SW383

Five Mile Recycle Landfill

Class VI Landfill

Application for Permit

December 2012

DCD
679 North 1500 West
Orem, UT 84057

Five Mile Recycle Landfill

Class VI Landfill

UCA TITLE 19
CHAPTER 6 SECTION 108 (10)

DCD
679 North 1500 West
Orem, UT 84057

UCA Title 19, Chapter 6, Section 108(10)

(a) - Evidence of market. Five Mile Recycle Landfill is an expansion of DCD Transfer Stations. Two transfer stations are currently operating accepting construction and demolition waste, inert waste, and yard waste. The transfer stations are **Recycle Centers** that separate recyclable materials from the received waste. Once the waste has been sorted and the materials removed that are recyclable, the leftover material will be hauled to the Five Mile Recycle Landfill. The Orem Transfer Station has been in operation since 2002, and the Heber Transfer Station since 2006. DCD Transfer Stations operate with a goal to recycle as much material as possible. By being able to haul to Five Mile Recycle Landfill, more resources can be used in the recycle part of the operation.

DCD Transfer stations receive waste from construction waste in Utah and Wasatch Counties. DCD hauls between 80 to 150 tons per day to landfills. Five Mile Recycle Landfill will allow DCD to dump at a cost considerably less than the standard rate of $10.50 per ton. This savings will allow more resources to the recycle operations of DCD.

There are two other commercial non-hazardous landfills in the area that receive C&D Waste. These include North Pointe Landfill in Fairfield, and the Peck Landfill in Saratoga Springs. These landfills are commercial landfills accepting C&D waste directly from the general public.

(b) – Public Benefits. DCD has proven the need for a local transfer station to receive C&D Waste. The expansion of operation to be a Recycle Center is a benefit to the general public by recycling resources. The ability of DCD to control dumping fees allows DCD to develop other methods of recycling waste.

Additionally, the pits that will be filled at Five Mile Recycle Center are existing pits with no plans for reclamation. Over time as the pits are filled, the closure plan includes covering and vegetation to match the existing vegetation in the area. The landfill will reclaim previously disturbed areas from clay mining near Five Mile Pass.

Trucking traffic to Five Mile Recycle Landfill will be along main roadways and not travel along residential streets and school zones.

(c) – Compliance History. DCD in operating the transfer stations has established a record of cooperation in working with the Utah State Department of Environmental Quality. No serious violations have been brought against DCD. This operation will continue in the same effort of cooperation and professionalism.

Utah Class IV and VI Landfill Permit Application Form

Part I General Information APPLICANT: PLEASE COMPLETE ALL SECTIONS.

I. Landfill Type	☐ Class IVa ☐ Class IVb ☒ Class VI	**II. Application Type**	☒ New Application ☐ Renewal Application ☐ Facility Expansion ☐ Modification

For Renewal Applications, Facility Expansion Applications and Modifications Enter Current Permit Number _____

III. Facility Name and Location

Legal Name of Facility
Five Mile Recycle Landfill

Site Address (street or directions to site) Approx 4700 feet northwesterly of Hwy 73 and Tooele County Line				County Tooele	
City			Zip Code	Telephone 801-221-9001	
Township 7 S	Range 3 W	Section(s) 4 and 5	Quarter/Quarter Section	Quarter Section	
Main Gate Latitude degrees 40	minutes 14	seconds 22	Longitude degrees 112	minutes 11	seconds 21

IV. Facility Owner(s) Information

Legal Name of Facility Owner
Dunn Construction LLC

Address (mailing)
679 North 1500 West

City Orem	State UT	Zip Code 84057	Telephone 801-221-9001

V. Facility Operator(s) Information

Legal Name of Facility Operator
DCD

Address (mailing)
679 North 1500 West

City Orem	State UT	Zip Code 84057	Telephone 801-221-9001

VI. Property Owner(s) Information

Legal Name of Property Owner
Mike Dunn

Address (mailing)
679 North 1500 West

City Orem	State UT	Zip Code 84057	Telephone 801-221-9001

VII. Contact Information

Owner Contact Mike Dunn		Title President	
Address (mailing) 679 North 1500 West			
City Orem	State UT	Zip Code 84057	Telephone 801-221-9001
Email Address mike@dunnutah.com		Alternative Telephone (cell or other)	801-420-1464
Operator Contact Mike Dunn		Title President	
Address (mailing) 679 North 1500 West			
City Orem	State UT	Zip Code 84057	Telephone 801-221-9001
Email Address mike@dunnutah.com		Alternative Telephone (cell or other)	801-420-1464
Property Owner Contact Mike Dunn		Title	
Address (mailing) 679 North 1500 West			
City Orem	State UT	Zip Code 84057	Telephone 801-221-9001
Email Address mike@dunnutah.com		Alternative Telephone (cell or other)	801-420-1464

Utah Class IV and VI Landfill Permit Application Form

Part I General Information (Continued)

VIII. Waste Types (check all that apply)

☐ Landfill will accept all wastes allowed in Class IV or VI landfills **Or** landfill will accept only the following wastes

Waste Type	Combined Disposal Unit	Monofill Unit
☒ Construction & Demolition	☐	☐
☒ Tires	☐	☐
☒ Yard Waste	☐	☐
☐ Animals	☐	☐
☐ Contaminated Soil	☐	☐
☐ Other _____	☐	☐

Note: Disposal of dead animals must be approved by the Director

IX. Facility Area

Facility Area	84.0	acres
Disposal Area	3.80	acres
Design Capacity		
Years	2.25	
Cubic Yards	219735	
Tons	88000	

X. Fee and Application Documents

Indicate Documents Attached To This Application

☐ Application Fee: Amount $

☒ Facility Map or Maps ☒ Facility Legal Description ☒ Plan of Operation ☒ Waste Description
☒ Ground Water Report ☒ Closure Design ☒ Cost Estimates ☒ Financial Assurance

Class VI Special Requirements

☐ 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 Mike Dunn Name typed or printed	Title President	Date 12-20-12
	Address 679 North 1500 West, Orem, UT 84057	
Signature of Authorized Land Owner Representative (if applicable) Name typed or printed	Title	Date
	Address	
Signature of Authorized Operator Representative (if applicable) Name typed or printed	Title	Date
	Address	

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.

An application for a permit to construct and operate a landfill is the documentation that the landfill will be located, designed, constructed, and operated to meet the requirements of Rules R315-305 of the *Utah Solid Waste Permitting and Management Rules* and the *Utah Solid and Hazardous Waste Act* (UCA 19-6-101 through 123). 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 application is determined to be complete, the original complete application and one copy of the complete application are required along with an electronic copy.

Part II **Application Checklist**

I. **Facility General Information**	
Description of Item	Location In Document
Ia. General Information - All Facilities	
Completed Part I General information form above	Page 1 of 5
General description of the facility (R315-310-3(1)(b))	Page 1
Legal description of property (R315-310-3(1)(c))	Page 4
Proof of ownership, lease agreement, or other mechanism (R315-310-3(1)(c))	Page 4 / Appendix A
If the permit application is for a Class IV landfill, a demonstration that the landfill is not a commercial facility (see Utah Code Annotated 19-6-102(3) for definition of Commercial)	N/A
Waste type and anticipated daily volume (R315-310-3(1)(d))	Page 4
Intended schedule of construction (R315-302-2(2)(a))	Page 5
Ib. General Information - New Or Laterally Expanding Facilities	
Documentation that the Historical Survey requirements of R315-302-1(2)(f) have been met (R315-305-4(1)(b)(vi))	Appendix B
Name and address of all property owners within 1000 feet of the facility boundary (R315-310-3(2)(i))	Page 5
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 C

I. **Facility General Information**	
Description of Item	Location In Document
Name of the local government with jurisdiction over the facility site (R315-310-3(2)(iii))	Page 6
Ic. Location Standards - New Or Laterally Expanding Class IVa Landfills (R315-305-4(1)(a))	N/A
Land use compatibility	
Maps showing the existing land use, topography, residences, parks, monuments, recreation areas or wilderness areas within 1000 feet of the site boundary	
Certifications that no ecologically or scientifically significant areas or endangered species are present in site area	
Maps showing the location of dwellings, residential areas, other structures, and historic structures.	
List of airports within five miles of facility and distance to each	
Geology	
Geologic maps showing significant geologic features, faults, and unstable areas	
Maps showing site soils	
Surface water	
Magnitude of 24 hour 25 year and 100 year storm events	
Average annual rainfall	
Maximum elevation of flood waters proximate to the facility	
Maximum elevation of flood water from 100 year flood for waters proximate to the facility	
Wetlands	
Ground water	
Id. Location Standards - New Or Laterally Expanding Class IVb and VI Landfills	
Floodplains as specified in R315-302-1(2)(c)(ii) (R315-305-4(1)(b)(i))	Page 6 / Appendix D / Appendix G
Wetlands as specified in R315-302-1(2)(d) (R315-305-4(1)(b)(ii))	Page 7
The landfill is located so that the lowest level of waste is at least ten feet above the historical high level of ground water (R315-305-4(1)(b)(iii))	Page 7 / Appendix E
Geology as specified in R315-302-1(2)(b)(i) and (iv) (R315-305-4(1)(b)(iv))	Page 7 / Appendix F
Ie. Additional Location Standards - New Or Laterally Expanding Class IVb and VI Landfills Or Landfills Requesting That Dead Animals Be Added As A New Waste Stream (R315-305-4(1)(a)(v))	
Maps showing the existing land use, topography, residences, parks, monuments, recreation areas or wilderness areas within 1000 feet of the site boundary	Appendix G

I. **Facility General Information**	
Description of Item	Location In Document
Certifications that no ecologically or scientifically significant areas or endangered species are present in site area	Page 7 / Appendix H
Maps showing the location of dwellings, residential areas, other structures, and historic structures.	Appendix G
List of airports within five miles of facility and distance to each	Page 8
If. Plan Of Operations - All Facilities (R315-310-3(1)(e) and R315-302-2(2))	
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))	Page 8
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))	Page 8
Contingency plans in the event of a fire or explosion (R315-302-2(2)(d))	Page 9
Plan to control fugitive dust generated from roads, construction, general operations, and covering the waste (R315-302-2(2)(g))	Page 9
Plan for litter control and collection (R315-302-2(2)(h))	Page 9
Procedures for excluding the receipt of prohibited hazardous or PCB containing waste (R315-302-2(2)(j))	Page 9
Procedures for controlling disease vectors (R315-302-2(2)(k))	Page 9
A plan for alternative waste handling (R315-302-2(2)(l))	Page 9
A general training plan for site operations (R315-302-2(2)(o))	Page 10 / Appendix J
Any recycling programs planned at the facility (R315-303-4(6))	Page 10
Any other site specific information pertaining to the plan of operation required by the Director (R315-302-2(2)(p))	
Ig. Additional Plan Of Operation Requirements - Class IVa Facilities	N/A
Corrective action programs to be initiated if ground water is contaminated (R315-302-2(2)(e))	
***II* Facility Technical Information**	
IIa. Maps - All Facilities	
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 G
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 G

I. **Facility General Information**	
Description of Item	Location In Document
IIb. Geohydrological Assessment - Class IVa Landfills (R315-310-4(2)(b))	N/A
Local and regional geology and hydrology including faults, unstable slopes and subsidence areas on site (R315-310-4(2)(b)(i))	
Evaluation of bedrock and soil types and properties including permeability rates (R315-310-4(2)(b)(ii))	
Depth to ground water (R315-310-4(2)(b)(iii))	
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))	
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))	
Identification and description of all surface waters on-site and within one mile of the facility boundary (R315-310-4(2)(b)(vii))	
For an existing facility, identification of impacts upon the ground water and surface water from leachate discharges (R315-310-4(2)(b)(viii))	
Calculation of site water balance (R315-310-4(2)(b)(ix))	
IIc. Engineering Report, Plans, Specifications, And Calculations - All Facilities	
Unit design to include cover design; fill methods; and elevation of final cover including plans and drawings signed and sealed by a professional engineer registered in the State of Utah, when required (R315-310-3(1)(b) and R315-310-4(2)(c)(iii))	Page 10 / Appendix G
Design and location of run-on and run-off control systems (R315-310-4(2)(c)(viii))	Page 10
Anticipated facility life and the basis for calculating the facility's life (R315-310-4(2)(c)(ii))	Page 10
Engineering reports required to meet the location standards of R315-305-4 including documentation of any demonstration or exemption made for any location standard (R315-310-4(2)(c)(i))	Appendixes B, D-H
Identification of borrow sources for final cover (R315-310-4(2)(c)(iv))	Page 11
Run-off 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))	N/A
IId. Closure Requirements - All Facilities	
CLOSURE PLAN (R315-310-3(1)(h))	Page 11
Closure schedule (R315-310-4(2)(d)(i))	Page 11
Design of final cover (R315-310-4(2)(c)(iii))	Page 11/Appendix G

***I.* Facility General Information**	
Description of Item	Location In Document
Capacity of site in volume and tonnage (R315-310-4(2)(d)(ii))	Page 11
Final inspection by regulatory agencies (R315-310-4(2)(d)(iii))	Page 11
IIe. Post-Closure Requirements- All Facilities	
POST-CLOSURE CARE PLAN (R315-310-3(1)(h))	Page 12
Changes to record of title, land use, and zoning restrictions (R315-310-4(2)(e)(v))	Page 12
Maintenance activities to maintain cover and run-on/run-off control systems (R315-310-4(2)(e)(iii))	Page 12
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))	Page 12
IIf. Financial Assurance - All Facilities (R315-310-3(1)(j))	
Identification of closure costs including cost calculations (R315-310-4(2)(d)(iv))	Page 13
Identification of post-closure care costs including cost calculations (R315-310-4(2)(e)(iv))	Page 13
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) and R315-310-3(1)(j))	Page 13

1a. General Information

General Description – Five Mile Recycle Landfill is a unique facility that is using pre-sorted construction and demolition waste, yard waste, and inert waste to fill two existing "pits" created from open mining of clay. The pits have previously been defined as "pre-law disturbance" and are not required to be reclaimed. The timing of the mining is not known, however part of the reason the pits are not subject to reclamation is that they are in the same condition today as was seen on 1966 aerial photos. The Five Mile Recycle Landfill will receive waste from recycle centers currently operating in Heber City and Orem. The waste being hauled to the site will be sorted at the recycle centers where any recyclable materials will be removed from the waste as well as any material that is determined to be hazardous (hazardous waste will not be accepted at the landfill). This pre-sorted waste will then be used to fill the pits. The pits are located in Tooele County near five mile pass, approximately 4500 feet northwesterly of the intersection of the Tooele / Utah County Line and Highway 73.

Phase One Pit (View Southeast to Northwest)

Phase One Pit, the southeasterly pit contains 3.50 acres in area. The deepest portion of the pit is 64 feet deep. This is along the northwesterly face of the pit. The outer edge of the pit slopes from the northwest to the southeast with the southeast side opening up to the ground surface. From the front of the pit at the southeasterly side to the deepest portion is 29 feet. The pit will be filled and fill will continue above the existing ground at a 3:1 slope. The final volume of the pit is calculated at 219,700 cubic yards.

Phase 1 Pit (Northwest to Southeast)

Expansion Pit (View South to North)

Expansion Pit, the northwesterly pit contains 9.33 acres in area. The southeasterly face is 83 feet deep and the northwesterly face is 35 feet deep. This pit has near vertical walls on the south, west, and north and the east is a long slope to the bottom. The fill will slope at a 3:1 slope. The final volume of the pit is calculated at 960,000 cubic yards.

Expansion Pit (View South to North Down)

Legal Description - Beginning at the common corner No. 3 Spotted Fawn Fire Clay, Corner No. 4 Little Roena Fire Clay (4-7015-LS) and Corner No. 1 Little Sam Fire Clay (1-7202-LS), said point being 1468.89 feet East and 3710.43 feet South from the Northeast Corner of Section 5, Township 7 South, Range 3 West, Salt Lake Base and Meridian (Basis of Bearing being South 38 degrees 41 minutes West, a distance of 600 feet between the common Corner No. 3 Spotted Fawn Fire Clay, Corner No. 4 Little Roena Fire Clay (4-7015-LS) and Corner No. 1 Little Sam Fire Clay (1-7202-LS), and corner No 4 Spotted Fawn Fire Clay); running thence along the Southerly line of Spotted Fawn Fire Clay, South 38 degrees 41 minutes 00 seconds West to the Corner No. 4 Spotted Fawn Fire Clay, a distance of 600.0 feet; thence along the Westerly line of Spotted Fawn Fire clay, North 51 degrees 19 minutes 00 seconds West to the Corner No. 1 Spotted Fawn Fire Clay, a distance of 1363.20 feet; thence along the Northerly line of Spotted Fawn Fire Clay, North 38 degrees 41 minutes 00 Seconds East, a distance of 323.485 feet to a point on the southerly line of Sterling; thence along said Southerly line south 81 degrees 05 minutes 00 seconds West, a distance of 681.908 feet to the Corner No. 4 Cincinatti; thence along the Westerly line of Cincinatti North 18 degrees 23 minutes 00 seconds West, a distance of 480.00 feet to the Corner No. 1 Union; thence along the Southerly line of Union, South 81 degrees 05 minutes West a distance of .30 feet to the Corner No. 2 Union, thence along the boundary line of Union, North 52 degrees 09 minutes 00 seconds West, a distance of 1064.40 feet to the Corner No. 3 Union; thence along the Westerly line of Union North 18 degrees 23 minutes 00 seconds West to the Corner No. 3 Union, a distance of 254.50 feet, thence North 79 degrees 55 minutes 36 seconds East 2000.00 feet; thence South 24 degrees 26 minutes 43 seconds East 2450.00 feet to the point of beginning.

Containing 84.064 Acres, or 3,661,808 Square Feet

Proof of ownership – Ownership of the property will be transferred to Mike Dunn upon approval of the Class VI Landfill Permit. A copy of the Real Estate Contract is attached in Appendix A.

Waste Type – Waste disposed of at the site is construction and demolition waste, inert waste, and yard waste meeting the requirements of UAC R315-301-2(17)(37)(87). Waste **not** accepted includes, but not limited to municipal, industrial, medical, and hazardous wastes, liquids, used oils, contaminated soils, and dead animals.

Construction and Demolition Waste is defined in R315-301-2(17) means solid waste from building materials, packaging, and rubble resulting from construction, remodeling, repair, abatement, rehabilitation, renovation, and demolition operations on pavements, houses, commercial buildings, and other structures.

(a) Such waste may include:

(i) Concrete, bricks, and other masonry materials

(ii) Soil and rock

(iii) Waste asphalt

(iv) Rebar contained in concrete

(v) Untreated wood and tree stumps

Inert Waste is defined in R315-301-2(37) and means, noncombustible nonhazardous solid wastes that retain their physical and chemical structure under expected conditions of disposal, including wastes that exhibit resistance to biological or chemical attack.

Yard Waste is defined in R315-301-2(87) means vegetative matter resulting from landscaping, yard maintenance, and land clearing operations including grass clippings, pruning, and other discarded material generated from yards, gardens, parks, and similar types of facilities. Yard waste does not include garbage paper, plastic, processed wood, sludge, septage, or manure.

The daily volume anticipated for the landfill is approximately 375 cubic yards or approximately 150 tons.

Schedule of Construction – The pit exists and with relatively little work will be able to receive waste. The intended schedule of opening is within 60 days of receiving appropriate approvals.

1b. General Information New Facilities

Historical Survey - A cultural resource inventory of the site has been performed by EnviroWest LLC. The summary states "No newly identified sites or isolated artifacts were found during the inventory. Also, no previously identified cultural resources were noted at the project location. Therefore the project would have no effect on any known cultural resources based on the proposed development." A full copy of the report is attached in Appendix B.

Name and Address of Property Owners – Name and addresses of all property owners within 1000 feet include:

Interstate Brick – 9780 South 5200 West, West Jordan, UT 84088

Bureau of Land Management – 2370 South 2300 West, Salt Lake City, UT 84119

Documentation of Notice of Intent – A Letter has been sent to each of the property owners. A copy of the letter and certification that the letter has been sent is included in Appendix C.

Local Government – The local government with jurisdiction over the site is Tooele County. Toole County has received favorably the site use as a Construction and Demolition Landfill. Further application to Tooele County is anticipated pending approval of this application with the Department of Environmental Quality.

1c. Not Applicable

1d. Location Standards (Class VI)

Floodplains – Flowing onto the 84 acre site is a drainage channel of approximately 8040 feet in length. The drainage area of this channel is 288 acres. The phase one pit is not impacted by this drainage channel. However, the expansion pit was constructed in the path of the drainage channel. Before the construction of the northwesterly pit (expansion pit) this channel continued through the property. At some point in time, this channel has been blocked by a berm of significant size, approximately 15 feet in height, 1000 feet in length, and several hundred feet wide. The berm has blocked flow from the drainage channel for many years.

Existing berm blocking drainage channel.

Runoff from the site was calculated from the NRCS WinTR-55 Small watershed hydrology program. Given the site is in an arid area, and the overall slope of the site is near 8%, the runoff for a 100 year storm is 14.088 acre-feet. The area at the berm is a long flat area that holds the water back. A 100-year storm will back up runoff approximately 7 feet deep against the berm and daylight approximately 175 feet from the berm. The berm shows no sign of overflowing in the past. In the future, as the pit is filled, the berm may be removed and the water directed around the expansion pit. No run-on water will enter the landfill pit. A print out of the drainage calculations are included in Appendix D.

Wetlands – No wetlands are present on or surrounding the site.

Ground Water – A test hole was drilled and logged at the bottom of the Phase One Pit. The hole was drilled over 24 feet in depth with no ground water encountered. The underlying soil is silt, clayey gravel, mudstone and shale. A copy of the Drill Hole Log is found in Appendix E.

Geology – The pits are old surface clay mines. The area is not a subsidence area, a dam failure flood area, above underground mines, near a salt dome, or salt bed, or near a geologic feature that could compromise the integrity of the landfill. The closest fault line of record is approximately 2000 feet away as shown on the Earthquake Fault Map of a Portion of Tooele County, Utah as defined by the Utah Geological Survey. The pits have been in a stable condition for over 40 years. A copy of the Utah Geological Survey is attached in Appendix F.

1e. Additional Standards

Maps of Site – Maps of the site are included in Appendix G. No parks, monuments, recreation area, or wilderness areas are within 1000 feet of the site boundary. Also, no dwellings, residential area, or historic structures are near the site.

Certification of Ecologically or Scientifically Significant Areas – A Biological evaluation of the site has been performed by EnviroWest LLC., the report is included in Appendix H. The findings of the report show that there may be potential impact to the following: Greater sage grouse, Grasshopper sparrow, Short-eared owl, Migratory birds, and Kit fox. The report identifies the concern on the species to be in locations of sagebrush and an existing burrow, though it is not confirmed that the burrow is being used. The sensitive time to the impacted species is through the nesting season, March through August. If impacts to the sagebrush areas are anticipated, the time frame will be in the winter months, or a preconstruction survey will be performed by a qualified biologist to determine if the protected species are on site. As construction begins on the pit where the burrow is located, a preconstruction survey will be performed to verify if the burrow is being used, as well as to identify the species using the burrow.

The final opinion of the report states the following:

- Would have no effect upon species of special concern including federally protected species;
- Would not result in destruction or adverse modification of a critical habitat area for a federally endangered or threatened species;
- Would not result in "take" of migratory birds protected under the Migratory Bird Treaty Act.

List of Airports within five miles – No airports are located within five miles of the proposed landfill.

1f. Plan of Operations

Description of On-Site Waste Handling Procedures – The handling of the waste will actually begin at the transfer stations. Waste coming from the transfer stations will have already been presorted from the tipping floor and any recyclable materials will be removed from the waste. Additionally, the waste will be inspected for substances not acceptable at the landfill. From the transfer station, only waste acceptable to the landfill, will be loaded, weighed and hauled directly to the landfill. Upon reaching the landfill, waste will be dumped in the Phase One Pit. Depending on weather conditions, and the height of fill at the pit, onsite soil will be mixed with the waste, and the waste will be compacted. At a minimum the mixing and compaction will be performed at the end of each day. An example of the form used to record the weight of each load is included in Appendix I, DCD Daily Hauling Log. This from will record the amount of each load going to the landfill.

Schedule for Inspections and Monitoring – Each load brought to the transfer station is dumped onto the tipping floor, sorted and inspected. At a minimum, one random load each day will be inspected at each transfer station hauling to the landfill. A copy of the inspection form used at the transfer station is included in Appendix I.

A brief visual inspection of equipment and the facility is completed daily. All problems found which threaten human health or environment quality will be noted and fixed immediately. All other findings of these brief inspections will be fixed in a timely manner. Daily inspections will inspect the overall site conditions including cover, windblown litter, entrance gates locked and perimeter secure. A thorough inspection of the landfill will be inspected monthly. Its findings will be logged and any and all corrective actions will be noted. See Appendix I, for inspection forms.

Contingency Plan in the Event of Fire or Explosion – Facility personnel will be prepared for immediate fire suppression in the event of a fire involving the waste. Fire extinguishers are mounted on equipment. On-site cover fill will be used to cover the fire, or smoldering areas. Water will be applied to the affected area only as a last resort. In the event that the facility personnel can't manage the fire because of its size, or a dangerous condition is evident, the Tooele County Fire Department will be notified and the Stockton Fire Department will respond. The Stockton Fire Department is located 20 miles north of the landfill.

Fugitive Dust – The access road to the site will be improved by repairing the existing crushed asphalt surface. New crushed asphalt will be placed and compacted on the access road to the site to control road dust. Site dust will be generated as each load is dumped and the site is mixed and compacted with existing site soil. The anticipated truck count to the landfill is 4 trucks per day. With the small number of trucks dumping to the site, dust from site activity is not anticipated to become a problem. If site dust is found to be problematic, a water truck will be brought to the site for dust control.

Litter Control – Mixing waste with soil from the site and compacting in place will be the main source of litter control on the site. Litter blown from the site will be gathered manually and returned to the site. Litter control will be monitored daily and adjustments made to keep litter from blowing from the site.

Procedures for Excluding Hazardous Waste – The waste coming to the site will be monitored at the transfer stations. Hazardous waste is not acceptable at the transfer station. Waste coming to the site will be pre-sorted and any hazardous waste or PCB containing waste will not be hauled to the site. The control measures to prevent waste to the site are controlled and monitored at the transfer station.

Procedures for Controlling Disease Vectors – Waste coming to the landfill is limited to construction and demolition waste, inert waste, and yard waste. The waste will be dumped and compacted to remove the food source to rodents and wild animals from the waste. By keeping the site compacted the area should be unacceptable for habitation by rodents and other wild animals. Smoke devices and sonar techniques will be employed first if a problem is discovered. Poisons will be the absolute last option attempted to control rodents on site.

Alternative Waste Handling – Five Mile Recycle Landfill is controlled by the DCD Transfer stations as to waste coming to the site. Should the landfill be in a condition to not accept waste, waste will be diverted to other landfills in the area including the Peck Landfill in Saratoga City, and the North Point Landfill (Cedar Valley) in Fairfield.

Training Plan for Site Operators – Employees of DCD hauling to the site will receive instruction and training in landfill and equipment operations. The training of all personnel will be an

ongoing process. As the management of Five Mile Recycle Landfill receives training, this training will be passed on to those operating the site. Yearly seminars will be held for more in depth training of personnel. The training of personnel will be noted and entered into the operating record of the facility. See Appendix J, for anticipated training and training records.

Recycling Programs at Facility – Waste coming to the landfill will be pre-sorted with recyclable materials removed. The waste coming to the site is only that material that has no recyclable value.

2.a Maps

Additional maps in Appendix G include: A site area map, a map showing the topographic conditions of each pit, a design cross section of the final pit, the expected design volume of each pit, the site showing run-on drainage areas, prevailing winds as observed when on site, boundary of the site, nearest fault lines from Utah Geologic Survey, map of the phase one and expansion pits, a site area map, and the access road to the site.

2.b Geohydrological Assessment – N/A

2.c Engineering

Design Cover – The design cover information is shown on the phase pit maps. As the phase one permit is filled, additional waste will be dumped, mixed, and compacted at a fill slope not to exceed 3:1. As the final shape is formed, the Phase One Pit will be covered with 2 feet of the on-site clayey material and seeded with a native seed mix.

Run-on and Run-off Control – The run-on control system is the existing berming that surrounds the pits. Run-on water is diverted away from the Phase One pit, while the run-on water in the expansion pit is controlled above the site, also with existing berming (see Section 1.d floodplain of this permit). As the final shape of the pit is constructed run-off depressions will be graded into the final slope to prevent erosion. No run-off collection, treatment, or disposal is anticipated from the site.

Facility Life – The design life of the phase one pit is expected at 2.5 to 3.5 years. The expansion pit will provide an additional 10 to 15 years of facility life. The basis for the calculations include the design volume of the pit, the hauling of approximately 375 cubic yards daily to the site and

approximately 260 hauling days per year. The hope for the landfill is to exceed this design life as more material is recycled from the transfer station and less material is hauled to the landfill.

Engineering Reports – Engineering calculations and other reports are included in the Appendixes B, D-H.

Borrow Source – Borrow needed for mixing waste and for the final cap will be generated from the 84 acres surrounding the site. An existing pile of clayey material is located south of the phase one pit. This source will be the cover material for the site. Other fill material will be generated on site.

2d. Closure Requirements

Closure Plan – The filling of each pit will keep in mind the final closure of the site. Each pit will be filled above existing ground with a 3:1 maximum slope. Once the Phase One Pit is filled to the design shape, the final cap consisting of 2 feet of a clayey material will cover the site (See Appendix G, Sections Drawing, Closure Detail).

Closure activities will begin within 30 days of receiving final waste and should be complete within 180 days of the beginning of the closure activities (per phase). The only exception to this time period is that the seeding should be accomplished in the fall of the year.

The seeding will be a hydro-seeding method, allowing the seeds to be dormant through the winter months and germinate with the spring moisture. The seeding will be a native seed mix consisting of: Fourwing saltbush, Wyoming big sagebrush, Alkali sacation, Blue grama, Bluebunch wheatgrass, Streambank wheatgrass, Smooth brome, Intermediate wheatgrass, Sandberg bluegrass, Sheep fescue, Flender wheatgrass, and Western wheatgrass. The seed type is a native plant that will grow in the on-site soil. It is not anticipated that top-soil will need to be imported to the site.

Site Capacity - The capacity of the Phase One site is 219,700 cubic yards which is estimated to be 88,000 tons. The expansion pit adds an additional 960,000 cubic yards estimated at 384,000 tons.

Final Inspection – 60 days prior to receiving the final waste to each phase of the site, the Executive Secretary will be notified of the intent to implement the closure plan. Upon completion of closure plan, the Department of Environmental Quality will be notified.

Within 90 days of completing a closure, facility plans representing as-built construction conditions will be submitted to the Executive Secretary, along with certification that the closure plan has been followed.

2e. Post Closure Care

Post Closure – Post closure care shall require monthly inspections of the site to check for settlement and erosion. Should excessive settlement or erosion occur, new soil shall be placed to maintain the 2-foot cap on the landfill. As necessary, the new soil shall be seeded to prevent further erosion and to maintain the integrity of the final cap.

DCD will be responsible for Post Closure care. Contact information is as follows:

DCD
679 North 1500 West
Orem, UT 84057
(801) 221-9001

Changes to the record of title, land use, or zoning restrictions shall be reported to the Executive Secretary.

2f. Financial Assurance

A cash bond or letter of credit will be posted prior to receiving waste at the site. Closure costs and post closure costs are estimated as follows:

5 Mile Recycle Landfill
3.80 Acre
Phase 1 Closure Bond

Item	Quantity	Unit	Unit Cost	Total Cost
Closure Cost Estimate 2-foot Cap				
Soil (located on site)	12261.3	cu yd	$0.00	$0.00
Load / Haul	12261.3	cu yd	$1.15	$14,100.53
Spread and grade	12261.3	cu yd	$0.55	$6,743.73
Landscape				
Native Seed Mix	95.0	lb/acres	$7.50	$712.50
Mountain Brome		30.00%		
Flender Wheatgrass		25.00%		
Sandberg bluegrass		5.00%		
Sheep fescue		5.00%		
Big Bluegrass		5.00%		
Western wheatgrass		20.00%		
Blue Bunch Wheatgrass		10.00%		
		100.00%		
Subtotal Closure Costs				**$21,556.77**
Planting	12.0	hrs	$70.00	$840.00
Post Closure Care				
Inspection *	60.0	ea	$150.00	$9,000.00
Fence Repair **	300.0	lf	$9.00	$2,700.00
Soil Repair ***	3000.0	sf	$1.25	$3,750.00
Subtotal Post Closure Costs				**$16,290.00**
Total Bond Amount				**$37,846.77**

* Inspection assumes twice per year for 30 years
** Fence repair assumes 10 feet per year
*** Cap repair assumes 100 sq. ft. per year

APPENDIX A

Proof of Ownership

Utah Association of REALTORS®

REAL ESTATE PURCHASE CONTRACT FOR LAND

This is a legally binding contract. If you desire legal or tax advice, consult your attorney or tax advisor.

EARNEST MONEY RECEIPT

Buyer Mike Dunn offers to purchase the Property described below and hereby delivers to the Brokerage, as Earnest Money, the amount of $ 10.00 in the form of cash which, upon Acceptance of this offer by all parties (as defined in Section 23), shall be deposited in accordance with state law.

Received by: _____ on _____ (Date)
(Signature of agent/broker acknowledges receipt of Earnest Money)

Brokerage: N/A Phone Number: _____

OFFER TO PURCHASE

1. PROPERTY: _____

also described as: _____

City of _____ County of Tooele State of Utah, ZIP _____ (the "Property").

1.1 Included Items. (specify) mineral mining rights.

1.2 Water Rights/Water Shares. The following water rights and/or water shares are included in the Purchase Price.
[ ] N/A Shares of Stock in the N/A (Name of Water Company)
[ ] Other (specify) N/A

2. PURCHASE PRICE The purchase price for the Property is $_____
The purchase price will be paid as follows:

$_____ **(a) Earnest Money Deposit. Under certain conditions described in this Contract THIS DEPOSIT MAY BECOME TOTALLY NON-REFUNDABLE.**

$_____ **(b) New Loan.** Buyer agrees to apply for one or more of the following loans:
[ ] CONVENTIONAL [ ] OTHER (specify) _____
If the loan is to include any particular terms, then check below and give details:
[ ] SPECIFIC LOAN TERMS _____

$_____ **(c) Seller Financing.** (see attached Seller Financing Addendum, if applicable)

$_____ **(d) Other (specify).** _____

$_____ **(e) Balance of Purchase Price in Cash at Settlement.**

$_____ **PURCHASE PRICE. Total of lines (a) through (e)**

3. SETTLEMENT AND CLOSING. Settlement shall take place on the Settlement Deadline referenced in Section 24(c), or on a date upon which Buyer and Seller agree in writing. "Settlement" shall occur only when all of the following have been completed: (a) Buyer and Seller have signed and delivered to each other or to the escrow/closing office all documents required by this Contract, by the Lender, by written escrow instructions or by applicable law; (b) any monies required to be paid by Buyer under these documents (except for the proceeds of any new loan) have been delivered by Buyer to Seller or to the escrow/closing office in the form of collected or cleared funds; and (c) any monies required to be paid by Seller under these documents have been delivered by Seller to Buyer or to the escrow/closing office in the form of collected or cleared funds. Seller and Buyer shall each pay one-half (½) of the fee charged by the escrow/closing office for its services in the settlement/closing process. Taxes and assessments for the current year, rents, and interest on assumed obligations shall be prorated at Settlement as set forth in this Section. Prorations set forth in this Section shall be made as of the Settlement Deadline date referenced in Section 24(c), unless otherwise agreed to in writing by the parties. Such writing could include the settlement statement. The transaction will be considered closed when Settlement has been completed, and when all of the following have been completed: (i) the proceeds of any new loan have been delivered by the Lender to Seller or to the escrow/closing office; and (ii) the applicable Closing documents have been recorded in the office of the county recorder. The actions described in parts (i) and (ii) of the preceding sentence shall be completed within four calendar days of Settlement.

4. POSSESSION. Seller shall deliver physical possession to Buyer within: **[x] Upon Closing [ ] Other (specify)**

5. CONFIRMATION OF AGENCY DISCLOSURE. At the signing of this contract:
[ ] Seller's Initials [ ] Buyer's Initials

Listing Agent n/a, represents **[ ] Seller [ ] Buyer [ ] both Buyer and Seller as a Limited Agent;**

Listing Broker for n/a (Company Name), represents **[ ] Seller [ ] Buyer [ ] both Buyer and Seller as a Limited Agent;**

Buyer's Agent n/a, represents **[ ] Seller [ ] Buyer [ ] both Buyer and Seller as a Limited Agent;**

Buyer's Broker for n/a (Company Name), represents **[ ] Seller [ ] Buyer [ ] both Buyer and Seller as a Limited Agent;**

6. TITLE INSURANCE. At Settlement, Seller agrees to pay for a standard-coverage owner's policy of title insurance insuring Buyer in the amount of the Purchase Price. Any additional title insurance coverage shall be at Buyer's expense.

7. SELLER DISCLOSURES. No later than the Seller Disclosure Deadline referenced in Section 24(a), Seller shall provide to Buyer the following documents which are collectively referred to as the "Seller Disclosures":
(a) a Seller property condition disclosure for the Property, signed and dated by Seller;
(b) a commitment for the policy of title insurance;
(c) a copy of any leases affecting the Property not expiring prior to Closing;
(d) written notice of any claims and/or conditions known to Seller relating to environmental problems;
(e) evidence of any water rights and/or water shares referenced in Section 1.2 above; and
(f) Other (specify) _____

8. BUYER'S RIGHT TO CANCEL BASED ON BUYER'S DUE DILIGENCE. Buyer's obligation to purchase under this Contract **(check applicable boxes)**:
(a) [X] IS [ ] IS NOT conditioned upon Buyer's approval of the content of all the Seller Disclosures referenced in Section 7;
(b) [X] IS [ ] IS NOT conditioned upon Buyer's approval of a physical condition inspection of the Property;
(c) [ ] IS [X] IS NOT conditioned upon Buyer's approval of a survey of the Property by a licensed surveyor;
(d) [X] IS [ ] IS NOT conditioned upon Buyer's approval of applicable federal, state and local governmental laws, ordinances and regulations affecting the Property; and any applicable deed restrictions and/or CC&R's (covenants, conditions and restrictions) affecting the Property;
(e) [X] IS [ ] IS NOT conditioned upon the Property appraising for not less than the Purchase Price;
(f) [X] IS [ ] IS NOT conditioned upon Buyer's approval of the terms and conditions of any mortgage financing referenced in Section 2 above;
(g) [ ] IS [ ] IS NOT conditioned upon Buyer's approval of the following tests and evaluations of the Property: (specify) DEQ approval and Dolores County approval.
If any of items 8(a) through 8(g) are checked in the affirmative, then Sections 8.1, 8.2, 8.3 and 8.4 apply; otherwise, they do not apply. The items checked in the affirmative above are collectively referred to as Buyer's "Due Diligence." Unless otherwise provided in this Contract, Buyer's Due Diligence shall be paid for by Buyer and shall be conducted by individuals or entities of Buyer's choice. Seller agrees to cooperate with Buyer's Due Diligence and with a final pre-closing inspection under Section 11.

8.1 Due Diligence Deadline. No later than the Due Diligence Deadline referenced in Section 24(b) Buyer shall: (a) complete all of Buyer's Due Diligence; and (b) determine if the results of Buyer's Due Diligence are acceptable to Buyer.

8.2 Right to Cancel or Object. If Buyer determines that the results of Buyer's Due Diligence are unacceptable, Buyer may, no later than the Due Diligence Deadline, either: (a) cancel this Contract by providing written notice to Seller, whereupon the Earnest Money Deposit shall be released to Buyer; or (b) provide Seller with written notice of objections.

8.3 Failure to Respond. If by the expiration of the Due Diligence Deadline, Buyer does not: (a) cancel this Contract as provided in Section 8.2; or (b) deliver a written objection to Seller regarding the Buyer's Due Diligence, The Buyer's Due Diligence shall be deemed approved by Buyer; and the contingencies referenced in Sections 8(a) through 8(g), including but not limited to, any financing contingency, shall be deemed waived by Buyer.

8.4 Response by Seller. If Buyer provides written objections to Seller, Buyer and Seller shall have seven calendar days after Seller's receipt of Buyer's objections (the "Response Period") in which to agree in writing upon the manner of resolving Buyer's objections. Except as provided in Section 10.2, Seller may, but shall not be required to, resolve Buyer's objections. If Buyer and Seller have not agreed in writing upon the manner of resolving Buyer's objections, Buyer may cancel this Contract by providing written notice to Seller no later than three calendar days after expiration of the Response Period; whereupon the Earnest Money Deposit shall be released to Buyer. If this Contract is not canceled by Buyer under this Section 8.4, Buyer's objections shall be deemed waived by Buyer. This waiver shall not affect those items warranted in Section 10.

9. ADDITIONAL TERMS. There [X] **ARE** [ ] **ARE NOT** addenda to this Contract containing additional terms. If there are, the terms of the following addenda are incorporated into this Contract by this reference: [X] **Addenda No.'s** 1
[ ] **Seller Financing Addendum** [ ] **Other (specify)** _____

10. SELLER WARRANTIES AND REPRESENTATIONS.

10.1 Condition of Title. Seller represents that Seller has fee title to the Property and will convey good and marketable title to Buyer at Closing by general warranty deed. Buyer agrees, however, to accept title to the Property subject to the following matters of record: easements, deed restrictions, CC&R's (meaning covenants, conditions and restrictions), and rights-of-way; and subject to the contents of the Commitment for Title Insurance as agreed to by Buyer under Section 8. Buyer also agrees to take the Property subject to existing leases affecting the Property and not expiring prior to Closing. Buyer agrees to be responsible for taxes, assessments, homeowners association dues, utilities, and other services provided to the Property after Closing. Seller will cause to be paid off by Closing all mortgages, trust deeds, judgments, mechanic's liens, tax liens and warrants. Seller will cause to be paid current by Closing all assessments and homeowners association dues.

IF ANY PORTION OF THE PROPERTY IS PRESENTLY ASSESSED AS "GREENBELT" (CHECK APPLICABLE BOX):

[X] SELLER [ ] BUYER SHALL BE RESPONSIBLE FOR PAYMENT OF ANY ROLL-BACK TAXES ASSESSED AGAINST THE PROPERTY.

10.2 Condition of Property. Seller warrants that the Property will be in the following condition **ON THE DATE SELLER DELIVERS PHYSICAL POSSESSION TO BUYER:**

(a) the Property shall be free of debris and personal property;

(b) the Property will be in the same general condition as it was on the date of Acceptance.

11. FINAL PRE-CLOSING INSPECTION. Before Settlement, Buyer may, upon reasonable notice and at a reasonable time, conduct a final pre-closing inspection of the Property to determine only that the Property is "as represented," meaning that the Property has been repaired/corrected as agreed to in Section 8.4, and is in the condition warranted in Section 10.2. If the Property is not as represented, Seller will, prior to Settlement, repair/correct the Property, and place the Property in the warranted condition or with the consent of Buyer (and Lender if applicable), escrow an amount at Settlement sufficient to provide for the same. The failure to conduct a final pre-closing inspection or to claim that the Property is not as represented, shall not constitute a waiver by Buyer of the right to receive, on the date of possession, the Property as represented.

12. CHANGES DURING TRANSACTION. Seller agrees that from the date of Acceptance until the date of Closing, none of the following shall occur without the prior written consent of Buyer: (a) no changes in any existing leases shall be made; (b) no new leases shall be entered into; (c) no substantial alterations or improvements to the Property shall be made or undertaken; and (d) no further financial encumbrances affecting the Property shall be made.

13. AUTHORITY OF SIGNERS. If Buyer or Seller is a corporation, partnership, trust, estate, limited liability company or other entity, the person executing this Contract on its behalf warrants his or her authority to do so and to bind Buyer and Seller.

14. COMPLETE CONTRACT. This Contract together with its addenda, any attached exhibits, and Seller Disclosures, constitutes the entire Contract between the parties and supersedes and replaces any and all prior negotiations, representations, warranties, understandings or contracts between the parties. This Contract cannot be changed except by written agreement of the parties.

15. DISPUTE RESOLUTION. The parties agree that any dispute, arising prior to or after Closing, related to this Contract **(check applicable box)**

[X] SHALL

[ ] MAY AT THE OPTION OF THE PARTIES

first be submitted to mediation. If the parties agree to mediation, the dispute shall be submitted to mediation through a mediation provider mutually agreed upon by the parties. Each party agrees to bear its own costs of mediation. If mediation fails, the other procedures and remedies available under this Contract shall apply. Nothing in this Section 15 shall prohibit any party from seeking emergency equitable relief pending mediation.

16. DEFAULT. If Buyer defaults, Seller may elect either to retain the Earnest Money Deposit as liquidated damages, or to return it and sue Buyer to specifically enforce this Contract or pursue other remedies available at law. If Seller defaults, in addition to return of the Earnest Money Deposit, Buyer may elect either to accept from Seller a sum equal to the Earnest Money Deposit as liquidated damages, or may sue Seller to specifically enforce this Contract or pursue other remedies available at law. If Buyer elects to accept liquidated damages, Seller agrees to pay the liquidated damages to Buyer upon demand.

17. ATTORNEY FEES AND COSTS. In the event of litigation or binding arbitration to enforce this Contract, the prevailing party shall be entitled to costs and reasonable attorney fees. However, attorney fees shall not be awarded for participation

in mediation under Section 15.

18. NOTICES. Except as provided in Section 23, all notices required under this Contract must be: (a) in writing; (b) signed by the party giving notice; and (c) received by the other party or the other party's agent no later than the applicable date referenced in this Contract.

19. ABROGATION. Except for the provisions of Sections 10.1, 10.2, 15 and 17 and express warranties made in this Contract, the provisions of this Contract shall not apply after Closing.

20. RISK OF LOSS. All risk of loss to the Property, including physical damage or destruction to the Property or its improvements due to any cause except ordinary wear and tear and loss caused by a taking in eminent domain, shall be borne by Seller until the transaction is closed.

21. TIME IS OF THE ESSENCE. Time is of the essence regarding the dates set forth in this Contract. Extensions must be agreed to in writing by all parties. Unless otherwise explicitly stated in this Contract: (a) performance under each Section of this Contract which references a date shall absolutely be required by 5:00 PM Mountain Time on the stated date; and (b) the term "days" shall mean calendar days and shall be counted beginning on the day following the event which triggers the timing requirement (i.e., Acceptance, etc.). Performance dates and times referenced herein shall not be binding upon title companies, lenders, appraisers and others not parties to this Contract, except as otherwise agreed to in writing by such non-party.

22. FAX TRANSMISSION AND COUNTERPARTS. Facsimile (fax) transmission of a signed copy of this Contract, any addenda and counteroffers, and the retransmission of any signed fax shall be the same as delivery of an original. This Contract and any addenda and counteroffers may be executed in counterparts.

23. ACCEPTANCE. "Acceptance" occurs when Seller or Buyer, responding to an offer or counteroffer of the other: (a) signs the offer or counteroffer where noted to indicate acceptance; and (b) communicates to the other party or to the other party's agent that the offer or counteroffer has been signed as required.

24. CONTRACT DEADLINES. Buyer and Seller agree that the following deadlines shall apply to this Contract:

(a) **Seller Disclosure Deadline** 120 days **(Date)**

(b) **Due Diligence Deadline** 120 days **(Date)**

(c) **Settlement Deadline** 120 days **(Date)**

25. OFFER AND TIME FOR ACCEPTANCE. Buyer offers to purchase the Property on the above terms and conditions. If Seller does not accept this offer by: _____ **[ ] AM [ ] PM** Mountain Time on _____ **(Date)**, this offer shall lapse; and the Brokerage shall return the Earnest Money Deposit to Buyer.

_____

(Buyer's Signature) (Offer Date) (Buyer's Signature) (Offer Date)

The later of the above Offer Dates shall be referred to as the "Offer Reference Date"

_____ _____ _____ _____

(Buyers' Names) **(PLEASE PRINT)** (Notice Address) (Zip Code) (Phone)

 Seller's Initials DD Date 10/18/12 Buyer's Initials _____ Date 10/16/12

ACCEPTANCE/COUNTEROFFER/REJECTION

CHECK ONE:

[ ] ACCEPTANCE OF OFFER TO PURCHASE: Seller Accepts the foregoing offer on the terms and conditions specified above.

[X] COUNTEROFFER: Seller presents for Buyer's Acceptance the terms of Buyer's offer subject to the exceptions or modifications as specified in the attached ADDENDUM NO. 1

x Drew Downs 10/15/12

(Seller's Signature) (Date) (Time) (Seller's Signature) (Date) (Time)

x Drew Downs 1731 N. 1400 E Lehi Utah 84043 801-910-6003

(Sellers' Names) (PLEASE PRINT) (Notice Address) (Zip Code) (Phone)

[ ] REJECTION: Seller rejects the foregoing offer.

(Seller's Signature) (Date) (Time) (Seller's Signature) (Date) (Time)

 UAR FORM 19

ADDENDUM NO.
TO
REAL ESTATE PURCHASE CONTRACT

THIS IS AN [X] ADDENDUM [ ] COUNTEROFFER to that REAL ESTATE PURCHASE CONTRACT (the "REPC") with an Offer Reference Date of _____, including all prior addenda and counteroffers, between _____ as Buyer, and _____ as Seller, regarding the Property located at _____. The following terms are hereby incorporated as part of the REPC:

Upon approval of the property with DEQ and Tooele County buyer and seller will come to a final sales price and settlement date.

BUYER AND SELLER AGREE THAT THE CONTRACT DEADLINES REFERENCED IN SECTION 24 OF THE REPC (CHECK APPLICABLE BOX): [ ] REMAIN UNCHANGED [ ] ARE CHANGED AS FOLLOWS: _____

To the extent the terms of this ADDENDUM modify or conflict with any provisions of the REPC, including all prior addenda and counteroffers, these terms shall control. All other terms of the REPC, including all prior addenda and counteroffers, not modified by this ADDENDUM shall remain the same. **[ ] Seller [✓] Buyer** shall have until 12:00 **[ ] AM [X] PM** Mountain Time on _____(Date), to accept the terms of this ADDENDUM in accordance with the provisions of Section 23 of the REPC. Unless so accepted, the offer as set forth in this ADDENDUM shall lapse.

Drew Dunn 10/15/12

[ ] Buyer [X] Seller Signature (Date) (Time) [ ] Buyer [ ] Seller Signature (Date) (Time)

ACCEPTANCE/COUNTEROFFER/REJECTION

CHECK ONE:

[X] **ACCEPTANCE: [ ] Seller [X] Buyer** hereby accepts the terms of this ADDENDUM.

[ ] COUNTEROFFER: [ ] Seller [ ] Buyer presents as a counteroffer the terms of attached ADDENDUM NO. ____.

X 10/16/12

(Signature) Mike Dunn (Date) (Time) (Signature) (Date) (Time)

[ ] REJECTION: [ ] Seller [ ] Buyer rejects the foregoing ADDENDUM.

(Signature) (Date) (Time) (Signature) (Date) (Time)

APPENDIX B

Historical Survey

COVER PAGE
Must Accompany All Project Reports
Submitted to Utah SHPO

Project Name: Cultural Resource Inventory Of The Five Mile Recycle Project, Rush Valley, Tooele County, Utah

State Project No.: U-12-EZ-0894p

Report Date: 10-09-2012 County (ies): Tooele
Principal Investigator: Scott Billat Field Supervisor(s): Scott Billat
Records search completed at what office(s)? SHPO
Record search date(s): 10/1/2012
Acreage Surveyed
Intensive: 82 acre Recon/Intuitive:

7.5' Series USGS Map Reference(s): Fivemile Pass, UT 7.5 min

Sites Reported	Count	Smithsonian Site Numbers
Archaeological Sites		
Revisits (no inventory form update)	0	
Revisits (updated IMACS site inventory form attached)	0	
New Recordings (IMACS site inventory form attached)	0	
Total Count of Archaeological Sites	0	
Historic Structures (USHS 106 site info form attached)	0	
Total National Register Eligible Sites	0	

Checklist of Required Items

1. 1 Copy of the Final Report,
2. Copy of 7.5' Series USGS Map with Surveyed/Excavated Area Clearly Identified.
3. Completed IMACS Site Inventory Forms, Including Parts A and B or C, the IMACS encoding form, Site Sketch Map, Photographs, and Copy of the Appropriate 7.5' Series USGS Map with the Site Location Clearly Marked and Labeled with the Smithsonian Site Number.
4. Completed ACover Sheet@ Accompanying Final Report and Survey Materials

CULTURAL RESOURCE INVENTORY OF THE FIVE MILE RECYCLE PROJECT, RUSH VALLEY, TOOELE COUNTY, UTAH

EnviroWest Cultural Resource Report 12-07

By
Scott Billat

Prepared for
H&H Engineering & Surveying, Inc.
233 East Main Street, Suite 2
American Fork, Utah 84003

Submitted by

EnviroWest LLC.
330 S. Woodland Hills Drive
Woodland Hills, Utah 84653

October 9, 2012

Under Authority of Utah State Permit Number 88

Utah State Project Authorization Number - U-12-EZ-0894p

ABSTRACT

On behalf of H&H Engineering and Surveying Inc., EnviroWest LLC has conducted a cultural resource assessment for the proposed 82 acre Five Mile Recycle Project that is situated on the east side of Rush Valley, Tooele County, Utah. The project is situated in the Fivemile Pass area of SR-73, near the Tooele/Utah County line. This cultural resource assessment is in fulfillment of requirements for the Department of Environmental Quality (DEQ). Most of the 82 acre project location has been previously disturbed by three large mine exploration pits, along with extensive impacts from off-road vehicles, and ATV trails throughout the area. No newly identified sites were found during the inventory. Also, no previously identified cultural resources were noted at the project location. Therefore the project would have no effect on any known cultural resources based on the proposed development.

TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

1.0 INTRODUCTION

On behalf of H&H Engineering and Surveying Inc., EnviroWest LLC has conducted a cultural resource assessment for the proposed 82 acre Five Mile Recycle Project that is situated on the east side of Rush Valley, Tooele County, Utah (Figure 1). The project is situated in the Fivemile Pass area of SR-73, near the Tooele/Utah County line. This cultural resource assessment is in fulfillment of requirements for the Department of Environmental Quality (DEQ). The field work was conducted on October 1, 2012 by EnviroWest archaeologist Scott Billat. The project was completed under Utah State Project Authorization Number U-12-EZ-0894p.

Proposed Action

The proposed Five Mile Recycle development is intended to be a Class IV Landfill for recycle centers currently operating in Orem and Heber, along with potentially other locations along the Wasatch Front in Utah. The proposed development will be the location to which construction waste is hauled after it has been dumped and sorted from other recycle locations. The two or three existing pits within the 82 acre project area will be filled with the leftover waste and mixed with existing soil on site. An existing half mile long improved dirt road proceeds into the proposed project location.

2.0 LOCATION

The project is situated on the east side of Rush Valley, in the Fivemile Pass area of SR-73, near the Tooele/Utah County line (Figure 2). The development will be contained on private lands that has been utilized in the past for mining exploration. The irregular shaped 82 acre project area crosses over two sections. The project is contained within the NW1/4 SW1/4 and the SW1/4 NW1/4 of Section 4 and the E1/2 NE1/4 of Section 5, in T7S R3W and is on the *Fivemile Pass, Utah* quadrangle 7.5 minute map.

3.0 ENVIRONMENTAL SETTING

The general project area is situated in the eastern portion of Rush Valley. The area is located in the Fivemile Pass area which separates Rush Valley from Cedar Valley to the east. The area is also at the southern terminus of the Oquirrh Mountains which extend north towards the Great Salt Lake. The elevation of the general project area is 5,000 to 5,500 above sea level (asl), from the valley floor to the alluvial fan along slopes of the Oquirrh Mountains. The natural vegetation in the area consists mostly of sagebrush, rabbitbrush, grasses, and juniper. Water in the area is the form of small seeps and springs that are sparcely scattered in the hills and valley areas. Numerous dry drainages crisscross the foothills and alluvial fan areas. One of the larger sources of water/wetland areas is Big Spring, about five miles to the east in Cedar Valley near Fairfield.

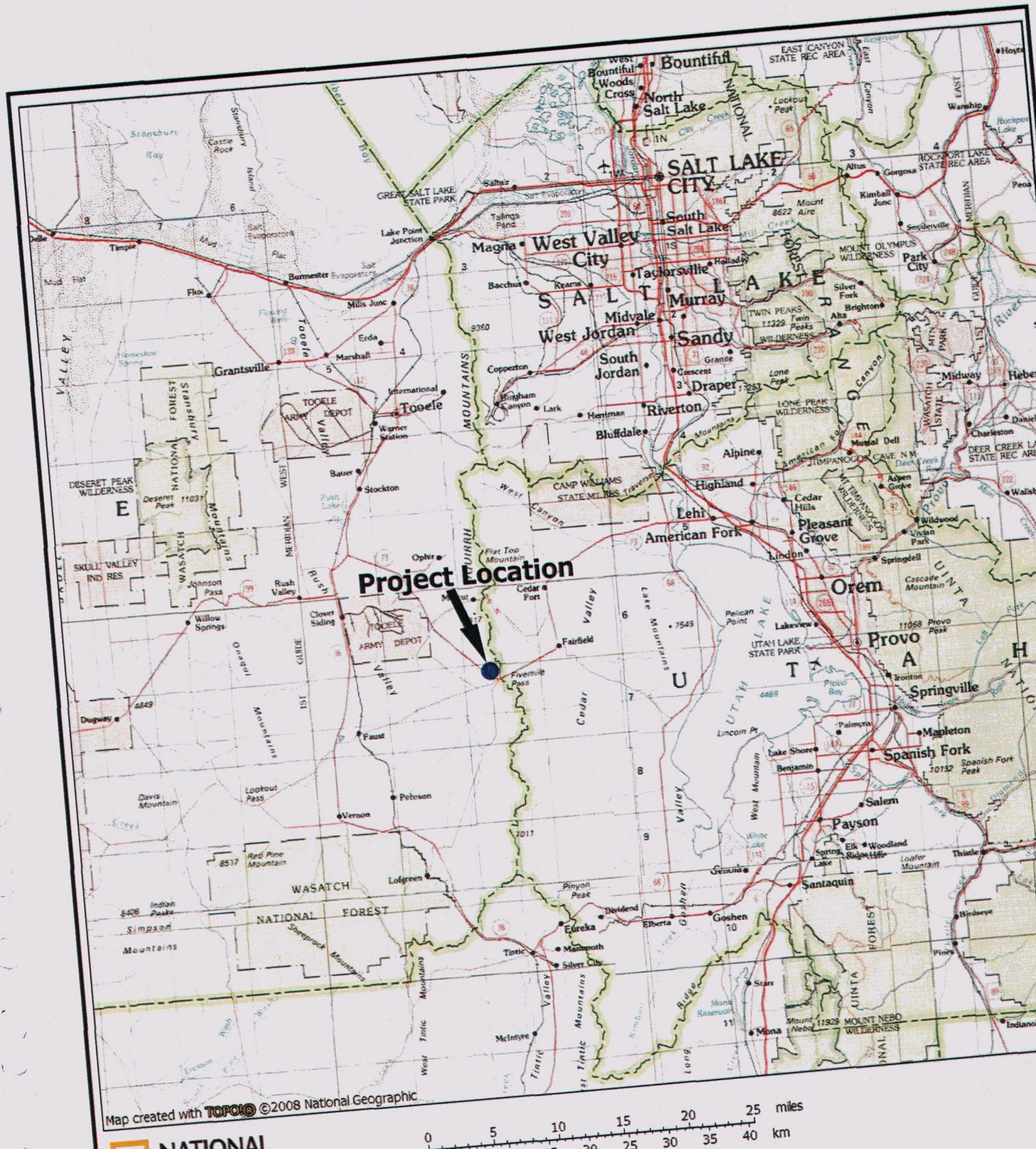


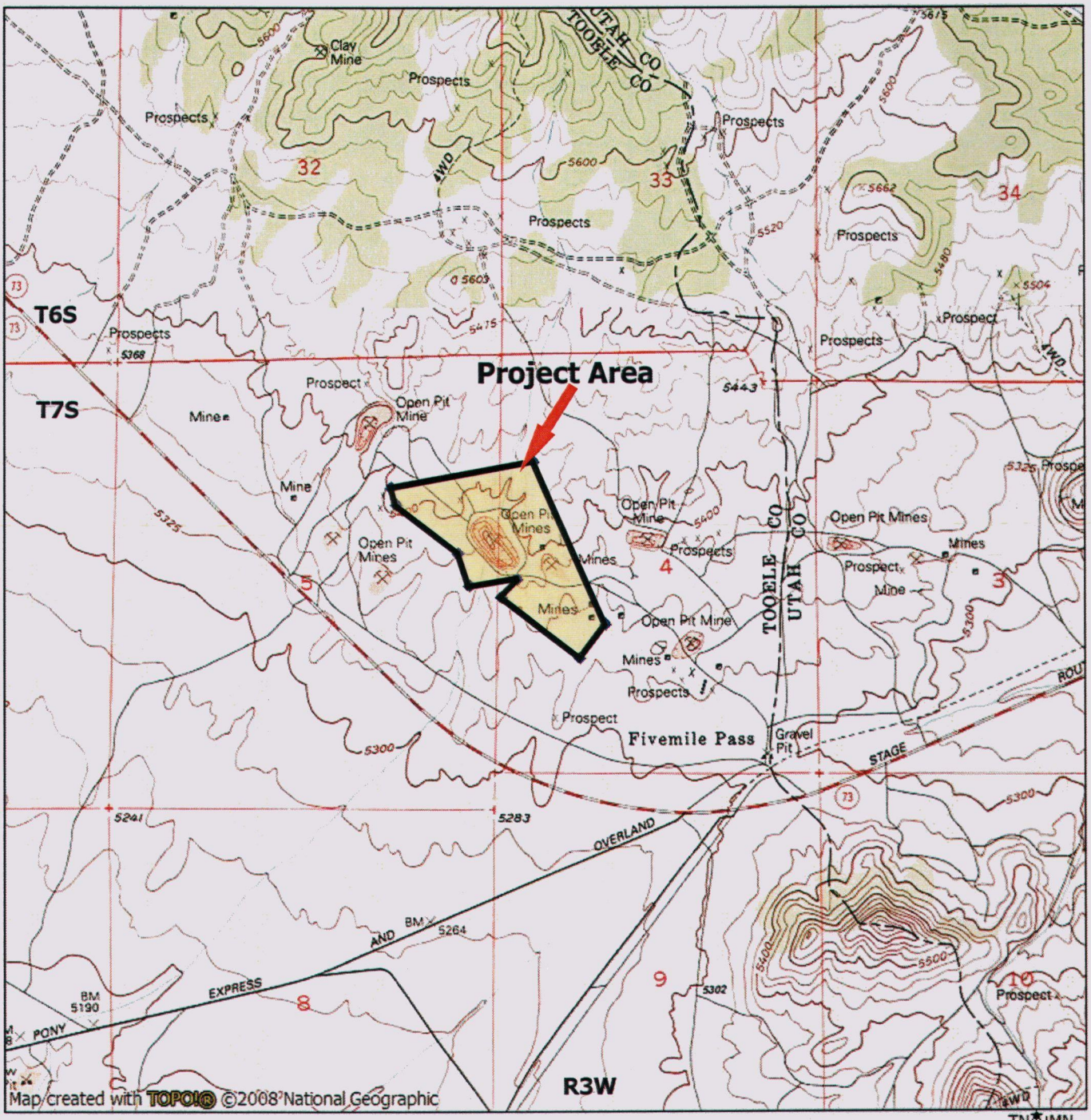
Figure 1
Project Location

Five Mile Recycle Project

Map Key:

USGS 1:500,00, UT

EnviroWest
330 S. Woodland Hills Dr., Woodland Hills, UT 84653
Office: 801-609-7999
info@envirowestllc.com



EnviroWest
330 S. Woodland Hills Dr., Woodland Hills, UT 84653
Office: 801-609-7999
info@envirowestllc.com

Figure 2
Project Location

Five Mile Recycle Project

Map Key:

Class III

USGS Topo: Five Mile Pass, UT

4.0 PREVIOUS RESEARCH

A literature review was conducted via the Utah Division of State History (USDH) Historical Data Management System on October 1, 2012. Four previously conducted inventories were reported within ½-mile of the project area (see Table 1). These projects included mining developments and abandoned mines reclamation, along with highway and fiber optic projects associated with SR-73. No cultural resource sites or historic properties have been identified within ½ mile of the project area.

Table 1. Previous Inventories Conducted Within or Near the Current Project Area.

Project No.	Project Name	Organization/ Author(s)	Year
U86BC185	SR-23 and Borrow Area near Fairfield, for UDOT, Tooele County, Utah	BYU-OPA/Nielson	1986
U97ST854	Fivemile Pass/West Dip Abandoned Mine Inventory for DOGM, Tooele County,Utah	SWCA/Skinner	1998
U08IG546	Fivemile Pass Mining and Access Roads for Interpace, Tooele County, Utah	Intersearch/ Frank	2008
U08HO086	Cedar Fort to SR-36 Fiber Optic Inventory, Tooele and Utah Counties, Utah	Bighorn Archaeology/ Baxter	2008

5.0 CULTURE HISTORY

THE OQUIRRH MOUNTAINS: The following contextual history is from Crump (1994:401-402):

> The first attempt to settle in the Oquirrhs occurred in 1848. At that time two Mormon pioneer brothers, Thomas and Sanford Bingham, set up camp at the mouth of Bingham Canyon. They had been sent to the area by Brigham Young, who had requested that they take a herd of horses and cattle belonging to himself, the Bingham family, and others, up to the high land around the main canyon. For the next year or so, the Bingham brothers spent their time in what became known as Bingham Canyon, herding cattle and, to a limited degree, prospecting for valuable minerals. Some ores were found, but the brothers were advised by Brigham Young not to engage in mining at that time. The ore finds were soon forgotten after 1850 when the Binghams left on a mission to settle Weber County. For the next decade, the Oquirrhs continued to be used as a grazing ground as well as a valuable source of timber for the Mormons.
>
> In 1863 Bingham Canyon was being logged by George B. Ogilvie, an apostate Mormon; Archibald Gardner, the bishop of West Jordan; and some soldiers from Camp Douglas. One afternoon in September, Ogilvie and others uncovered a piece of ore while in the process of dragging out logs. Ogilvie sent the ore to General Patrick Connor, who assayed it and found that it contained gold and silver. A picnic to Bingham Canyon was organized a few days later

by some officers at Camp Douglas and their wives. While eating lunch, one of the ladies found a piece of ore on the mountainside. The soldiers prospected further, found the vein, and staked off a claim. Some contend that the combination of these two stories marked the beginning of the history of mining for precious metals in Utah.

The Jordan Silver Mining Company was formed immediately after the picnickers' discovery at a meeting at Gardner's Mill on the Jordan River. Here the mining rules were drawn up by General Connor and adopted by the twenty-five members present. The West Mountain Mining District was organized on 17 September 1863, and included most of the Oquirrh Mountains. This was Utah's first mining district.

Miners soon swarmed into the area from throughout the West. As various mines (with names such as Old Jordan, Winnamuck, Galena, and No-You-Don't), were located and worked, temporary camps sprang up all over Bingham Canyon. Miners, in search of pay dirt, soon spilled over to the western slope of the Oquirrhs. As a result, the Rush Valley Mining District was created in 1864 to encompass that area. There the town of Stockton was founded by General Connor, who named it after his home in California. The mining camp of Ophir soon sprang up to the south when prospectors learned that Indians had previously worked that area to make silver and gold trinkets as well as lead bullets. News of these discoveries spread rapidly and miners explored even farther south to open up the Tintic area in 1870-71. Some of the mines yielded rich deposits, but the recoverable ore was soon exhausted. Later, when technology advanced, many mines were reopened. Lode mining received its biggest boost with the arrival at the Oquirrhs of the Bingham and Camp Floyd branch of the Utah Central Railroad in 1873.

In 1882 quicksilver deposits were located in a canyon between the Ophir and Tintic mines. However, it was too difficult at that time to separate the silver from the mercury (from which the mining camp of Mercur received its name). So it was not until 1893, when the cyanide separation process was perfected, that the Mercur mines began to be profitable.

During the period from 1880 to 1896, lead and silver replaced gold as the main minerals mined in the Oquirrh district. At that time hardly anyone thought that Utah was destined to become famous for its copper. The red mineral was considered inferior and unable to be mined in Utah. It was not until the turn of the century and the dawn of the electrical age that copper began to be taken from the Oquirrhs.

Samuel Newhouse initiated copper mining in 1896 when he shipped out the first copper sulfides from the Highland Boy Mine. Another person who had seen the possibilities of the low-grade copper deposits was Colonel Enos Wall. With no competition at all, he bought up and consolidated old claims. People scoffed at his acquisitions and called them "Wall's Rocks." Wall obtained the financial backing of Captain Joseph R. Delamar, who hired two young mining engineers, Daniel C. Jackling and Robert Gemmell, to examine his newly purchased property. They believed that the low-grade ore could be financially profitable if it was mined in large quantities, using the open-pit mining process. Believing the skeptics who

claimed the concept was too radical, Delamar gave up his options on Wall's property. Jackling picked up these options, however, and by 1903 had secured options on 80 percent of Wall's property. With additional financial backing, in 1903 he formed the Utah Copper Company, which later was merged with the Kennecott Copper Corporation. Jackling has rightly been called the "Father of Utah Copper Mining."

With the formation of large mining companies around the turn of the century, the day of the solitary prospector and his mule was over. Mining became a big business which required huge amounts of capital and a large supply of labor. The undertakings of these large Utah mining companies have since helped to make the Oquirrh Mountains world famous for their mineral production. In fact, so much wealth has been taken from the Oquirrhs that it has been estimated that the value of minerals taken from Bingham Canyon alone exceeds by eight times all of the finds of the California and Klondike gold rushes plus the yields of Nevada's Comstock Lode.

6.0 INVENTORY METHODS

The project was inventoried by EnviroWest archaeologist Scott Billat on October 1, 2012, by walking 30-meter wide transects over the identified area, outside of the existing mining pit zones. Project boundaries were indicated by nine surveyed corner posts. These boundary corners were identified using a GPS unit and utilized for the report project map. Also, it was determined that the current project area overlapped the larger abandoned mine inventory conducted by SWCA in 2008 for Division of Oil, Gas, and Mining (DOGM).

7.0 INVENTORY RESULTS

The Class III pedestrian inventory of the proposed project area was conducted in October 2012. Most of the 82 acre project location has been previously disturbed by three large mine exploration pits, along with extensive impacts from off-road vehicles, and ATV trails throughout the area. No newly identified sites or isolated artifacts were found during the inventory. Also, no previously identified cultural resources were noted at the project location.

8.0 SUMMARY AND CONCLUSIONS

On behalf of H&H Engineering and Surveying Inc., EnviroWest LLC has conducted a cultural resource assessment for the proposed 82 acre Five Mile Recycle Project that is situated on the east side of Rush Valley, Tooele County, Utah. The project is situated in the Fivemile Pass area of SR-73, near the Tooele/Utah County line. This cultural resource assessment is in fulfillment of requirements for the Department of Environmental Quality (DEQ). Most of the 82 acre project location has been previously disturbed by mine exploration, as well as extensive impacts from off-road vehicles and ATV trails throughout the area. No newly identified sites or isolated artifacts were found during the inventory. Also, no previously identified cultural resources were noted at the project location. Therefore the project would have no effect on any known cultural resources based on the proposed development.

There is always the possibility of encountering previously unidentified cultural resources during any ground disturbing activities. In order to protect any unidentified or unrecorded cultural properties that may exist, the following restrictions should apply during development of the project:

1. Personnel and equipment associated with the project should be restricted to the area cleared for the project.

2. Personnel associated with the project should refrain from collecting or otherwise disturbing cultural materials that may be encountered during development.

3. If unrecorded cultural materials are encountered during the project, activities in the affected area(s) should cease, and the Utah State Historic Preservation office should be notified before development in the area is resumed.

4. Human burials or other physical remains encountered during the project, require immediate cessation of activity in the affected area, as well as immediate notification of proper authorities. Native American burials or other remains must be reported to the Utah SHPO and appropriate Native American groups.

9.0 REFERENCES

Baxter, J.

2008 Cedar Fort to SR-36 Fiber Optic Inventory, Tooele and Utah Counties, Utah. Prepared by Bighorn Archaeology [U-08-HO-0086]

Crump, S.

1994 The Oquirrh Mountains. In *Utah History Encyclopedia* Edited by Allen Kent Powell. Pg 401-402 University of Utah Press, Salt Lake City.

Frank, B.

2008 Fivemile Pass Mining and Access Roads for Interpace, Tooele County, Utah [U-08-IG-0546ps]

Nielson, A.

1986 SR-23 and Borrow Area near Fairfield, for UDOT, Tooele County. Brigham Young University, Office of Public Archaeology, Provo, Utah [U-86-BC-0185].

Skinner, B.

1998 Fivemile Pass/West Dip Abandoned Mine Inventory for DOGM, Tooele County, Utah. Prepared by SWCA [U-97-ST-0854].

APPENDIX C

Notice of Intent

December 10, 2012

Bureau of Land Management
2370 South 2300 West
Salt Lake City, Utah 84119

RE: Five Mile Recycle Landfill

To Whom It May Concern:

Notice is hereby given that DCD intends to apply with the Utah Division of Solid and Hazardous Waste for a permit to own and operate a Class VI Landfill Facility within the West ½ of Section 4, and the East ½ of Section 5 of Township 7 South, Range 3 West Salt Lake Base and Meridian. The property is located within the unincorporated Tooele County, Utah approximately one-half mile north of Highway 73 and 2 miles west of Five Mile Pass as shown in the attached figure.

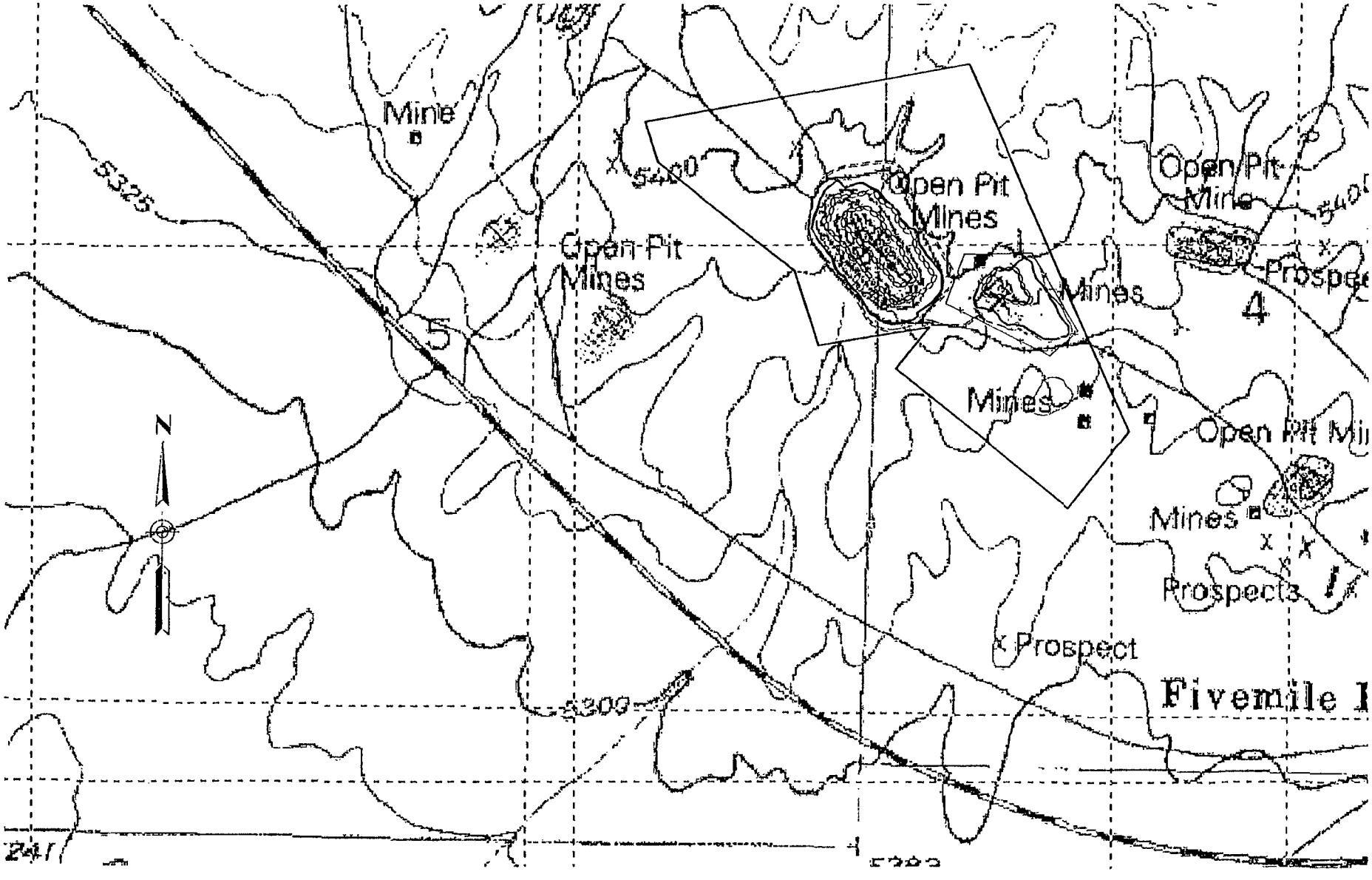
The Utah Division of Solid and Hazardous Waste may be contacted to review and comment on the permit application.

I would also like to make some road improvements on the access road to the property. If you would contact me I would appreciate it. I can be reached at mike@dunnutah.com, my office at 801-221-9001 or my cell phone at 801-420-1464.

Sincerely,

Mike Dunn
Dunn Construction aka DCD

Encl
CC: Steve Allen, BLM
Mike Nelson, BLM
Frankie Delliskave, Interstate Brick



DESIGN	T HANSEN				
DRAWN	T HANSEN				
CHECK	V HANSEN				
APRVD	V HANSEN	NO.	DATE	REVISION	BY

H&H
ENGINEERING & SURVEYING, INC.
233 EAST MAIN, SUITE 2
AMERICAN FORK, UTAH 84003
TEL: (801) 756-2488
FAX: (801) 756-3499

679

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Bureau of Land Management
Attn: Stephen P. Allen
2370 South 2300 West
Salt Lake City, Utah 84119

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X [signature] ☑ Agent ☐ Addressee

B. Received by (*Printed Name*) LaWenta Slam

C. Date of Delivery 12/11/12

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (*Extra Fee*) ☐ Yes

2. Article Number
(*Transfer from service label*) 7012 1010 0000 7629 2123

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Dunn Construction
679 N 1500 W
Orem, UT 84057

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Bureau of Land Mngmt
Attn: Mike Nelson
2370 South 2300 West
SLC, UT 84119

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X [signature] ☐ Agent ☐ Addressee

B. Received by (*Printed Name*) Carmen Haslam

C. Date of Delivery 12/11/12

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7012 1010 0000 7629 2130

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Dunn Construction
679 North 1500 West
Orem, UT 84057

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Interstate Brick
Attn: Frankie Delliskave
9780 South 5200 West
West Jordan, UT 84088

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)*

C. Date of Delivery 12/11/12

D. Is delivery address different from Item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7012 1010 0000 7629 2116

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Dunn Construction
1679 North 500 West
Orem, UT 84057

APPENDIX D

Site Storm Water Run-On Calculations

Run-on Drainage

The following pages are printouts of the output from the WinTR-55 Small Watershed Hydrology program used to calculate the run-on from the drainage area above the project. Information for the program was obtained from the USGS Quad Sheet showing the runoff area, the overall slope and size of the watershed, as well as rainfall data in the area. The first page of the printout gives the Runoff Amount in inches. This amount is 0.587 inches on the entire drainage area.

Converting the 0.587 inches over the entire drainage area calculates to 14.08 acre-ft, or 613,000 cubic feet.

As the length of the berm is near 1000 feet, the water may potentially back up against the berm approximately 7 feet in depth, and 175 feet from the berm. However, upon inspection of the berm, the vegetation has grown on the side slopes, and there are no visible signs that the water has ever been this deep along the berm.

The berm will hold the 100 year storm from reaching the expansion pit.

613,673 cubic feet / 1000 feet = 613.673 square feet

The natural slope of the ground near berm is 4%

Water will back up 7 feet (D) at berm and 175 feet in length (L) to daylight.

$A = \frac{1}{2} * D * L$

$\frac{1}{2} * 7 * 175 = 613$ square feet

Therefore, an area 1000 feet long, and 175 feet wide, 7 feet deep at the berm, and 0 feet deep 175 feet from the berm will store the 613,000 cubic feet of water. (100 year storm)

WinTR-20 Printed Page File Beginning of Input Data List
TR20.inp

WinTR-20: Version 1.10 0 0 0.05
5 Mile Recycle Landfill
no project subtitle provided

SUB-AREA:
Area 1 Outlet .45 80. .623

STREAM REACH:

STORM ANALYSIS:
100-Yr 2.04 Type II 2

STRUCTURE RATING:

GLOBAL OUTPUT:
2 0.05 YYYYN YYYYNN

WinTR-20 Printed Page File End of Input Data List

5 Mile Recycle Landfill
no project subtitle provided

Name of printed page file:
TR20.out

STORM 100-Yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
Area 1	0.450		0.587		12.27	116.79	259.52

Line Start Time (hr)	Flow Values @ time increment of 0.039 hr (cfs)						
11.364	0.07	0.13	0.21	0.32	0.46	0.66	0.94
11.640	1.34	1.95	2.87	4.29	6.39	9.59	14.42
11.915	21.25	30.27	41.62	55.05	69.49	83.76	96.62
12.190	106.85	113.64	116.79	116.71	113.98	109.28	102.82
12.466	95.42	87.74	80.22	73.21	67.10	61.87	57.18
12.741	52.94	49.12	45.67	42.54	39.75	37.28	35.07
13.017	33.10	31.34	29.77	28.36	27.10	25.96	24.91
13.292	23.96	23.10	22.30	21.58	20.91	20.30	19.73
13.568	19.19	18.70	18.22	17.75	17.31	16.88	16.48
13.843	16.11	15.77	15.45	15.16	14.87	14.60	14.34
14.118	14.08	13.83	13.59	13.36	13.14	12.94	12.75
14.394	12.57	12.40	12.25	12.10	11.97	11.85	11.73
14.669	11.62	11.52	11.42	11.32	11.23	11.14	11.05
14.945	10.96	10.88	10.79	10.71	10.63	10.55	10.46
15.220	10.38	10.30	10.22	10.14	10.06	9.98	9.90
15.496	9.82	9.74	9.66	9.57	9.49	9.41	9.33
15.771	9.25	9.16	9.08	9.00	8.92	8.83	8.75
16.046	8.67	8.58	8.50	8.42	8.34	8.26	8.18
16.322	8.11	8.05	7.98	7.93	7.87	7.82	7.77
16.597	7.73	7.69	7.65	7.61	7.57	7.54	7.50
16.873	7.47	7.44	7.41	7.37	7.34	7.31	7.28
17.148	7.25	7.22	7.19	7.16	7.13	7.10	7.07
17.424	7.04	7.01	6.99	6.96	6.93	6.90	6.87
17.699	6.84	6.81	6.78	6.75	6.72	6.69	6.66
17.974	6.63	6.60	6.57	6.54	6.51	6.48	6.45
18.250	6.42	6.39	6.36	6.33	6.30	6.26	6.23
18.525	6.20	6.17	6.14	6.11	6.08	6.05	6.02
18.801	5.99	5.96	5.92	5.89	5.86	5.83	5.80
19.076	5.77	5.74	5.70	5.67	5.64	5.61	5.58
19.352	5.54	5.51	5.48	5.45	5.42	5.38	5.35
19.627	5.32	5.29	5.26	5.22	5.19	5.16	5.13
19.902	5.09	5.06	5.03	4.99	4.96	4.93	4.90
20.178	4.87	4.84	4.81	4.78	4.75	4.73	4.71

$\left(\frac{0.587 in}{12 in/ft}\right)(288 acres) = 14.088 acre$

20.453	4.69	4.67	4.66	4.64	4.63	4.62	4.61
20.729	4.60	4.59	4.58	4.57	4.56	4.55	4.55
21.004	4.54	4.53	4.53	4.52	4.51	4.51	4.50
21.280	4.50	4.49	4.49	4.48	4.47	4.47	4.46
21.555	4.46	4.45	4.45	4.44	4.43	4.43	4.42
21.830	4.42	4.41	4.41	4.40	4.39	4.39	4.38
22.106	4.38	4.37	4.37	4.36	4.35	4.35	4.34

5 Mile Recycle Landfill
no project subtitle provided

Line Start Time (hr)	Flow Values @ time increment of 0.039 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
22.381	4.34	4.33	4.33	4.32	4.31	4.31	4.30
22.657	4.30	4.29	4.29	4.28	4.27	4.27	4.26
22.932	4.26	4.25	4.25	4.24	4.23	4.23	4.22
23.208	4.22	4.21	4.20	4.20	4.19	4.19	4.18
23.483	4.17	4.17	4.16	4.16	4.15	4.14	4.14
23.758	4.13	4.13	4.12	4.12	4.11	4.10	4.10
24.034	4.08	4.05	3.99	3.90	3.76	3.56	3.31
24.309	3.03	2.73	2.43	2.13	1.84	1.58	1.34
24.585	1.13	0.95	0.81	0.68	0.58	0.49	0.42
24.860	0.36	0.30	0.26	0.22	0.18	0.15	0.13
25.136	0.11	0.09	0.08	0.07	0.06		

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
OUTLET	0.450		0.587		12.27	116.79	259.52

Line Start Time (hr)	Flow Values @ time increment of 0.039 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.364	0.07	0.13	0.21	0.32	0.46	0.66	0.94
11.640	1.34	1.95	2.87	4.29	6.39	9.59	14.42
11.915	21.25	30.27	41.62	55.05	69.49	83.76	96.62
12.190	106.85	113.64	116.79	116.71	113.98	109.28	102.82
12.466	95.42	87.74	80.22	73.21	67.10	61.87	57.18
12.741	52.94	49.12	45.67	42.54	39.75	37.28	35.07
13.017	33.10	31.34	29.77	28.36	27.10	25.96	24.91
13.292	23.96	23.10	22.30	21.58	20.91	20.30	19.73
13.568	19.19	18.70	18.22	17.75	17.31	16.88	16.48
13.843	16.11	15.77	15.45	15.16	14.87	14.60	14.34
14.118	14.08	13.83	13.59	13.36	13.14	12.94	12.75
14.394	12.57	12.40	12.25	12.10	11.97	11.85	11.73
14.669	11.62	11.52	11.42	11.32	11.23	11.14	11.05
14.945	10.96	10.88	10.79	10.71	10.63	10.55	10.46
15.220	10.38	10.30	10.22	10.14	10.06	9.98	9.90
15.496	9.82	9.74	9.66	9.57	9.49	9.41	9.33
15.771	9.25	9.16	9.08	9.00	8.92	8.83	8.75
16.046	8.67	8.58	8.50	8.42	8.34	8.26	8.18
16.322	8.11	8.05	7.98	7.93	7.87	7.82	7.77
16.597	7.73	7.69	7.65	7.61	7.57	7.54	7.50
16.873	7.47	7.44	7.41	7.37	7.34	7.31	7.28
17.148	7.25	7.22	7.19	7.16	7.13	7.10	7.07
17.424	7.04	7.01	6.99	6.96	6.93	6.90	6.87
17.699	6.84	6.81	6.78	6.75	6.72	6.69	6.66
17.974	6.63	6.60	6.57	6.54	6.51	6.48	6.45
18.250	6.42	6.39	6.36	6.33	6.30	6.26	6.23
18.525	6.20	6.17	6.14	6.11	6.08	6.05	6.02
18.801	5.99	5.96	5.92	5.89	5.86	5.83	5.80
19.076	5.77	5.74	5.70	5.67	5.64	5.61	5.58

WinTR-20: Version 1.10 0 0 0.05
e Recycle Landfill (continued)
no project subtitle provided

STORM 100-Yr

SUB-AREA:
Area 1 Outlet .45 80. .623

STREAM REACH:

5 Mile Recycle Landfill
no project subtitle provided

Line Start Time (hr)	Flow Values @ time increment of 0.039 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
19.352	5.54	5.51	5.48	5.45	5.42	5.38	5.35
19.627	5.32	5.29	5.26	5.22	5.19	5.16	5.13
19.902	5.09	5.06	5.03	4.99	4.96	4.93	4.90
20.178	4.87	4.84	4.81	4.78	4.75	4.73	4.71
20.453	4.69	4.67	4.66	4.64	4.63	4.62	4.61
20.729	4.60	4.59	4.58	4.57	4.56	4.55	4.55
21.004	4.54	4.53	4.53	4.52	4.51	4.51	4.50
21.280	4.50	4.49	4.49	4.48	4.47	4.47	4.46
21.555	4.46	4.45	4.45	4.44	4.43	4.43	4.42
21.830	4.42	4.41	4.41	4.40	4.39	4.39	4.38
22.106	4.38	4.37	4.37	4.36	4.35	4.35	4.34
22.381	4.34	4.33	4.33	4.32	4.31	4.31	4.30
22.657	4.30	4.29	4.29	4.28	4.27	4.27	4.26
22.932	4.26	4.25	4.25	4.24	4.23	4.23	4.22
23.208	4.22	4.21	4.20	4.20	4.19	4.19	4.18
23.483	4.17	4.17	4.16	4.16	4.15	4.14	4.14
23.758	4.13	4.13	4.12	4.12	4.11	4.10	4.10
24.034	4.08	4.05	3.99	3.90	3.76	3.56	3.31
24.309	3.03	2.73	2.43	2.13	1.84	1.58	1.34
24.585	1.13	0.95	0.81	0.68	0.58	0.49	0.42
24.860	0.36	0.30	0.26	0.22	0.18	0.15	0.13
25.136	0.11	0.09	0.08	0.07	0.06		

WinTR-20 Printed Page File TR20.inp Beginning of Input Data List

WinTR-20: Version 1.10 0 0 0.05
e Recycle Landfill (continued)
no project subtitle provided

STORM 100-Yr

SUB-AREA:
Area 1 Outlet .45 80. .623

STREAM REACH:

5 Mile Recycle Landfill
no project subtitle provided

Area or Drainage ---------- Peak Flow by Storm ----------

WinTR-20: Version 1.10 0 0 0.05
e Recycle Landfill (continued)
no project subtitle provided

STORM 100-Yr

SUB-AREA:
Area 1 Outlet .45 80. .623

STREAM REACH:

Reach Identifier	Area (sq mi)	Alternate	100-Yr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)
Area 1	0.450		116.79				
OUTLET	0.450		116.79				

WinTR-20 Printed Page File Beginning of Input Data List
TR20.inp

WinTR-20: Version 1.10 0 0 0.05
e Recycle Landfill (continued)
no project subtitle provided

STORM 100-Yr

SUB-AREA:
Area 1 Outlet .45 80. .623

STREAM REACH:

APPENDIX E

Phase One Drill Log

DRILL HOLE LOG

BORING NO. 12-1

SHEET 1 OF 1

PROJECT: FIVE MILE PASS CLAY PITS
CLIENT: DUNN CONSTRUCTION
LOCATION: -
DRILLING METHOD: 085-CME-55 / N.W. CASING TO 20'
DRILLER: T. KERN
DEPTH TO WATER - INITIAL: ▽ DRY' AFTER 24 HOURS: ▼ N.M.

PROJECT NUMBER: 201201.032
DATE STARTED: 9/11/12
DATE COMPLETED: 9/11/12
GROUND ELEVATION: 5336.6'
LOGGED BY: M. HANSEN, J. BOONE

Elev. (ft)	Depth (ft)	Lithology	Sample Type	Sample Rec. (in)	Sample See Legend	Sample USCS (AASHTO)	Material Description	Dry Density (pcf)	Moisture Content (%)	Atter. Liquid Limit	Atter. Plast. Index	Gradation Gravel (%)	Gradation Sand (%)	Gradation Silt/Clay (%)	Other Tests
5335															
				8	6,7,17,(48)	GP-GM	gray & brown, dry, med. dense — GRAVEL W/SILT & SAND cobbles & boulders (fill)								
	5														
5330				2	9,22,14,(69)	GP-GM	gray & brown, dry, dense								
				8	15,19,11,(48)	GC	gray, slightly moist, med. dense — CLAYEY GRAVEL W/SAND wood in 12' sample (fill)								
	10														
5325				5	12,14,3,(31)	GC	brown, slightly moist, med. dense								
							CLAYEY GRAVEL W/SAND								
	15					GC	gray, moist								
				12	39,42,18,(73)	CL	brown, moist, hard — GRAVELLY LEAN CLAY W/SAND								
5320				14	6,9,14,(27)	GC	green-brown, moist								
							HEAVILY WEATHERED MUDSTONE breaks down to clay, lost water at 20'								
	20														
5315				15	31,38,25,(38)	GC	rusty-red-brown, dry								
				5	61/6"	-	purple-brown, dry — SHALE								
							BOH								

LEGEND:

DISTURBED SAMPLE: 2,3,2,(5) ← Blow Count per 6" (N_1)$_{60}$ Value; T 0.45 ← Torvane (tsf); PP 3.30 ← Pocket Penetrometer (tsf)

UNDISTURBED SAMPLE: Pushed; T 0.45 ← Torvane (tsf); PP 3.30 ← Pocket Penetrometer (tsf)

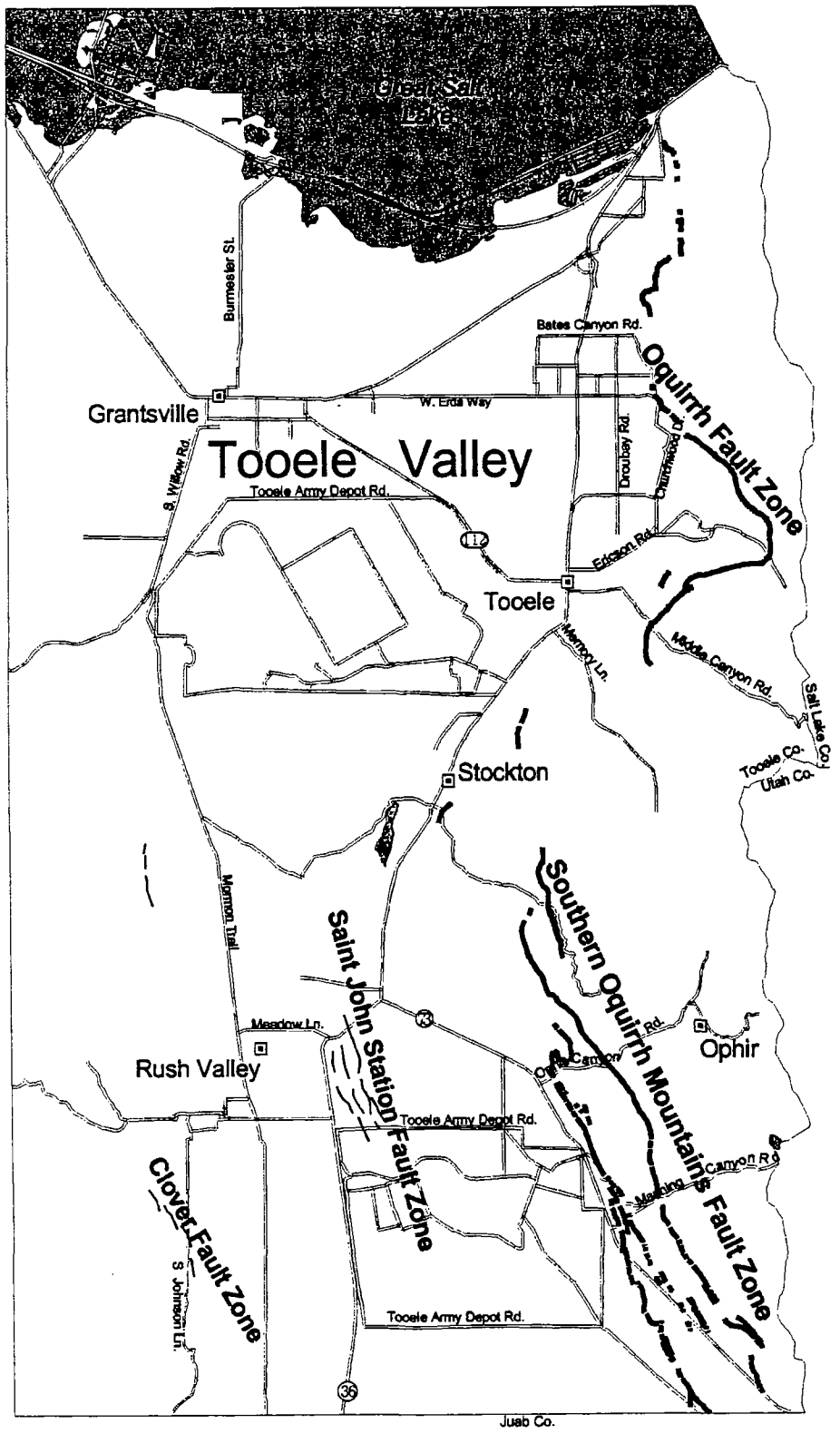
OTHER TESTS
UC = Unconfined Compression
CT = Consolidation
DS = Direct Shear
UU = Unconsolidated, Undrained
CU = Consolidated, Undrained
Chem. = pH, Resistivity, Sulfate, Chloride
Org. = Organic Content

RB&G ENGINEERING, INC.

APPENDIX F

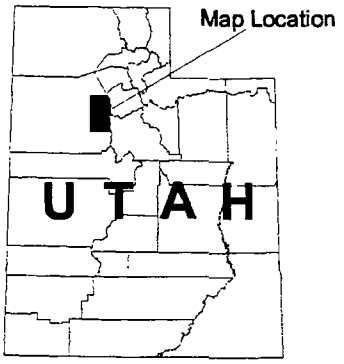
Fault Lines – Utah Geological Survey

EARTHQUAKE FAULT MAP OF A PORTION OF TOOELE COUNTY, UTAH



Explanation

- Latest Quaternary fault (where fault movement has occurred in the past 15,000 years) - Most likely to generate future earthquakes.
- Quaternary fault (15,000 - 1,600,000 years)
- Cities
- Water Bodies



This map is for general reference only.

Modified from "Quaternary Fault and Fold Database and Map of Utah" by Bill D. Black, Suzanne Hecker, Michael D. Hylland, Gary E. Christenson, and Greg N. McDonald, 2003, Utah Geological Survey Map 193DM, and "Geology and Geologic Hazards of Tooele Valley and the West Desert Hazardous Industry Area, Tooele County, Utah" by Bill D. Black, Barry J. Solomon, and Kimm M. Harty, 1999, Utah Geological Survey Special Study 96.

Drafted by Kami Bremser and Deanna Halseth

5 0 5 Kilometers

5 0 5 Miles

N

EARTHQUAKE FAULTS

What is a fault? A fault is a break in the earth's crust along which movement has taken place causing an earthquake. In Utah, movement along faults is mostly vertical; mountain blocks (for example, the Oquirrh Mountains) move up relative to the downward movement of valley blocks (for example, Tooele Valley).

Why are faults a concern? Faults that show evidence of movement within the past 15,000 years (called Latest Quaternary faults on this map) are the main concern because they are generally considered the most likely to generate future earthquakes. If the earthquake is large enough, surface fault rupture can occur.

What is surface fault rupture? In a large earthquake (about magnitude 6.5 and greater), the fault rupture can reach and displace the ground surface, forming a fault scarp (steep break in slope). The resulting fault scarp may be several inches to tens of feet high, and up to tens of miles long, depending on the size of the earthquake.

What are the effects of surface fault rupture?* An area hundreds of feet wide can be affected, called the zone of deformation, which occurs mostly on the downthrown side of the main fault and encompasses multiple minor faults, cracks, local tilting, and grabens (downdropped blocks between faults). Buildings in the zone of deformation can be damaged, particularly those straddling the main fault. Also, anything crossing the fault, such as transportation and lifeline corridors, both underground and above ground, can be damaged. The ground can be dropped below the water table on the downthrown side, resulting in localized flooding. Surface fault rupture can also cause tectonic subsidence on the downthrown side that results in a broad, permanent lowering and tilting of the valley floor down toward the fault scarp. Tilting can cause flooding along lake and reservoir shorelines nearest the fault; along altered stream courses; and along canals, sewer lines, or other gravity-flow systems where slope gradients are lessened or reversed.

Where and when is surface fault rupture likely to occur? On the Latest Quaternary fault on which a magnitude 6.5 (approximate) or larger earthquake occurs. The Oquirrh and Southern Oquirrh Mountains fault zones, which are less active than the neighboring Wasatch fault zone, generate surface-faulting earthquakes on average once every several thousand to tens of thousands of years. The time between large earthquakes is much longer for the faults such as the Clover and Saint John Station.

What can be done to protect homes? Faults can be avoided by setting homes back a safe distance. Special-study areas have been delineated along faults where geologic studies are recommended to assess the hazard, locate faults, and recommend setbacks. However, the use of special-study areas in land-use ordinances varies by county and city, as does the level of enforcement. Therefore, buyers, particularly of older homes (pre-1985), should personally check available fault maps to see if the home is near a fault (within a few hundred feet) and, if so, may want a geological site investigation performed. For newer homes, buyers should check with the county or city to determine whether geologic studies were performed for the site or subdivision and, if so, look at a copy of the geologic report.

Where to get additional information. A statewide fault map is available (on compact disc, as a paper copy, or on the web at http://geology.utah.gov/maps/geohazmap/index.html) from the Utah Geological Survey: *Quaternary fault and fold database and map of Utah*, by Black and others, UGS Map 193DM. This map is an update of a 1993 publication called *Quaternary tectonics of Utah with emphasis on earthquake-hazard characterization*, UGS Bulletin 127, by S. Hecker, 1993, which contains additional geologic information on Utah's earthquake hazard.

* For other earthquake hazards, please see PI-38 and PI-48.

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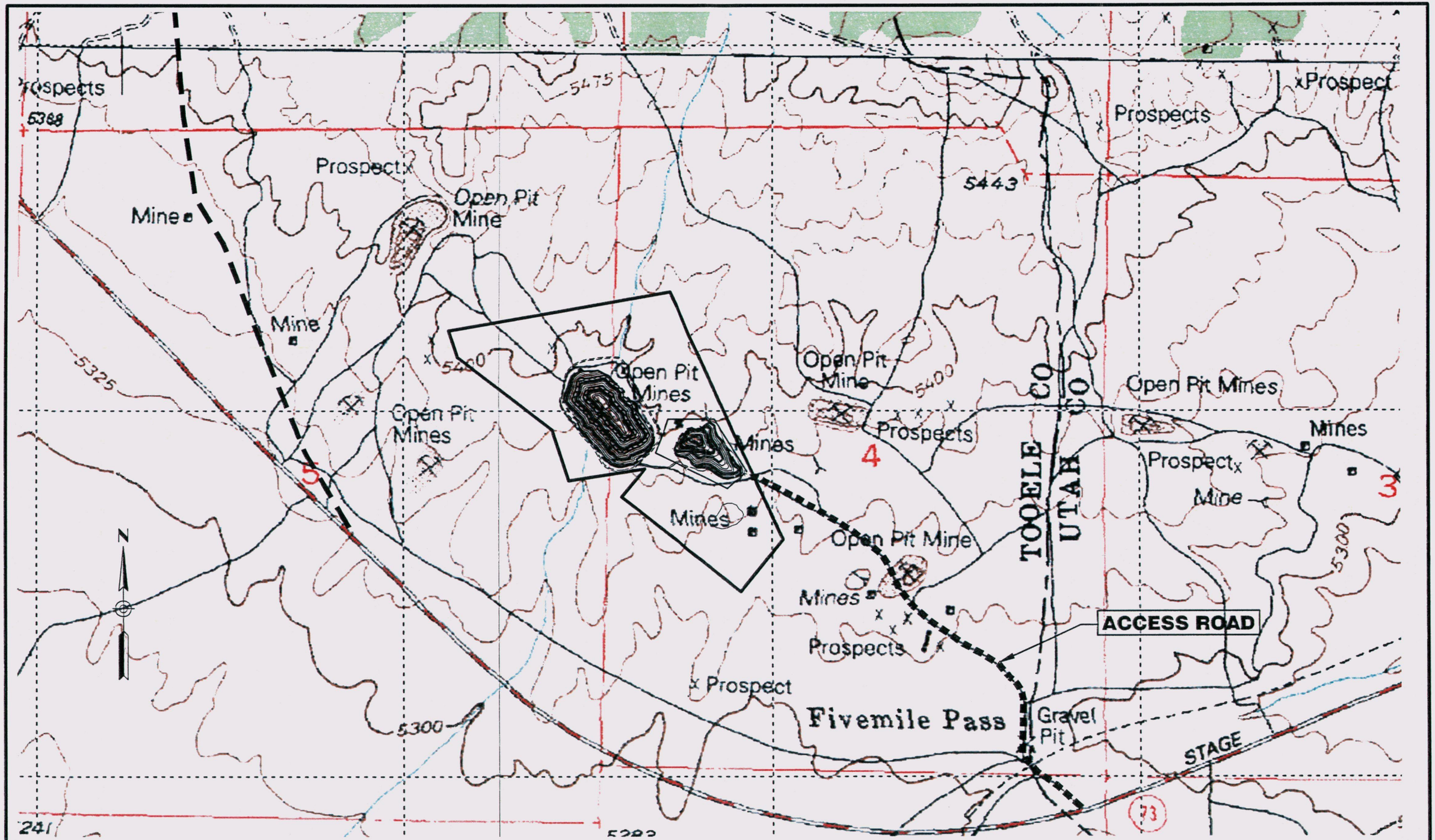
a division of
Utah Department of Natural Resources

UTAH GEOLOGICAL SURVEY

APPENDIX G

Site Maps and Design Details

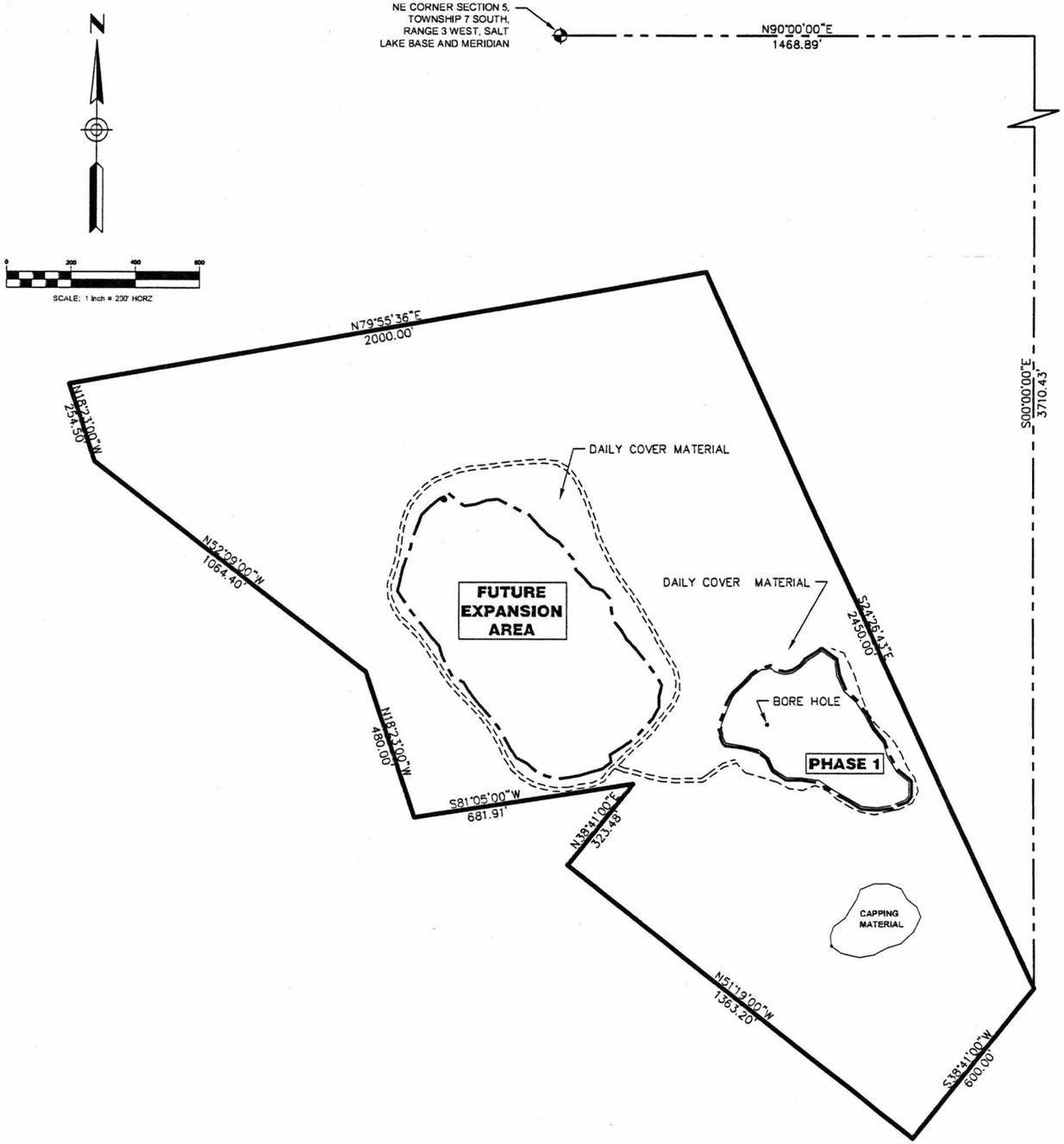


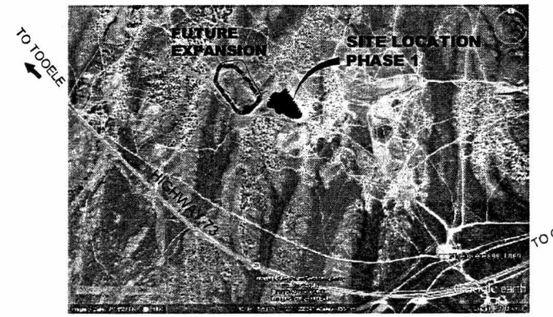
DESIGN T HANSEN DRAWN T HANSEN CHECK V HANSEN APPVD V HANSEN	NO. DATE REVISION BY	**H&H ENGINEERING & SURVEYING, INC.**	233 EAST MAIN, SUITE 2 AMERICAN FORK, UTAH 84003 TEL: (801) 756-2488 FAX: (801) 756-3499	PREPARED FOR: DCD 679 NORTH 1500 WEST OREM, UTAH 84057 TEL: (801) 221-9001

FIVE MILE RECYCLE LANDFILL
TOOELE, UTAH

SITE AREA MAP

SHEET	SITE-3
DWG	CONST. PLANS
DATE	OCT 16, 2012
PROJ	12-123-08





VICINITY MAP
NOT TO SCALE

OVERALL SITE BOUNDARY

Beginning at the common corner No. 3 Spotted Fawn Fire Clay, Corner No. 4 Little Roena Fire Clay (4-7015-LS) and Corner No. 1 Little Sam Fire Clay (1-7202-LS), said point being 1468.89 feet East and 3710.43 feet South from the Northeast Corner of Section 5, Township 7 South, Range 3 West, Salt Lake Base and Meridian (Basis of Bearing being South 38 degrees 41 minutes West, a distance of 600 feet between the common Corner No. 3 Spotted Fawn Fire Clay, Corner No. 4 Little Roena Fire Clay (4-7015-LS) and Corner No. 1 Little Sam Fire Clay (1-7202-LS), and corner No 4 Spotted Fawn Fire Clay); running thence along the Southerly line of Spotted Fawn Fire Clay, South 38 degrees 41 minutes 00 seconds West to the Corner No. 4 Spotted Fawn Fire Clay, a distance of 600.0 feet; thence along the Westerly line of Spotted Fawn Fire clay, North 51 degrees 19 minutes 00 seconds West to the Corner No. 1 Spotted Fawn Fire Clay, a distance of 1363.20 feet; thence along the Northerly line of Spotted Fawn Fire Clay, North 38 degrees 41 minutes 00 Seconds East, a distance of 323.485 feet to a point on the southerly line of Sterling; thence along said Southerly line south 81 degrees 05 minutes 00 seconds West, a distance of 681.908 feet to the Corner No. 4 Cincinatti; thence along the Westerly line of Cincinatti North 18 degrees 23 minutes 00 seconds West, a distance of 480.00 feet to the Corner No. 1 Union; thence along the Southerly line of Union, South 81 degrees 05 minutes West a distance of .30 feet to the Corner No. 2 Union, thence along the boundary line of Union, North 52 degrees 09 minutes 00 seconds West, a distance of 1064.40 feet to the Corner No. 3 Union; thence along the Westerly line of Union North 18 degrees 23 minutes 00 seconds West to the Corner No. 3 Union, a distance of 254.50 feet, thence North 79 degrees 55 minutes 36 seconds East 2000.00 feet; thence South 24 degrees 26 minutes 43 seconds East 2450.00 feet to the point of beginning.

Containing 84.064 Acres, or 3,661,808 Square Feet

DESIGN	T HANSEN
DRAWN	T HANSEN
CHECK	V HANSEN
APRVD	V HANSEN

NO.	DATE	REVISION	BY

VERIFY SCALE
BAR IS ONE INCH IN ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

H&H ENGINEERING & SURVEYING, INC.
233 EAST MAIN, SUITE 2
AMERICAN FORK, UTAH 84003
TEL: (801) 756-2488
FAX: (801) 756-3499

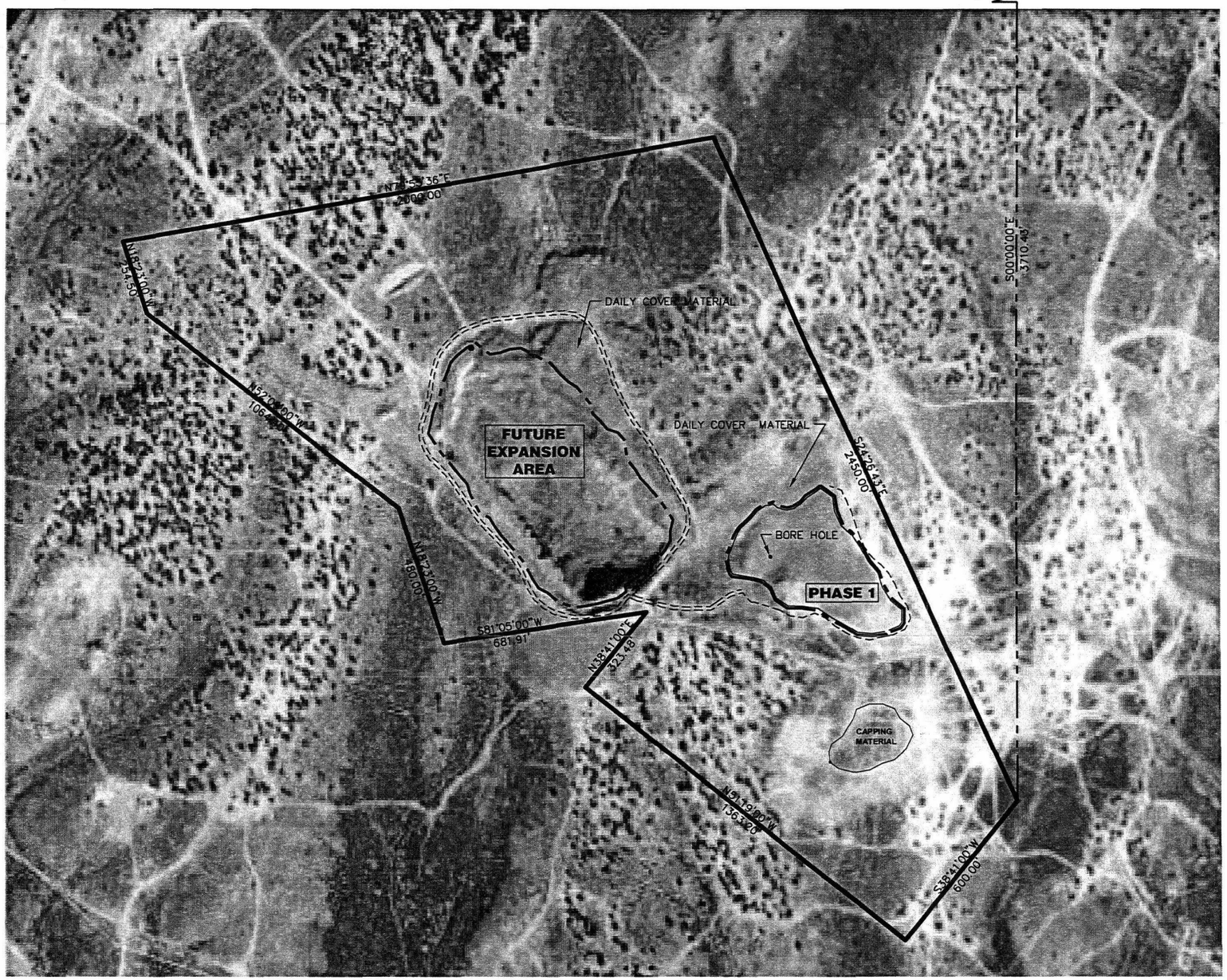
PREPARED FOR:
DUNN CONSTRUCTION
679 NORTH 1500 WEST
OREM, UTAH 84057
TEL: (801) 221-9001

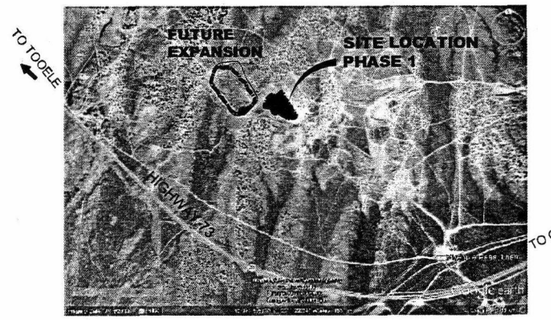
FIVE MILE RECYCLE LANDFILL
TOOELE, UTAH

OVERALL SITE BOUNDARY

SHEET	SITE-1
DWG	CONST. PLANS
DATE	OCT 16, 2012
PROJ	12-123-08

SCALE: 1 inch = 200' HORZ





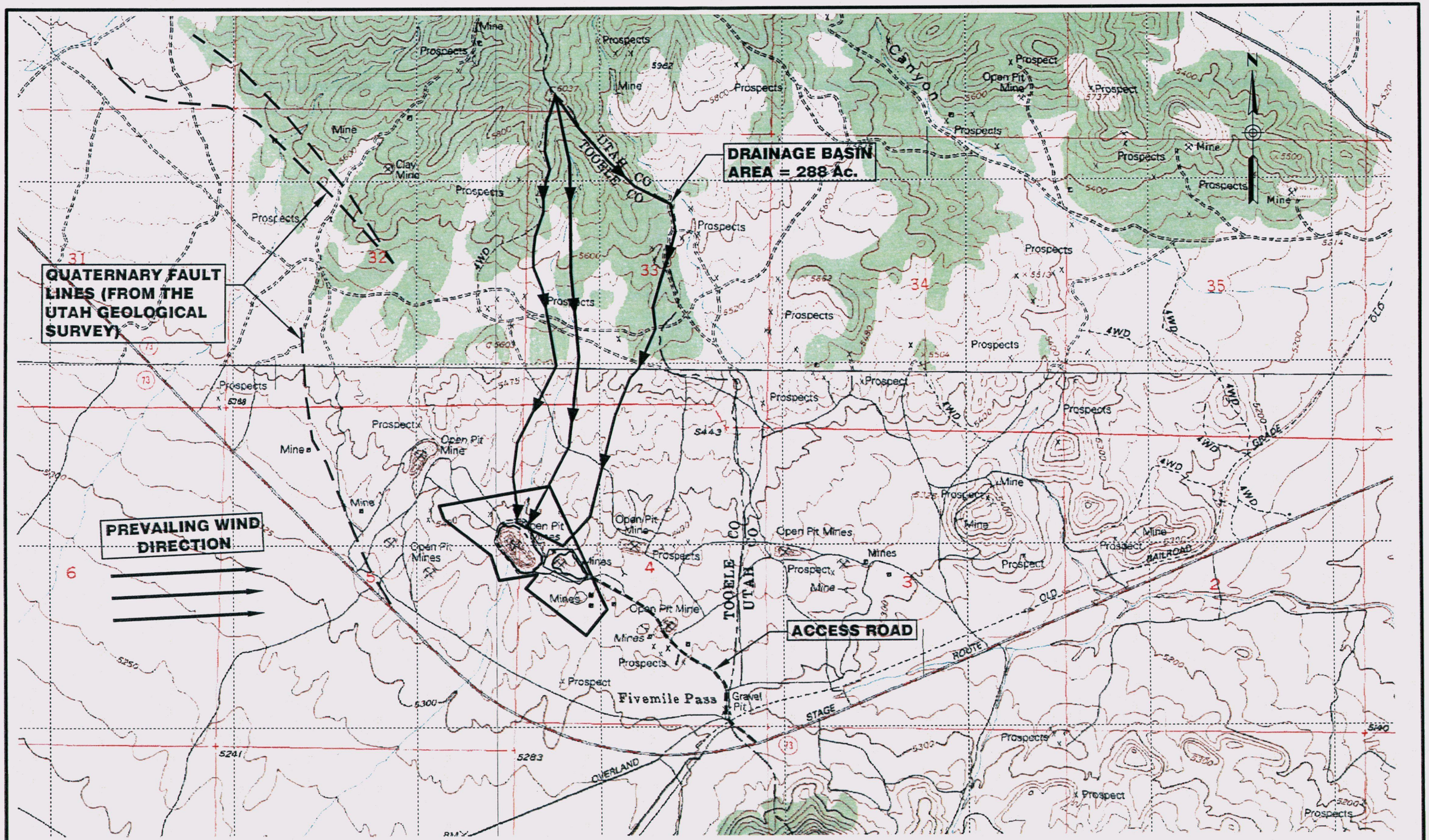
VICINITY MAP
NOT TO SCALE

OVERALL SITE BOUNDARY

Beginning at the common corner No. 3 Spotted Fawn Fire Clay, Corner No. 4 Little Roena Fire Clay (4-7015-LS) and Corner No. 1 Little Sam Fire Clay (1-7202-LS), said point being 1468.89 feet East and 3710.43 feet South from the Northeast Corner of Section 5, Township 7 South, Range 3 West, Salt Lake Base and Meridian (Basis of Bearing being South 38 degrees 41 minutes West, a distance of 600 feet between the common Corner No. 3 Spotted Fawn Fire Clay, Corner No. 4 Little Roena Fire Clay (4-7015-LS) and Corner No. 1 Little Sam Fire Clay (1-7202-LS), and corner No 4 Spotted Fawn Fire Clay); running thence along the Southerly line of Spotted Fawn Fire Clay, South 38 degrees 41 minutes 00 seconds West to the Corner No. 4 Spotted Fawn Fire Clay, a distance of 600.0 feet; thence along the Westerly line of Spotted Fawn Fire clay, North 51 degrees 19 minutes 00 seconds West to the Corner No. 1 Spotted Fawn Fire Clay, a distance of 1363.20 feet; thence along the Northerly line of Spotted Fawn Fire Clay, North 38 degrees 41 minutes 00 Seconds East, a distance of 323.485 feet to a point on the southerly line of Sterling; thence along said Southerly line south 81 degrees 05 minutes 00 seconds West, a distance of 681.908 feet to the Corner No. 4 Cincinatti; thence along the Westerly line of Cincinatti North 18 degrees 23 minutes 00 seconds West, a distance of 480.00 feet to the Corner No. 1 Union; thence along the Southerly line of Union, South 81 degrees 05 minutes West a distance of .30 feet to the Corner No. 2 Union, thence along the boundary line of Union, North 52 degrees 09 minutes 00 seconds West, a distance of 1064.40 feet to the Corner No. 3 Union; thence along the Westerly line of Union North 18 degrees 23 minutes 00 seconds West to the Corner No. 3 Union, a distance of 254.50 feet, thence North 79 degrees 55 minutes 36 seconds East 2000.00 feet; thence South 24 degrees 26 minutes 43 seconds East 2450.00 feet to the point of beginning.

Containing 84.064 Acres, or 3,661,808 Square Feet

DESIGN	T HANSEN				VERIFY SCALE	H&H ENGINEERING & SURVEYING, INC.	PREPARED FOR: DCD, 679 NORTH 1500 WEST, OREM, UTAH 84057, TEL: (801) 221-9001
DRAWN	T HANSEN				BAR IS ONE INCH IN ORIGINAL DRAWING.	233 EAST MAIN, SUITE 2, AMERICAN FORK, UTAH 84003, TEL: (801) 756-2488, FAX: (801) 756-3499	FIVE MILE RECYCLE LANDFILL, TOOELE, UTAH — OVERALL SITE BOUNDARY
CHECK	V HANSEN				IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY		SHEET: SITE-1
APRVD	V HANSEN	NO.	DATE	REVISION	BY		DWG: CONST. PLANS
							DATE: OCT 16, 2012
							PROJ: 12-123-08



DESIGN	T HANSEN	NO.	DATE	REVISION	BY
DRAWN	T HANSEN				
CHECK	V HANSEN				
APRVD	V HANSEN				

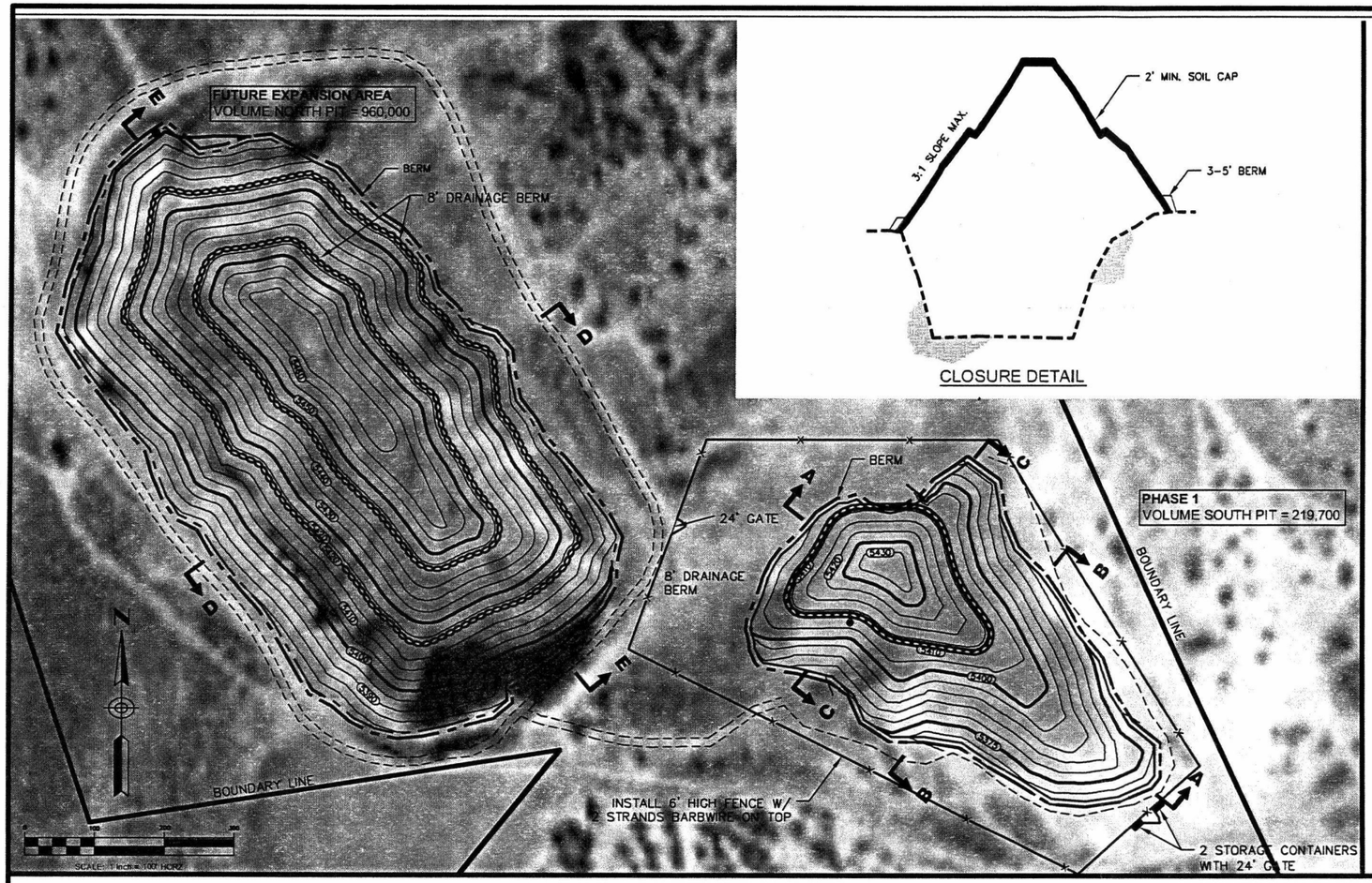
H&H ENGINEERING & SURVEYING, INC.
233 EAST MAIN, SUITE 2
AMERICAN FORK, UTAH 84003
TEL: (801) 756-2488
FAX: (801) 756-3499

PREPARED FOR:
DCD
679 NORTH 1500 WEST
OREM, UTAH 84057
TEL: (801) 221-9001

FIVE MILE RECYCLE LANDFILL
TOOELE, UTAH

FAULT LINES / WIND / DRAINAGE

SHEET	SITE-3
DWG	CONST. PLANS
DATE	OCT 16, 2012
PROJ	12-123-08



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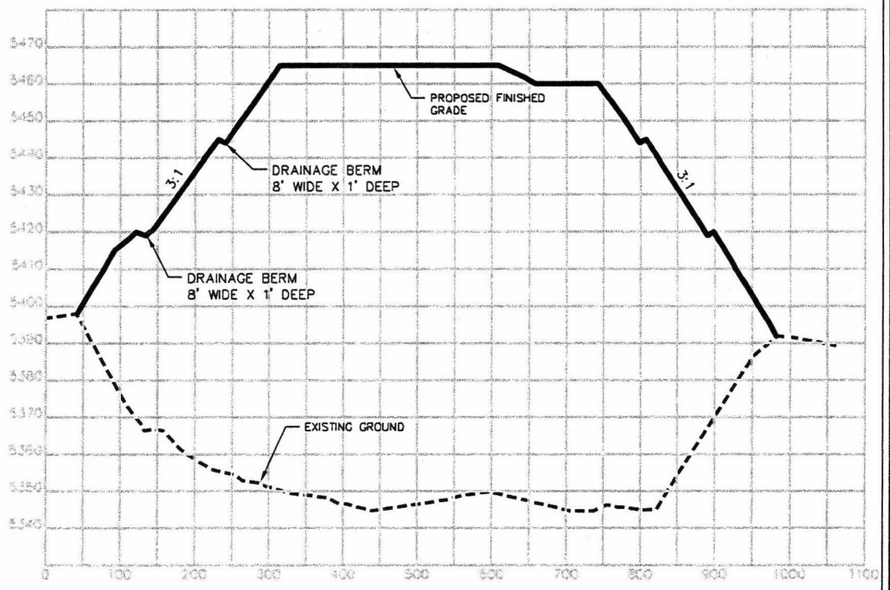

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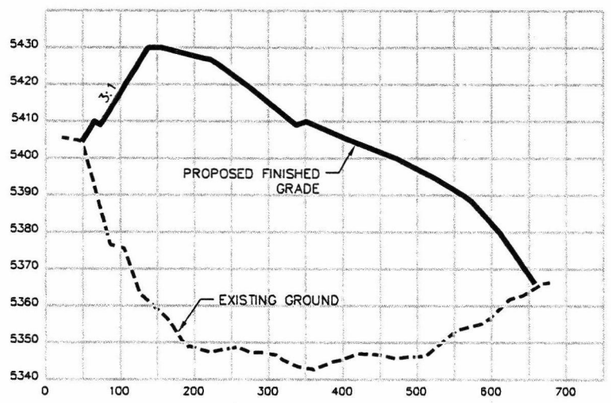

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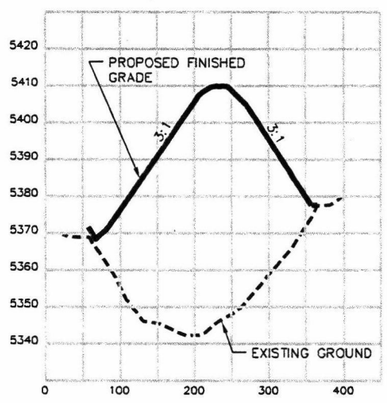

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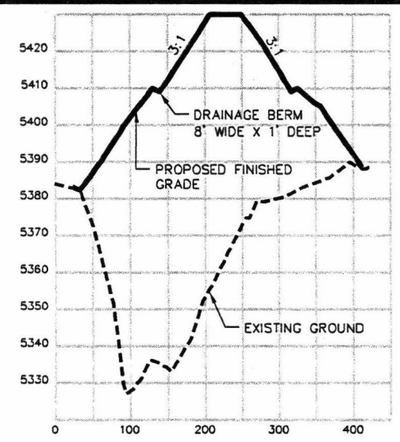

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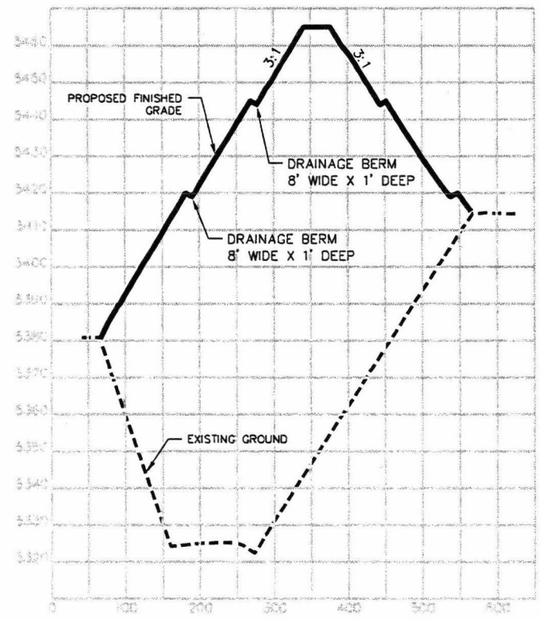

SECTION D-D

DESIGN	T HANSEN			VERIFY SCALE	H&H ENGINEERING & SURVEYING, INC.
DRAWN	T HANSEN			BAR IS ONE INCH IN ORIGINAL DRAWING. 0 1"	233 EAST MAIN, SUITE 2 AMERICAN FORK, UTAH 84003 TEL: (801) 756-2488 FAX: (801) 756-3499
CHECK	V HANSEN			IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	PREPARED FOR: DCD 679 NORTH 1500 WEST OREM, UTAH 84057 TEL: (801) 221-9001
APRVD	V HANSEN	NO.	DATE	REVISION BY	FIVE MILE RECYCLE LANDFILL TOOELE, UTAH SECTIONS

SHEET	SITE-2
DWG	CONST. PLANS
DATE	OCT 16, 2012
PROJ	12-123-08

APPENDIX H

Ecological Survey

BIOLOGICAL EVALUATION

SITE NAME: Five Mile Recycle Project
LOCATION: Tooele County, Utah

Prepared for:

H&H Engineering & Surveying, Inc.
233 East Main Street, Suite 2
American Fork, Utah 84003

Prepared by:

EnviroWest

EnviroWest LLC
330 South Woodland Hills Drive
Woodland Hills, Utah 84653
(801) 609-7999

BIOLOGICAL EVALUATION COMPLETED AT THE FIVE MILE RECYCLE PROJECT LOCATION IN TOOELE COUNTY, UTAH

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

This document is prepared in order to assess potential impacts to: (1) species of special concern and (2) migratory birds afforded protections under the Migratory Bird Treaty Act (MBTA) and possibly other, state, and local regulations, from activities associated with the operation of the proposed Five Mile Recycle Project located in Tooele County, Utah (*subject property* or *site*).

Proposed Action

The proposed Five Mile Recycle development project is intended to be a Class IV Landfill for recycle centers currently operating in Orem and Heber, along with potentially other locations along the Wasatch Front in Utah. The subject property contains an existing open pit mine, which is proposed as a location where construction waste is hauled after it has been dumped and sorted from other recycle locations. In addition two or three other smaller pits at the subject property would be filled-in with the leftover waste and mixed with existing soil from site. This facility would be accessed from an existing half-mile long dirt road, which connects the proposed project location to SR-73.

The proposed action has the potential to impact the following protected species:

- Greater sage-grouse (*Centrocercus urophasianus*)
- Grasshopper sparrow (*Ammodramus savannarum*)
- Short-eared owl (*Asio flammeus*)
- Migratory birds
- Kit fox *(Vulpes macrotis*)

In order to prevent significant impacts to the birds listed above, the following course of action should be implemented:

Greater sage-grouse (*Centrocercus urophasianus*)

- Removal of sagebrush should not occur during the nesting season, which is considered generally March 1 through August 15.
- In the event sagebrush removal must occur during nesting season, a preconstruction survey should be performed by a qualified biologist in order to determine whether or not nesting Greater sage-grouse are present in areas of proposed disturbance;
- If nesting Greater sage-grouse are not present, sagebrush removal may proceed during the nesting season;
- If nesting Greater sage-grouse are present in areas of proposed disturbance areas, vegetation removal should be postponed until after the nesting season.
- If construction must occur near an active nest, but would not involve destroying the nest, during the nesting season, a biological monitor should be present during construction in order to direct construction to occur in a manner that prohibits significant disturbance to nesting Greater sage-grouse.

Grasshopper sparrow (*Ammodramus savannarum*)

- Disturbance to land containing vegetation, including grassland habitat, should not occur during the nesting season, which is considered generally March 1 through August 15.
- In the event such land disturbance must occur during nesting season, a preconstruction survey should be performed by a qualified biologist in order to determine whether or not nesting Grasshopper sparrows are present in areas of proposed disturbance;

- If nesting Grasshopper sparrows are not present, such land disturbance may proceed during the nesting season;
- If nesting Grasshopper sparrows are present in areas of proposed disturbance areas, vegetation removal should be postponed until after the nesting season.
- If construction must occur near an active nest, but would not involve destroying the nest, during the nesting season, a biological monitor should be present during construction in order to direct construction to occur in a manner that prohibits significant disturbance to nesting Grasshopper sparrows.

Short-eared owl *(Asio flammeus)*:

- Disturbance to land containing vegetation, including grassland habitat, should not occur during the nesting season, which is considered generally March 1 through August 15.
- In the event such land disturbance must occur during nesting season, a preconstruction survey should be performed by a qualified biologist in order to determine whether or not nesting Short-eared owls are present in areas of proposed disturbance;
- If nesting Short-eared owls are not present, such land disturbance may proceed during the nesting season;
- If nesting Short-eared owls are present in areas of proposed disturbance areas, vegetation removal should be postponed until after the nesting season.
- If construction must occur near an active nest, but would not involve destroying the nest, during the nesting season, a biological monitor should be present during construction in order to direct construction to occur in a manner that prohibits significant disturbance to nesting Short-eared owls.

Kit fox *(Vulpes macrotis)*:

- A preconstruction survey should be completed prior to removal of any suitable habitat for kit foxes. If kit foxes are determined to be present, impact avoidance measures will be implemented based upon site-specific circumstances.

Opinion

The recommendations provided above should be completed within 30-days of construction activities. Provided the above precautions are followed it is expected the proposed action:

- Would have no effect upon species of special concern including federally protected species (supporting documentation found in Section 5);

- Would not result in destruction or adverse modification of a critical habitat area for a federally endangered or threatened species (supporting documentation found in Section 6);

- Would not result in "take" of migratory birds protected under the Migratory Bird Treaty Act (Supporting documentation found in Section 8);

BIOLOGICAL EVALUATION COMPLETED AT THE FIVE MILE RECYCLE PROJECT LOCATION IN TOOELE COUNTY, UTAH

1.0 INTRODUCTION

This document is prepared in order to assess potential impacts to: (1) species of special concern and (2) migratory birds afforded protections under the Migratory Bird Treaty Act (MBTA) and possibly other, state, and local regulations, from activities associated with the operation of the proposed Five Mile Recycle Project located in Tooele County Utah (*subject property* or *site*). The subject property is located on the north side of State Route 73 (SR-73) approximately ½-mile northwest of the intersection of SR-73 and Pony Express Trail Road, and is accessed from SR-73 via an existing dirt road (Figure 1). The project area is situated approximately ½-mile west of the Utah/Tooele County line, in the eastern portion of Rush Valley, about five miles west of the community of Fairfield (Figure 2). The subject property is comprised of an about 82-acre irregularly shaped area containing an existing open pit mine and other areas of existing land disturbance suggesting past mining use. In addition, the juniper/sagebrush habitat present at the site has been disturbed by the presence of dirt roads, berms and soil piles, which show signs of all-terrain vehicle (ATV) activity.

2.0 SITE DESCRIPTION / LOCATION

The subject property is located in a rural area surrounded by undeveloped federal lands. A number of small scale mines are present throughout the site vicinity. The site contains no structures but has human induced impacted in the form of open pit mines, soil and rock piles and dirt roads. ATV activity is prevalent as evidenced by a significant portion of the site lacking vegetation due to ATV trails and berms. In addition access roads travel through the site. Habitat at the site is described as juniper woodland and sagebrush communities. Photographic documentation of the site is found in Appendix A.

With respect to the Salt Lake Base and Meridian the site is geographically located as follows:

Township:	7 South
Range:	3 West
Section(s):	4 and 5
USGS 7.5-minute quadrangle:	Fivemile Pass, Utah
Elevation:	5,400 feet above mean sea level
Latitude of Approximate Center of Site (Nad 83):	40° 14' 28.00"
Longitude of Approximate Center of Site (Nad 83):	-112° 11' 32.89"

3.0 PROPOSED ACTION

The proposed Five Mile Recycle development project is intended to be a Class IV Landfill for recycle centers currently operating in Orem and Heber, along with potentially other locations along the Wasatch Front in Utah. The subject property contains existing open pit mines, which is proposed as a location where construction waste is hauled after it has been dumped and sorted from other recycle locations. In addition two or three other smaller pits at the subject property would be filled-in with the leftover waste and mixed with existing soil from the site. This facility would be accessed from an existing half-mile long dirt road, which connects the proposed project location to SR-73.

4.0 DESCRIPTION OF THE ENVIRONMENT, HABITAT AND VEGETATION

Environment

The project area is located is west-central Utah in arid great basin desert within the basin and range physiographic province. The site vicinity contains no perennial surface waters. The site is situated on the alluvial fan zone of the Oquirrh Mountains, within the eastern margin of Rush Valley (Figure 2).

Habitat and Vegetation

Habitat at the site is dominated by vegetation common to alkaline arid regions of west-central Utah. Vegetation noted at the site included the following; Rabbitbrush (*Chrysothamnus nauseosus),* Big sagebrush (*Artemesia tridentata*), Russian thistle (*Salsola pestifer*), Snakeweed (*Gutierrezia sarothrae),* Prickly pear cactus (*(Opuntia polyacantha*), Common sunflower (*Helianthus annuus*). In addition, cryptobiotic soil crusts are present.

Photographic documentation of the site and adjoining properties is included as Appendix A.

5.0 SPECIAL STATUS SPECIES BIOLOGY AND IMPACT EVALUATION

EnviroWest has contacted the Utah Division of Wildlife Resources (UDWR) and obtained a list of species of special concern, identified by the UDWR as potentially present in, and thus potentially impacted by, projects in Tooele County, Utah (Appendix B). The species list includes species federally protected under the Endangered Species Act (ESA), which are managed by the United States Fish and Wildlife Service (USFWS). In addition, a letter from Ms. Sarah Lindsey of the Utah Natural Heritage Program (UNHP) was obtained by on 9-Oct-2012. This letter is a site-specific species list (Appendix C).

On 1-Oct-2012, Mr. Mark J. Bellini, Senior Biologist, performed a field inspection at the site within the context of determining the availability of suitable habitat, possibility of occupation, and the potential for impact to the species of special concern, on the lists provided by the above sources.

In addition, we have reviewed USFWS-maintained critical habitat maps, in order to determine if the proposed action could possibly result in destruction or adverse modification of a designated or proposed critical habitat area for a federally endangered or threatened species.

Species of special concern, identified as potentially impacted by the proposed action are identified and evaluated in the table below. As such, species evaluated in the table represent the comprehensive list of all species of special concern identified by the UDWR, UNHP, and USFWS as potentially impacted by the proposed action.

TABLE 1
Species of Special Concern Evaluation

SPECIES	STATUS	HABITAT	POTENTIAL IMPACT
		Fish	
Bonneville cutthroat trout / *Oncorhynchus clarkii utah*	CS	Found in a number of aquatic habitat types, ranging from high-elevation mountain streams and lakes to low-elevation grassland streams. In all of these habitat types, however, the Bonneville cutthroat trout requires a functional stream riparian zone, which provides structure, cover, shade, and bank stability.	**No effect.** No surface waters (suitable habitat) present at or near the site. Species is absent.
Bonytail / *Gila elegans*	Endangered	Colorado River system. Prefer eddies, pools, and backwaters near swift current in large rivers.	**No effect.** No surface waters (suitable habitat) present at or near the site. Species is absent.
Least chub / *Iotichthys phlegethontis*	CS	Native to the Bonneville Basin. Although the species formerly occurred in many areas of the Bonneville Basin, including ponds and streams near Salt Lake City and the Great Salt Lake, it now occurs only in scattered springs and streams in western Utah.	**No effect.** No surface waters (suitable habitat) present at or near the site. Species is absent.
		Birds	
American white pelican / *Pelecanus erythrorhynchos*	SPC	In Utah, the only known breeding colonies of the American white pelican, *Pelecanus erythrorhynchos*, are located in the northern portions of the state, specifically within the Utah Lake/Great Salt Lake ecological complex. Preferred nesting habitats are islands, especially those associated with fresh water lakes. Preferred foraging areas are shallow lakes, marshlands, and rivers.	**No effect.** Suitable large water bodies not present at the site. Species may migrate through; however it is generally presumed absent from site.
Bald Eagle / *Hailiaeetus leucocephalus*	SPC	Nests are almost always in tall trees and commonly near bodies of water where fish and waterfowl prey are available. During non-breeding periods, especially during winter, bald eagles are relatively social and roost communally in sheltered stands of trees. Wintering areas are commonly associated with open water, though other habitats may be used if food resources, such as rabbit or deer carrion, are readily available. In general, bald eagles avoid areas with nearby human activity and development.	**No effect.** No suitable nesting habitat present in the form of large trees near a large body of water. Wintering habitat present in site surroundings. Species may winter in the area of the site. The proposed action would affect a negligible amount of winter forage.
Burrowing owl / *Athene cunicularia*	SPC	Open grassland and prairies, but it also utilizes other open situations, such as golf courses, cemeteries, and airports	**No effect.** Suitable habitat present. Transects were walked through the subject property and no signs of Burrowing owls including burrows with owl pellets or whitewash were noted. No Burrowing owls were noted. No other indications of occupation were noted during the site inspection. Species is not identified by the UNHP as potentially present in the site surroundings.

TABLE 1
Species of Special Concern Evaluation

SPECIES	STATUS	HABITAT	POTENTIAL IMPACT
Bobolink / *Dolichonyx oryzivous*	SPC	Nest and forage in wet meadow (grasses and sedges), wet grassland, and irrigated agricultural (primarily pasture and hay fields) areas. These habitats, particularly wet meadows, tend to be associated with riparian or wetland areas. Nests are built on the ground.	**No effect.** No wetland, marsh or other suitable habitat is present at the site. Species could migrate through the site; however no significant impacts are expected.
Ferruginous hawk / *Buteo regalis*	SPC	During breeding, flat and rolling terrain in grassland or shrub steppe is most often used. Ferruginous hawks avoid high elevations, forests, and narrow canyons, occurring in grasslands, agriculture lands, sagebrush/saltbush/greasewood shrub lands, and at the periphery of pinyon-juniper forests. Because of a strong preference for elevated nest sites, cliffs, buttes, and creek banks are usually present (Olendorff 1993). Shows great flexibility from trees and shrubs (49% of 2,119 nests), cliffs (21%), utility structures (12%), and ground outcrops (10%). Locally use haystacks, abandoned buildings, or ground. During winter, ferruginous hawks use open farmlands, grasslands, deserts, and other arid regions where lagomorphs, prairie dogs, or other major prey items are present (Olendorff 1993).	**No effect.** Suitable foraging habitat is present at the site. Species may forage in the area of the subject property. However, no potential nesting sites noted at the site. Species may nest in the general surroundings further than one mile from the site. The proposed action would affect a negligible amount of forage.
Greater sage-grouse / *Centrocercus urophasianus*	SPC	*Sagebrush. Sagebrush plains, foothills, and mountain valleys.* Sagebrush is the predominant plant of quality habitat. A good understory of grasses and forbs, and associated wet meadow areas, are essential for optimum habitat. Leks are used for courtship rituals.	**See Section 5.1.**
Grasshopper sparrow / *Ammodramus savannarum*	SPC	Open grasslands and prairies with patches of bare ground. Nest is a cup of grass stems and blades, very well concealed on the ground. Usually has a dome made of overhanging grasses, with a side entrance.	**See Section 5.1.**
Long-billed curlew / *Numenuis americanus*	SPC	Shorebird. This species lives and breeds in higher and drier meadowlands than many other shorebird species (Hayward et al. 1976). Four essential nesting habitat requirements in the northwestern United States: (1) short grass (less than 30 cm tall), (2) bare ground components, (3) shade, and (4) abundant vertebrate prey (Pampush 1980). They seem to be most successful nesting in mixed fields with adequate, but not tall, grass cover and fields with elevated points (Cochran and Anderson 1987). Curlews tend to place their nests near manure piles or other conspicuous objects, camouflaging them from aerial predators (Cochran and Anderson 1987). At the Great Salt Lake, the ground is relatively level, and curlews prefer to nest near the edges of barren alkali flats (Paton and Dalton 1994, Wolfe 1931).	**No effect.** Suitable nesting and general habitat not present at the site. Species is presumed absent.

TABLE 1
Species of Special Concern Evaluation

SPECIES	STATUS	HABITAT	POTENTIAL IMPACT
Lewis's woodpecker / *Melanerpes lewis*	SPC	The major breeding habitat consists of open park-like ponderosa pine forests. Attracted to burned-over Douglas fir, mixed conifer, pinyon-juniper, riparian, and oak woodlands, but is also found in the fringes of pine and juniper stands, and deciduous forests, especially riparian cottonwoods. Areas with a good under-story of grasses and shrubs to support insect prey populations are preferred. Dead trees and stumps are required for nesting. Wintering grounds are over a wide range of habitats, but oak woodlands are preferred.	**No effect.** The juniper trees at the site are relatively small and provide unlikely nest sites. Species could forage at the site. The proposed action would result in a negligible amount of forage. Species was not observed at the site during the site inspection. No significant impacts are expected.
Short-eared owl / *Asio flammeus*	SPC	This owl is usually found in grasslands, shrublands, and other open habitats. This owl nests beginning in April on the ground in a small depression excavated by the female. This depression is usually lined with a small amount of grass and other plant material.	**See Section 5.1.**
Northern goshawk / *Accipiter gentilis*	CS	Prefers mature mountain forest and riparian zone habitats. Nests are constructed in trees in mature forests. Prefers coniferous forests, but will also inhabit deciduous and mixed forests	**No effect.** Suitable nesting and foraging habitat is not present. Species could pass through the site, but no significant impact is expected.
Mammals			
Dark kangaroo mouse / *Microdipodomys megacephalus*	SPC	Occurs in the West Desert, typically in sagebrush areas with sandy soils. Also found in shadscale scrub and alkali sink communities. Uses burrows. May be found in sand dune habitat.	**No effect.** Species is typically found further west than the subject property. Soils at the site are less sandy than is typical to be considered suitable habitat. Burrows were prevalent throughout the site, but are not likely attributable to the dark kangaroo mouse. Species is presumed absent.
Pygmy rabbit / *Brachylagus idahoensis*	SPC	Refers areas with tall dense sagebrush and loose soils. Pygmy rabbits are active throughout the year, and are most often above ground near dawn and dusk. Inactive periods are spent in underground burrows.	**No effect.** Sagebrush at the site is generally not taller that three feet in height and is sparser than is typical to be considered suitable habitat. No potential burrows were noted at the site during the site inspection. Species is presumed absent.

TABLE 1
Species of Special Concern Evaluation

SPECIES	STATUS	HABITAT	POTENTIAL IMPACT
Townsend's big-eared bat / *Reithrodontomys raviventris*	SPC	Found at elevations below 9,000 feet. Can occur in many types of habitat, but the species is often found near forested areas. Caves, mines, and buildings are used for day roosting and winter hibernation. Consequently, human disturbances of caves and the closures of abandoned mines may constitute threats to the species.	**No effect.** Species could roost or hibernate within the mines near the subject property. However, no caves or open shaft mines were noted at the subject property. This bat could forage at the subject property; however, no significant impacts are expected.
Kit fox / *Vulpes macrotis*	SPC	Most often occurs in open prairie, plains, and desert habitats.	**See Section 5.1.**
Prebles shrew / *Sorex preblei*	SPC	The known Utah range of the species includes only the southern shore of the Great Salt Lake. The Preble's shrew can be found in many types of habitat, but the species is thought to have an affinity for wetland areas.	**No effect.** The site is not within the known range. No wetlands are present at the site. Species is presumed absent.
Amphibians			
Columbia spotted frog / *Rana luteiventris*	CS	Highly aquatic amphibian. Seems to prefer isolated springs and seeps that have a permanent water source, although individuals are known to move overland in spring and summer after breeding. During cold winter months, spotted frogs burrow in the mud and become inactive.	**No effect.** No surface waters (suitable habitat) present at or near the site. Species is absent.
Invertebrates			
California floater / *Anodonta californiensis*	SPC	Clarke (1993) found very different habitat profiles at two localities. At one, this species "occurs abundantly at depths of about 6 to 12 inches, among watercress, on a muddy bottom in two small ponds joined together by a ditch." The other locality was a creek "5 to 15 feet wide, up to 18 inches deep, with a bottom of gravel and sand in flowing areas and mud in pools, and with abundant *Myriophyllum* and *Spirogyra*."	**No effect.** Suitable habitat not present at the site. Species is presumed absent.
Eureka mountainsnail / *Oreohelix eurekensis*	SPC	Reported from about 6 localities representing 4 widely separated populations scattered across northern Utah roughly in an east-west band. These 4 populations are in the northern part of the East Tintic Mountains (Mammoth Peak, Godiva Mountain, and Lime Peak), on the Juab-Tooele county line (Henderson and Daniels 1916, 1917, Clarke 1993, Clarke and Hovingh 1994); on Hominy Creek on the	**No effect.** Suitable habitat not present at the site. Species is presumed absent.

TABLE 1
Species of Special Concern Evaluation

SPECIES	STATUS	HABITAT	POTENTIAL IMPACT
		south slope of the Uinta Mountains, near the Duchesne-Uintah county line (Brooks 1939, Oliver and Bosworth submitted); in the Deep Creek Mountains, near the Juab-Tooele county line and the Utah-Nevada boundary (Roscoe 1954); and on the East Tavaputs Plateau, Grand County (Roscoe and Grosscup 1964). Have been described in the following habitats: "slope of Paleozoic limestone, under shrubs and other vegetation ... [and] angular blocks of limestone, no good rock slides exposed." Clarke (1993), discussing this same locality- under pygmy sagebrush and at the bases of ledges on north-facing slopes at altitudes of about 2200 to 2400 meters." "at base of cliff, south side of canyon bottom, ... [i]n Aspen, Douglas Fir forest, el. ca. 7500 feet." "At elevations of "about 8025 feet" and "about 8000 feet" "at the base and trunk of aspen trees" and "on dead leaves at the base and trunk of aspen...all of the rock exposures in the area are of a yellowish sandstone, presumably part of the Eocene Green River formation."	
Utah physa / *Physella utahensis*	SPC	Two extant occurrences of this species in Utah are known, both in northeastern Box Elder County. The species inhabits three pools "located near Utah Hwy. 83, 14.3, 14.7, and 16.9 road miles W of Corrine, Cache [*sic*: Box Elder] County", and "Bar M Spring, Locomotor [*sic*: Locomotive] Springs area", also in Box Elder County (Clarke 1991).	**No effect.** Suitable habitat not present at the site. Species is presumed absent.
Northwest Bonneville pryg / *Pyrgulopsis variegata*	SPC	All but one of the known Utah populations of this species occur in rheocrenes, springs that emerge from the ground as flowing streams; the one Utah exception is in a helocrene, a spring in a marshy situation (Hershler no date). For these inhabited springs Hershler (no date) reported temperatures that ranged from 13 to 19 degrees C, and their conductivities were from 478 to 6,100 micromhos/cm. Elevations at these springs are 4,235 to 6,640 ft.	**No effect.** Suitable habitat not present at the site. Species is presumed absent.
Lyrate mountainsnail / Oreohellix hayden	SPC	*Limestone is common* at almost every locality visited, this being a favorable condition for *Oreohelix*. The edges of coarse, angular limestone talus protected from rapid evaporation by overhanging bushes, formed the cover for some of the finest colonies we have seen, the snails occupying crevices among the rocks.". The few localities where exposed limestone was not present were presumed to have calcareous soils. Common vegetative cover for this species included balsam root (*Balsamorhiza* sp.), bitterbrush (*Purshia tridentata*), mountain maple (*Acer* sp.), sagebrush (*Artemisia tridentata*), and wild cherry (*Prunus* sp.)	**No effect.** Suitable habitat not present at the site. Species is presumed absent.

TABLE 1
Species of Special Concern Evaluation

SPECIES	STATUS	HABITAT	POTENTIAL IMPACT
Southern Bonneville springsnail / Pyrgulopsis transversa	SPC	The type locality is a series of small, mineralized (1126 micromhos/cm) springs at about 1778 m elevation. The spring sampled is a small 'rheocrene' issuing out of a pipe. Hershler (no date) reported habitat information for 5 of the 6 known localities for this species, 1 of these 5 being the type locality already mentioned. He designated 4 of the springs rheocrenes and one a helocrene. Their elevations were reported as 5,830 to 6,740 ft. Their temperatures were 12, 12, 12, 13, and 16 degrees C, and their conductivities were 360, 463, 500, 889, and 1,126 micromhos/cm.	**No effect.** Suitable habitat not present at the site. Species is presumed absent.
Southern tightcoil / Ogaridiscus subrupicola	SPC	Found in a cave near the Great Salt Lake. A description of the conditions within the cave where the colony is found is not available.	**No effect.** Suitable habitat not present at the site. Species is presumed absent.
Plants			
Ute ladies'-tresses / *Spiranthes diluvialis*	Threatened	Found in moist to very wet meadows, along streams, in abandoned stream meanders, and near springs, seeps, and lake shores. It grows in sandy or loamy soils that are typically mixed with gravels. In Utah, it ranges in elevation from 1311 to 2134 meters. Blooms mainly from late July through August.	**No effect.** Wet areas at the site. Suitable habitat not present. Species was not observed. Species is presumed absent.

Status Key

SPC	Utah State Species of Concern with no legal protections
CS	Species receiving special management under a Conservation Agreement in order to preclude the need for Federal listing.
Endangered	Species are species or subspecies Protected under the Federal Endangered Species Act that are "...in danger of extinction throughout all or a significant portion of its range."
Threatened	Species are defined as species or subspecies the Federal Endangered Species Act that are "...likely to become endangered within the foreseeable future throughout all or a significant portion of its range."
Candidate	Species are for which the U.S. Fish and Wildlife Service (FWS) has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities.

5.1 Potentially Impacted Species of Special Concern

The following species of special concern are known from the site surroundings and/or possess suitable habitat at the site within their known geographical range and thus require further discussion:

Greater sage-grouse (*Centrocercus urophasianus*): The Utah DWR describes suitable habitat for the Greater sagebrush as follows: "sagebrush plains, foothills, and mountain valleys. Sagebrush is the predominant plant of quality habitat. A good understory of grasses and forbs, and associated wet meadow areas, are essential for optimum habitat. Leks are used for courtship rituals." No Greater sage-grouse were observed at the site during the site inspection.

Patches of suitable sagebrush habitat are present in portions of the site, primarily located at the northeastern and south-central portion of the subject property. As such, Greater sage-grouse forage and nesting habitat is present at the site, and therefore impacts to sagebrush habitat has the potential to impact Greater sage-grouse. No Greater sage-grouse leks are known to occur at the subject property or in the site surroundings. In order to prevent significant impacts to Greater sage-grouse, the following course of action should be implemented:

- Removal of sagebrush should not occur during the nesting season, which is considered generally March 1 through August 15.
- In the event sagebrush removal must occur during nesting season, a preconstruction survey should be performed by a qualified biologist in order to determine whether or not nesting Greater sage-grouse are present in areas of proposed disturbance;
- If nesting Greater sage-grouse are not present, sagebrush removal may proceed during the nesting season;
- If nesting Greater sage-grouse are present in areas of proposed disturbance areas, vegetation removal should be postponed until after the nesting season.
- If construction must occur near an active nest, but would not involve destroying the nest, during the nesting season, a biological monitor should be present during construction in order to direct construction to occur in a manner that prohibits significant disturbance to nesting Greater sage-grouse.

Grasshopper sparrow (*Ammodramus savannarum*): The Utah DWR describes suitable habitat for the Greater sagebrush as follows: "Open grasslands and prairies with patches of bare ground. Nest is a cup of grass stems and blades, very well concealed on the ground. The nest usually has a dome made of overhanging grasses, with a side entrance." Suitable nesting habitat for the Grasshopper sparrow is present throughout the subject property. In order to prevent significant impacts to Grasshopper sparrows, the following course of action should be implemented:

- Disturbance to land containing vegetation, including grassland habitat, should not occur during the nesting season, which is considered generally March 1 through August 15.
- In the event such land disturbance must occur during nesting season, a preconstruction survey should be performed by a qualified biologist in order to determine whether or not nesting Grasshopper sparrows are present in areas of proposed disturbance;
- If nesting Grasshopper sparrows are not present, such land disturbance may proceed during the nesting season;
- If nesting Grasshopper sparrows are present in areas of proposed disturbance areas, vegetation removal should be postponed until after the nesting season.
- If construction must occur near an active nest, but would not involve destroying the nest, during the nesting season, a biological monitor should be present during construction in order to direct

construction to occur in a manner that prohibits significant disturbance to nesting Grasshopper sparrows.

Short-eared owl *(Asio flammeus)*: According to the Utah DWR: "this owl is usually found in grasslands, shrublands, and other open habitats. This owl nests beginning in April on the ground in a small depression excavated by the female. This depression is usually lined with a small amount of grass and other plant material." Suitable nesting habitat is present at the subject property for Short-eared owls. In order to prevent significant impacts to Short-eared owls, the following course of action should be implemented:

- Disturbance to land containing vegetation, including grassland habitat, should not occur during the nesting season, which is considered generally March 1 through August 15.
- In the event such land disturbance must occur during nesting season, a preconstruction survey should be performed by a qualified biologist in order to determine whether or not nesting Short-eared owls are present in areas of proposed disturbance;
- If nesting Short-eared owls are not present, such land disturbance may proceed during the nesting season;
- If nesting Short-eared owls are present in areas of proposed disturbance areas, vegetation removal should be postponed until after the nesting season.
- If construction must occur near an active nest, but would not involve destroying the nest, during the nesting season, a biological monitor should be present during construction in order to direct construction to occur in a manner that prohibits significant disturbance to nesting Short-eared owls.

Kit fox *(Vulpes macrotis)*: According to the Utah DWR the Kit fox "most often occurs in open prairie, plains, and desert habitats." Suitable habitat is present at the subject property for the kit fox. No Kit foxes were observed during the site inspection; however, one burrow that measured approximately 7-inches in diameter was noted at the subject property at the following UTM coordinate: 398630 / 4455180 (Appendix D). Old canine scat was noted near the burrow entrance, but no fresh sign was present. The burrow indicates that kit foxes are potentially present. As such, in order to prevent significant impacts to kit foxes, the following course of action should be implemented:

- A preconstruction survey should be completed prior to removal of any suitable habitat for kit foxes. If kit foxes are determined to be present, impact avoidance measures will be implemented based upon site-specific circumstances.

6.0 CRITICAL HABITAT

The USFWS has not designated or proposed critical habitat areas within Toole County, Utah for any federally listed species. The subject property is not within or near a designated or proposed critical habitat unit for a federally listed species. As such, the proposed action would not result in destruction or adverse modification of a critical habitat area (Appendix E).

7.0 SURVEY METHODOLOGY

One daytime survey was completed on foot on 1-Oct-2012, which involved walking transects through the subject property. Binoculars were used to assess biological resources from a significant distance. Detailed protocol surveys for species of special concern were not performed.

8.0 POTENTIAL IMPACTS TO MIGRATORY BIRDS

Under the provisions of the Migratory Bird Treaty Act (MTBA) (16 U.S.C., §703, Supp. I, 1989), it is unlawful to "pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or eggs of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof."

The provisions of the MBTA protect most birds found in the United States including common songbirds such as sparrows. Often violations of the MBTA occur when the felling and trimming of trees destroy the active nests of migratory birds. In addition, some species of raptors will abandon their nests when human activities occur too close to their active nests.

The proposed action would involve disturbance to suitable nesting habitat including juniper trees, shrubs, herbaceous vegetation and the ground. As such, the proposed action has the potential to impact nesting birds protected by the MBTA. Therefore in order to prevent significant impacts to migratory birds, the following course of action should be implemented:

- Disturbance to land containing vegetation, including grassland habitat, should not occur during the nesting season, which is considered generally March 1 through August 15.
- In the event such land disturbance must occur during nesting season, a preconstruction survey should be performed by a qualified biologist in order to determine whether or not nesting migratory birds are present in areas of proposed disturbance;
- If nesting migratory birds are not present, such land disturbance may proceed during the nesting season;
- If nesting migratory birds are present in areas of proposed disturbance areas, vegetation removal should be postponed until after the nesting season.
- If construction must occur near an active nest, but would not involve destroying the nest, during the nesting season, a biological monitor should be present during construction in order to direct construction to occur in a manner that prohibits significant disturbance to nesting migratory birds.

9.0 CONCLUSION AND RECOMMENDATIONS

This document is prepared in order to assess potential impacts to: (1) species of special concern and (2) migratory birds afforded protections under the Migratory Bird Treaty Act (MBTA) and possibly other, state, and local regulations, from activities associated with the operation of the proposed Five Mile Recycle Project located in Tooele County, Utah (*subject property* or *site*).

Proposed Action

The proposed Five Mile Recycle development project is intended to be a Class IV Landfill for recycle centers currently operating in Orem and Heber, along with potentially other locations along the Wasatch Front in Utah. The subject property contains an existing open pit mine, which is proposed as a location where construction waste is hauled after it has been dumped and sorted from other recycle locations. In addition two or three other smaller pits at the subject property would be filled-in with the leftover waste and mixed with existing soil from site. This facility would be accessed from an existing half-mile long dirt road, which connects the proposed project location to SR-73.

The proposed action has the potential to impact the following protected species:

- Greater sage-grouse (*Centrocercus urophasianus*)
- Grasshopper sparrow (*Ammodramus savannarum*)
- Short-eared owl (*Asio flammeus*)
- Migratory birds
- Kit fox *(Vulpes macrotis*)

In order to prevent significant impacts to the birds listed above, the following course of action should be implemented:

Greater sage-grouse (*Centrocercus urophasianus*)

- Removal of sagebrush should not occur during the nesting season, which is considered generally March 1 through August 15.
- In the event sagebrush removal must occur during nesting season, a preconstruction survey should be performed by a qualified biologist in order to determine whether or not nesting Greater sage-grouse are present in areas of proposed disturbance;
- If nesting Greater sage-grouse are not present, sagebrush removal may proceed during the nesting season;
- If nesting Greater sage-grouse are present in areas of proposed disturbance areas, vegetation removal should be postponed until after the nesting season.
- If construction must occur near an active nest, but would not involve destroying the nest, during the nesting season, a biological monitor should be present during construction in order to direct construction to occur in a manner that prohibits significant disturbance to nesting Greater sage-grouse.

Grasshopper sparrow (*Ammodramus savannarum*)

- Disturbance to land containing vegetation, including grassland habitat, should not occur during the nesting season, which is considered generally March 1 through August 15.
- In the event such land disturbance must occur during nesting season, a preconstruction survey should be performed by a qualified biologist in order to determine whether or not nesting Grasshopper sparrows are present in areas of proposed disturbance;
- If nesting Grasshopper sparrows are not present, such land disturbance may proceed during the nesting season;
- If nesting Grasshopper sparrows are present in areas of proposed disturbance areas, vegetation removal should be postponed until after the nesting season.
- If construction must occur near an active nest, but would not involve destroying the nest, during the nesting season, a biological monitor should be present during construction in order to direct construction to occur in a manner that prohibits significant disturbance to nesting Grasshopper sparrows.

Short-eared owl (*Asio flammeus*):

- Disturbance to land containing vegetation, including grassland habitat, should not occur during the nesting season, which is considered generally March 1 through August 15.
- In the event such land disturbance must occur during nesting season, a preconstruction survey should be performed by a qualified biologist in order to determine whether or not nesting Short-eared owls are present in areas of proposed disturbance;

- If nesting Short-eared owls are not present, such land disturbance may proceed during the nesting season;
- If nesting Short-eared owls are present in areas of proposed disturbance areas, vegetation removal should be postponed until after the nesting season.
- If construction must occur near an active nest, but would not involve destroying the nest, during the nesting season, a biological monitor should be present during construction in order to direct construction to occur in a manner that prohibits significant disturbance to nesting Short-eared owls.

Kit fox *(Vulpes macrotis)*:

- A preconstruction survey should be completed prior to removal of any suitable habitat for kit foxes. If kit foxes are determined to be present, impact avoidance measures will be implemented based upon site-specific circumstances.

Opinion

The recommendations provided above should be completed within 30-days of construction activities. Provided the above precautions are followed it is expected the proposed action:

- Would have no effect upon species of special concern including federally protected species (supporting documentation found in Section 5);

- Would not result in destruction or adverse modification of a critical habitat area for a federally endangered or threatened species (supporting documentation found in Section 6);

- Would not result in "take" of migratory birds protected under the Migratory Bird Treaty Act (Supporting documentation found in Section 8);

10.0 TECHNICAL STAFF

Personnel were responsible for this Biological Evaluation.

Mark Bellini
Senior Project Biologist
Biological Evaluation

FIGURE 1

SITE LOCATION MAP

EnviroWest

330 S. Woodland Hills Dr., Woodland Hills, UT 84653

Office: 801-609-7999
info@envirowestllc.com

Figure 1
Project Location

Five Mile Recycle Project

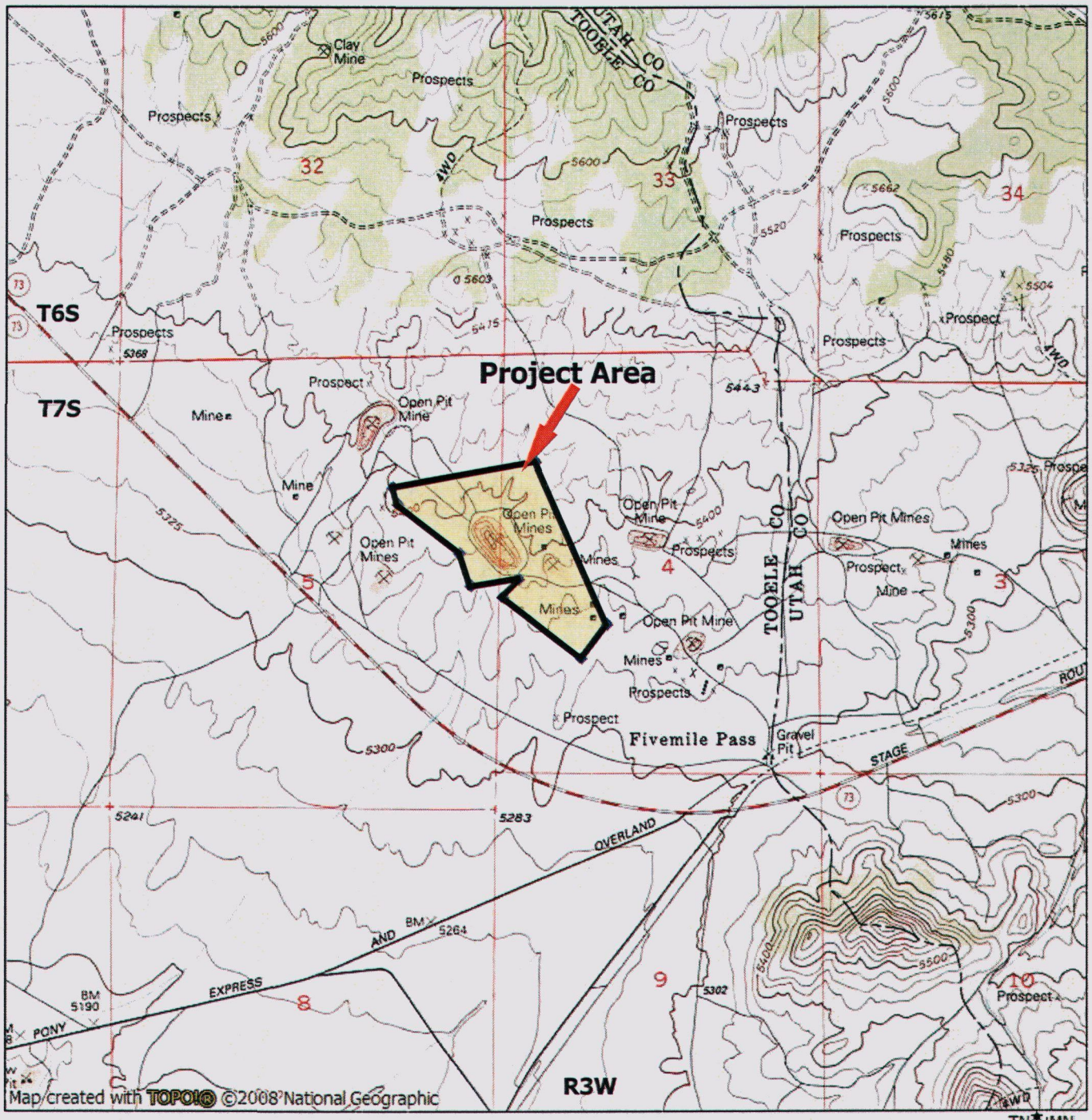
Map Key:

USGS 1:500,00, UT

FIGURE 2

SITE LOCATION MAP

(Topographic Map)



EnviroWest

330 S. Woodland Hills Dr., Woodland Hills, UT 84653

Office: 801-609-7999
info@envirowestllc.com

Figure 1
Project Location

Five Mile Recycle Project

Map Key:

USGS Topo: Five Mile Pass, UT

APPENDIX A

SITE PHOTOGRAPHS

H & H Engineering & Surveying Inc.
Five Mile Recycle Project
Tooele County, Utah

Photograph 1

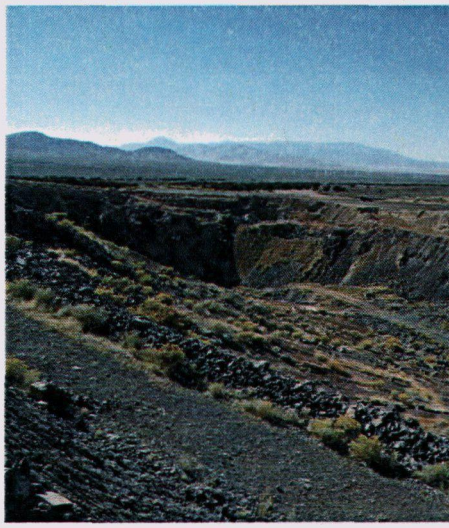
Description: Photo of the existing pit at the site that would be used to receive recycling waste.

View: Southeasterly

Photograph 2

Description: Another view of the open pit.

View: Southerly



Photograph 3

Description: Sagebrush habitat at the site is suitable nesting habitat for Greater sage-grouse, and migratory birds including the Grasshopper sparrow.

View: Northeasterly

H & H Engineering & Surveying Inc.
Five Mile Recycle Project
Tooele County, Utah

Photograph 4

Description: Burrow at the site that was potentially used by kit foxes. The location of the burrow is depicted in Appendix D.

View: Burrow

Photograph 5

Description: Scat located near the entrance to the burrow.

View: Scat

Photograph 6

Description: The subject property shows signs of ATV use throughout, which is depicted in this photo.

H & H Engineering & Surveying Inc.
Five Mile Recycle Project
Tooele County, Utah

Photograph 7

Description: Signs of ATV use at the subject property.

View: ATV use

Photograph 8

Description: Typical view of the subject property.

View: Northeasterly

Photograph 9

Description: Typical view of the subject property.

View: Southwesterly

H & H Engineering & Surveying Inc.
Five Mile Recycle Project
Tooele County, Utah

Photograph 10

Description: Typical view of the subject property.

View: Rabbitbrush

Photograph 11

Description: One of numerous small mammal burrows at the site.

APPENDIX B

SPECIES LIST

Utah's State Listed Species by County

Disclaimer: This list was compiled using known species occurrences and species observations from the Utah Natural Heritage Program's Biodiversity Tracking and Conservation System (BIOTICS); other species of special concern likely occur in Utah Counties. This list includes both current and historic records. (Last updated on March 29, 2011).

Beaver County

Common Name	Scientific Name	State Status
AMERICAN WHITE PELICAN	PELECANUS ERYTHRORHYNCHOS	SPC
BALD EAGLE	HALIAEETUS LEUCOCEPHALUS	SPC
BIG FREE-TAILED BAT	NYCTINOMOPS MACROTIS	SPC
BONNEVILLE CUTTHROAT TROUT	ONCORHYNCHUS CLARKII UTAH	CS
BURROWING OWL	ATHENE CUNICULARIA	SPC
DARK KANGAROO MOUSE	MICRODIPODOPS MEGACEPHALUS	SPC
FERRUGINOUS HAWK	BUTEO REGALIS	SPC
FRINGED MYOTIS	MYOTIS THYSANODES	SPC
GREATER SAGE-GROUSE	CENTROCERCUS UROPHASIANUS	S-ESA
HAMLIN VALLEY PYRG	PYRGULOPSIS HAMLINENSIS	SPC
KIT FOX	VULPES MACROTIS	SPC
LEAST CHUB	IOTICHTHYS PHLEGETHONTIS	S-ESA, CS
LONG-BILLED CURLEW	NUMENIUS AMERICANUS	SPC
NORTHERN GOSHAWK	ACCIPITER GENTILIS	CS
PYGMY RABBIT	BRACHYLAGUS IDAHOENSIS	SPC
SHORT-EARED OWL	ASIO FLAMMEUS	SPC
SOUTHERN LEATHERSIDE CHUB	LEPIDOMEDA ALICIAE	SPC
SPOTTED BAT	EUDERMA MACULATUM	SPC
THREE-TOED WOODPECKER	PICOIDES TRIDACTYLUS	SPC
TOWNSEND'S BIG-EARED BAT	CORYNORHINUS TOWNSENDII	SPC
UTAH PRAIRIE-DOG	CYNOMYS PARVIDENS	S-ESA
WESTERN TOAD	BUFO BOREAS	SPC

Box Elder County

Common Name	Scientific Name	State Status
AMERICAN WHITE PELICAN	PELECANUS ERYTHRORHYNCHOS	SPC
BALD EAGLE	HALIAEETUS LEUCOCEPHALUS	SPC
BLUEHEAD SUCKER	CATOSTOMUS DISCOBOLUS	CS
BOBOLINK	DOLICHONYX ORYZIVORUS	SPC
BONNEVILLE CUTTHROAT TROUT	ONCORHYNCHUS CLARKII UTAH	CS
BURROWING OWL	ATHENE CUNICULARIA	SPC
CALIFORNIA FLOATER	ANODONTA CALIFORNIENSIS	SPC
DESERET MOUNTAINSNAIL	OREOHELIX PERIPHERICA	SPC
FERRUGINOUS HAWK	BUTEO REGALIS	SPC
GRASSHOPPER SPARROW	AMMODRAMUS SAVANNARUM	SPC
GRAY WOLF	CANIS LUPUS	S-ESA
GREAT PLAINS TOAD	BUFO COGNATUS	SPC
GREATER SAGE-GROUSE	CENTROCERCUS UROPHASIANUS	S-ESA
JUNE SUCKER	CHASMISTES LIORUS	S-ESA
KIT FOX	VULPES MACROTIS	SPC

APPENDIX C

UNHP SPECIES LETTER

GARY R. HERBERT
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Wildlife Resources
JAMES F. KARPOWITZ
Division Director

October 9, 2012

Mark Bellini
EarthTouch, Inc.
3135 N. Fairfield Road
Layton, Utah 84040

Subject: Species of Concern Near Section 4 of Township 7 South, Range 3 West, SLB&M

Dear Mark Bellini:

I am writing in response to your email dated October 1, 2012 regarding information on species of special concern proximal to Section 4 of Township 7 South, Range 3 West, SLB&M, in Tooele County, Utah.

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 ferruginous hawk and Townsend's big-eared bat. All of the aforementioned species are included on the *Utah Sensitive Species List.*

The information provided in this letter is based on data existing in the Utah Division of Wildlife Resources' central database at the time of the request. It should not be regarded as a final statement on the occurrence of any species on or near the designated site, nor should it be considered a substitute for on-the-ground biological surveys. Moreover, because the Utah Division of Wildlife Resources' central database is continually updated, and because data requests are evaluated for the specific type of proposed action, any given response is only appropriate for its respective request.

In addition to the information you requested, other significant wildlife values might also be present on the designated site. Please contact UDWR's habitat manager for the central region, Mark Farmer, at (801) 491-5653 if you have any questions.

Please contact our office at (801) 538-4759 if you require further assistance.

Sincerely,

Sarah Lindsey

Sarah Lindsey
Information Manager
Utah Natural Heritage Program

cc: Mark Farmer, CRO

1594 West North Temple, Suite 2110, PO Box 146301, Salt Lake City, UT 84114-6301
telephone (801) 538-4700 • facsimile (801) 538-4709 • TTY (801) 538-7458 • *www.wildlife.utah.gov*

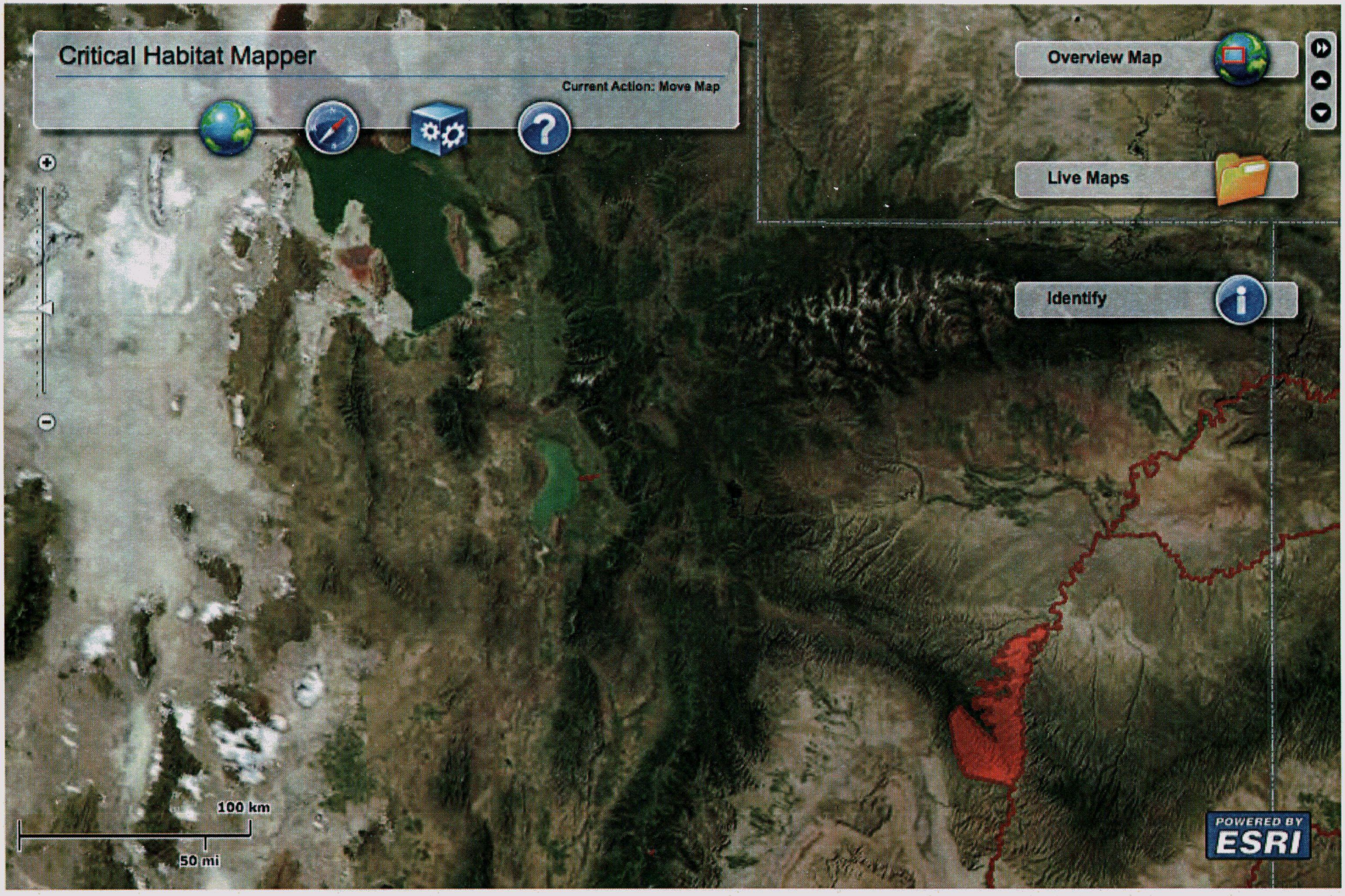
APPENDIX D

POTENTIAL KIT FOX BURROW LOCATION WITH RESPECT TO THE SUBJECT PROPERTY BOUNDARIES


Potential Kit Fox Burrow
© 2012 Google
Image State of Utah
Image USDA Farm Service Agency
Google

APPENDIX E

CRITICAL HABITAT MAP


Critical Habitat Mapper
Current Action: Move Map
Overview Map
Live Maps
Identify
100 km
50 mi
POWERED BY ESRI

APPENDIX I

Inspection Forms

DCD DAILY HAULING LOG

DATE: _____

OREM

TRAILER	DRIVER	MATERIAL	DESTINATION	TONS	TIME

HEBER

TRAILER	DRIVER	MATERIAL	DESTINATION	TONS	TIME

Orem / Recycle

Trash In:		Wood In:	
Trash Out:		Wood Out:	
Metal Out:		Cardboard In:	
Concrete Out:		Cardboard Out:	
		Single Stream In:	
		Single Stream Out:	

Loaded Trailers:

Heber

Trash In:		Concrete In:	
Trash Out:		Concrete Out:	
Metal In:		Asphalt In:	
Metal Out:		Asphalt Out:	
Wood In:		Cardboard In:	
Wood Out:		Cardboard Out:	

Loaded Trailers:

DCD FIVE MILE PASS RECYCLE LANDFILL

DAILY INSPECTION FORM

Performed By_____ Date_____

	Overall Condition	
1. Site and Roads	Satisfactory	Needs Work
A. Fences	_____	_____
B. Gates	_____	_____
C. Locks	_____	_____
D. Road Leading to facility	_____	_____

Specify recommended repairs/or list action taken:

_____

_____

_____

_____

2. Operations	Satisfactory	Needs Work
E. Daily Cover	_____	_____
F. Equipment	_____	_____
G. Litter	_____	_____

Specify recommended repairs/or list action taken:

_____

_____

_____

_____

RANDOM LOAD INSPECTION RECORD

To Be Completed and Filed After Inspection

INSPECTION INFORMATION

Inspector's Name: _____

Date of Inspection: _____

Time of Inspection: _____

Facility Name: Five Mile Recycle Landfill

TRANSPORTATION COMPANY INFORMATION

Name: _____

Address: _____

_____

Phone: _____

VEHICLE INFORMATION

Drivers Name: _____

Vehicle Type: _____

Vehicle License Number: _____

Vehicle's Last Stop: _____

Vehicle Contents: _____

_____

OBSERVATIONS AND ACTIONS TAKEN

_____

_____

_____

Photo Documentation: ____ Yes ____ No

Driver's Signature: _____ Date: _____

Inspector's Signature: _____ Date: _____

- Driver's Signature hereon denotes his presence during the inspection and does not admit, confirm, or identify liability.

DEVIATION RECORD

(To be filled out when circumstances arise to deviate from the normal plan of operation)

Date: _____ Time: _____

Description of Circumstance and Operation:

_____

_____

_____

_____

_____

Signature of Operations Manager: _____

APPENDIX J

Training Forms

Transfer Station and Landfill Personnel Training

1. Set up SWANA Onsite Training Courses for all personnel for the Managing Construction and Demolition Materials as soon as possible.

   This program will be ongoing on a yearly basis and will be required for all new hires.

2. We are sending both Transfer Station Manager's to the Managing Transfer Station Systems Course offered by SWANA at the end of February. They will receive 30 CEU's in 3 days and test on the fourth day.

3. Start an in house and online training on Waste Screening.

Annual Training Completed

Person	Training Course	Date Completed