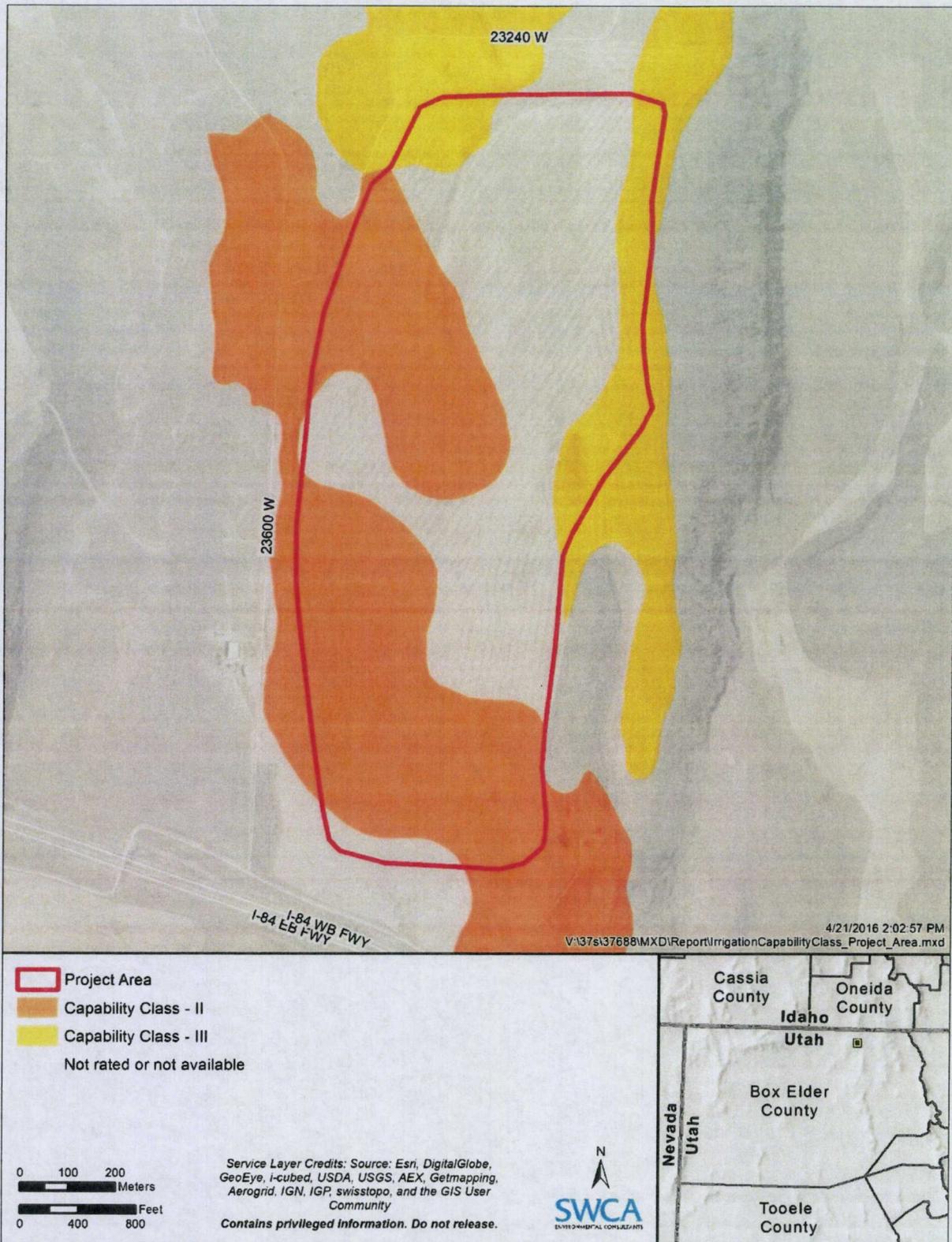


Figure 3. NRCS land capability classifications in the Project Area.

DISCUSSION

With respect to NRCS farmland designations and private land, the FPPA is not meant to affect the property rights of landowners. Rather, it serves as a policy tool to limit federal impacts on farmlands in the United States, resulting from federal government operations and actions. The Franklin Hill project is a private landfill and completely unrelated to federal land, funding, or permitting. In addition, based on analysis of relative acreage and soil erosivity, the following findings support a farmland waiver/exemption for the proposed Franklin Hill Regional Landfill:

- The 101.9 acres of land designated as prime farmland if irrigated in the Project Area constitute 0.04% of the prime farmland in Box Elder County. The 102.6 acres designated as farmland of statewide importance constitute 0.05% of farmland of statewide importance in Box Elder County. These acreages constitute a very small amount when compared to the number of acres of prime farmland if irrigated and farmland of statewide importance in Box Elder County and the HUC-12 watershed.
- In all, 125.3 acres, or 55% of the Project Area, may not be suitable for use as cropland due to the erodible nature of the soil by wind, rain, and/or surface runoff. If this land were to be used as cropland, costly management and soil conservation measures would likely be needed to mitigate soil erosion.
- The prime farmland designation requires that the farmland be irrigated. The Project Area is not irrigated and is not equipped with irrigation infrastructure.

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