



ESCALANTE CITY  
P.O. BOX 189  
56 NORTH 100 WEST  
ESCALANTE, UT 84726  
(435) 826-4644  
FAX: (435) 826-4642

RECEIVED  
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MAY 18 2006  
06.01797  
UTAH DIVISION OF  
SOLID & HAZARDOUS WASTE

May 15, 2006

Department of Environmental Quality  
Division of Solid and Hazardous Waste  
C/O Dennis Downs  
P.O. Box 144880  
Salt Lake City, Utah 84114-4880

Subject: Landfill Permit Renewal Application

Dear Mr. Downs:

Enclosed is Escalante Cities Landfill Renewal Application with the additional information your office requested.

I would like to designate the City Recorder and Public Works Director as authorized signers for Escalante Cities Landfill.

If you need any additional information, feel free to contact us at the above address.

Sincerely,

Emilee Lott-Woolsey  
Council member (Landfill)

RECEIVED

UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF SOLID AND HAZARDOUS WASTE

FEB 16 2001

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Division of Solid & Hazardous Waste

APPLICATION FOR A PERMIT TO OPERATE A CLASS IV LANDFILL

The applicant shall submit, in duplicate, an original permit application, a general report, and a technical report to:

Dennis R. Downs, Director
Division of Solid and Hazardous Waste
Utah Department of Environmental Quality
PO Box 144880
Salt Lake City, Utah 84114 - 4880

PART I - GENERAL INFORMATION

- 1. Name of Facility Escalante City Class IV Landfill
2. Site Location Approximatley one mile South of Escalante City
3. Facility Owner Escalante City
4. Facility Operator Escalante City Maintenance
5. Contact Person Vickie Schulkoski
Address P.O.Box 189
Escalante, Ut 84726
Telephone (435)826-4644

6. Type of Application:

- [x] Class IVa Landfill Non-Commercial
[x] Class IVb Landfill
[] Initial Application
[] Permit Renewal

7. Property Ownership

- Presently owned by applicant
- To be purchased by applicant
- To be leased by applicant

Property owner (if different from applicant)

Name \_\_\_\_\_

Address \_\_\_\_\_

Telephone \_\_\_\_\_

8. Certification of submitted information.

Marjie Lee Spencer \_\_\_\_\_ MAYOR  
 (Name of Official) Marjie Lee Spencer (Title)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

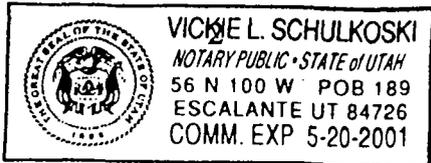
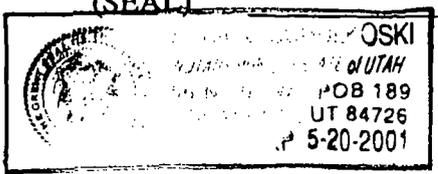
Signature: Marjie Lee Spencer Date February 13, 01

SUBSCRIBED AND SWORN to before This 13<sup>th</sup> day of February, 2001.

My commission expires on the 05 day of May, 2001.

Vickie L. Schulkoski  
 Notary Public in and for

Garfield County, Utah.



## INTRODUCTION

This report serves as the landfill permit renewal for the Escalante class IVb landfill located approximately one mile south of Escalante City. The purpose of this report is to inform the Utah Solid and Hazardous Waste committee of the location of the facility and to fulfill all renewal requirements.

The purpose of the site is to provide a location for residents to dispose of "Yard Waste" (as defined by subsection R315-301-1(82) of the Solid Waste Permitting and Management rules), without going to the expense of hauling such waste to the closest permitted facility, located in John's Valley more than 30 miles away. "Tires", and "Bulky Waste" such as car bodies, appliances, and furniture will also be stored at the site for later transport and disposal at the Garfield County Landfill or at an approved re-cycler for final disposal. A "Dead Animal Pit" is provided for the final disposal of dead animals.

## LEGAL DESCRIPTION

The site is legally described as the Northeast quarter of the Southeast quarter of the northeast quarter of Section 24, Township 35 South, Range 2 East, Salt Lake Base & Meridian.

## ZONING

The project is located in an area zoned multiple use.

The operation of this site fits in well with the County solid waste plan, because a portion of the waste is being diverted from the landfill.

## NEARBY HOMES

The closest dwelling to the site is approximately one mile north of the facility. Natural topography and sagebrush vegetation screen the site from the dwelling and serves as a buffer.

## WELLS, WATER COURSES AND DRAINAGE

No well exists within the limits of the storage facility. The closest well is located approximately (3) three miles from the site. Water courses at the site are limited to run off into the Alvey Wash. In addition several small intermittent washes traverse the site. Escalante City prevented the run-on of surface water resulting from a 25-year storm event from entering the active areas of the facility. A man made diversion was constructed around the dead animal pit, the yard waste collection area, and the bulky waste storage area. Water falls directly into the dead animal pit and will be retained in the pit.

No live streams exists within the site. No 100 year flood plain falls within the Class IV Landfill

site.

In addition to avoiding flood plains, the site is protected by berm style access roads and ditches to route any surface waters away from the working areas.

### ROADS

The road network in the vicinity is part of Garfield County's Class B system. The County is required to maintain the road to a minimum standard.

### TOPOGRAPHY

The topography of the site is characterized by slight to moderately sloping terrain west to east with general regular topography.

### POPULATION IN AREA BEING SERVED

The 2000 Census estimates the population of the Escalante City area at approximately 950 people. Numerous agriculture operations exist in the area, and Escalante City supports three school buildings and two parks. Waste generated outside of the Escalante area will not be accepted unless appropriate inter-local agreements can be reached to include non permitted waste. Growth throughout the area is extremely limited due to lack of industry, water, limited private land and depressed economy. Considering existing population and unfavorable growth conditions, it is anticipated that the population serviced by the facility will remain stable.

### AREA OF FACILITY

Total area of the facility is 10 acres.

### WASTE TO BE ACCEPTED AND ULTIMATE DISPOSAL

The waste accepted at the facility is yard waste; bulky waste such as furniture, appliances, and car bodies; waste tires; construction waste and dead animals.

The yard waste is collected in a separate area and burned under existing Utah Air Quality Rules. The bulky wastes is separated into storage areas as recyclables and non-recyclables. These wastes will be moved from the storage areas at least once each year to be recycled or disposed at a permitted landfill. Waste tires are stored in a separate area and, prior to reaching the number of 500 tires, or within one year, will be removed from the storage area to be recycled or disposed at a permitted landfill. Dead animals are placed in a prepared pit and covered with earth the same day they are received. The construction waste is covered upon deposit of waste or within a 24 hour period. *Utah recycling*

## GEOLOGY

The area consists mainly of clay, sand, and sandstone.

## CONTROL OF MATERIAL

The yard waste area is fenced to insure that the yard waste to be burned is completely separated from other wastes. At least one City employee is present at the facility at all times the site is open to the public to insure that unacceptable waste is not delivered to the facility. After each use personnel examine the site, cover any dead animals, and locks the gate when the site is not open for public disposal.

It is the intent of Escalante City to maintain control of waste deposited at the site and to prevent unauthorized waste from entering the facility.

## ON SITE WASTE HANDLING PROCEDURES

Upon entrance to the facility, the waste hauler is stopped by the City employee who inspects the load of waste. If the load contains unacceptable waste, the hauler will be directed to the proper disposal site for the waste. If the load contains acceptable waste, the City employee will collect any fee required, make the necessary entries in the daily record, and direct the load to the proper area for unloading.

Loads of yard waste are directed to the fenced yard waste collection area and piled so that the waste can be safely and efficiently burned in accordance with current Utah Air Quality Rules. The yard waste to be burned shall be thoroughly dry and no trash, rubbish, tires, oil, bulky solid waste will be used to start fires or be included in the material to be burned.

Bulky waste brought to the facility is directed to the bulky waste storage area. Items that have no potential for recycling, such as waste furniture, will be stored apart from items that may have a value for recycling. When old cars are received, they will be checked to see that all fluids have been drained and disposed of properly and that the battery is recycled. The non-recyclable items will be removed from the site at least once each year and transported to the Garfield County Landfill at John's Valley. At least once each year, all recycled items will be removed from the site to be recycled if possible. If recycling is not feasible for these items, they will be transported to the John's Valley Landfill for disposal.

A small waste tire pile is created to store waste tires that are brought to the site. The pile will not be permitted to exceed 500 tires prior to hauling to a permitted re-cycler or the Garfield County Landfill. Tires stored at this site will not remain in place for a period of longer than twelve months.

A dead animal pit is provided for the disposal of dead animals brought to the site. The operator assists in putting the animal into the pit, and then he covers the animal with six inches of soil by the end of the same day that the animal is received. Dead animals will be accepted at the facility by appointment through the City Office.

Separate storage areas are designated for each type of waste and City personnel will check each day the facility is opened, to see that wastes are properly separated. A daily record of waste received will also be kept by the operator.

#### SCHEDULE FOR CONDUCTING INSPECTIONS AND MONITORING

Maintenance and operation personnel of the City will examine the site after each days use, cover any dead animals, and lock the gate when the site is not open for public disposal. Upon discovery of any unauthorized material, the City Police Chief will be contacted within 24 hours. An investigation will be initiated to determine the perpetrator. Any individual identified as disposing of unacceptable material at the site will be prosecuted and the City will remove any unauthorized material within 48 hours after discovery.

It is the intent of Escalante City to maintain control of waste material deposited at the site and to prevent unauthorized waste from entering the facility.

#### CONTINGENCY PLANS IN THE EVENT OF FIRE OR EXPLOSION

The concept of the facility is simplistic in nature. The only material accepted at the site are “construction waste”, “yard wastes” such as tree trimmings, grass clippings, and “bulky waste” such as appliances and car bodies. A dead animal pit (animals will be covered the same day as received). A small tire storage site (less than 500 tires maximum). The potential for fires or explosions is minimal. In case of such an occurrence however, the Escalante City Fire Department is on call 24 hours per day, seven days per week and is properly trained to respond to such emergencies. The facility is also patrolled and monitored on a daily basis by City personnel.

If a fire or explosion should occur, and the facility was not capable of accepting allowable waste, an adjacent alternate temporary storage area would be provided. Upon re-opening the primary site, the material stored at the alternate site, would be transferred to the primary site.

#### CORRECTIVE ACTION FOR GROUND WATER CONTAMINATION

The nature of the facility is such that ground water contamination is not an issue. Ground water contaminating materials will not be accepted at the site nor is the site intended as a final disposal facility for wastes other than the burning of “yard waste” and the dead animal pit. The pit has a man made diversion to carry water away from it. Animals will be covered the same day they are received. When accepting old car bodies we take steps to recycle batteries and make sure people have drained the fluids from the cars.

## DESCRIPTION OF MAINTENANCE OF INSTALLED EQUIPMENT

The only equipment installed at the site are gates, and fencing which are maintained by City personnel.

### PROCEDURES FOR EXCLUDING THE RECEIPT OF HAZARDOUS WASTE OR WASTE CONTAINING

In addition to the procedures outlined under section (b) "On Site Waste Handling Procedures" Escalante City personnel are trained in detecting hazardous wastes, they will inspect any suspicious materials encountered at the site. If hazardous substances are encountered, they will be separated from other waste materials, appropriate authorities notified, and notations will be made in the daily records. Considering the population served, waste materials generated in the local area, and intent of the facility, these measures are considered to be adequate.

### PROCEDURES FOR CONTROLLING DISEASE VECTORS

The dead animal pit is the only source of waste that would generate any disease vectors. The City controls the problem by covering any dead animal on the same day as they are received. No household waste, or garbage capable of attracting or providing food for vectors is accepted at the site. If any such wastes are deposited illegally, they shall be removed within 24 hours. The facility operator inspects the area for flies, rats, and other disease vectors. If vectors become a problem, sprays and rodent baits or other effective means to control the population will be used.

### ALTERNATE WASTE HANDLING OR DISPOSAL SYSTEM

The class IV Landfill is located on a 10 acre parcel of land. Should the facility become incapable of accepting allowable waste material for a short period of time, the material would be diverted to an adjacent alternative storage site, also the County garbage bins are available for use. Upon re-opening of the primary site, the material would be moved from the alternate site to the primary site. The City will notify the citizens when the site will re-open.

Equipment at the site is minimal. The City owned backhoe and dump truck are adequate for any equipment needs.

### CLOSURE & POST CLOSURE PLANS

Closure of the Class IV Landfill will consist of burning any remaining "yard waste" and transporting "bulky waste" materials and "tires" to an approved final disposal area at the Garfield County Landfill. The dead animal pit will be covered with two feet of dirt. The landfill would then be graded to promote drainage, and seeded to promote vegetative cover. Post closure care would consist of maintaining the integrity of the vegetative cover. Any areas subject to erosion would be corrected.

COST ESTIMATES AND FINANCIAL ASSURANCE PER SECTION R315-309-2(12)

The Financial Assurance Plan for this facility shall consist of providing adequate funding for closure and post closure activities. This funding estimated at \$2500 is set up as a line item account within the City budget process, and is readily identifiable as such.

COST ESTIMATE

|  |           |
|--|-----------|
| Burning of "Yard Waste"                |           |
| one person for 8 hours @ \$10/hr       | \$ 80.00  |
| Transport of "Bulky Waste" & "Tires"   |           |
| Covering "Dead Animal Pit" 2 feet dirt |           |
| one person for 24 hours @ \$10/hr      | \$ 240.00 |
| one dump truck for 3 days @ \$160/day  | \$ 480.00 |
| one backhoe for 3 days @ \$360/day     | \$1080.00 |
| one grader for 1 day @ \$360/day       | \$ 360.00 |
| seeding                                | \$ 100.00 |
| TOTAL                                  | \$2340.00 |

TRAINING AND SAFETY PLAN FOR OPERATORS

City personnel is trained in the identification and exclusion of hazardous waste. Safety procedures conform to OSHA guidelines, and personnel is encouraged to participate in waste screening, safety, and first aid workshops.

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY**

**DIVISION OF SOLID AND HAZARDOUS WASTE**

**APPLICATION FOR A PERMIT TO OPERATE A CLASS IV LANDFILL**

The applicant shall submit an original permit application, which includes a general report and a technical report, to:

Dennis R. Downs, Director  
Division of Solid and Hazardous Waste  
Utah Department of Environmental Quality  
PO Box 144880  
Salt Lake City, Utah 84114 - 4880

(Note: When the application is determined to be complete, submittal of the original complete permit application and one copy of the complete application will be required.)

**PART I - GENERAL INFORMATION**

1. Name of Facility \_\_\_\_\_

2. Site Location \_\_\_\_\_

3. Facility Owner \_\_\_\_\_

4. Facility Operator \_\_\_\_\_

5. Contact Person \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone \_\_\_\_\_

6. Type of Facility:

Class IVa Landfill

Class IVb Landfill

7. Type of Application

Initial Application

Permit Renew

8. Property Ownership

- Presently owned by applicant
- To be purchased by applicant
- To be leased by applicant

Property owner (if different from applicant)

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

Telephone \_\_\_\_\_

9. Certification of submitted information.

\_\_\_\_\_, \_\_\_\_\_  
 (Name of Official) (Title)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: \_\_\_\_\_ Date \_\_\_\_\_

SUBSCRIBED AND SWORN to before This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

My commission expires on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

Notary Public in and for

(SEAL) \_\_\_\_\_ County, Utah.

**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 R315-302, R315-303, R315-308, R315-309, and R315-315 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 801-538-6170. Most of these documents are available on the Division's web page at [www.eq.stat.ut.us/eqshw/dshw-1.htm](http://www.eq.stat.ut.us/eqshw/dshw-1.htm). 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.

9501R

37°45'20"N. 111°37'30"W

### CHECKLIST OF ADDITIONAL INFORMATION REQUIRED

(Please see Section R315-310-5 of the *Utah Solid Waste Permitting and Management Rules*)

#### PART II - GENERAL REPORT

##### INTRODUCTION

- Completed PART I - GENERAL INFORMATION (R315-310-3(1)(a))
- General description of the facility (R315-310-3(1)(b))
- Start Here.*  Legal description; <sup>get</sup> proof of ownership, lease agreement, or other mechanism; <sup>add</sup> latitude and longitude of the site; and land use and zoning of surrounding area (R315-310-3(1)(c))
- The types of waste and area served by the facility (R315-310-3(1)(d))
- A demonstration that the landfill is not a commercial landfill - *Don't!!*

##### PLAN OF OPERATION (R315-310-3(1)(e))

- An intended schedule of construction (R315-302-2(2)(a))
- A description of on-site waste handling procedures and an example of the form that will be used to record the weights or volumes of waste received (~~R315-302-2(2)(b) and R315-310-3(1)(f)~~)
- Start Here*  A 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))
- Contingency plans in the event of a fire or explosion (R315-302-2(2)(d))
- Corrective action programs to be initiated if ground water is contaminated (R315-302-2(2)(e))
- Contingency plans for other releases, e.g. explosive gases or failure of run-off collection system (R315-302-2(2)(f))
- A plan to control fugitive dust generated from roads, construction, general operations, and covering the waste (R315-302-2(g))
- Description of maintenance of installed equipment (R315-302-2(2)(h))
- Procedures for excluding the receipt of regulated hazardous or PCB containing waste (R315-

302-2(2)(i))

- Procedures for controlling disease vectors (R315-302-2(2)(j))
- A plan for alternative waste handling (R315-302-2(2)(k))
- A general training and safety plan for site operations (R315-302-2(2)(n))
- How the facility will meet the requirements of Rule R315-305 (R315-310-5(2)(e))
- Any other site specific information pertaining to the plan of operation required by the Executive Secretary (R315-302-2(2)(o))

### **PART III TECHNICAL REPORT**

#### MAPS

- Topographic map drawn to the required scale and contours showing the boundaries of the landfill unit; design and location of the run-on/run-off control structures; and the borrow and fill areas (R315-310-4(2)(a)(i))
- Most recent U.S. Geological Survey topographic map, 7-1/2 minute series, showing the waste facility boundary; the property boundary; surface drainage channels; existing utilities and structures within one-fourth mile of the site; and the direction of the prevailing winds (R315-310-4(2)(a)(ii))

#### ENGINEERING REPORT - PLANS, SPECIFICATIONS, AND CALCULATIONS

- Cell design, cover design, fill methods, elevation of final cover including plans and drawings (R315-310-3(1)(b))
- Design and location of run-on and run-off control systems (R315-310-5(2)(b))

#### CLOSURE PLAN (R315-310-3(1)(h) and R315-310-5(2)(c))

- Closure schedule (R315-310-4(2)(d)(i))
- Design of final cover (R315-310-4(2)(c)(iii) and R315-305-5(5))
- Capacity of site in volume and tonnage (R315-310-4(2)(d)(ii))

- Final inspection by regulatory agencies (R315-310-4(2)(d)(iii))

POST-CLOSURE CARE PLAN (R315-310-3(1)(h))

- Site monitoring, if required (R315-310-4(2)(e)(i))
- Changes to record of title, land use, and zoning restrictions (R315-310-4(2)(e)(ii)) 305
- Maintenance activities to maintain cover and run-on/run-off control systems (R315-310-4(2)(e)(iii))
- 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))

FINANCIAL ASSURANCE (R315-310-3(1)(j))

- Identification of closure costs including cost calculations (R315-310-4(2)(d)(iv))
- Identification of post-closure care costs including cost calculations (R315-310-4(2)(e)(iv))
- Identification of the financial assurance mechanism that meets the requirements of Rule R315-309 and the date the mechanism will become effective (R315-309-1(1))

SPECIAL REQUIREMENTS FOR A CLASS IVa LANDFILL (R315-310-5(3))

- A geohydrological assessment of the site (R315-310-4(2)(b))
- An engineering report, plans, specifications, and calculations (R315-310-4(2)(c))
- A ground water monitoring plan (R315-305-4(4), R315-310-4(2)(c)(vi), and R315-310-5(3))
- A closure plan that meets the requirements of R315-303-3(4) (R315-305-5(5)(a) and R315-310-5(2)(c))

Revision date February 21, 2002

Utah Class IV and VI Landfill Permit Application Form

| Part I General Information APPLICANT PLEASE COMPLETE ALL SECTIONS   |                                    |   |  |  |   |  |
|---|------------------------------------|---|--|--|---|--|
| Landfill Type   | <input type="checkbox"/> Class IVa | <input checked="" type="checkbox"/> Class IVb | Application Type                                   | <input type="checkbox"/> New Application | <input type="checkbox"/> Facility Expansion | <input type="checkbox"/> Renewal Application |
| For Renewal Applications, Facility Expansion Applications and Modifications Enter Current Permit Number _____ |                                    |   |  |  |   |  |
| III Facility Name and Location  |                                    |   |  |  |   |  |
| Legal Name of Facility Escalante City Class IVb Landfill  |                                    |   |  |  |   |  |
| Site Address (street or directions to site) Approximately one mile south of Escalante City                    |                                    |   |  |  | County Garfield                             |  |
| City Escalante  | State Utah                         | Zip Code 84726                                | Telephone 435-826-4644                             |  |   |  |
| Township 35S  | Range 2E                           | Section(s) 24                                 | Quarter/Quarter Section NE 1/4 SE 1/4 NE 1/4       |  | Quarter Section                             |  |
| Main Gate Latitude degrees 37 minutes 45' seconds 10"   |                                    |   | Longitude degrees 111 minutes 37' seconds 13" west |  |   |  |
| IV Facility Owner(s) Information  |                                    |   |  |  |   |  |
| Legal Name of Facility Owner Escalante City   |                                    |   |  |  |   |  |
| Address (mailing) P.O. Box 189  |                                    |   |  |  |   |  |
| City Escalante  | State Utah                         | Zip Code 84726                                | Telephone 435-826-4644                             |  |   |  |
| V Facility Operator(s) Information  |                                    |   |  |  |   |  |
| Legal Name of Facility Operator Layne Woolsey   |                                    |   |  |  |   |  |
| Address (mailing) P.O. Box 189  |                                    |   |  |  |   |  |
| City Escalante  | State Utah                         | Zip Code 84726                                | Telephone 435-616-4644                             |  |   |  |
| VI Property Owner(s) Information  |                                    |   |  |  |   |  |
| Legal Name of Property Owner Escalante City   |                                    |   |  |  |   |  |
| Address (mailing) P.O. Box 189  |                                    |   |  |  |   |  |
| City Escalante  | State Utah                         | Zip Code 84726                                | Telephone 435-826-4644                             |  |   |  |
| VII Contact Information   |                                    |   |  |  |   |  |
| Owner Contact Emilee Lott-Woolsey   |                                    |   | Title Council member                               |  |   |  |
| Address (mailing) P.O. Box 189  |                                    |   |  |  |   |  |
| City Escalante  | State Utah                         | Zip Code 84726                                | Telephone 435-826-4644                             |  |   |  |
| Email Address escalante@scinternet.net  |                                    |   | Alternative Telephone (cell or other)              |  |   |  |
| Operator Contact Layne Woolsey  |                                    |   | Title Public Works Director                        |  |   |  |
| Address (mailing) P.O. Box 189  |                                    |   |  |  |   |  |
| City Escalante  | State Utah                         | Zip Code 84726                                | Telephone 435-616-4644                             |  |   |  |
| Email Address   |                                    |   | Alternative Telephone (cell or other)              |  |   |  |
| Property Owner Contact Emilee Lott-Woolsey  |                                    |   | Title Council member                               |  |   |  |
| Address (mailing) P.O. Box 189  |                                    |   |  |  |   |  |
| City Escalante  | State Utah                         | Zip Code 84726                                | Telephone 435-826-4644                             |  |   |  |
| Email Address   |                                    |   | Alternative Telephone (cell or other)              |  |   |  |

## Utah Class IV and VI Landfill Permit Application Form

| Part I: General Information (Continued)  |   |   |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
|--|---|---|---|--|--|--|--|---|---|--|---|--------------------------|---|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|--|--|--------------------|-----------|-------|--------------------|----------|-------|-----------------|--|--|------------|-----------|--|------------------|---------------|--|-----------|-----------|--|
| <b>VIII: Waste Types</b> (check all that apply)<br><br><input type="checkbox"/> Landfill will accept all wastes allowed in Class IV or VI landfills Or landfill will accept only the following wastes <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Waste Type</td> <td style="width: 33%;">Combined Disposal Unit</td> <td style="width: 33%;">Monofill Unit</td> </tr> <tr> <td><input checked="" type="checkbox"/> Construction &amp; Demolition</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Tires</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Yard Waste</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Animals</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Contaminated Soil</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Other <u>Metals</u></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> <p style="font-size: small;">Note: Disposal of dead animals must be approved by the Executive Secretary</p> | Waste Type  | Combined Disposal Unit                        | Monofill Unit                                       | <input checked="" type="checkbox"/> Construction & Demolition  | <input checked="" type="checkbox"/>        | <input type="checkbox"/>   | <input checked="" type="checkbox"/> Tires    | <input checked="" type="checkbox"/>     | <input type="checkbox"/>                | <input checked="" type="checkbox"/> Yard Waste | <input checked="" type="checkbox"/>                 | <input type="checkbox"/> | <input checked="" type="checkbox"/> Animals | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> Contaminated Soil | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> Other <u>Metals</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <b>IX: Facility Area</b> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">Facility Area.....</td> <td style="width: 10%; text-align: center;"><u>10</u></td> <td style="width: 10%;">acres</td> </tr> <tr> <td>Disposal Area.....</td> <td style="text-align: center;"><u>1</u></td> <td>acres</td> </tr> <tr> <td>Design Capacity</td> <td></td> <td></td> </tr> <tr> <td>    Years.....</td> <td style="text-align: center;"><u>40</u></td> <td></td> </tr> <tr> <td>    Cubic Yards.....</td> <td style="text-align: center;"><u>70,000</u></td> <td></td> </tr> <tr> <td>    Tons.....</td> <td style="text-align: center;"><u>35</u></td> <td></td> </tr> </table> |  | Facility Area..... | <u>10</u> | acres | Disposal Area..... | <u>1</u> | acres | Design Capacity |  |  | Years..... | <u>40</u> |  | Cubic Yards..... | <u>70,000</u> |  | Tons..... | <u>35</u> |  |
| Waste Type   | Combined Disposal Unit                              | Monofill Unit                                 |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| <input checked="" type="checkbox"/> Construction & Demolition  | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>                      |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| <input checked="" type="checkbox"/> Tires  | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>                      |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| <input checked="" type="checkbox"/> Yard Waste   | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>                      |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| <input checked="" type="checkbox"/> Animals  | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>                      |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| <input checked="" type="checkbox"/> Contaminated Soil  | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>                      |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| <input checked="" type="checkbox"/> Other <u>Metals</u>  | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>                      |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| Facility Area.....   | <u>10</u>   | acres   |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| Disposal Area.....   | <u>1</u>  | acres   |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| Design Capacity  |   |   |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
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| Cubic Yards.....   | <u>70,000</u>                                       |   |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| Tons.....  | <u>35</u>   |   |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| <b>X: Fee and Application Documents</b>  |   |   |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| Indicate Documents Attached To This Application <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Facility Map or Maps</td> <td><input type="checkbox"/> Facility Legal Description</td> <td><input type="checkbox"/> Plan of Operation</td> <td><input type="checkbox"/> Waste Description</td> <td rowspan="2" style="vertical-align: top; padding-left: 20px;">Class VI Special Requirements<br/><input type="checkbox"/> Documents required by UCA 19-6-108(9) and (10)</td> </tr> <tr> <td><input type="checkbox"/> Ground Water Report</td> <td><input type="checkbox"/> Closure Design</td> <td><input type="checkbox"/> Cost Estimates</td> <td><input type="checkbox"/> Financial Assurance</td> </tr> </table>  |   | <input type="checkbox"/> Facility Map or Maps | <input type="checkbox"/> Facility Legal Description | <input type="checkbox"/> Plan of Operation   | <input type="checkbox"/> Waste Description | Class VI Special Requirements<br><input type="checkbox"/> Documents required by UCA 19-6-108(9) and (10) | <input type="checkbox"/> Ground Water Report | <input type="checkbox"/> Closure Design | <input type="checkbox"/> Cost Estimates | <input type="checkbox"/> Financial Assurance   | <input type="checkbox"/> Application Fee: Amount \$ |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
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| <b>HEREBY CERTIFY THAT THIS INFORMATION AND ALL ATTACHED PAGES ARE CORRECT AND COMPLETE</b>  |   |   |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| Signature of Authorized Owner Representative<br><u>Emilee Lott-Woolsey</u><br>Name typed or printed  | Title<br><u>Council member</u>                      | Date<br><u>5-15-06</u>                        |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| Signature of Authorized Land Owner Representative (if applicable)<br><br>Name typed or printed   | Title<br><br>Address                                | Date  |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |
| Signature of Authorized Operator Representative (if applicable)<br><br>Name typed or printed   | Title<br><br>Address                                | Date  |   |  |  |  |  |   |   |  |   |                          |   |                                     |                          |   |                                     |                          |   |                                     |                          |  |  |                    |           |       |                    |          |       |                 |  |  |            |           |  |                  |               |  |           |           |  |

## **INTRODUCTION**

This report serves as the landfill permit renewal for the Escalante Class IVb landfill located approximately one mile south of Escalante City. The purpose of this report is to inform the Utah Solid and Hazardous Waste committee of the location of the facility and to fulfill all renewal requirements.

The purpose of the site is to provide a location for residents to dispose of "Yard Waste" (as defined by subsection R315-301-1(82) of the Solid Waste Permitting and Management rules), without going to the expense of hauling such waste to the closest permitted facility, located in John's Valley more than 50 miles away. "Tires", and "Bulky Waste" such as car bodies, appliances, and furniture will also be stored at the site for later transport and disposal at the Garfield County Landfill or at an approved re-cycler for final disposal. A "Dead Animal Pit" is provided for the final disposal of dead animals.

## **LEGAL DESCRIPTION**

The site is legally described as the Northeast quarter of the Southeast quarter of the northeast quarter of Section 24, Township 35 South, Range 2 East, Salt Lake Base & Meridian.

The landfill main gate is located at a latitude 37° 45' 10" north and longitude 111° 37' 13" west.

## **ZONING**

The project is located in an area zoned multiple use.

The operation of this site fits in well with the County solid waste plan because a portion of the waste is being diverted from the landfill.

## **NEARBY HOMES**

The closest dwelling to the site is approximately one mile north of the facility. Natural topography and sagebrush vegetation screen the site from the dwelling and serves as a buffer.

## **WELLS, WATER COURSES AND DRAINAGE**

No well exists within the limits of the storage facility. The closest well is located approximately (3) three miles from the site. Water courses at the site are limited to run off into the Alvey Wash. In addition several small intermittent washes traverse the site. Escalante City prevented the run on of surface water resulting from a 25-year storm event from entering the active areas of the facility. A man made diversion was constructed around the dead animal pit, the yard waste collection area, and the bulky waste storage area. Water falls directly into the dead animal pit and will be retained in the pit.

No live streams exists within the site. No 100 year flood plain falls with the Class IVb Landfill site.

In addition to avoiding flood plains, the site is protected by berm style access roads and ditches to route any surface waters away from the working areas.

### **ROADS**

The road network in the vicinity is part of Garfield County's Class B system. The County is required to maintain the road to a minimum standard.

### **TOPOGRAPHY**

The topography of the site is characterized by sight to moderately sloping terrain west to east with general regular topography.

### **POPULATION IN AREA BEING SERVED**

The 2000 Census estimates the population of the Escalante City area at approximately 950 people. Numerous agriculture operations exist in the area, and Escalante City supports three school buildings and two parks. Waste generated outside of the Escalante area will not be accepted unless appropriate inter-local agreements can be reached to include non permitted waste. Growth throughout the area is extremely limited due to lack of industry, water, limited private land and depressed economy. Considering existing population and unfavorable growth conditions, it is anticipated that the population serviced by the facility will remain stable.

### **AREA OF FACILITY**

Total area of the facility is 10 (ten) acres.

### **PLAN OF OPERATIONS**

The sign at the landfill entrance reads: Escalante City Landfill Acceptable Materials:  
1) Furniture & Appliances 2) Yard Waste 3) Tires 4) Construction Demolition Waste  
5) Recycleable Materials 6) Dead Animals  
Landfill Operator may inspect load for unacceptable waste.

It is against the law to dump hazardous and toxic waste in this landfill. Also, household garbage is not allowed. Violators will be prosecuted.

The landfill is open by appointment only by calling 435-826-4644 or 435-616-4644 and is posted at the city office and around the city. A copy of the sign is attached.

## **WASTE TO BE ACCEPTED AND ULTIMATE DISPOSAL**

The waste accepted at the facility is yard waste; bulky waste such as furniture, appliances, and car bodies; waste tires; construction/demolition waste and dead animals. "Construction/demolition waste" 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, including waste from a conditionally exempt small quantity generator of hazardous waste, as defined by Section R315-2-5, that may be generated by these operations. (a) Such waste may include: (i) concrete, bricks, and other masonry materials; (ii) soil and rock; (iii) waste asphalt; (iv) rebar contained in concrete; and (v) untreated wood, and tree stumps. (b) Construction/demolition waste does not include: (i) asbestos; (ii) wood treated with creosote or related compounds, Arsenic, Chromium, Copper, or other chemicals or materials to minimize attack or degradation by insects or microorganisms; and (iii) contaminated soils or tanks resulting from remediation or clean-up at any release or spill.

The yard waste is collected in a separate area and burned under existing Utah Air Quality Rules. Fire Chief, Don Porter is contacted at 435-616-4644 prior to burning of yard waste. "Yard waste" means vegetative matter resulting from landscaping, land maintenance, and land clearing operations including grass clippings, prunings, 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 bulky waste is separated into storage areas as recyclables and non-recyclables. These wastes will be moved from the storage areas at least once each year to be recycled or disposed at a permitted landfill. Waste tires can be removed for recycling and tires that are received at four or less at a time at the landfill may be disposed in the Escalante landfill. Dead animals are placed in a prepared pit and covered with earth the same day they are received. The construction waste is covered upon deposit of waste or within as needed to prevent fire hazards. Working face is pushed and covered at least every six months or when needed.

## **PROHIBITED WASTE**

Section R315-3 05-5(3) of the Rules prohibits the disposal of containerized liquids larger than household size, non-containerized liquids, sludge containing free liquids, or any waste containing free liquids in containers larger than household size (five gallon containers).

## **GEOLOGY**

The area consists mainly of clay, sand and sandstone.

## **CONTROL OF MATERIAL**

The yard waste area is fenced to insure that the yard waste to be burned is completely separated from other wastes. At least one City employee is present at the facility at all times the site is open to the public to insure that unacceptable waste is not delivered to the facility. After each use personnel examine the site, cover any dead animals, and lock the gate when the site is not open for public disposal.

It is the intent of Escalante City to maintain control of waste deposited at the site and to prevent unauthorized waste from entering the facility.

## **ON SITE WASTE HANDLING PROCEDURES**

Upon entrance to the facility, the waste hauler is stopped by the City employee who inspects the load of waste. If the load contains unacceptable waste, the hauler will be directed to the proper disposal site for the waste. If the load contains acceptable waste, the City employee will collect any fee required, make the necessary entries in the daily record, and direct the load to the proper area for unloading.

Loads of yard waste are directed to the fenced yard waste collection area and piled so that the waste can be safely and efficiently burned in accordance with current Utah Air Quality Rules. The yard waste to be burned shall be thoroughly dry and no trash, rubbish, tires, oil, bulky solid waste will be used to start fires or be included in the material to be burned.

Bulky waste brought to the facility is directed to the bulky waste storage area. Items that have no potential for recycling, such as waste furniture, will be stored apart from items that may have a value for recycling. When old cars are received, they will be checked to see that all fluids have been drained and disposed of properly and that the battery is recycled. The non-recyclable items will be removed from the site at least once each year and transported to the Garfield County Landfill at John's Valley. At least once each year, all recycled items will be removed from the site to be recycled if possible. If recycling is not feasible for these items, they will be transported to the John's Valley Landfill for disposal.

A small waste tire pile is created to store waste tires that are brought to the site. The pile will not be permitted to exceed 500 tires prior to hauling to a permitted re-cycler or the Garfield County Landfill. Tires stored at this site will not remain in place for a period of longer than twelve months.

A dead animal pit is provided for the disposal of dead animals brought to the site. The operator assists in putting the animal into the pit, and then he covers the animal with six inches of soil by the end of the same day that the animal is received. Dead animals will be accepted at the facility by appointment through the City Office.

Separate storage areas are designated for each type of waste and City personnel will check each day the facility is opened, to see that wastes are properly separated. A daily record of waste received will also be kept by the operator.

The City will minimize the unloading area and working face of the disposal area as much as possible.

### **FUGITIVE DUST CONTROL**

The City uses water to minimize and suppress the dust when needed. If the City is not able to do so, then the City contracts with a private company to do so.

### **LITTER CONTROL PROGRAM**

The City workers will collect scattered litter as necessary to avoid a fire hazard or an aesthetic nuisance; and prohibit scavenging. There is a dumpster at the landfill site to use for litter as needed.

### **ACCESS CONTROL**

Escalante City has at least one person on the site when citizens are at the site. The landfill is open by appointment only and is fenced and has a lockable gate this is locked at all times. The landfill is fenced and the fences are maintained on a regular basis.

### **SCHEDULE FOR CONDUCTING INSPECTIONS AND MONITORING**

Maintenance and operation personnel of the City will examine the site after each days use, cover any dead animals, and lock the gate when the site is not open for public disposal. Upon discovery of any unauthorized material, the City Police Chief will be contacted within 24 hours. An investigation will be initiated to determine the perpetrator. Any individual identified as disposing of unacceptable material at the site will be prosecuted and the City will remove any unauthorized material within 48 hours after discovery.

It is the intent of Escalante City to maintain control of waste material deposited at the site and to prevent unauthorized waste from entering the facility.

Quarterly landfill inspection will be conducted to prevent malfunctions and deterioration, operator errors, and discharges which may cause or lead to the release of waste to the environment or to a threat to human health. The Quarterly Inspection Report form will be used to document the inspection. Random load Inspection will be conducted at least once each month to ensure prohibited wastes are not received at the landfill. The Random Load Inspection Report form will be used to document the inspection.

## **RECORD KEEPING**

A copy of the form used is attached. This form includes the name of the individual, the date, kind of waste, amount of waste and other materials being disposed of.

## **CONTINGENCY PLANS IN THE EVENT OF FIRE OR EXPLOSION**

The concept of the facility is simplistic in nature. The only material accepted at the site are "construction waste", "yard wastes" such as tree trimmings, grass clippings, and "bulky waste" such as appliances and car bodies. A dead animal pit (animals will be covered the same day as received). A small tire storage site (less than 500 tires maximum). The potential for fires or explosions is minimal. In case of such an occurrence however, the Escalante City Fire Department is on call 24 hours per day, seven days per week and is properly trained to respond to such emergencies. The facility is also patrolled and monitored on a daily basis by City personnel.

If a fire or explosion should occur, and the facility was not capable of accepting allowable waste, an adjacent alternate temporary storage area would be provided. Upon re-opening the primary site, the material stored at the alternate site, would be transferred to the primary site.

## **CORRECTIVE ACTION FOR GROUND WATER CONTAMINATION**

The nature of the facility is such that ground water contamination is not an issue. Ground water contaminating materials will not be accepted at the site nor is the site intended as a final disposal facility for wastes other than the burning of "yard waste" and the dead animal pit. The pit has a man made diversion to carry water away from it. Animals will be covered the same day they are received. When accepting old car bodies we take steps to recycle batteries and make sure people have drained the fluids from the cars.

## **RUN-ON AND RUN-OFF CONTROL**

The city uses run-on control ditches and berms to prevent run-on water, resulting from a 25-year storm event, from contacting the waste. The city had a 100-year storm event in 2004 and everything functioned properly and will continue to be maintained in operating condition. There are two dump areas at the landfill, with an area for metal and an area for appliances. There is a holding pond for storm water, an overflow ditch and a control ditch which is located on the south end of the landfill. A copy of the design is attached to the application.

## **DESCRIPTION OF MAINTENANCE OF INSTALLED EQUIPMENT**

The only equipment installed at the site are gates, and fencing which are maintained by City personnel.

## **PROCEDURES FOR EXCLUDING THE RECEIPT OF HAZARDOUS WASTE OR WASTE CONTAINING**

In addition to the procedures outlined under section (b) "On Site Waste Handling Procedures" Escalante City personnel are trained in detecting hazardous wastes, they will inspect any suspicious materials encountered at the site. If hazardous substances are encountered, they will be separated from other waste materials, appropriate authorities notified, and notations will be made in the daily records. Considering the population served, waste materials generated in the local area, and intent of the facility, these measures are considered to be adequate.

## **PROCEDURES FOR CONTROLLING DISEASE VECTORS**

The dead animal pit is the only source of waste that would generate any disease vectors. The City controls the problem by covering any dead animal on the same day as they are received. No household waste, or garbage capable of attracting or providing food for vectors is accepted at the site. If any such wastes are deposited illegally, they shall be removed within 24 hours. The facility operator inspects the area for flies, rats, and other disease vectors. If vectors become a problem, sprays and rodent baits or other effective means to control the population will be used.

## **ALTERNATE WASTE HANDLING OR DISPOSAL SYSTEM**

The Class IV Landfill is located on a 10 acre parcel of land. Should the facility become incapable of accepting allowable waste material for a short period of time, the material would be diverted to an adjacent alternative storage site, also the County garbage bins are available for use. Upon reopening of the primary site, the material would be moved from the alternate site to the primary site. The City will notify the citizens when the site will re-open.

Equipment at the site is minimal. The City owned backhoe and dump truck are adequate for any equipment needs.

## **CLOSURE PLANS**

Closure of Class IV Landfill will consist of burning any remaining "yard waste" and transporting "bulky waste" materials and "tires" to an approved final disposal area at the Garfield County Landfill. The dead animal pit will be covered with two feet of dirt. The landfill would then be graded to promote drainage. A copy of the drawing for closure is attached. There will be a minimum of two feet of soil including an upper layer of at least six inches of topsoil. The grade of the final cover shall not be less than two percent or more than thirty three percent. The final

cover shall be seeded with shallow rooted plants or native vegetation to minimize erosion. Any areas subject to erosion would be corrected.

The first partial closure will begin in 2007. The total waste disposal capacity of the landfill is approximately 40 years. The final inspection will be conducted by the Utah Division of Solid and Hazardous Waste. Escalante City will notify the Executive Secretary of the Utah Division of Solid and Hazardous Waste at least sixty days prior to the projected final receipt of waste at the facility. The implementation of the closure plan shall begin within 30 days after receipt of final waste. Closure activities will be completed within 180 days from the starting date. Within 90 days following completion of closure, the facility closure plans will be submitted to the Executive Secretary.

The city will submit plats and a statement of fact concerning the location of the disposal site to the county recorder to be recorded as part of the record of title that this was a landfill. The city will submit proof of the record of title filing to the Executive Secretary. The total waste of the landfill is 189 tons or 94,500 cubic yards.

#### **POST-CLOSURE CARE PLAN**

The city will maintain the holding pond, control ditches and over flow ditch. Inspections will be done quarterly and records will be kept of these inspections.

#### **CLOSURE AND POST-CLOSURE COSTS**

A copy of the Solid Waste Facility Closure and Post-Closure Cost Estimates are attached to the application. The city used figures from local contractor estimates and published data for these cost estimates. These figures were based on a 30-year time frame.

#### **FINANCIAL ASSURANCE**

Escalante City has established escrow account #2175 through the State Treasurer's Office to meet the financial assurance requirements. The City will deposit approximately \$4,000 a year for the next five years, which will bring the total over \$20,000, which will meet the financial requirements. Escalante City has completed the new Escrow Agreement and it is being submitted with this application.

# ESCALANTE CLASS IVB LANDFILL RANDOM LOAD INSPECTION REPORT

Inspector: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Vehicle License Number: \_\_\_\_\_ Vehicle Description: \_\_\_\_\_

Vehicle Owner: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Owner Address: \_\_\_\_\_  
Street City State Zip

Driver/s Name: \_\_\_\_\_ Waste Generator Name: \_\_\_\_\_

Waste Generator Address: \_\_\_\_\_  
Street City State Zip

Inspector Load Description: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Waste Type

Household: \_\_\_ Commercial: \_\_\_ Industrial: \_\_\_ Medical: \_\_\_ Ash: \_\_\_ Sludge: \_\_\_ Wood: \_\_\_  
Asbestos: \_\_\_ Contaminated Soil: \_\_\_ C/D Debris: \_\_\_ Tires: \_\_\_ PCBs (<50 ppm): \_\_\_  
Household or Conditionally Exempt Hazardous Waste: \_\_\_ Other: \_\_\_\_\_

## Suspicious Load (check potential for hazardous material content)

Sealed Containers: \_\_\_\_\_ Dry Chemicals: \_\_\_\_\_ Liquid: \_\_\_\_\_ Radioactive: \_\_\_\_\_ PCBs: \_\_\_\_\_  
Flammable Material: \_\_\_\_\_ Oxidizers: \_\_\_\_\_ Other: \_\_\_\_\_

Generator Non-Hazardous Certification Not Needed: \_\_\_\_\_ Requested: \_\_\_\_\_  
Inspection Results: Load Accepted: \_\_\_\_\_ Load Rejected: \_\_\_\_\_

Follow-up (if needed): \_\_\_\_\_

Division of Solid and Hazardous Waste notified of hazardous waste load rejected: \_\_\_\_\_

Inspector's Signature: \_\_\_\_\_

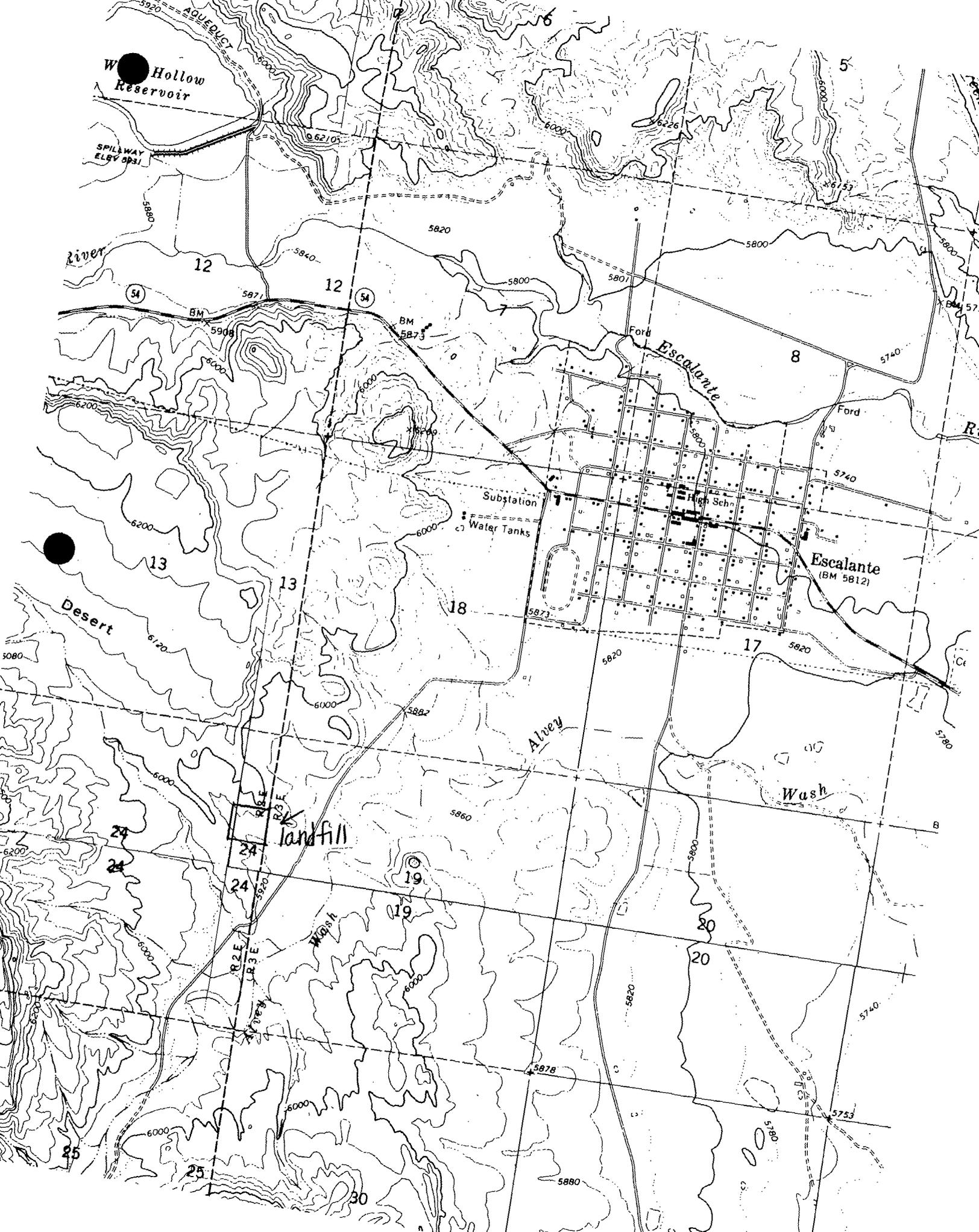
# ESCALANTE CLASS IVB LANDFILL QUARTERLY FACILITY INSPECTION REPORT

Date: \_\_\_\_\_

Time: \_\_\_\_\_

| AREA                | OK | NEED REPAIR | COMMENTS | DATE REPAIR COMPLETED |
|---------------------|----|-------------|----------|-----------------------|
| Fencing             |    |             |          |                       |
| Gate                |    |             |          |                       |
| C&D Disposal Trench |    |             |          |                       |
| Dead Animal Pit     |    |             |          |                       |
| Roads               |    |             |          |                       |
| Drainage Ditches    |    |             |          |                       |
| Drainage Berm       |    |             |          |                       |
| Roads               |    |             |          |                       |
| Recycle Area        |    |             |          |                       |
| Clean Green Pile    |    |             |          |                       |
| Signs               |    |             |          |                       |
| Vectors/Vermin      |    |             |          |                       |
| Other Items         |    |             |          |                       |
|                     |    |             |          |                       |
|                     |    |             |          |                       |
|                     |    |             |          |                       |
|                     |    |             |          |                       |
|                     |    |             |          |                       |

Inspection Completed by: \_\_\_\_\_  
(Signature)



# The United States of America

To all to whom these presents shall come, Greeting:

Serial No: Utah 71137-02

*W.C. [unclear]  
3/6/92*

WHEREAS,

Escalante City, Utah

is entitled to a land patent pursuant to the Recreation and Public Purposes Act of June 14, 1926 (44 Stat. 741), as amended and supplemented (43 U.S.C. 869; et. seq.), for the following described land:

Salt Lake Meridian, Utah

T. 35 S., R. 2 E.,

sec. 24, NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$ .

containing 10.00 acres

NOW KNOW YE, that the UNITED STATES OF AMERICA, in consideration of the premises, and in conformity with said Act of Congress, HAS GIVEN AND GRANTED, and by these presents DOES GIVE AND GRANT unto the said Escalante City, Utah, the land above described for use as a solid waste transfer station: TO HAVE AND TO HOLD the same, together with all rights, privileges, immunities, and appurtenances, of whatsoever nature, thereunto belonging, unto the same Escalante City, Utah, forever; and

EXCEPTING AND RESERVING TO THE UNITED STATES:

1. A right-of-way thereon for ditches or canals constructed by the authority of the United States. Act of August 30, 1890 (43 U.S.C. 945).
2. All minerals, including oil, gas, and coal with the right to prospect for, mine and remove the same. The Secretary of the Interior reserves the right to determine whether such mining and removal of minerals will interfere with the development, operation and maintenance of the transfer station.

Escalante City, Utah, its successors or assigns, assumes all liability for and shall defend, indemnify, and save harmless the United States and its officers, agents, representatives, and employees (hereinafter referred to in this clause as the United States), from all claims, loss, damage, actions, causes of action, expense, and liability (hereinafter referred to in this clause as claims) resulting from, brought for, or on account of, any personal injury, threat of personal injury, or property damage received or sustained by any person or persons (including the patentee's employees) or property growing out of, occurring, or attributable directly or indirectly, to the disposal of solid waste on, or the release of hazardous substances from T. 35 S., R. 2 E., SLM, sec. 24, NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE  $\frac{1}{4}$ , regardless of whether such claims shall be attributable to: (1) the concurrent, contributory, or partial fault, failure, or negligence of the United States, or (2) the sole fault, failure, or negligence of the United States.

Patent Number 43-95-0017

Serial No. Utah 71137-02

Provided, that title shall revert to the United States upon a finding, after notice and opportunity for a hearing, that the patentee has not substantially developed the lands on or before the date five years after the date of conveyance. No portion of the land shall under any circumstance revert to the United States if any such portion has been used for solid waste disposal or for any other purpose which may result in the disposal, placement, or release of any hazardous substance.

If, at any time, the patentee transfers to another party ownership of any portion of the land not used for the purpose specified in this document, the patentee shall pay the Bureau of Land Management the fair market value, as determined by the authorized officer, of the transferred portion as of the date of transfer, including the value of any improvements thereon.

The above described land has been conveyed for utilization as a solid waste transfer station as follows: T. 35 S., R. 2 E., SLM, sec. 24, NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ . Upon closure, the site may contain small quantities of commercial and household hazardous waste as determined in the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901), and defined in 40 CFR 261.4 and 261.5. Although there is no indication these materials pose any significant risk to human health or the environment, future land uses should be limited to those which do not penetrate the final cover of this area unless excavation is conducted subject to applicable State and Federal requirements.



IN TESTIMONY WHEREOF, the undersigned authorized officer of the Bureau of Land Management, in accordance with the provisions of the Act of June 17, 1948 (62 Stat. 476), has, in the name of the United States, caused these letters to be made Patent, and the Seal of the Bureau to be hereunto affixed.

GIVEN under my hand, in Salt Lake City, Utah  
the Fourth day of May in the year  
of our Lord one thousand nine hundred and Ninety-Five  
and of the Independence of the United States the two hundred  
and Nineteenth

By

*Jesse K. Cott*  
Chief, Branch of Lands and Minerals  
Operations

Patent Number 43-95-0017

**DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
CASE RECORDATION  
(LIVE) Serial Register Page**

Run Date/Time: 11/15/05 02:23 PM

Page 1 of 1

**6-14-1926;044STAT0741;43USC869**  
**Case Type 274000: SALE- REC & PUB PURPOSES**  
**Commodity 881: SANITARY LANDFILLS**  
**Case Disposition: AUTHORIZED**

**Total Acres**  
10.000

**Serial Number**  
UTU--- - 07113702

**Serial Number: UTU--- - 07113702**

| Name & Address    |            | Int Rel            | %Interest             |
|-------------------|------------|--------------------|-----------------------|
| ESCALANTE CITY OF | PO BOX 189 | ESCALANTE UT 84726 | PATENTEE 100.00000000 |

| Mer Twp Rng | Sec   | SType | SNr Suff | Subdivision | District/Resource Area | County                    | Mgmt Agency                  |
|-------------|-------|-------|----------|-------------|------------------------|---------------------------|------------------------------|
| 26          | 0350S | 0020E | 024      | ALIQ        | NESENE;                | GRAND STAIRCASE-ESCALANTE | GARFIELD BUREAU OF LAND MGMT |

**Serial Number: UTU--- - 07113702**

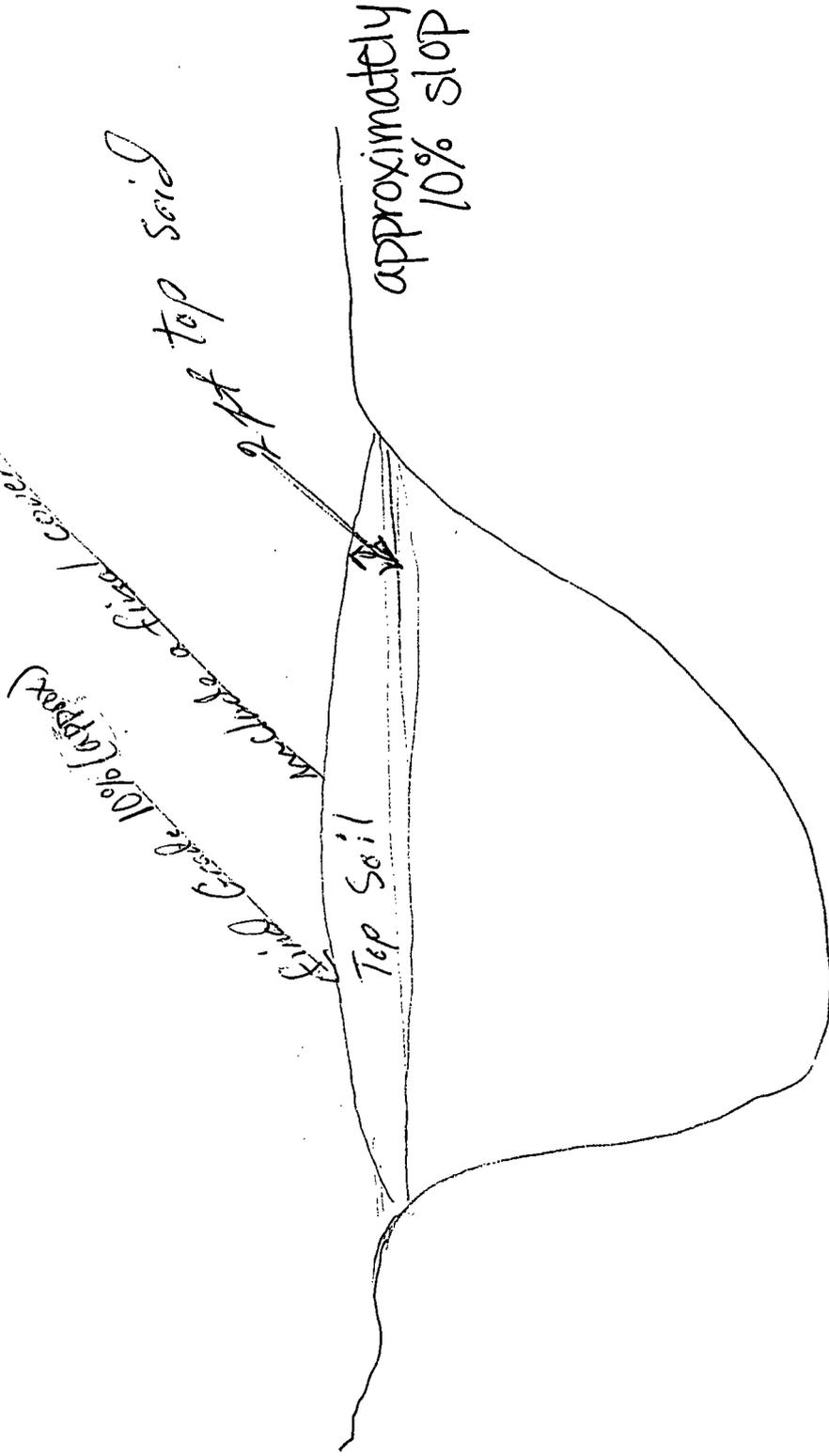
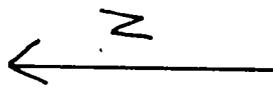
| Act Date   | Code | Action                   | Action Remarks | Pending Office |
|------------|------|--------------------------|----------------|----------------|
| 02/01/1993 | 124  | APLN RECD                | /A/            |                |
| 02/01/1993 | 542  | SUPPLEMENTAL USE/PURPOSE | 696;           |                |
| 02/17/1993 | 042  | CASE SENT TO             | UT0488;        |                |
| 09/20/1994 | 302  | PURCHASE PRICE RECEIVED  | \$100.00;      |                |
| 10/20/1994 | 042  | CASE SENT TO             | UT040;         |                |
| 08/1994    | 042  | CASE SENT TO             | UT9424;        |                |
| 04/1995    | 271  | PATENT ISSUED            | 43-95-0017;    |                |
| 05/04/1995 | 400  | US RIGHTS ACQ/RES        | 140,459,942;   |                |
| 05/05/1995 | 600  | RECORDS NOTED            |                |                |
| 05/08/1995 | 042  | CASE SENT TO             | UT0488;        |                |
| 05/17/1995 | 042  | CASE SENT TO             | UT040;         |                |
| 06/02/1995 | 042  | CASE SENT TO             | UT0488;        |                |
| 07/04/1995 | 853  | COMPL/REVIEW DUE DATE    |                |                |
| 08/01/1995 | 950  | COMPLIANCE APPROVED      |                |                |
| 04/04/1996 | 853  | COMPL/REVIEW DUE DATE    |                |                |
| 11/22/1996 | 950  | COMPLIANCE APPROVED      |                |                |
| 02/04/1997 | 042  | CASE SENT TO             | UT040;         |                |
| 03/10/1997 | 042  | CASE SENT TO             | UT0488;        |                |
| 04/04/1997 | 853  | COMPL/REVIEW DUE DATE    |                |                |
| 05/05/1997 | 950  | COMPLIANCE APPROVED      |                |                |
| 05/09/1997 | 042  | CASE SENT TO             | UT040;         |                |
| 04/04/2000 | 853  | COMPL/REVIEW DUE DATE    |                |                |
| 05/16/2003 | 950  | COMPLIANCE APPROVED      |                |                |
| 04/04/2005 | 853  | COMPL/REVIEW DUE DATE    |                |                |
| 04/04/2005 | 950  | COMPLIANCE APPROVED      |                |                |
| 04/04/2007 | 853  | COMPL/REVIEW DUE DATE    |                |                |
| 04/04/2009 | 853  | COMPL/REVIEW DUE DATE    |                |                |
| 04/04/2011 | 853  | COMPL/REVIEW DUE DATE    |                |                |
| 04/04/2013 | 853  | COMPL/REVIEW DUE DATE    |                |                |

| Line Nr | Remarks                           | Serial Number: UTU--- - 07113702 |
|---------|-----------------------------------|----------------------------------|
| 0002    | FOR STORAGE AND COMPOST AREA;     |                                  |
| 0003    | SEE UTU-71137 FOR CLASSIFICATION; |                                  |
| 0003    | /A/2/16 ER PER TELECON;           |                                  |

NO WARRANTY IS MADE BY BLM  
FOR USE OF THE DATA FOR  
PURPOSES NOT INTENDED BY BLM

# Closure

First partial closure of the Escalante City land fill  
it may be in 2006 or 2007? 6" top soil





# Utah Division of Solid and Hazardous Waste Solid Waste Management Program

Mailing Address  
P.O. Box 144880  
Salt Lake City, Utah 84114-4880

Office Location  
288 North 1460 West  
Salt Lake City, Utah 84116

Phone (801) 538-6170  
Fax (801) 538-6715  
www.deq.utah.gov

## Preparation of Solid Waste Facility Closure and Post-Closure Cost Estimates Guidance

### Introduction

This guidance is not a rule. It has been prepared to give the reader information, in plain language, about how the Division of Solid and Hazardous Waste expects to interpret Utah Administrative Code (UAC) R315-302-3. In the event questions arise regarding the matters discussed in this guidance, the text of the rule will govern.

### Cost Estimates and Financial Assurance

#### Closure

Owners or operators are required to provide cost estimates, in current dollars, for a third party to conduct and complete closure activities (i.e., hiring qualified contractors to perform closure activities). Estimates must equal the maximum closure costs at any time during the life of the facility or cell; or the permit life, whichever is shorter. Estimates must be included for each closure activity. If closure will be conducted in phases, cost estimates for completing each phase should be provided. A sample worksheet for estimating costs is attached to this guidance. A worksheet with costs for some of the items is also provided. The costs shown were developed for the Oklahoma Department of Environmental Quality and reflect costs in Oklahoma. Basic closure cost items should include, if applicable:

- Design cost to provide construction level design details for the closure.
- Ground water monitoring analysis costs, well maintenance and replacement.
- Gas control system installation, if any is needed in addition to control systems installed in the waste.
- Costs for any additional equipment to treat, use or dispose of the gas.
- Final cover installation and material cost including:
  - a. Clay material acquisition, placement, and compaction.
  - b. Vegetative layer material acquisition, placement and grading or placement of any other approved layer to protect the compacted soil layer.
  - c. Any geomembranes, drainage layers or other cover layers as required by the permit and plans.

- d. Seeding, fertilization, soil amendments and mulch.
- Installation of any additional control or monitoring features as necessary.

### **Post-Closure**

Provide cost estimates, in current dollars, for a third party to conduct and complete post-closure activities. Estimates must equal the maximum post-closure costs at any time during the post-closure period. Estimates should include figures for each post-closure activity and an estimate of the total cost of post-closure care for the thirty-year post-closure period. Include assumptions made in preparing the cost estimates. The basic post-closure cost items should include, if applicable:

- Final cover maintenance and repair. Use the following for estimating the amount of work to be done each year.
  - a. Erosion repair; use one foot of cover over 5% of the landfill area per year.
  - b. Vegetation repair; use 10% of the landfill area per year.
- Leachate collection, treatment, disposal and maintenance should include costs for:
  - a. Operation
  - b. Sampling and analyses
  - c. Maintenance and repair
- Ground water monitoring should include costs for:
  - a. Sampling
  - b. Analyses
  - c. Maintenance and repair
- Gas monitoring should include costs for:
  - a. Sampling
  - b. Analyses (if necessary)
  - c. Maintenance and repair
- Gas control systems, if required, should include costs for:
  - a. Operation
  - b. Maintenance and repair
- Any other monitoring or sampling required by other environmental programs should be included in the total cost of post-closure care.
- Record keeping and reporting is required by UAC R315-302-2 and the cost of these activities should be included in the total post-closure care cost estimate.

# Estimates Only

## Landfill Closure Cost Estimate Worksheet

A brief description of each line item, as numbered in the tables, is given immediately following this series of tables.

| Item   | Unit Measure | Cost/Unit | Nr. Units | Total Cost        | Source          | Note |
|--|--------------|-----------|-----------|-------------------|-----------------|------|
| 1.0 Engineering and Preliminary Site Work  |              |           |           |                   |                 |      |
| 1.1 Topographic Survey   | N/A          |           |           |                   |                 |      |
| 1.2 Boundary Survey for Closure  | N/A          |           |           |                   |                 |      |
| 1.3 Site Evaluation  | VISIT        | \$100.00  | 1         | \$100.00          | \$50.00 per hr. |      |
| 1.4 Development of Plans   | Plan         | \$100.00  | 1         | \$100.00          | \$50.00 per hr. |      |
| 1.5 Contract Administration Bidding and Award                                    | Bid          | \$50.00   | 2         | \$100.00          |                 |      |
| 1.6 Administrative Costs for the Certification of Final Cover and Closure Notice | N/A          |           |           |                   |                 |      |
| 1.7 Project Management; Construction Observation and Testing                     | VISIT        | \$100.00  | 1         | \$100.00          |                 |      |
| 1.8 Monitor Well Consultant Cost   |              |           |           |                   |                 |      |
| 1.9 Other Environmental Permit Costs   |              |           |           |                   |                 |      |
| 1.10 Disposal of Final Wastes  |              |           |           |                   |                 |      |
| 1.10.1 Disposal Cost   | trip load    | \$195.00  | 40        | \$7,800.00        |                 |      |
| 1.11 Remove Temporary Buildings  | N/A          |           |           |                   |                 |      |
| 1.12 Remove Equipment  | N/A          |           |           |                   |                 |      |
| 1.13 Repair/Replace Perimeter Fencing  | N/A          |           |           |                   |                 |      |
| 1.14 Clean Leachate Lines  | N/A          |           |           |                   |                 |      |
| <b>Subtotal</b>  |              |           |           | <b>\$8,200.00</b> |                 |      |
| <b>10 % Contingency</b>  |              |           |           | <b>\$820.00</b>   |                 |      |

| Item                     | Unit Measure                        | Cost/Unit        | No. Units | Total Cost | Source | Year |
|--------------------------|-------------------------------------|------------------|-----------|------------|--------|------|
| <b>Engineering Total</b> |                                     |                  |           |            |        |      |
| 2.0                      | Construction                        |                  |           |            |        |      |
| 2.1                      | Final Cover System                  |                  |           |            |        |      |
| 2.1.1                    | Completion of Sidewall Liner        | N/A              |           |            |        |      |
| 2.1.1a                   | Soil Placement                      | Rental (per hr.) | 4         | \$260.00   |        |      |
| 2.1.1b                   | Soil Processing                     | N/A              |           |            |        |      |
| 2.1.1c                   | Soil Amendment                      | N/A              |           |            |        |      |
| 2.1.1d                   | Soil Purchase                       | N/A              |           |            |        |      |
| 2.1.1e                   | Soil Transportation                 | Truck load       | 4         | \$260.00   |        |      |
| 2.1.2                    | Drainage Layer on Sidewall          | N/A              |           |            |        |      |
| 2.1.2a                   | Geotextile Filter Fabric            | N/A              |           |            |        |      |
| 2.1.2b                   | Geonet/Geotextile Composite         | N/A              |           |            |        |      |
| 2.1.2c                   | Geomembrane Sidewall Liner          | N/A              |           |            |        |      |
| 2.2                      | Completion of Top Cover             |                  |           |            |        |      |
| 2.2.1                    | Infiltration Layer (Compacted Clay) |                  |           |            |        |      |
| 2.2.1a                   | Soil Placement (Compacted)          | N/A              |           |            |        |      |
| 2.2.1b                   | Soil Processing                     | N/A              |           |            |        |      |
| 2.2.1c                   | Soil Amendment                      | N/A              |           |            |        |      |
| 2.2.1d                   | Soil Purchase                       | N/A              |           |            |        |      |
| 2.2.1e                   | Transportation                      | N/A              |           |            |        |      |
| 2.2.2                    | Geosynthetic Clay Layer             |                  |           |            |        |      |
| 2.2.2a                   | Geosynthetic Clay Installation      | N/A              |           |            |        |      |

| Item                                      | Unit Measure | Cost/Unit | No. Units | Total Cost | Source | Note |
|---|--------------|-----------|-----------|------------|--------|------|
| 2.2.3 Flexible Membrane Cover             | N/A          |           |           |            |        |      |
| 2.2.3a Flexible Membrane Installation     | N/A          |           |           |            |        |      |
| 2.2.4 Drainage Layer                      | N/A          |           |           |            |        |      |
| 2.2.4a Geonet/Geotextile                  | N/A          |           |           |            |        |      |
| 2.2.4b Sand Layer                         | N/A          |           |           |            |        |      |
| 2.2.4c Soil Cover                         | N/A          |           |           |            |        |      |
| 2.2.4d Geonet/Geotextile Composite        | N/A          |           |           |            |        |      |
| 2.3 Erosion Layer Placement               | N/A          |           |           |            |        |      |
| 2.4 Revegetation                          |              |           |           |            |        |      |
| 2.4.1 Seeding                             | ACRE         | 1         | 1         | \$100.00   |        |      |
| 2.4.2 Fertilize                           | ACRE         | 15        | 1         | \$15.00    |        |      |
| 2.4.3 Mulch                               | N/A          |           |           |            |        |      |
| 2.5 Site Grading and Drainage             | N/A          |           |           |            |        |      |
| 2.6 Site Fencing and Security             | N/A          |           |           |            |        |      |
| 2.7 Leachate Collection System Completion | N/A          |           |           |            |        |      |
| Subtotal                                  |              |           |           | \$635.00   |        |      |
| 10% Contingency                           |              |           |           | 63.50      |        |      |
| Construction Total                        |              |           |           | \$698.50   |        |      |

| Item                                    | Unit Measure | Cost/Unit | No. Units | Total Cost | Source | Note |
|---|--------------|-----------|-----------|------------|--------|------|
| 3.0 Gas Collection System               |              |           |           |            |        |      |
| 3.1 System Design                       | N/A          |           |           |            |        |      |
| 3.2 Completion of Gas Collection System | N/A          |           |           |            |        |      |

| Item   | Unit Measure | Cost/Unit | No. Units | Total Cost | Source | Note |
|--|--------------|-----------|-----------|------------|--------|------|
| 3.3 Equipment and Installation                         |              |           |           |            |        |      |
| 3.3.1 Place Sand                                       | N/A          |           |           |            |        |      |
| 3.3.2 Install Geonet and Geotextile                    | N/A          |           |           |            |        |      |
| 3.3.3 Install Passive Vents                            | N/A          |           |           |            |        |      |
| 3.3.4 Install, Rework or Replace Gas Control Equipment | N/A          |           |           |            |        |      |
| Subtotal   |              |           |           |            |        |      |
| 10% Contingency  |              |           |           |            |        |      |
| Gas Collection Total                                   |              |           |           |            |        |      |

| Item   | Unit Measure | Cost/Unit | No. Units | Total Cost | Source | Note |
|--|--------------|-----------|-----------|------------|--------|------|
| 4.0 Monitor Well Installation Cost                                       |              |           |           |            |        |      |
| 4.1 Ground Water Monitoring Will Installation, Reworking, or Replacement | N/A          |           |           |            |        |      |
| 4.2 Install, Rework, or Replace Methane Probe/s                          | N/A          |           |           |            |        |      |
| 4.3 Monitor Well, or Methane Probe Plugging                              | N/A          |           |           |            |        |      |
| Subtotal   |              |           |           |            |        |      |
| 10% Contingency  |              |           |           |            |        |      |
| Monitor Well Installation Total  |              |           |           |            |        |      |

Calculation of Total Closure Costs

Engineering Total: \$9020.00  
Construction Total: 698.50  
Gas Collection Total: N/A  
Ground Water Total: N/A  
\_\_\_\_\_% Contract Performance Bond: N/A  
SUBTOTAL: \$9,718.50  
Legal Fees (\_\_\_\_\_% Of Subtotal): N/A  
TOTAL CLOSURE COSTS: \$9,718.50

**Landfill Post-Closure Care Cost Estimate Worksheet**

| Item   | Unit Measure                                      | Cost/Unit                      | No. Units | Total Cost | Source | Note |
|--------|---|--------------------------------|-----------|------------|--------|------|
| 1.0    | Engineering Costs                                 |                                |           |            |        |      |
| 1.1    | Post-Closure Plan and Post-Closure permits        | 10 Yr. permit renewal \$500.00 | 2         | \$1,000.00 |        |      |
| 1.2    | Site Inspection and Record keeping (annual)       | Annual report \$50.00          | 30        | \$1,500.00 |        |      |
| 1.3    | Correctional Plans and Specifications (annual)    | N/A                            |           |            |        |      |
| 1.4    | Site Monitoring                                   |                                |           |            |        |      |
| 1.4.1  | Ground Water Monitoring                           |                                |           |            |        |      |
| 1.4.1a | Ground Water Sample Collection                    | N/A                            |           |            |        |      |
| 1.4.1b | Ground Water Sample Analysis                      | N/A                            |           |            |        |      |
| 1.4.1c | Ground Water Sample Analysis Review and Reporting | N/A                            |           |            |        |      |
| 1.4.2  | Landfill Gas Monitoring                           |                                |           |            |        |      |
| 1.4.2a | Gas Monitoring Data Collection                    | N/A                            |           |            |        |      |
| 1.4.2b | Gas Monitoring Data Review and Reporting          | N/A                            |           |            |        |      |
| 2.0    | Maintenance Costs                                 |                                |           |            |        |      |
| 2.1    | Cover Maintenance Costs                           |                                |           |            |        |      |
| 2.1.1  | Soil Replacement                                  | N/A                            |           |            |        |      |
| 2.1.2  | Vegetation Reseeding                              | N/A                            |           |            |        |      |
| 2.2    | Equipment Maintenance                             |                                |           |            |        |      |
| 2.2.1  | Ground Water well Maintenance and Replacement     | N/A                            |           |            |        |      |
| 2.2.2  | Methane Probe Maintenance and Replacement         | N/A                            |           |            |        |      |
| 2.2.3  | Gas Collection System Operation                   | N/A                            |           |            |        |      |

| Item   | Unit Measure          | Cost/Unit | No. Units | Total Cost  | Source | Note |
|--|-----------------------|-----------|-----------|-------------|--------|------|
| 2.2.4 Gas Collection System Maintenance and Repair       | N/A                   |           |           |             |        |      |
| 2.2.5 Leachate Collection System                         |                       |           |           |             |        |      |
| 2.2.5a Leachate Collection System Repair and Maintenance | N/A                   |           |           |             |        |      |
| 2.2.5b Clean Leachate Lines                              | N/A                   |           |           |             |        |      |
| 3.0 Final Plugging of Monitoring Wells                   |                       |           |           |             |        |      |
| 3.1 Final Plugging of Methane Probes                     | N/A                   |           |           |             |        |      |
| 3.2 Final Plugging of Ground Water Monitoring Wells      | N/A                   |           |           |             |        |      |
| 3.3 Gas Control Equipment Removal                        | N/A                   |           |           |             |        |      |
| 4.0 Leachate Disposal                                    | N/A                   |           |           |             |        |      |
| 5.0 Site Maintenance                                     |                       |           |           |             |        |      |
| 5.1 Repair of Surface Water Diversion Structures         | Drainage Ditch Repair | \$65.00   | 16 hrs    | \$1040.00   |        |      |
| 5.2 Repair of Fences and Gates                           | N/A                   |           |           |             |        |      |
| 5.3 General Maintenance                                  | Quarterly Ins         | \$50.00   | 120 hrs   | \$6,000.00  |        |      |
| 6.0 Demonstration of stability                           |                       |           |           |             |        |      |
| <b>Subtotal</b>  |                       |           |           | \$9,540.00  |        |      |
| <b>10% Contingency</b>                                   |                       |           |           | \$954.00    |        |      |
| <b>Post-Closure Care Total</b>                           |                       |           |           | \$10,494.00 |        |      |

Total Closure and Post-Closure Costs

Total Closure Costs:

\$97,718.50

Total Post-Closure Care Costs:

\$10,494.00

Total Cost:

\$20,212.50

## **DESCRIPTION OF LINE ITEMS**

**Source** List the source of the data used such as DEQ guidance or RS Means etc.

**Note** Give any explanatory information.

### **Closure Costs**

#### **1.0 Engineering**

Note – The “Units” in the worksheet, whether acres to be closed or cubic yards of soil to be used etc., should be justified in the documentation of the closure costs.

Engineering costs have been divided into seven major items: topographic survey, waste boundary field notes, site evaluation, development of plans, contract administration, bidding and award, administrative costs, and closure inspection and testing. The items may each have a variety of tasks but the nature of the work in the various tasks has been combined in the major items.

#### **1.1 Topographic Survey**

A topographic survey will generally be required to ascertain the existing height and top slope of the landfill so that permit compliance can be evaluated and the final closure system, drainage system and final grading can be engineered.

#### **1.2 Boundary Survey**

A Boundary survey is a metes and bounds description that is required for filing the closure notice and making the required changes on the record of title on the area of the site which has received waste.

#### **1.3 Site Evaluation**

The site evaluation includes a site inspection to identify waste disposal areas, analyze drainage and erosion protection needs, and to determine other site operational features that may not be in compliance with the permit. Analysis of ground water samples, landfill gas analysis, operation records, etc. should also be included.

#### **1.4 Development of Plans**

The final closure plan includes the final cover system design and specifications, grading and drainage plans, specifications for revegetation, design of any other site improvements required, and preparation of a closure schedule. This item also includes the coordination of the closure plan with the Utah Division of Solid and Hazardous Waste, including the required notifications and reporting.

#### **1.5 Contract Administration**

#### **1.6 Administrative Costs**

#### **1.7 Closure Inspection and Testing**

Closure inspection and testing costs include the cost of a Professional Engineer to observe the closure construction, perform appropriate cover thickness and permeability verifications, and prepare an evaluation report upon completion of the closure.

#### **1.8 Ground Water Monitor Well Consultant Costs**

Consultant costs for monitor well installation include preparation of work plans, well installation observation, well development, and the data analysis report.

### 1.9 NPDES Construction Storm Water Permit Compliance Package

The consultant is to prepare all necessary plans, specifications, and other documents necessary for compliance with all applicable federal and state laws and requirements necessary for the closure of the site. One of these required steps is compliance with the Federal Clean Water Act.

#### 1.10 disposal of final Wastes

Any onsite waste that is not in the disposal cell must be placed in the cell or disposed of at a permitted facility if the waste can not be placed in the current open cell

#### 1.11 Remove Temporary Buildings

Onsite buildings that are not being used for post-closure care operations at the site must be removed and disposed of.

#### 1.12 Remove Equipment

Onsite equipment that are not being used for post-closure care operations at the site must be removed and disposed of.

#### 1.13 Repair/replace Perimeter Fencing

#### 1.14 Clean Leachate Lines

### 2.0 Construction Costs

Closure construction costs include those for construction of the final cover system, site grading, and drainage improvements. Other construction costs may be necessary to correct on-site problems.

#### 2.1 Final Cover System

The standard final cover system at Class I, Class II, and some Class V Landfills is an infiltration layer that is a minimum of 18 inches thick of earthen material that has a permeability less than or equal to the permeability of any bottom liner system or if there is no liner in the landfill unit, no greater than the permeability of the natural soils, or a permeability of no greater than  $1 \times 10^{-5}$  cm/sec, whichever is less, and an erosion layer of a minimum of 6 inches of earthen material that is capable of sustaining plant growth. If a Flexible Membrane Liner (FML) is included in the landfill liner system, it may be necessary to install a Flexible Membrane Cover (FMC) along with the infiltration layer to attain the required permeability. In addition, it is a common practice to place a drainage layer over the infiltration layer to remove water that has percolated through the erosion layer. Also, revegetation of the erosion layer is required to protect the entire final cover system as is revegetation of all disturbed areas.

##### 2.1.1 Completion of the Sidewall Liner

Completion of the sidewall liner is necessary when the waste is not placed at a permanent grade or when no sidewall liner has been placed. In general, if the waste is not placed at a final grade and new final grades have been assumed, the completion of this sidewall liner is required.

##### 2.1.2 Drainage Layer on Sidewall (if required)

For ease of construction, this drainage layer along the sidewall area to be developed could consist of a "geonet" or "geogrid" system and is measured in terms of square yards of placement.

#### 2.2 Completion of the Top Cover

##### 2.2.1 Infiltration Layer (Compacted Clay)

The infiltration layer of the final cover system consists of an 18-inch thick layer of compacted soil or other earthen materials with a permeability matching that of the bottom liner but not greater than  $1 \times 10^{-5}$  cm/sec.

#### 2.2.2 Geosynthetic Clay Layer

A compacted clay liner may be used at certain landfill sites to meet the permeability requirements of the rules.

#### 2.2.3 Flexible Membrane Cover

A flexible membrane cover will be necessary at certain landfill sites where the required permeability cannot be attained in the infiltration layer by earthen materials alone. Similar material is used for the FMC as is used for the FML, but typically requires more flexibility and less chemical resistance.

#### 2.2.4 Drainage Layer

A drainage layer is commonly used between the erosion layer and the infiltration layer. Two alternative designs are available:

- The use of a sand layer covered with a geotextile filter fabric; and
- The use of a geonet/geotextile composite.

In either case, a pipe is required around the base of the cover slopes to collect the infiltrated storm water from the drainage layer. The cost of the collection pipe system should be incorporated into the costs for the drainage layer. If a sand layer and geotextile filter fabric are used, then the geonet/geotextile composite item will not be used.

#### 2.3 Erosion Layer Placement

The erosion layer must be a minimum of 6 inches of earthen material capable of sustaining plant growth. The existing site topsoil is generally acceptable for this application, although a layer thicker than 6 inches may be required if the soil used has high shrink/swell characteristics that would promote cracking. Since acceptable soil is generally available on-site, only the cost of placement has been included.

#### 2.4 Revegetation

Revegetation includes the activities necessary to provide vegetative erosion protection over the surface of the completed final cover. In some instances, temporary vegetation measures are used to establish vegetation quickly until permanent revegetation can be developed. The costs are based on seeding with grasses or other shallow rooted plants and the application of appropriate fertilizer. Other methodologies may include sodding, hydro mulch applications, etc.

#### 2.5 Site Grading and Drainage

Site grading and drainage include the final grading of the site, drainage improvements and sedimentation controls for proper closure of the site.

#### 2.6 Site Fencing and Security

Site fencing and security are to be added to secure any area of the landfill which has received waste and is undergoing closure but may not have been fenced.

#### 2.7 Leachate Collection System Completion

In the event of forced closure, there may be circumstances where the leachate collection system has not been completed. In this event, the leachate collection system must be completed with permanent outfalls and permanent

clean outs installed.

### **3.0 Gas Collection System**

Some landfill closures may require the installation of a gas collection system. This system may consist of collection pipes, gas collection layer and surface equipment to dispose of or use the gas

#### **3.1 System Design**

Where closure is required prior to the complete filling of the cell or site, changes in the design of the gas collection system may be required.

#### **3.2 Completion of Gas Collection System**

In the event of forced closure, there may be circumstances where the gas monitoring system, if required, has not been installed completely in association with the unit to be closed. The gas monitoring system may include the installation of pipes and appurtenances necessary for conduction of the required monitoring.

#### **3.3 Equipment and Installation**

### **4.0 Monitor Well Installation**

A ground water monitoring well network, if monitoring was required at the landfill unit, should have been installed prior to the beginning of any waste disposal operations. In the event of forced closure of a site, it may become necessary to relocate the point of compliance. This may require the installation of new monitor wells and the proper plugging of those well locations that are no longer suitable. Gas monitoring at the site may require the installation of methane monitoring wells or the relocation or reworking of existing methane monitoring wells.

#### **4.1 Ground Water Monitor Well Installation, Reworking, or Replacement**

Monitor well installation, rework or replacement includes all labor (including consultant labor) and materials to do the necessary work including surveying.

#### **4.2 Install, rework, or Replace Methane Probe/s**

Methane Probe installation, rework, or replacement includes all labor (including consultant labor) and materials to do the necessary work including surveying.

#### **4.3 Monitor Well or Methane Probe Plugging**

Includes all costs for the plugging of wells and probes.

### **Contingency Costs and Legal Fees**

Including in the cost estimates an estimated 10 percent contingency cost and an estimated 25 percent cost associated with the legal fees would be prudent.

### **Calculation of the Totals for Closure**

The Engineering Total, Construction Total, Gas Collection Total, and the Ground Water Total should be added. At that time, a percentage of construction should be set aside for the Contractor's Performance Bond. In addition to that, the 10 percent contingency factor should be built into each category. A space for contingency legal fees has

been provided; this may be from zero to as much as 25 percent of the total closure costs.

**Please note:** These factors are subject to review and may change with subsequent drafts of this document.

### **Post-Closure Care**

The post-closure care period is established to be 30 years or as long as the Executive Secretary determines is required for the facility or unit to become stabilized and to protect human health and the environment. During this period, maintenance must be ongoing to assure the integrity and effectiveness of the final cover and other required systems. Also included in this section is the cost for disposal of leachate, since leachate may still be generated during the post-closure care period. The costs for post-closure care are divided into engineering costs, construction costs and leachate disposal costs.

### **1.0 Engineering Costs**

Engineering costs include the preparation or amendment of a post-closure plan, site inspections, site monitoring, preparation of post-closure permits (at least two permit renewals may be required) and preparation of correctional plans if required.

#### **1.1 Post-Closure Plan**

The post-closure plan provides a schedule for routine maintenance of the final cover system, the landfill security system, and the gas and groundwater monitoring systems. It also contains a schedule for the sampling and analysis of ground water and gas monitoring.

#### **1.2 Site Inspections**

Site inspections should be performed at least semiannually and should include identification of areas experiencing settlement or subsidence, identification of erosion or other drainage-related problems, inspection of the fencing, and inspection of the leachate collection system and monitoring systems.

#### **1.3 Correctional Plans and Specifications**

Correctional plans and specifications include the costs for an engineering consultant to prepare plans and specifications to correct problems identified during the site inspections. This cost is obviously dependent upon the quality of care taken during the closure of the site and ongoing maintenance during previous post-closure care years. The cost may be higher during earlier post-closure care years and taper down to zero cost during the end of the post-closure care period.

#### **1.4 Site Monitoring**

Site monitoring is the cost to perform semiannual ground water sampling and analysis for each on-site monitoring well. Gas monitoring is performed on a quarterly basis during the post-closure care period and should be included. Any gas collection system that is active may require monitoring can be included here or in section 2.2.3.

### **2.0 Maintenance Costs**

Post-closure maintenance costs include the costs to correct any problems determined by the site inspections and as specified by the engineer's correctional plans and specifications. These costs will also include any ongoing site maintenance that is needed throughout the post-closure care period.

#### **2.1 Cover Maintenance Costs**

Subsidence and erosion of the cover may occur. These areas must be repaired and the vegetation reestablished. Also any damage to the compacted soil layer or the FMC, if present, must be repaired.

## **2.2 Equipment Maintenance**

Ground water monitoring wells and any sampling equipment may need repair or replacement. Gas collection system surface equipment may need repair or replacement. Leachate collection system equipment may need maintenance or replacement.

## **3.0 Final Plugging of Monitoring Wells**

At the end of the post-closure care period the monitoring wells must be plugged in accordance with Utah Division of Water Rights rules.

## **4.0 Leachate Disposal**

Leachate disposal costs are difficult to estimate and would be required only at landfills that have a liner and a leachate collection system. Since the landfill will be closed, recirculating of leachate back into the landfill would not be possible. The owner or operator would base cost estimates on an average rate of leachate generation during the past few years of active life of the landfill unit and the cost of treatment that may be available or developed. Another factor that complicates matters, is that, during the post-closure period, the volume of leachate being generated should decrease substantially because the landfill unit has received a final cover.

## **5.0 Site Maintenance**

General maintenance of the site will continue throughout the post-closure period. Items such as fences and gates or other access controls, needed buildings and access roads will need to be maintained.

## **6.0 Demonstration of Stability**

The post-closure care period is not automatically ended at the end of 30 years. A site must be shown to be stable and not present a threat to health or the environment. Making the demonstration may require both analysis of current data and collection of new information. Both of these activities will require expenditures that must be allowed for.

**Landfill Closure and Post-Closure Care Reference Costs**

**The following are reference costs developed by the Oklahoma Department of Environmental Quality and can be used if no other costs are available (2005 update).**

### 2005 Worksheet for Calculating Closure and Post-closure Cost Estimates

All site data necessary to calculate estimates of closure and post-closure costs can be gathered by completing table H.1. Data from Table H.1 should be inserted into Tables H.2 and I.1 to complete calculations.

**Table H.1 Site Data**

**Facility Name:**

**Permit Number:**

| Description                                    | Quantity | Units       |
|--|----------|-------------|
| Total Permitted Area                           |          | acres       |
| Active Portion                                 |          |             |
| Composite Lined                                |          | acres       |
| Soil Lined                                     |          | acres       |
| Area of Largest Cell/Phase Requiring Final Cap |          |             |
| Composite Lined                                |          | acres       |
| Soil Lined                                     |          | acres       |
| Perimeter Fencing                              |          | linear feet |
| Groundwater Monitoring Wells                   |          | VLF         |
| Methane Gas Probes                             |          | VLF         |
| Terraces                                       |          | linear feet |
| Letdown channels                               |          | linear feet |
| Perimeter drainage ditches                     |          | linear feet |
| Average Daily Flow                             |          | tons/day    |
| Landfill Disposal Cost                         |          | \$/ton      |

VLF = Vertical linear feet. The sum of the depths of all monitoring wells.

**Table H.2 Closure Cost Estimate**

**Facility Name:**

**Permit Number:**

|   | Task/Service                      | Quantity     | Units       | Multiplier <sup>a</sup> | Unit Cost <sup>b</sup> | Subtotal   |
|---|-----------------------------------|--------------|-------------|-------------------------|------------------------|------------|
| 1 | <b>Preliminary Site Work</b>      |              |             |                         |                        |            |
| a | Conduct Site Evaluation           | 1            | Lump sum    | 1                       | \$2,952.93             | \$2,952.93 |
| b | Dispose Final Wastes              |              |             |                         |                        |            |
|   | Average Daily Flow                | <sup>c</sup> | tons/day    |                         |                        |            |
|   | Disposal Cost                     | <sup>d</sup> | tons/day    | 5                       | <sup>e</sup>           |            |
| c | Remove Temporary Building(s)      | 1            | lump sum    | 1                       | \$2,631.24             | \$2,631.24 |
| d | Remove Equipment                  | 1            | lump sum    | 1                       | \$2,147.67             | \$2,147.67 |
| e | Repair/Replace Perimeter Fencing  |              | linear feet | 0.25                    | \$2.37                 |            |
| f | Clean Leachate Line(s)            | 1            | lump sum    | 1                       | \$1,342.43             | \$1,342.43 |
| 2 | <b>Monitoring Equipment</b>       |              |             |                         |                        |            |
| a | Rework/Replace Monitoring Well(s) |              | VLF         | 0.25                    | \$44.45                |            |
| b | Plug Abandoned Monitoring Well(s) |              | VLF         | 0.25                    | \$19.06                |            |
| c | Rework/Replace Methane Probe(s)   |              | VLF         | 0.25                    | \$38.39                |            |

|    |   |   |             |      |              |              |
|----|---|---|-------------|------|--------------|--------------|
| d  | Plug Abandoned Methane Probe(s)                                     |   | VLF         | 0.25 | \$15.04      |              |
| e  | Rework/Replace Remediation and/or Gas Control Equipment             | 1 | lump sum    | 0.05 |              |              |
| 3  | <b>Construction</b>   |   |             |      |              |              |
| a  | Complete Site Grading to include on- and off-site borrow areas      |   | acres       | 1    | \$1,204.71   |              |
| b  | Construct Final Cap   |   |             |      |              |              |
|    | Compacted On-site Clay Cap or                                       |   | cubic yards | 1    | \$3.43       |              |
|    | Compacted Off-site Clay Cap or                                      |   | cubic yards | 1    | \$5.55       |              |
|    | Install Geosynthetic Clay Liner Cap                                 |   | square feet | 1    | \$0.42       |              |
| c  | Construct Landfill Gas Venting Layer                                |   |             |      |              |              |
|    | Place Sand or   |   | acres       | 1    | \$32,218.27  |              |
|    | Install Net and Geotextile  |   | square feet | 1    | \$0.29       |              |
| d  | Install Passive Landfill Gas Vents                                  |   | acres       | 1    | \$537.18     |              |
| e  | Install Flexible Membrane Liner                                     |   | square feet | 1    | \$0.35       |              |
| f  | Drainage Layer  |   |             |      |              |              |
|    | Place Sand or   |   | acres       | 1    | \$32,218.27  |              |
|    | Install Net and Geonet  |   | square feet | 1    | \$0.29       |              |
| g  | Place On-site Topsoil   |   | cubic yards | 1    | \$1.61       |              |
|    | Place Off-site Topsoil  |   | cubic yards | 1    | \$12.89      |              |
| h  | Establish vegetative cover, including on- and off-site borrow areas |   | acres       | 1    | \$429.95     |              |
| 4  | <b>Drainage/erosion control</b>                                     |   |             |      |              |              |
| a  | Construct Terraces  |   | linear feet | 1    | \$7.78       |              |
| b  | Construct Letdown Channels  |   | linear feet | 1    | \$5.95       |              |
| c  | Clean Perimeter Drainage Ditches                                    |   | linear feet | 0.50 | \$5.04       |              |
| 5  | <b>Tasks Not Identified</b>   |   |             |      |              |              |
| 6  | <b>Subtotal</b>   |   |             |      |              |              |
| 7  | <b>Administrative Services</b>                                      | 1 | lump sum    | 0.10 | <sup>b</sup> |              |
| 8  | <b>Technical and Professional Services</b>                          | 1 | lump sum    | 0.12 | <sup>b</sup> |              |
| 9  | <b>Closure Contingency</b>  | 1 | lump sum    | 0.10 | <sup>b</sup> |              |
| 10 | <b>Total Final Closure</b>  |   |             |      |              | <sup>h</sup> |

<sup>a</sup> Multipliers are determined from the *Solid Waste Financial Assurance Program Report, December 22, 2000*.

<sup>b</sup> Unit costs include a 2.10% inflationary adjustment from the 2004 figures.

<sup>c</sup> New facilities: Insert the value for "W" in OAC 252:515-27-8(a)(2). Existing facilities: Insert reported annual tonnage for the previous year, divided by 312 operating days per year (52 weeks per year x 6 operating days per week).

<sup>d</sup> Insert number of tons/day from above.

<sup>e</sup> Insert landfill disposal cost per ton of waste (\$/ton).

- f Input capital cost for gas control/remediation equipment, if installed at the site.
- g Input subtotal from line 6.
- h Add rows 6 through 9.

**Table I.1 Post-closure Cost Estimate**

**Facility Name:**

**Permit Number:**

|   | Task/Service  | Quantity | Units    | Multiplier <sup>a</sup> | Unit Cost <sup>b</sup> | Subtotal    |
|---|---|----------|----------|-------------------------|------------------------|-------------|
| 1 | <b>Site maintenance</b>                                       |          |          |                         |                        |             |
| a | Site Inspections  | 4        | per year | 30                      | \$537.18               | \$16,115.36 |
|   |   |          |          | 8                       |                        | \$4,297.44  |
| b | General Maintenance   | 1        | per year | 30                      | \$1,610.49             | \$48,314.70 |
|   |   |          |          | 8                       |                        | \$12,883.92 |
| c | Remediation and/or Gas Control Equipment                      | 1        | lump sum | 0.3 <sup>c</sup>        | d                      |             |
| 2 | <b>Monitoring equipment</b>                                   |          |          |                         |                        |             |
| a | Rework/Replace Monitoring Well(s)                             |          | VLF      | 0.25                    | \$44.45                |             |
| b | Plug Abandoned Monitoring Well(s)                             |          | VLF      | 0.25                    | \$19.06                |             |
| c | Final Plugging of Monitoring Wells                            |          | VLF      | 1                       | \$19.06                |             |
| d | Rework/Replace Methane Probe(s)                               |          | VLF      | 0.25                    | \$38.39                |             |
| e | Plug Abandoned Methane Probe(s)                               |          | VLF      | 0.25                    | \$15.04                |             |
| f | Final Plugging of Methane Probes                              |          | VLF      | 1                       | \$15.04                |             |
| g | Final Plugging of Piezometer(s)                               |          | VLF      | 1                       | \$15.04                |             |
| 3 | <b>Sampling and analysis</b>                                  |          |          |                         |                        |             |
| a | Groundwater Monitoring Wells                                  |          | wells    | 60                      | e                      |             |
|   |   |          |          | 16                      |                        |             |
| b | Methane Gas Probes  |          | probes   | 60                      | \$37.59                |             |
| c | Surface Water Monitoring Points                               |          | points   | 60                      | \$69.81                |             |
| d | Leachate  |          | sample   | 60                      | \$112.48               |             |
| 4 | <b>Final cover maintenance</b>                                |          |          |                         |                        |             |
| a | Mow and Fertilize Vegetative Cover                            |          | acres    | 30                      | \$171.35               |             |
|   |   |          |          | 8                       |                        |             |
| b | Repair Erosion, Settlement, and Subsidence for On-site Soils  |          | acres    | 30                      | \$2.14                 |             |
|   |   |          |          | 8                       |                        |             |
|   | Repair Erosion, Settlement, and Subsidence for Off-site Soils |          | acres    | 30                      | \$12.89                |             |
|   |   |          |          | 8                       |                        |             |



## Utah Division of Solid and Hazardous Waste Solid Waste Management Program

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### Preparation of Solid Waste Facility Closure and Post-Closure Cost Estimates

### Guidance

#### Introduction

This guidance is not a rule. It has been prepared to give the reader information, in plain language, about how the Division of Solid and Hazardous Waste expects to interpret Utah Administrative Code (UAC) R315-302-3. In the event questions arise regarding the matters discussed in this guidance, the text of the rule will govern.

#### Cost Estimates and Financial Assurance

##### Closure

Owners or operators are required to provide cost estimates, in current dollars, for a third party to conduct and complete closure activities (i.e., hiring qualified contractors to perform closure activities). Estimates must equal the maximum closure costs at any time during the life of the facility or cell; or the permit life, whichever is shorter. Estimates must be included for each closure activity. If closure will be conducted in phases, cost estimates for completing each phase should be provided. A sample worksheet for estimating costs is attached to this guidance. A worksheet with costs for some of the items is also provided. The costs shown were developed for the Oklahoma Department of Environmental Quality and reflect costs in Oklahoma. Basic closure cost items should include, if applicable:

- Design cost to provide construction level design details for the closure.
- Ground water monitoring analysis costs, well maintenance and replacement.
- Gas control system installation, if any is needed in addition to control systems installed in the waste.
- Costs for any additional equipment to treat use or dispose of the gas.
- Final cover installation and material cost including:
  - a. Clay material acquisition, placement, and compaction.
  - b. Vegetative layer material acquisition, placement and grading or placement of any other approved layer to protect the compacted soil layer.
  - c. Any geomembranes, drainage layers or other cover layers as required by the permit and plans.

- d. Seeding, fertilization, soil amendments and mulch.
- Installation of any additional control or monitoring features as necessary.

### **Post-Closure**

Provide cost estimates, in current dollars, for a third party to conduct and complete post-closure activities. Estimates must equal the maximum post-closure costs at any time during the post-closure period. Estimates should include figures for each post-closure activity and an estimate of the total cost of post-closure care for the thirty-year post-closure period. Include assumptions made in preparing the cost estimates. The basic post-closure cost items should include, if applicable:

- Final cover maintenance and repair. Use the following for estimating the amount of work to be done each year.
  - a. Erosion repair; use one foot of cover over 5% of the landfill area per year.
  - b. Vegetation repair; use 10% of the landfill area per year.
- Leachate collection, treatment, disposal and maintenance should include costs for:
  - a. Operation
  - b. Sampling and analyses
  - c. Maintenance and repair
- Ground water monitoring should include costs for:
  - a. Sampling
  - b. Analyses
  - c. Maintenance and repair
- Gas monitoring should include costs for:
  - a. Sampling
  - b. Analyses (if necessary)
  - c. Maintenance and repair
- Gas control systems, if required, should include costs for:
  - a. Operation
  - b. Maintenance and repair
- Any other monitoring or sampling required by other environmental programs should be included in the total cost of post-closure care.
- Record keeping and reporting is required by UAC R315-302-2 and the cost of these activities should be included in the total post-closure care cost estimate.

- Site inspections to oversee cover repairs and post-closure care.
- Cost of two post-closure care permit renewals.
- Costs associated with demonstrating that the site is stable and that the post-closure care period can be terminated.

### **Adjustments**

Landfill owners or operators must annually adjust their final closure and post-closure costs for inflation or facility modifications that would affect closure or post-closure care costs (R315-309-2(2)). The following describes how to perform an inflation adjustment calculation using an inflation factor.

The inflation factor is derived from the most recent annual "Implicit Price Deflator for Domestic Product" published by the U.S. Department of Commerce in its *Survey of Current Business* in the year for which the adjustment is being made. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

The first annual adjustment should occur the first year after the permit is approved by the Executive Secretary and each following year unless the actual closure costs are recalculated. The first adjustment should be made by multiplying the closure and post-closure care costs given in the permit application by the inflation factor. Subsequent adjustments should be made annually by multiplying the latest values for closure and post-closure care costs by the latest inflation factor. This process of adjustment should be utilized until the actual closure and post-closure care costs are recalculated. At the time of permit renewal the closure and post-closure care costs must be recalculated using the current approved design and current construction costs.

The price deflator can be found on the US Department of Commerce web site at: <http://www.bea.doc.gov/bea/dn/nipaweb/SelectTable.asp?Selected=N#S1>. From the web site go to Table 7.2 "Quantity and Price Indexes for Gross Domestic Product, Final Sales, and Purchases." The Price Deflator is shown as line #4 of Table 7.2.

In developing cost estimates and annual updates, it may be helpful to enlist the assistance of contractors that could perform closure or post-closure activities. Selected contractors may be provided with specifications and assumptions and ask to develop the estimates based on your specifications. Copies of documentation of the contractors' estimates should be included in the permit application. A line-by-line review and calculation along with determination of the average cost for each item should be done based on each contractor's estimates.

If any corrective action program is anticipated during the post-closure period, contact DSHW for more information. A detailed cost estimate and additional financial assurance instrument are required for corrective action.

### **Additional Information**

The initial closure and post-closure plans are submitted as part of a permit application and become part of the approved permit. Subsequent changes due to permit modifications, regulatory changes, operational changes, or unforeseen circumstances (e.g., increase/decrease in fill rate or premature closure with less than the total acreage utilized) which substantially affect the time schedule or costs of closure and post-closure will necessitate closure and post-closure plan and cost estimate modifications. These modifications must be submitted to the Executive Secretary for approval. In addition, adjustments to the cost estimates must be submitted with the annual report and be approved by the Executive Secretary. Any change in the financial assurance mechanism must be submitted to, and receive Executive Secretary approval.

ESCROW AGREEMENT

I. SUMMARY

A. Parties to the Agreement:

1. Depositor: Escalante City (the "Entity")  
Address: P.O. Box 189  
Escalante, Utah 84726

Contact: Vickie Schulkoski Tel. No. 435-826-4644  
Cindi Steed Tel. No. 435-826-4644

2. State Agency: Utah Division of Solid & Hazardous Waste (the "State")  
Address: P.O. Box 144880  
Salt Lake City, Utah 84114-4880

Contact: Ralph Bohn, Section Mgr. Tel. No. 801-538-6170  
Tel. No.  
Tel. No.

3. Escrow Agent: Utah State Treasurer (the "Treasurer")  
215 State Capitol  
Salt Lake City, Utah 84114

Contact: Robert C. Kirk, Financial Manager  
Stephanie Baldes, Accountant

Telephone: (801)538-1042 Telefax: (801)538-1465 Toll free: 800-395-7665

B. Deposit Amount(s):

1. Principal amount \$ 2805.26 (the "Proceeds") as of 5/15/06

2. Additional amount(s), if any:

\$ \_\_\_\_\_ From: \_\_\_\_\_  
\$ \_\_\_\_\_ From: \_\_\_\_\_  
\$ \_\_\_\_\_ From: \_\_\_\_\_

C. Authorizing Resolution:

\_\_\_\_\_  
\_\_\_\_\_  
(the "Instrument")

D. Project Description: Landfill Closure

\_\_\_\_\_  
(the "Project")

This Summary is an integral part of the Escrow Agreement

## II. AGREEMENT

- A. The undersigned hereby deliver to the Treasurer, the Proceeds and Additional amount(s) to be held and disposed of by the Treasurer in accordance with the duties, instructions, and upon the terms and conditions hereinafter set forth in this Escrow Agreement to which the undersigned hereby agree:
1. For purposes of this Escrow Agreement and this Escrow Agreement only:
    - (a) The Treasurer shall not incur any liability in acting upon any written authorization and request delivered hereunder and believed by the Treasurer to be genuine and to be signed by the proper parties.
    - (b) The Treasurer may consult with legal counsel in the event of any dispute or question as to the construction of the Treasurer's duties hereunder and shall not be held to any liability for acting in accordance with advice so received.
    - (c) The Treasurer shall have a first lien on the moneys held by it hereunder for its compensation and for any costs, liability or expense or counsel fees it may incur.
  2. In the event of any disagreement between the undersigned or any of them, and/or any other person, resulting in adverse claims and demands being made in connection with or for any moneys involved herein or affected hereby, the Treasurer shall be entitled at its option to refuse to comply with any such claim or demand, so long as such disagreement shall continue, and in so refusing the Treasurer may refrain from making any delivery or other disposition of any moneys involved herein or affected hereby and in so doing the Treasurer shall not be or become liable to the undersigned or any of them or to any person or party for its failure or refusal to comply with such conflicting or adverse demands, and the Treasurer shall be entitled to continue so to refrain and refuse so to act until:
    - (a) The rights of the adverse claimants have been finally adjudicated in a court assuming and having jurisdiction of the parties and the moneys involved herein or affected hereby; and/or
    - (b) All differences shall have been adjusted by agreement and the Treasurer shall have been notified thereof in writing signed by all of the persons interested.
  3. The fees for the usual services of the Treasurer under the terms of this Escrow agreement are set forth in the schedule attached hereto as **Exhibit A**. It is agreed that additional compensation shall be paid to the Treasurer for any additional or extraordinary service it may be requested to render hereunder, and the Treasurer shall be reimbursed for any out-of-pocket expenses (including, without limitation, fees of counsel) reasonably incurred in connection with additional or extraordinary services.
  4. The Entity and the State hereby agree that the deposit of the Proceeds shall constitute compliance with applicable deposit and investment provisions of the Instrument.
  5. The duties of the Treasurer under the terms of this Escrow Agreement are as follows:
    - (a) The Treasurer shall receive into a separate fund (the "Escrow Account") Proceeds and any additional amounts to be used in connection with the Project.
    - (b) The Treasurer shall reimburse Entity in amounts authorized in writing by the Entity and the State.
    - (c) Each authorization must be signed by one official from both the Entity and the State, except as provided in (i) of this section, and shall be substantially the same as the form attached as Exhibit B. On behalf of the Entity, the written authorization and request shall be signed by any one of the officials of the Entity identified in Section I.A. 1. above. On behalf of the State, the written authorization and request shall be signed by any one of the officials of the State identified in Section I.A.2. above. The Treasurer assumes no responsibility for expenditure

of moneys paid out of the Escrow Account pursuant to a written authorization and request properly signed and delivered the Treasurer as provided herein.

- (i) If the Entity fails to provide closure, post-closure, or corrective action of the solid waste management facility as required by the *Utah Solid Waste Permitting and Management Rules* and the Entity's solid waste disposal permit, the Executive Secretary will issue an order to close under the authority of Section 19-6-107(7) of the Utah Solid and Hazardous Waste Act. Upon completion of the Administrative process, including the Entity's right to contest and appeal the administrative action, the State may independently request, in writing, reimbursement to a State-approved and authorized third party for the costs related to the third party's activities for closure, post-closure or corrective actions at the facility.
- (d) If a written authorization and request indicates that an amount (the "Retained Amount") payable to a Provider is to be held for retainage pending completion of the Project or the lapse of time, the Treasurer shall segregate such amount and shall invest the Retained Amount in an interest-bearing account (the "Separate Account"), the interest on which shall accrue for the benefit of the Provider. The Retained Amount and all accrued interest thereon shall be disbursed by the Treasurer in the same manner as provided in paragraph 5(b) hereof. All fees charged or incurred by the Treasurer relating to the establishment, investment and disbursement of the Separate Account shall be borne solely by the Provider and may be withheld by the Treasurer from the Separate Account prior to the disbursement thereof; provided, however, that if such fees are borne by the Separate Account, and if the interest earned on the Separate Account is less than the amount of such fees, then the fees withheld from such Separate Account shall not exceed the interest earned and the balance of such fees shall be paid by the Entity.
- (e) The funds deposited by the parties hereto in the Escrow Fund and in any Separate Account shall be invested by the Treasurer in the Utah Public Treasurers' Investment Fund established by Section 51-7-5 of the Utah Code. All interest earned on moneys held in the Escrow Account shall be retained therein and disbursed as provided herein.
- (f) The Treasurer shall report at least monthly concerning the receipts, disbursements and status of the Escrow Account. The reports shall be mailed to the Entity and to the State at their respective addresses as shown in Section I.A. above. Notification of changes of address, if any, shall be in writing and mailed to the parties at their respective addresses as shown in Section I.A. above.
- (g) This Escrow Agreement will be terminated after payment of the fees and out-of-pocket expenses of the Treasurer, and upon liquidation of the Escrow Account as provided herein. This Escrow Account, upon the earlier to occur of:
  - (i) receipt by the Treasurer of a written authorization and request, signed as provided in paragraph 5(c) hereof, stating that the acquisition, construction, improvement and extension of the Project is complete, that all obligations and costs in connection with the Project which are payable out of the Escrow Account have been paid and discharged, and that the Treasurer is authorized and directed to transfer all moneys in the Escrow Fund to the Entity or such other disposition as may be agreed by the State and the Entity; or
  - (ii) receipt by the Treasurer of a written certificate of the State, signed by the appropriate representatives thereof as identified in paragraph 5(c) hereof, stating that at least \_\_\_ months have expired from the date of this Agreement and that all remaining moneys in the Escrow Account are to be transferred to the State as a prepayment on the Bond purchased by the State or such other disposition as may be specified by the State.

6. This Agreement may be modified or amended only by a written Amendment attached to this Agreement and signed by the parties to this Agreement.

Entity: Escalante City

By: [Signature]

Title: Mayor

Date: 5/15/06

Attest and Countersign:

By: Vickie L. Schulkooski

Title: City Recorder

Date: 5/15/06

STATE: Utah Division of Solid and Hazardous Waste

By: \_\_\_\_\_

Title: Executive Secretary  
Utah Solid & Hazardous Waste Control Board

Date: \_\_\_\_\_

Accepted:

Utah State Treasurer

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## EXHIBIT A

### Fees due to State Treasurer as Escrow Agent

---

Maximum annual fee is 10 basis points (one-tenth of one percent (.001)) applied to the average daily balance in each account. The fee is assessed monthly based on the actual number of days in the month divided by 360 days.

Minimum annual fee is zero.

The Treasurer intends to deduct the administrative fee from gross earnings of each account before crediting earnings to the account(s). The amount of such fees is not reflected on monthly statements to the Entity, and is payable only from gross earnings on the account(s).

Entity shall not be liable to the Treasurer for any other costs or expenses for usual services. Usual services include:

1. Acceptance of funds delivered for deposit.
2. Deposit of funds and issuance of Treasurer's Receipt.
3. Investment of all funds delivered to Treasurer.
4. Credit net interest earnings to designated account(s) on a monthly basis.
5. Reimburse entity for project costs pursuant to receipt of a written authorization and request properly signed and delivered to the Treasurer.
6. Prepare and deliver to Entity and State a monthly accounting showing all deposits, withdrawals, interest credits and rate, ending balance and average balance for each account.

Entity will be liable to the Treasurer for out-of-pocket expenses resulting from any additional or extraordinary service Treasurer is requested to render and reasonably incurs in connection with additional or extraordinary services.

EXHIBIT B -1

WRITTEN AUTHORIZATION AND REQUEST FOR REIMBURSEMENT  
FROM ESCROW FUND

TO: The Utah State Treasurer, as Escrow Agent (the "Treasurer").

DATE: \_\_\_\_\_

WRITTEN REQUEST NO.: \_\_\_\_\_

I, the undersigned authorized officer of Escalante City, (the "Entity"),  
do hereby certify and request to the Treasurer as follows:

7. Pursuant to the provisions of the Escrow Agreement by and between the Entity, the State and the Treasurer dated \_\_\_\_\_, (the "Escrow Agreement"), the undersigned hereby authorizes and requests a reimbursement from the Escrow Account to pay the amounts shown on the attached Payment Schedule.
8. Each payment proposed to be made as set forth on the Payment Schedule has been incurred and is a proper charge against the Escrow Account.
9. To the extent that the payment of any item set forth on the Payment Schedule is for other than work, materials, equipment or supplies, in connection with this authorization and request, the undersigned certifies that each payment proposed to be made on the Payment Schedules is a proper charge against the Escrow Account, is a reasonable amount and has not been heretofore included in a prior Written Authorization and Request for Reimbursement for the Escrow Account.
10. This Written Authorization and Request, including the Payment Schedule attached hereto, shall be conclusive evidence of the facts and statements set forth herein.
11. A copy of this Written Authorization and Request is being kept on file in the official records of the Entity.

The terms used herein which are defined in the Escrow Agreement shall have the respective meanings therein assigned to them.

  
\_\_\_\_\_  
By: Don Porter  
Title: Mayor

EXHIBIT B-2

I/we, the undersigned authorized officer(s) of the State, do hereby certify and request to the Treasurer as follows:

1. I/we have reviewed the foregoing statements of the authorized officer of the Entity attached hereto, and on behalf of the State approve the request for payment from the Escrow Fund made therein; provided that the State has not independently verified the statements of such authorized officer of the Entity attached hereto and makes no representations or certifications with respect thereto.
2. A copy of this Written Authorization and Request is being kept on file in the official records of the State.

The terms used herein shall have the same meanings assigned to them in the attached statements of the authorized officer of the Entity.

Dated the date appearing at the top of the attached statements of the authorized officer of the Entity.

STATE:

By: \_\_\_\_\_

Title: \_\_\_\_\_

EXHIBIT B -3

REIMBURSEMENT SCHEDULE

| Check No. | Person or Firm | Amount | Purpose |
|-----------|----------------|--------|---------|
|-----------|----------------|--------|---------|

Reimbursement for the above listed payments totaling \$ \_\_\_\_\_ is to be made to \_\_\_\_\_  
\_\_\_\_\_ ("Entity") by transfer of funds from the Escrow Account (PTIF# \_\_\_\_\_) to  
(CHECK ONE):

\_\_\_\_\_ Entity's general account in the Public Treasurer's Investment Fund  
(PTIF#); or to

\_\_\_\_\_ Entity's checking account at \_\_\_\_\_ ("Bank").  
Account number \_\_\_\_\_

**RETAINAGE REQUEST**

In addition to the above listed reimbursement, transfer the following retainage amounts:

| From Escrow Acct.# | To Retainage Acct.# | For Contractor (name) | #Amount |
|--------------------|---------------------|-----------------------|---------|
| _____              | _____               | _____                 | _____   |
| _____              | _____               | _____                 | _____   |
| _____              | _____               | _____                 | _____   |

Contact Person at time of Wire Transfer \_\_\_\_\_  
(name) (phone #)

UTAH STATE TREASURER  
 UTAH PUBLIC TREASURERS' INVESTMENT FUND  
 New Account Application and Change Form

DATE 5/15/06

A. Title of Account Escalante Landfill Account  
 B. PTIF Account Number(s) 2175

**ACTION:**

|   |  |  |
|---|--|--|
| <input type="checkbox"/> Create New PTIF Account<br><small>(Sec. A,C,D,E,F)</small> | <input type="checkbox"/> Change Bank/Account (Sec<br><small>A,B,E,F).</small>        | <input type="checkbox"/> Add Bank/Account (Sec.<br><small>A,B,E,F)</small>       |
| <input type="checkbox"/> Change Address (Sec.<br><small>A,B,D,F)</small>            | <input checked="" type="checkbox"/> Change Authorized<br>Individuals (Sec. A,B, C,F) | <input type="checkbox"/> Change Internet Access<br><small>(Sec. A,B,C,F)</small> |

**C. Individuals Authorized to Make Deposits/Withdrawals:**

| NAME                        | TITLE                | PHONE               | INTERNET ACCESS (Y/N) |
|-----------------------------|----------------------|---------------------|-----------------------|
| 1. <u>Cindi Steed</u>       | <u>Treasurer</u>     | <u>435-826-4644</u> | <u>(Y)</u>            |
| 2. <u>Vickie Schulkoski</u> | <u>City Recorder</u> | <u>435-826-4644</u> |                       |
| 3. <u>Don Porter</u>        | <u>Mayor</u>         | <u>435-826-4644</u> |                       |
| 4. _____                    |                      |                     |                       |

D. PTIF Statement Mailing Address: P.O. Box 189, Escalante, Ut. 84726  
 Attn: Cindi Steed

**E. Bank (Depository) Information:**

**New/Additional Bank**

**Delete Bank**

a. Name of Bank \_\_\_\_\_ Name of Bank \_\_\_\_\_  
 b. Account Number \_\_\_\_\_ Account Number \_\_\_\_\_  
 Checking  Savings  Other \_\_\_\_\_

**F. Authorization:** In accordance with applicable statutes and procedures established by the Utah State Treasurer, we the undersigned hereby authorize the Utah State Treasurer to make the above changes and/or initiate wire and/or automated clearing house (ACH) credit entries and/or debit entries to our bank indicated above. The depository named above is authorized to credit and/or debit the same to such account. This authorization is to remain in full force and effect until the Utah State Treasurer has received written notification from us of its termination.

|   |   |
|---|---|
| Signed <u>Vickie Schulkoski</u> <u>5/15/06</u><br>(Date)<br>Name <u>Vickie Schulkoski</u><br>Title <u>City Recorder</u> | Signed <u>Cindi Steed</u> <u>5/15/06</u><br>(Date)<br>Name <u>Cindi Steed</u><br>Title <u>Treasurer</u> |
|---|---|

**TWO SIGNATURES REQUIRED**

Please attach a deposit slip and return this form to:  
 Utah State Treasurer's Office  
 215 State Capitol  
 Salt Lake City, Utah 84114

ESCROW AGREEMENT

I. SUMMARY

A. Parties to the Agreement:

1. Depositor: Escalante City (the "Entity")  
Address: P.O. Box 189  
Escalante, Utah 84726

Contact: Vickie Schultkoski Tel. No. 435-826-4644  
Cindi Steed Tel. No. 435-826-4644

2. State Agency: Utah Division of Solid & Hazardous Waste (the "State")  
Address: P.O. Box 144880  
Salt Lake City, Utah 84114-4880

Contact: Ralph Bohn, Section Mgr. Tel. No. 801-538-6170  
Tel. No. \_\_\_\_\_  
Tel. No. \_\_\_\_\_

3. Escrow Agent: Utah State Treasurer (the "Treasurer")  
215 State Capitol  
Salt Lake City, Utah 84114

Contact: Robert C. Kirk, Financial Manager  
Stephanie Baldes, Accountant

Telephone: (801)538-1042 Telefax: (801)538-1465 Toll free: 800-395-7665

B. Deposit Amount(s):

1. Principal amount \$ 2805.76 (the "Proceeds") as of 4/30/06

2. Additional amount(s), if any:

\$ \_\_\_\_\_ From: \_\_\_\_\_  
\$ \_\_\_\_\_ From: \_\_\_\_\_  
\$ \_\_\_\_\_ From: \_\_\_\_\_

C. Authorizing Resolution:

\_\_\_\_\_  
\_\_\_\_\_  
(the "Instrument")

D. Project Description: Landfill Closure

\_\_\_\_\_  
\_\_\_\_\_  
(the "Project")

This Summary is an integral part of the Escrow Agreement

## II. AGREEMENT

A. The undersigned hereby deliver to the Treasurer, the Proceeds and Additional amount(s) to be held and disposed of by the Treasurer in accordance with the duties, instructions, and upon the terms and conditions hereinafter set forth in this Escrow Agreement to which the undersigned hereby agree:

1. For purposes of this Escrow Agreement and this Escrow Agreement only:
  - (a) The Treasurer shall not incur any liability in acting upon any written authorization and request delivered hereunder and believed by the Treasurer to be genuine and to be signed by the proper parties.
  - (b) The Treasurer may consult with legal counsel in the event of any dispute or question as to the construction of the Treasurer's duties hereunder and shall not be held to any liability for acting in accordance with advice so received.
  - (c) The Treasurer shall have a first lien on the moneys held by it hereunder for its compensation and for any costs, liability or expense or counsel fees it may incur.
2. In the event of any disagreement between the undersigned or any of them, and/or any other person, resulting in adverse claims and demands being made in connection with or for any moneys involved herein or affected hereby, the Treasurer shall be entitled at its option to refuse to comply with any such claim or demand, so long as such disagreement shall continue, and in so refusing the Treasurer may refrain from making any delivery or other disposition of any moneys involved herein or affected hereby and in so doing the Treasurer shall not be or become liable to the undersigned or any of them or to any person or party for its failure or refusal to comply with such conflicting or adverse demands, and the Treasurer shall be entitled to continue so to refrain and refuse so to act until:
  - (a) The rights of the adverse claimants have been finally adjudicated in a court assuming and having jurisdiction of the parties and the moneys involved herein or affected hereby; and/or
  - (b) All differences shall have been adjusted by agreement and the Treasurer shall have been notified thereof in writing signed by all of the persons interested.
3. The fees for the usual services of the Treasurer under the terms of this Escrow agreement are set forth in the schedule attached hereto as **Exhibit A**. It is agreed that additional compensation shall be paid to the Treasurer for any additional or extraordinary service it may be requested to render hereunder, and the Treasurer shall be reimbursed for any out-of-pocket expenses (including, without limitation, fees of counsel) reasonably incurred in connection with additional or extraordinary services.
4. The Entity and the State hereby agree that the deposit of the Proceeds shall constitute compliance with applicable deposit and investment provisions of the Instrument.
5. The duties of the Treasurer under the terms of this Escrow Agreement are as follows:
  - (a) The Treasurer shall receive into a separate fund (the "Escrow Account") Proceeds and any additional amounts to be used in connection with the Project.
  - (b) The Treasurer shall reimburse Entity in amounts authorized in writing by the Entity and the State.
  - (c) Each authorization must be signed by one official from both the Entity and the State, except as provided in (i) of this section, and shall be substantially the same as the form attached as Exhibit B. On behalf of the Entity, the written authorization and request shall be signed by any one of the officials of the Entity identified in Section I.A. 1. above. On behalf of the State, the written authorization and request shall be signed by any one of the officials of the State identified in Section I.A.2. above. The Treasurer assumes no responsibility for expenditure

of moneys paid out of the Escrow Account pursuant to a written authorization and request properly signed and delivered the Treasurer as provided herein.

- (i) If the Entity fails to provide closure, post-closure, or corrective action of the solid waste management facility as required by the *Utah Solid Waste Permitting and Management Rules* and the Entity's solid waste disposal permit, the Executive Secretary will issue an order to close under the authority of Section 19-6-107(7) of the Utah Solid and Hazardous Waste Act. Upon completion of the Administrative process, including the Entity's right to contest and appeal the administrative action, the State may independently request, in writing, reimbursement to a State-approved and authorized third party for the costs related to the third party's activities for closure, post-closure or corrective actions at the facility.
- (d) If a written authorization and request indicates that an amount (the "Retained Amount") payable to a Provider is to be held for retainage pending completion of the Project or the lapse of time, the Treasurer shall segregate such amount and shall invest the Retained Amount in an interest-bearing account (the "Separate Account"), the interest on which shall accrue for the benefit of the Provider. The Retained Amount and all accrued interest thereon shall be disbursed by the Treasurer in the same manner as provided in paragraph 5(b) hereof. All fees charged or incurred by the Treasurer relating to the establishment, investment and disbursement of the Separate Account shall be borne solely by the Provider and may be withheld by the Treasurer from the Separate Account prior to the disbursement thereof; provided, however, that if such fees are borne by the Separate Account, and if the interest earned on the Separate Account is less than the amount of such fees, then the fees withheld from such Separate Account shall not exceed the interest earned and the balance of such fees shall be paid by the Entity.
- (e) The funds deposited by the parties hereto in the Escrow Fund and in any Separate Account shall be invested by the Treasurer in the Utah Public Treasurers' Investment Fund established by Section 51-7-5 of the Utah Code. All interest earned on moneys held in the Escrow Account shall be retained therein and disbursed as provided herein.
- (f) The Treasurer shall report at least monthly concerning the receipts, disbursements and status of the Escrow Account. The reports shall be mailed to the Entity and to the State at their respective addresses as shown in Section I.A. above. Notification of changes of address, if any, shall be in writing and mailed to the parties at their respective addresses as shown in Section I.A. above.
- (g) This Escrow Agreement will be terminated after payment of the fees and out-of-pocket expenses of the Treasurer, and upon liquidation of the Escrow Account as provided herein. This Escrow Account, upon the earlier to occur of:
  - (i) receipt by the Treasurer of a written authorization and request, signed as provided in paragraph 5(c) hereof, stating that the acquisition, construction, improvement and extension of the Project is complete, that all obligations and costs in connection with the Project which are payable out of the Escrow Account have been paid and discharged, and that the Treasurer is authorized and directed to transfer all moneys in the Escrow Fund to the Entity or such other disposition as may be agreed by the State and the Entity; or
  - (ii) receipt by the Treasurer of a written certificate of the State, signed by the appropriate representatives thereof as identified in paragraph 5(c) hereof, stating that at least \_\_\_ months have expired from the date of this Agreement and that all remaining moneys in the Escrow Account are to be transferred to the State as a prepayment on the Bond purchased by the State or such other disposition as may be specified by the State.

6. This Agreement may be modified or amended only by a written Amendment attached to this Agreement and signed by the parties to this Agreement.

Entity: Escalante City

By: [Signature]

Title: Mayor

Date: 5/15/06

Attest and Countersign:

By: Vickie S. Schulkoski

Title: City Recorder

Date: 5/15/06

STATE: Utah Division of Solid and Hazardous Waste

By: \_\_\_\_\_

Title: Executive Secretary  
Utah Solid & Hazardous Waste Control Board

Date: \_\_\_\_\_

Accepted:

Utah State Treasurer

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## EXHIBIT A

### Fees due to State Treasurer as Escrow Agent

---

Maximum annual fee is 10 basis points (one-tenth of one percent (.001)) applied to the average daily balance in each account. The fee is assessed monthly based on the actual number of days in the month divided by 360 days.

Minimum annual fee is zero.

The Treasurer intends to deduct the administrative fee from gross earnings of each account before crediting earnings to the account(s). The amount of such fees is not reflected on monthly statements to the Entity, and is payable only from gross earnings on the account(s).

Entity shall not be liable to the Treasurer for any other costs or expenses for usual services. Usual services include:

1. Acceptance of funds delivered for deposit.
2. Deposit of funds and issuance of Treasurer's Receipt.
3. Investment of all funds delivered to Treasurer.
4. Credit net interest earnings to designated account(s) on a monthly basis.
5. Reimburse entity for project costs pursuant to receipt of a written authorization and request properly signed and delivered to the Treasurer.
6. Prepare and deliver to Entity and State a monthly accounting showing all deposits, withdrawals, interest credits and rate, ending balance and average balance for each account.

Entity will be liable to the Treasurer for out-of-pocket expenses resulting from any additional or extraordinary service Treasurer is requested to render and reasonably incurs in connection with additional or extraordinary services.

EXHIBIT B -1

WRITTEN AUTHORIZATION AND REQUEST FOR REIMBURSEMENT  
FROM ESCROW FUND

TO: The Utah State Treasurer, as Escrow Agent (the "Treasurer").

DATE: \_\_\_\_\_

WRITTEN REQUEST NO.: \_\_\_\_\_

I, the undersigned authorized officer of Escalante City, (the "Entity"),  
do hereby certify and request to the Treasurer as follows:

7. Pursuant to the provisions of the Escrow Agreement by and between the Entity, the State and the Treasurer dated \_\_\_\_\_, (the "Escrow Agreement"), the undersigned hereby authorizes and requests a reimbursement from the Escrow Account to pay the amounts shown on the attached Payment Schedule.
8. Each payment proposed to be made as set forth on the Payment Schedule has been incurred and is a proper charge against the Escrow Account.
9. To the extent that the payment of any item set forth on the Payment Schedule is for other than work, materials, equipment or supplies, in connection with this authorization and request, the undersigned certifies that each payment proposed to be made on the Payment Schedules is a proper charge against the Escrow Account, is a reasonable amount and has not been heretofore included in a prior Written Authorization and Request for Reimbursement for the Escrow Account.
10. This Written Authorization and Request, including the Payment Schedule attached hereto, shall be conclusive evidence of the facts and statements set forth herein.
11. A copy of this Written Authorization and Request is being kept on file in the official records of the Entity.

The terms used herein which are defined in the Escrow Agreement shall have the respective meanings therein assigned to them.

  
\_\_\_\_\_  
By: Don Porter  
Title: Mayor

EXHIBIT B-2

I/we, the undersigned authorized officer(s) of the State, do hereby certify and request to the Treasurer as follows:

1. I/we have reviewed the foregoing statements of the authorized officer of the Entity attached hereto, and on behalf of the State approve the request for payment from the Escrow Fund made therein; provided that the State has not independently verified the statements of such authorized officer of the Entity attached hereto and makes no representations or certifications with respect thereto.
2. A copy of this Written Authorization and Request is being kept on file in the official records of the State.

The terms used herein shall have the same meanings assigned to them in the attached statements of the authorized officer of the Entity.

Dated the date appearing at the top of the attached statements of the authorized officer of the Entity.

STATE:

By: \_\_\_\_\_

Title: \_\_\_\_\_

EXHIBIT B -3

REIMBURSEMENT SCHEDULE

| Check No. | Person or Firm | Amount | Purpose |
|-----------|----------------|--------|---------|
|-----------|----------------|--------|---------|

Reimbursement for the above listed payments totaling \$ \_\_\_\_\_ is to be made to \_\_\_\_\_  
\_\_\_\_\_ ("Entity") by transfer of funds from the Escrow Account (PTIF# \_\_\_\_\_) to  
(CHECK ONE):

\_\_\_\_\_ Entity's general account in the Public Treasurer's Investment Fund  
(PTIF#); or to

\_\_\_\_\_ Entity's checking account at \_\_\_\_\_ ("Bank").  
Account number \_\_\_\_\_

**RETAINAGE REQUEST**

In addition to the above listed reimbursement, transfer the following retainage amounts:

| From Escrow Acct.# | To Retainage Acct.# | For Contractor (name) | #Amount |
|--------------------|---------------------|-----------------------|---------|
| _____              | _____               | _____                 | _____   |
| _____              | _____               | _____                 | _____   |
| _____              | _____               | _____                 | _____   |

Contact Person at time of Wire Transfer \_\_\_\_\_  
(name) (phone #)

UTAH STATE TREASURER  
 UTAH PUBLIC TREASURERS' INVESTMENT FUND  
 New Account Application and Change Form

DATE 5/15/06

A. Title of Account Escalante Landfill Account  
 B. PTIF Account Number(s) 2175

**ACTION:**

|  |  |   |
|--|--|---|
| <input type="checkbox"/> Create New PTIF Account<br>(Sec. A,C,D,E,F) | <input type="checkbox"/> Change Bank/Account (Sec<br>A,B,E,F).                       | <input type="checkbox"/> Add Bank/Account (Sec.<br>A,B,E,F)       |
| <input type="checkbox"/> Change Address (Sec.<br>A,B,D,F)            | <input checked="" type="checkbox"/> Change Authorized<br>Individuals (Sec. A,B, C,F) | <input type="checkbox"/> Change Internet Access<br>(Sec. A,B,C,F) |

**C. Individuals Authorized to Make Deposits/Withdrawals:**

| NAME                        | TITLE                | PHONE               | INTERNET ACCESS (Y/N) |
|-----------------------------|----------------------|---------------------|-----------------------|
| 1. <u>Cindi Steed</u>       | <u>Treasurer</u>     | <u>435-826-4644</u> | <u>Y</u>              |
| 2. <u>Vickie Schulkaski</u> | <u>City Recorder</u> | <u>435-826-4644</u> |                       |
| 3. <u>Don Porter</u>        | <u>Mayor</u>         | <u>435-826-4644</u> |                       |
| 4. _____                    |                      |                     |                       |

D. PTIF Statement Mailing Address: P.O. Box 189, Escalante, UT. 84726  
 Attn: Cindi Steed

**E. Bank (Depository) Information:**

**New/Additional Bank**

**Delete Bank**

a. Name of Bank \_\_\_\_\_ Name of Bank \_\_\_\_\_  
 b. Account Number \_\_\_\_\_ Account Number \_\_\_\_\_  
 Checking  Savings  Other \_\_\_\_\_

**F. Authorization:** In accordance with applicable statutes and procedures established by the Utah State Treasurer, we the undersigned hereby authorize the Utah State Treasurer to make the above changes and/or initiate wire and/or automated clearing house (ACH) credit entries and/or debit entries to our bank indicated above. The depository named above is authorized to credit and/or debit the same to such account. This authorization is to remain in full force and effect until the Utah State Treasurer has received written notification from us of its termination.

Signed Vickie Schulkaski 5/15/06 Signed Cindi Steed 5/15/06  
 (Date) (Date)  
 Name Vickie Schulkaski Name Cindi Steed  
 Title City Recorder Title Treasurer

**TWO SIGNATURES REQUIRED**

Please **attach a deposit slip** and return this form to:

Utah State Treasurer's Office  
 215 State Capitol  
 Salt Lake City, Utah 84114

\* Must be a registered user, see our website at [www.treasurer.state.ut.us](http://www.treasurer.state.ut.us)