

MAY 04 2021

DSHW-2021-007004



PO Box 36
Kanab, UT 84741
(435) 644-5089 Service
(435) 644-5645 Billing

April 22, 2021

Executive Secretary

Division of Solid & Hazardous Waste

PO Box 144880

SLC, Utah 84114-4880

To whom it may concern,

Enclosed are the necessary permit renewal documents and attachments for the Kanab Class II Landfill.

Western Kane County Special Service District # 1 certifies that the documents and attachments were prepared under the direction of the Special Service District in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on the District's inquiry of those who manage the system or are solely responsible to gather the data, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

If you have any questions or concerns, please contact me.

Thanks,

Danny Little

Danny Little

WKCSSD Manager

danny@wkcssd.com

435 644 5645

Utah Class II Landfill Permit Application Form

Part I General Information APPLICANT: PLEASE COMPLETE ALL SECTIONS.					
I. Landfill Type	<input checked="" type="checkbox"/> Class II	II. Application Type	<input checked="" type="checkbox"/> New Application <input checked="" type="checkbox"/> Renewal Application	<input type="checkbox"/> Facility Expansion <input type="checkbox"/> Modification	
For Renewal Applications, Facility Expansion Applications and Modifications Enter Current Permit Number _____					
III. Facility Name and Location					
Name of Facility Kanab Sanitary Class II Landfill					
Site Address (street or directions to site) 1000 E Kaneplex Dr.				County Kane	
City Kanab		Zip Code 84741		Telephone 435 644 5089	
Township 44 S	Range 6 W	Section(s) 11	Quarter/Quarter Section All	Quarter Section NWE	
Main Gate Latitude degrees 37 minutes 0 seconds 20			Longitude degrees 112 minutes 30 seconds 0		
IV. Facility Owner(s) Information					
Name of Facility Owner Western Kane County Special Service Dist # 1					
Address (mailing) PO Box 36					
City Kanab		State UT	Zip Code 84741	Telephone 435 644 5089	
V. Facility Operator(s) Information					
Name of Facility Operator Western Kane County Special Service District # 1					
Address (mailing) PO Box 36					
City Kanab		State UT	Zip Code 84741	Telephone 435 644 5089	
VI. Property Owner(s) Information					
Name of Property Owner Western Kane County Special Service District #1					
Address (mailing) PO Box 36					
City Kanab		State UT	Zip Code 84741	Telephone 435 644 5089	
VII. Contact Information					
Owner Contact Danny Little			Title Manager		
Address (mailing) PO Box 36					
City Kanab		State UT	Zip Code 84741	Telephone 435 644 5089	
Email Address danny@wkcssd.com			Alternative Telephone (cell or other)		4356890056
Operator Contact Danny Little			Title Manager		
Address (mailing) PO Box 36					
City Kanab		State UT	Zip Code 84741	Telephone 435 644 5089	
Email Address danny@wkcssd.com			Alternative Telephone (cell or other)		4356890056
Property Owner Contact Danny Little			Title Manager		
Address (mailing) PO Box 36					
City Kanab		State UT	Zip Code 84741	Telephone 435 644 5089	
Email Address danny@wkcssd.com			Alternative Telephone (cell or other)		4356890056

Utah Class II Landfill Permit Application Form

Part I General Information (continued)																											
VIII. Waste Types (check all that apply)		IX. Facility Area																									
<input checked="" type="checkbox"/> All non-hazardous solid waste OR the following specific waste types: <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Waste Type</td> <td style="width: 33%;">Combined Disposal Unit</td> <td style="width: 33%;">Monofill Unit</td> </tr> <tr> <td><input type="checkbox"/> Municipal Waste</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Construction & Demolition</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Industrial</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Incinerator Ash</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Animals</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Asbestos</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Other _____</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>		Waste Type	Combined Disposal Unit	Monofill Unit	<input type="checkbox"/> Municipal Waste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Construction & Demolition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Industrial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Incinerator Ash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Asbestos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Other _____	<input type="checkbox"/>	<input type="checkbox"/>	Facility Area..... <u>227</u> acres Disposal Area..... <u>40</u> acres Design Capacity Years..... <u>45</u> Cubic Yards..... <u>1056000</u> Tons..... _____	
Waste Type	Combined Disposal Unit	Monofill Unit																									
<input type="checkbox"/> Municipal Waste	<input type="checkbox"/>	<input type="checkbox"/>																									
<input type="checkbox"/> Construction & Demolition	<input type="checkbox"/>	<input type="checkbox"/>																									
<input type="checkbox"/> Industrial	<input type="checkbox"/>	<input type="checkbox"/>																									
<input type="checkbox"/> Incinerator Ash	<input type="checkbox"/>	<input type="checkbox"/>																									
<input type="checkbox"/> Animals	<input type="checkbox"/>	<input type="checkbox"/>																									
<input type="checkbox"/> Asbestos	<input type="checkbox"/>	<input type="checkbox"/>																									
<input type="checkbox"/> Other _____	<input type="checkbox"/>	<input type="checkbox"/>																									
X. Fee and Application Documents																											
Indicate Documents Attached To This Application		<input type="checkbox"/> Application Fee: Amount \$																									
<input checked="" type="checkbox"/> Facility Map or Maps	<input checked="" type="checkbox"/> Facility Legal Description	<input checked="" type="checkbox"/> Plan of Operation	<input checked="" type="checkbox"/> Waste Description																								
<input checked="" type="checkbox"/> Ground Water Report	<input checked="" type="checkbox"/> Closure Design	<input checked="" type="checkbox"/> Cost Estimates	<input checked="" type="checkbox"/> Financial Assurance																								
I HEREBY CERTIFY THAT THIS INFORMATION AND ALL ATTACHED PAGES ARE CORRECT AND COMPLETE.																											
Signature of Authorized Owner Representative _____		Title <u>Manager</u>	Date <u>April 2, 2021</u>																								
Name typed or printed <u>Daniel G Little</u>		Address <u>PO BOX 36 1000 E Kaneplex Dr.</u>																									
Email Address <u>danny@wkcssd.com</u>	Alternative Telephone (cell or other)		<u>435-689-0056</u>																								
Signature of Authorized Land Owner Representative (if applicable) _____		Title	Date																								
Name typed or printed		Address																									
Email Address	Alternative Telephone (cell or other)																										
Signature of Authorized Operator Representative (if applicable) _____		Title	Date																								
Name typed or printed		Address																									
Email Address <u>danny@wkcssd.com</u>	Alternative Telephone (cell or other)		<u>4356890056</u>																								

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

An application for a permit to construct and operate a landfill is the documentation that the landfill will be located, designed, constructed, operated, and closed in compliance with the requirements of Utah Administrative Code R315-301 through 320 (*Utah Solid Waste Permitting and Management Rules*) and Utah Code Annotated 19-6-101 through 126 (*Utah Solid and Hazardous Waste Act*). The application should be written to be understandable by regulatory agencies, landfill operators, and the general public. The application should also be written so that the landfill operator, after reading it, will be able to operate the landfill according to the requirements with a minimum of additional training.

Copies of the *Solid Waste Permitting and Management Rules*, the *Utah Solid and Hazardous Waste Act*, along with many other useful guidance documents can be obtained by contacting the Division of Waste Management and Radiation Control at 801-536-0200. Most of these documents are available on the Division's web page at <https://deq.utah.gov/division-waste-management-radiation-control>. Guidance documents can be found at the solid waste section portion of the web page.

Utah Class II Landfill Permit Application Checklist

Part II Application Checklist

I. Facility General Information	
Description of Item	Location In Document
<i>Ia.</i> General Information for All Facilities	
Completed Part I General information form above	Done
General description of the facility (R315-310-3(1)(b))	Page 2
Legal description of property (R315-310-3(1)(c))	Page 2
Proof of ownership, lease agreement, or other mechanism (R315-310-3(1)(c))	Exhibit 2b
Area served by the facility including population (R315-310-3(1)(d))	Page 3
A demonstration that the landfill is not a commercial facility	Page 3
Waste type and anticipated daily volume (R315-310-3(1)(d))	Page 3
<i>Ib.</i> Information Required for All New Or Laterally Expanding Facilities	
Intended schedule of construction (R315-302-2(2)(a))	N/A
Name and address of all property owners within 1000 feet of the facility boundary (R315-310-3(2)(i))	N/A
Documentation that a notice of intent to apply for a permit has been sent to all property owners listed above (R315-310-3(2)(ii))	N/A
Name of the local government with jurisdiction over the facility site (R315-310-3(2)(iii))	N/A
<i>Ic.</i> Location Standards for All New And Expanding Facilities	
Documentation that the facility has met the historical survey requirement of R315-302-1(2)(f)	N/A
Land use compatibility (R315-302-1(2)(a))	N/A
Maps showing the existing land use, topography, residences, parks, monuments, recreation areas or wilderness areas within 1000 feet of the site boundary	N/A
Certifications that no ecologically or scientifically significant areas or endangered species are present in site area	N/A
List of airports within five miles of facility and distance to each	N/A
Geology (R315-302-1(2)(b))	N/A
Geologic maps showing significant geologic features, faults, and unstable areas	N/A
Maps showing site soils	N/A
Surface water (R315-302-1(2)(c))	N/A
Magnitude of 24 hour 25 year and 100 year storm events	N/A
Average annual rainfall	N/A
Maximum elevation of flood waters proximate to the facility	N/A

Utah Class II Landfill Permit Application Checklist

I. Facility General Information	
Description of Item	Location In Document
Maximum elevation of flood water from 100 year flood for waters proximate to the facility	N/A
Wetlands (R315-302-1(2)(d))	N/A
Ground water (R315-302-1(2)(e))	N/A
Id. Plan of Operations for All Facilities (R315-310-3(1)(e) and R315-302-2(2))	
Forms and other information as required in R3315-302-2(3) including a description of on-site waste handling procedures and an example of the form that will be used to record the weights or volumes of waste received (R315-302-2(2)(b) And R315-310-3(1)(f))	Page 3
Schedule for conducting inspections and monitoring, and examples of the forms that will be used to record the results of the inspections and monitoring (R315-302-2(2)(c), R315-302-2(5)(a), and R315-310-3(1)(g))	Page 3 & 7
Contingency plans in the event of a fire or explosion (R315-302-2(2)(d))	Page 8
Corrective action programs to be initiated if ground water is contaminated (R315-302-2(2)(e))	Page 8
Contingency plans for other releases, e.g. explosive gases or failure of run-off collection system (R315-302-2(2)(f))	Page 8
Plan to control fugitive dust generated from roads, construction, general operations, and covering the waste (R315-302-2(2)(g))	Page 8
Plan for litter control and collection (R315-302-2(2)(h))	Page 8
Description of maintenance of installed equipment (R315-302-2(2)(i))	Page 9
Procedures for excluding the receipt of prohibited hazardous or PCB containing wastes (R315-302-2(2)(j))	Page 9
Procedures for controlling disease vectors (R315-302-2(2)(k))	Page 9
A plan for alternative waste handling (R315-302-2(2)(l))	Page 10
A general training plan for site operations (R315-302-2(2)(o))	Page 10
Any recycling programs planned at the facility (R315-303-4(6))	Page 10
Closure and post-closure care Plan (R315-302-2(2)(m))	Page 21
Procedures for the handling of special wastes (R315-315)	Page 5
Plans and operation procedures to minimize liquids (R315-303-3(1))	Page 5
Plans and procedures to address the requirements of R315-303-3(7)(c) through (i) and R315-303-4	N/A
Any other site-specific information pertaining to the plan of operation required by the Director (R315-302-2(2)(p))	N/A

II Facility Technical Information	
Description of Item	Location In Document
IIa. Maps for All Facilities	

Utah Class II Landfill Permit Application Checklist

// Facility Technical Information	
Description of Item	Location In Document
Topographic map drawn to the required scale with contours showing the boundaries of the landfill unit, gas monitoring points, and the borrow and fill areas (R315-310-4(2)(a)(i))	Exhibit 10
Most recent U.S. Geological Survey topographic map, 7-1/2 minute series, showing the waste facility boundary; the property boundary; surface drainage channels; any existing utilities and structures within one-fourth mile of the site; and the direction of the prevailing winds (R315-310-4(2)(a)(ii))	Exhibit 10
//b. Geohydrological Assessment for All Facilities (R315-310-4(2)(b))	
Local and regional geology and hydrology including faults, unstable slopes and subsidence areas on site (R315-310-4(2)(b)(i))	Page 12
Evaluation of bedrock and soil types and properties including permeability rates (R315-310-4(2)(b)(ii))	Page 13
Depth to ground water (R315-310-4(2)(b)(iii))	Page 13
Quantity, location, and construction of any private or public wells on-site or within 2,000 feet of the facility boundary (R315-310-4(2)(b)(v))	Page 13
Tabulation of all water rights for ground water and surface water on-site and within 2,000 feet of the facility boundary (R315-310-4(2)(b)(vi))	Page 13, Ex 7a&b
Identification and description of all surface waters on-site and within one mile of the facility boundary (R315-310-4(2)(b)(vii))	Page 14
For an existing facility, identification of impacts upon the ground water and surface water from leachate discharges (R315-310-4(2)(b)(viii))	Page 14
Calculation of site water balance (R315-310-4(2)(b)(ix))	Page 14
//c. Engineering Report - Plans, Specifications, And Calculations for All Facilities	
Documentation that the facility will meet all of the performance standards of R315-303-2	Page 17
Engineering reports required to meet the location standards of R315-302-1 including documentation of any demonstration or exemption made for any location standard (R315-310-4(2)(c)(i))	Page 17
Anticipated facility life and the basis for calculating the facility's life (R315-310-4(2)(c)(ii))	Page 17
Unit design to include cover design; fill methods; and elevation of final cover including plans and drawings signed and sealed by a professional engineer registered in the State of Utah, when required (R315-303-3(3), R315-303-3(6) and (7)(a), R315-310-3(1)(b) and R315-310-4(2)(c)(iii))	Page 18
Equipment requirements and availability (R315-310-4(2)(c)(iii))	Page 18
Identification of borrow sources for daily and final cover and for soil liners (R315-310-4(2)(c)(iv))	Page 19
Run-On and run-off diversion designs (R315-303-3(1)(c), (d) and (e))	Page 20
Landfill gas monitoring and control plan that meets the requirements of Subsection R315-303-3(5) (R315-310-4(2)(c)(vii))	Page 19
Slope stability analysis for static and under the anticipated seismic event for the	N/A

Utah Class II Landfill Permit Application Checklist

// Facility Technical Information	
Description of Item	Location In Document
facility (R315-310-4(2)(b)(i) and R315-302-1(2)(b)(ii))	
Design and location of run-on and run-off control systems (R315-310-4(2)(c)(viii))	Page 20
//d. Closure Plan for All Facilities (R315-310-3(1)(h))	
Closure Plan (R315-302-3(2) and (3))	Page 21
Closure schedule (R315-310-4(2)(d)(i))	Page 21
Design of final cover (R315-310-4(2)(c)(iii))	Page 21
Capacity of site in volume and tonnage (R315-310-4(2)(d)(ii))	Page 22
Final inspection by regulatory agencies (R315-310-4(2)(d)(iii))	Page 23
//e. Post-Closure Care Plan for All Facilities (R315-310-3(1)(h))	
Post-Closure Plan (R315-302-3(5) and (6))	Page 21
Site monitoring of landfill gases, and surface water, if required (R315-310-4(2)(e)(i))	Page 24
Changes to record of title, land use, and zoning restrictions (R315-310-4(2)(e)(v))	Page 24
Maintenance activities to maintain cover and run-on/run-off control systems (R315-310-4(2)(e)(iii))	Page 24
List the name, address, and telephone number of the person or office to contact about the facility during the post-closure care period (R315-310-4(2)(e)(vi))	Page 24
//f. Financial Assurance for All Facilities (R315-310-3(1)(j))	
Identification of closure costs including cost calculations (R315-310-4(2)(d)(iv))	Page 27
Identification of post-closure care costs including cost calculations (R315-310-4(2)(e)(iv))	Page 27
Identification of the financial assurance mechanism that meets the requirements of Rule R315-309 and the date that the mechanism will become effective (R315-309-1(1))	Page 26

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EXHIBITS

Exhibit #1	General vicinity map
Exhibit #2a	Project location map
Exhibit #2b	Property deed
Exhibit #3	Service district boundaries
Exhibit #4a-b	Daily record forms
Exhibit #5	Quarterly inspection log
Exhibit #6a-b	Onsite soil data
Exhibit #7a-b	Well and water right documentation
Exhibit #8	Proposed cell progression
Exhibit #9	Conceptual cell designs
Exhibit #10	Topographic map
Exhibit #11	Financial assurance data

APPLICATION

INTRODUCTION

This report serves as the application for the re-permitting of the Kanab Sanitary Landfill located near the Utah/Arizona border south of Kanab. The purpose of the report is to comply with the Administrative Rules of the Utah Solid and Hazardous Waste Committee, Utah Department of Environmental Quality.

The Utah Division of Solid and Hazardous Waste previously issued a Municipal Landfill permit to the Western Kane County Special Service District (hereafter referred to as the District) for operation of the Kanab solid waste disposal facility south of Kanab, Utah. The site is an acceptable location, and the owner desires to renew the facility permit in accordance with existing regulations.

Approximately 227 acres have been acquired by the District and identified for operation of a Class II facility. At some future date, when average annual solid waste volumes exceed 20 tons per day, the facility will be converted to Class I status. The landfill currently accepts waste from Kanab and the District's southern region. It is capable of servicing the area's current and future needs for many years. The site is centrally located in an effort to accommodate regionalization, and local municipalities participate with the District in such activities. The site is also capable of servicing National and State park units if interagency agreements are reached in the future. In addition, the site is relatively isolated, has sloping topography, and has positive characteristics when considering precipitation, available cover material, and soil permeability. Exhibit 1 is a general vicinity map depicting the area. Exhibits have been extracted from the 1997 permitting documents unless otherwise noted.

RESPONSIBLE PARTIES

The applicant, property owner, and responsible party for site operation is:

Western Kane County Special Service District #1

1000 Kaneplex Dr

Kanab, UT 84741

ATTN: Danny Little

Phone: (435) 644-5645

Technical questions and comments regarding the renewal can be directed to:

Danny Little
P.O. Box 36
Kanab, UT 84741

It should be noted the District frequently evaluates cooperative solid waste disposal agreements with other governmental entities within its boundaries. Future agreements and alternate ownership/operation scenarios may require modification of this section of the permit. In addition, the District may contract site operations with private entities. The District will notify the Director of Waste Management and Radiation Control of any changes in responsible party status at least 30 days prior to their effective date.

GENERAL DESCRIPTION

The Kanab Sanitary landfill is a Class II natural attenuation facility designed to fulfill the current and future solid waste disposal needs of the District. The facility encompasses a total of 227 acres and currently serves Kanab, Church Wells, and the southern portion of Kane County. Annual average waste volumes are less than 20 tons per day, and precipitation is less than 25 inches per year.

No other reasonably practical alternative exists for disposal of the District's solid waste. Hauling distances to East Carbon Development is prohibitive. The John's Valley landfill in Garfield County is not available for the District's use, and operational characteristics make it infeasible to use the Long Valley site.

Adequate capacity exists and subsurface geohydrology is sufficient to permit future expansion to Class I status and acceptance of waste in volumes exceeding 20 tons per day. Modifications to the permit will be made as necessary to accommodate larger volumes. Facility plans are included in other sections of this document; construction specifications are not pertinent, because the facility is already operating.

LEGAL DESCRIPTION

The site is legally described as Lots 1,2,3,4,5 and the northwest 1/4 of the northeast 1 /4 Section 11, Township 44 South Range 6 West, Salt Lake Base and Meridian. Exhibit 2a depicts the site's relationship to adjacent sections, townships and ranges. The District owns the land where the Kanab Landfill is located. Exhibit 2b is a copy of the property title for the landfill site.

The facility's main gate will be located on an existing county road 112° 30'00" longitude and 37° 00' 20" latitude. Lands south and west of the facility are considered multiple use land and are controlled by state or federal agencies. The closest private land exists north and east of the site in Sections 2 and 12, Township 44 South, Range 6 West.

No formal zoning ordinances exist for the landfill. When located in unincorporated Kane County, the landfill was zoned in an agricultural area. However, the landfill itself had no designation. The location was later annexed into Kanab City and is a grandfathered use. Future policies and ordinances will accommodate the Kanab Sanitary Landfill as they are adopted.

WASTE TYPES/AREA TO BE SERVED

Waste accepted by the Kanab Sanitary Landfill is comprised of nonhazardous municipal solid waste generated within the service area. Waste will be comprised of household waste, commercial waste, nonhazardous sludge, small quantity generator waste, and industrial wastes approved by the permit. Special waste shall be accepted and handled in accordance with Administrative Rule R315-315 and the conditions of this permit.

The service area may consist of all lands within the legal boundaries of the District and other areas the District is willing to serve but is generally limited to a population of about 6000 in the southern portion of the District. The Kanab Sanitary Landfill may accept waste generated outside the service area if an appropriate agreement or memorandum of understanding has been executed. An appropriate agreement will also be sought from governmental entities and solid waste managers within the District boundaries. Exhibit 3 illustrates the Service District's boundaries.

The Western Kane County Special Service District exists to provide solid waste services and is the owner and operator of the landfill. The District is a legal body in the State of Utah. As such, the District is a tax-exempt division of government and cannot provide public services on a commercial basis. Revenues generated at the landfill are used only for solid waste management activities.

REQUIRED FORMS

The daily record form used to record weights of volumes of waste received required by Subsection R315-302-2(3)(a)(i) is included as Exhibit 4a. The form for recording inspections for hazardous and PCB wastes is included as Exhibit 4b.

INSPECTIONS

The owner or operator will inspect the facility to prevent malfunctions, deterioration, operation errors, and discharges which may result in the release of wastes to the environment or a threat to human health. The owner or operator will conduct these inspections at least once each quarter and will complete the inspection log included as Exhibit 5. The inspection log will be kept for a minimum of 3 years from the date of inspection.

The Director or any duly authorized officer, employee or representative of the Board

may, at any reasonable time the facility is open and upon presentation of acceptable credentials, enter the facility for inspection purposes. Certified copies of requested sampling, monitoring, and testing records, including photographic, video, electronic data, other data, communications, and results of the inspection shall be furnished to the owner and to the operator within a reasonable time of the inspection. A written summary of the inspection containing a list of any deficiencies and recommended actions will be furnished to the owner and to the operator as soon as practicable. In addition, the inspector may discuss potential problems and make preliminary recommendations prior to leaving the facility.

FINANCIAL ASSURANCE

A detailed financial assurance plan as required by R315-309 is included in other sections of this document. The district has established an escrow account for financial assurance sufficient to the process of passing the Local Government Test. It is anticipated that the test will be passed as part of the current year's audit process. If the District is unable to pass the Local Government Test, the District will contribute minimum payments of \$50,000 per year until the account achieves a balance of \$250,000.

PLAN OF OPERATION

INTRODUCTION

This document constitutes the plan of operation for the Kanab Sanitary Landfill and is intended to comply with guideline R315-302-2(2) of the Utah Division of Solid and Hazardous Waste Administrative Rules. Technical questions and comments may be directed to:

Danny Little
PO Box 36
Kanab, UT
84741
435-644-5645

INTENDED SCHEDULE OF CONSTRUCTION

The Kanab Sanitary Landfill is capable of meeting solid waste disposal needs for the District for many years. The landfill is operating, so the intended construction schedule contemplates continuing operations throughout the active life of the landfill. The current cell is planned for a capacity of approximately 5 to 10 years and will be expanded in an ongoing manner as portions of the cell attain final elevation. A schedule listing major activity for the next 10 years of operation is found below. The schedule may be updated as part of the regular permit review process.

April 2021	Submit revised permit to Solid and Hazardous Waste
April 2021	Obtain revised permit.
May 2021 to May 2031	Close portions of the landfill reaching final elevation and expand cell to provide additional disposal space.

HANDLING PROCEDURES

During the active lift of the landfill material designated for disposal will be brought to the working face where it will be dumped, spread, and compacted. No later than the end of each day's operation, waste will be covered with a minimum of 6 inches of earthen material, or with an alternate daily cover approved by the Director. Currently proposed alternate daily covers include a temporary synthetic cover (tarp) with a minimum nominal thickness of 8 mils and a minimum tensile grab strength of 100 lbs. If used, the synthetic cover will be removed at least weekly, and waste will be covered with 6" of earthen material. Covering operations shall minimize

the possibility of infiltration. Procedures for the handling of specific wastes including but not limited to dead animals, large appliances, car bodies, and asbestos are delineated below.

The landfill currently accepts only non-friable asbestos waste for disposal. Although not currently planned, friable asbestos wastes may be accepted if the conditions of UACR 315-315-2 are satisfied as follows: a) the asbestos waste is adequately wetted and properly containerized by double bagging and sealing in 6 mil or thicker plastic bags to prevent fiber release and b) asbestos waste containers are generated and tagged with a warning label that conforms to the requirements of 40 CFR Part 61.149(2).

If properly transported and packaged, asbestos waste which meets the above criteria is received at the landfill, the operator will:

- Verify the quantities of waste received, sign off on the waste shipment record, and send a copy of the waste shipment record to the generator within 30 days.
- Require vehicles that have transported asbestos waste to be marked with warning signs as specified in 40 CFR Part 61.149(d)(1)(iii);
- Inspect the load to verify that the asbestos waste is properly contained in leak-proof containers and properly labeled.
- Place asbestos containers at the bottom of the active face with sufficient care to avoid breaking the containers.
- Cover the waste within 18 hours with a minimum of six inches of material that does not contain asbestos.
- Provide barriers to limit public access to the asbestos disposal area until the waste has been covered with six inches of material which does not contain asbestos; and
- Place warning signs at the entrance and around the perimeter of the asbestos disposal area which comply with 40 CFR 61.154(b).

If the attendant believes the condition of an incoming asbestos load is such that significant amounts of fiber may be released during disposal, the attendant will notify the local and regional health departments and the Director. If the wastes are not properly containerized, and the landfill operator inadvertently accepts the load, the operator shall thoroughly soak the asbestos material with a water spray prior to unloading, rinse out the haul truck, dispose of the waste near the base of the active face, and immediately cover the waste prior to compaction with six inches of non-asbestos material in a manner sufficient to prevent fiber release.

Ash will be transported in such a manner to prevent leakage or the release of fugitive dust. The

landfill operator will unload the transport vehicles at the bottom of the working face and keep the ash wetted, if necessary, to prevent fugitive emissions prior to covering; and within 24 hours, the operator will completely cover the ash with a minimum of 6 inches of other non-ash landfill waste or a minimum of 6 inches of material containing no waste or use other methods or materials, if necessary, to control fugitive dust.

Bulky waste such as automobile bodies, furniture, and appliances will be pushed onto the working face near the bottom of the cell or into a separate disposal area.

The landfill will minimize liquids by prohibiting containerized liquids or waste containing free liquids in containers larger than five gallons, noncontainerized liquids, and/or sludges containing free liquids. No waste treatment plant sludge, digested wastewater, treatment plant sludge, or septage containing free liquids will be disposed in portions of the landfill containing other solid waste. Water treatment plant sludge, or septage containing no free liquids will be placed at or near the bottom of the landfill working face and covered with solid waste or other suitable cover material.

Dead animals received at the facility will be deposited onto the working face at or near the bottom of the cell with other solid waste, or into a separate disposal trench provided they are covered daily with a minimum of 6 inches of earth to prevent odors and the propagation and harborage of rodents and insects.

Areas of the landfill that have not received waste for a period of more than 30 days will be covered with an intermediate cover that consists of a minimum of 12 inches of earthen material.

INSPECTIONS AND MONITORING

Inspection and monitoring at the Kanab Sanitary Landfill will be conducted in two components: 1) routine and 2) compliance. Routine inspections will be conducted on incoming material on a random basis to prohibit receipt of unacceptable wastes. In addition, random checks will be made during deposition, spreading, and covering operations to insure protection of the environment and absence of nuisances. Waste screening inspections will be made by trained personnel on 1% of the public using the facility and will be recorded on the appropriate forms (see Exhibit 4b). Operational inspections will be made by supervisory landfill personnel.

Compliance inspections will be conducted quarterly to assess the integrity of cover, the condition of side slopes and vegetative cover, and the impacts of erosion. In addition, a detailed annual inspection will be conducted to verify compliance with all permit conditions and state and federal regulations. All inspection records will be kept at the landfill or the closest reasonable location for the current calendar year. Within 30 days of the end of the calendar year, annual records will be transferred to the District offices and will be stored for a minimum of three years.

FIRE/EXPLOSION CONTINGENCY PLAN

In the event of fire or explosion which prevents the use of the active area of the Kanab Sanitary Landfill, an alternate area of the landfill will be designated for temporary disposal. If use of the alternate area extends beyond one week, a plan of operation acceptable to the Director will be developed.

CORRECTIVE ACTION FOR CONTAMINATED GROUND WATER

This section describes corrective actions to be taken by owners and operators to regain compliance with protection levels for the Kanab Sanitary Landfill in the event concentration limits are exceeded in a down gradient well as a result of landfill operations.

No monitoring wells are proposed for the Kanab Landfill. However, if the concentrations of parameters in down gradient wells exceed the concentration limits as a result of landfill operations and as substantiated by confirmatory analyses, owners and operators of the Kanab Sanitary Landfill will implement a corrective action program as outlined in R315-308.

CONTINGENCY PLAN FOR OTHER RELEASES

This section describes corrective actions to be taken by the Kanab Sanitary Landfill to regain compliance with the protection levels of the permit in the event releases are discovered and acceptable concentration limits are exceeded.

When the concentration of parameters exceeds acceptable limits as substantiated by confirmatory analyses, owners and operators of the Kanab Sanitary Landfill will implement a corrective action program approved by the Director.

DUST CONTROL / AIR QUALITY

Fugitive dust is not anticipated to reach unacceptable levels at the Kanab Sanitary Landfill. If fugitive dust exceeds acceptable levels, actions will be implemented to reduce dust. These actions may include watering access roads, developing wind breaks, altering management scenarios, or other appropriate measures.

LITTER CONTROL

Litter is controlled through use of best management practices. Active areas and working faces are limited; waste is covered shortly after deposition; and blowing trash is confined as much as practical. In addition, litter control fencing may be established along the perimeter of the active area.

However, high winds occasionally occur at the landfill. Unacceptable litter escaping the perimeter of the landfill will be periodically picked up by hand.

EQUIPMENT MAINTENANCE

Active collection systems for leachate and/or explosive gases are not proposed for the Kanab Sanitary Landfill. Therefore, no maintenance will be required for these items. Maintenance of equipment used in day-to-day operations will be performed by landfill employees or contracted mechanics in accordance with manufacturers recommendations and industry practices.

EXCLUSION OF HAZARDOUS WASTE

As a small rural landfill, the Kanab facility is in a favorable position regarding exclusion of hazardous waste. During periods when the landfill is not open to the public, waste will be observed as it is removed from the collection vehicle. The waste will be further examined for hazardous materials as it is being spread by the operator and compacted. Appropriate notations regarding hazardous waste will be made on the Daily Record forms. If unacceptable hazardous materials are found, the collection vehicle driver will be notified and the unacceptable substance will be removed from the landfill.

During periods when the landfill is open for public disposal as least one percent of the vehicles and other suspicious loads will be directed to dispose of their material near the working face. The waste generator will be detained while the load is inspected. For large loads, the waste will be spread, and landfill operators will walk through the waste. If prohibited hazardous or prohibited waste containing PCB's are encountered, they will not be accepted. Considering population served, waste volumes generated, and complexity of the solid waste stream these measures are considered to be adequate.

A section documenting the results of the formal inspections outlined above has been included as part of the daily record forms (see Exhibit 4b). Including hazardous/PCB waste records on the daily record forms will allow landfill managers to incorporate inspections into their daily routine and will permit regulators to review inspection patterns efficiently while examining waste volumes.

DISEASE VECTOR CONTROL

The primary method for disease vector control at the Kanab Sanitary Landfill will be providing appropriate cover at the close of each day's operation. The cover will consist of a 6-inch minimum layer of earthen material or an approved alternated daily cover.

Rodents and other vermin will not be permitted to burrow in the active area of the landfill;

and trapping or extinction methods will be implemented to protect the integrity of the disease vector control program.

ALTERNATIVE DISPOSAL

Alternative waste handling procedures for periods when the landfill is not in operation will be similar to procedures for fires and explosions. Waste will be deposited in the emergency disposal site and covered with an approved alternate daily cover. Procedures will continue in this manner until operations at the landfill can return to normal.

In the event of equipment breakdown that cannot be repaired in a reasonable time frame, equipment will be borrowed from contributing entities or leased from local distributors.

TRAINING AND SAFETY PLAN

Currently two District employees involved with the Kanab Sanitary Landfill have participated in the Manager of Landfill Operations Training Course and the Waste Screening Training Course provided by the Solid Waste Association of North America (SWANA). Limited training and educational experience exist for operators of rural landfills; however, employees will be encouraged to attend appropriate seminars and training as time and budgets permit. All landfill employees have been provided with timely and sufficient training to operate the landfill within regulatory requirements. New landfill employees will also be provided with timely and sufficient training to operate the landfill within regulatory requirements. Training opportunities include access to SWANA training materials, on-site training from certified managers, random training from landfill owners, and training from state regulatory staff during on-site inspections.

Safety procedures will conform to OSHA guidelines, and personnel will be encouraged to participate in additional landfill management, waste screening, safety, and first aid workshops.

RECYCLING

No viable recycling markets currently exist for solid waste disposal at the Kanab Sanitary Landfill. In an effort to promote recycling some compostable material may be diverted from areas designated for Class IV operation. However, no formal recycling program is anticipated for this facility.

ACCESS CONTROL & ONSITE PERSONNEL

Fencing has been placed around the active cell and any closed areas with a lockable gate

provided at the main entrance of the landfill. The fence and gate eliminate the possibility of unauthorized access.

In addition, landfill personnel are onsite during all hours the facility is open to the public. Contracted collection vehicles may enter the landfill when the facility is not open to the public; however, waste will not be accepted from the public during these periods. The existing schedule is functioning adequately, and the District intends to revise the scheduled operation of the landfill as the need arises and solid waste volumes dictate.

ADDITIONAL REQUIREMENTS

This subsection is provided to comply with requirements of R315-303-3(7). No scales currently exist at the landfill. Volumes of all incoming waste are estimated and recorded in the facility's operation record. A sign is erected at the facility entrance that identifies the name of the facility, the hours during which the facility is open for public use, unacceptable materials, and an emergency telephone number.

Fire protection is accomplished through arrangements made with the local fire department in Kanab. Buildings and active areas are secured to prevent potential harborage of rat and other vectors, such as insects, birds, and burrowing animals.

The size of the unloading area and working face is minimized as much as possible, consistent with good traffic patterns and safe operation. All weather approach and exit roads have been constructed and provide traffic separation and traffic control on-site and at the site entrance. Communication service is provided by telephone. On site employees communicate verbally or with hand signals when required.

GEOHYDROLOGICAL ASSESSMENT

GEOLOGY

The Kanab Landfill is situated in the high desert of southern Utah. The area is characterized by rugged plateaus, arid desert, and the valley cut by Kanab Creek. The landfill is located on the Utah/Arizona border with the surface made up of flat to rolling slopes of alluvial deposits of variable thickness. The elevation of the landfill is approximately 4960 feet above sea level. Two miles west and 200 feet downgradient of the landfill is Kanab Creek.

Site specific geology of the landfill indicates the area predominantly covered by interbedded alluvial material. The surface material is characterized by silts and clays of low permeability. The material is approximately six feet deep and is fairly resistant to infiltration. The surface member is underlain by a thin layer of sands and gravels to a total depth of 12 to 17 feet. This thin layer of coarser material overlies a thick impermeable layer of clay and shale which extend to a minimum depth of 200 feet. No groundwater was encountered during exploratory drilling, but some minor moisture did condense on a 2-foot section of the drill rod (from 15 to 17 feet depth) in the second of two drill holes.

There are no apparent faults, unstable slopes and subsidence areas within the boundaries of the landfill. It should be noted that significant portions of the site are characterized by rolling slopes of alluvial material. On site investigations demonstrate natural material will stand at slopes flatter than 2:1.

HYDROLOGY

The climate in the area is mainly dry and warm. The seasons are fairly well defined, and there is a forty degree difference in normal mean monthly temperatures. The average length of the growing season at Kanab is approximately 171 days. In any given year the length of the growing season may vary as much as 40 days from the average. Normal annual precipitation at Kanab is 13.3 inches. The largest amount of precipitation is during the months of January and August and the least during May and June. Potential evapotranspiration exceeds precipitation by more than four times. Data kept by the weather bureau on wind near the landfill indicate the windiest part of the year is in the spring and the early summer. The prevailing winds are usually dry and blow from the southwest.

ON SITE SOIL PROPERTIES

In order to determine onsite soil properties samples were obtained throughout the drilling depth of two exploratory drill holes located in the southeast portion of the landfill property.

Data from the drill holes and topographic information indicate surface soils are thin and range from range from 12 ft. to 17 ft. in depth. The samples were classified by the driller according to standard industry practices at the time of extraction. Results indicate surface material is comprised various alluvial material ranging in size and permeability. The surface materials are underlain by thick layers of impermeable clay and shale. Exhibits 6a and 6b are drill logs and provide actual data concerning onsite soils.

GROUNDWATER

No groundwater was encountered during the drilling operations. Two drill holes located within active portions of the landfill were drilled to a depth of 200 feet. No wells are located within one mile of the landfill, and information regarding depth to groundwater aquifers, directional flow rate, and water quality data is not available.

It should be noted that some minor moisture condensed on the drill rod in the sand/gravel • layer from 15 to 17 feet in the second drill hole. The moisture was so minor that no accumulation occurred, and the driller indicated no groundwater was encountered.

Groundwater quality beneath the landfill site is unknown. The arid climate, local surface material and underlying clay/shale formations eliminate any reasonable probability of contaminating groundwater from the surface. Exploratory wells to determine groundwater quality are an obvious conduit for any contamination and are considered inappropriate for this site.

WELLS AND WATER RIGHTS

Contact was made with the State Engineer's office to determine quantity, location, and construction of any private and public wells within 2,000 feet of the site as part of the original permitting process. No wells were identified within the surveyed area. An expanded search determined that no well exists within one mile of the landfill.

An examination of surface rights in the area was also conducted by the State Engineer's office. No surface rights were found in close proximity to the landfill. Four surface rights were found within one mile of the facility. All the surface rights are for stock watering purposes and are located east of the site in an area topographically isolated from the landfill. Exhibits 7a and 7b constitute the documentation provided by the State Engineer. Information is not available regarding background and surface water quality assessments in the area.

SURFACE WATERS

No perennial streams, rivers, or permanent surface waters exist within close proximity of the landfill. The closest perennial surface water is Kanab Creek located approximately 2 miles west of the landfill and having a flow line approximately 200 feet below the final elevation of waste. Other washes in the area are small insignificant drainages that have formed in the native soil. All intermittent washes and surface waters will be prevented from impacting areas of the landfill which have received solid waste for events smaller than the 25-year storm period.

WATER BALANCE / MONITORING

Several water balance calculations have been performed for various landfills in the area and are on file with the Division of Solid and Hazardous Waste. Results at nearby landfills indicate no leachate was generated in the bottom 10 ft of waste during a 50-year evaluation period. Additional HELP Model simulations indicate leachate will not develop within 10 ft. of the bottom of the waste during the life of the permit.

Groundwater monitoring has not been implemented at the Kanab landfill and is not anticipated during the life of the permit. Existing depth to groundwater, limited precipitation and extensive evapotranspiration render groundwater monitoring impractical. In addition, on site groundwater monitoring wells could serve as a conduit for contamination.

IMPACTS TO WATER RESOURCES

As a small, arid facility the Kanab Landfill is exempt from groundwater monitoring requirements. The landfill receives less than 20 tons of waste per day, receives less than 25 inches

of precipitation per year and is located more than 100 ft. above existing groundwater aquifers. Based on Utah State regulations, these characteristics exempt the facility from groundwater monitoring requirements.

In addition, there is no potential for migration of hazardous constituents from the facility to the groundwater during the active life of the facility and during the post closure period. This conclusion is supported by three separate analyses: 1) on-site geologic and hydrologic conditions, 2) water balance and leachate production modeling, and 3) operational practices which minimize the amount of water that can come in contact with the waste. Each analysis makes its own strong argument for suspending groundwater monitoring requirements.

On-site geologic and hydrologic conditions demonstrate a de minimis potential for hazardous constituents reaching groundwater resources. Drilling operations indicate an absence of groundwater for a depth of 200 ft. The site is characterized by interbedded layers of alluvial material of low to moderate permeability. These relatively impermeable surface materials are underlain by a dense, impermeable clay/shale formation beginning at depths of 23 to 35 feet. The impermeable shale layers extend to a depth of at least 200 feet and will preclude the downward movement of any leachate and prevent any potential contamination.

In addition to favorable soil conditions and depths to groundwater which minimize the potential for liquid migration, local climatic conditions eliminate the production of significant amounts of leachate. Average annual precipitation is only 13.3 inches per year, and potential evapotranspiration exceeds precipitation by more than 400%. The lack of significant moisture passing beyond the vegetative zone is evidenced by the sparsely grown surface plants which are limited by minimum amounts of moisture.

Water balance and leachate production modeling also demonstrate a de minimis potential for hazardous constituents reaching groundwater resources. Regional HELP model analysis described above indicates numerous worst case conditions would be required for leachate to be produced in sufficient quantities to result in the migration of any liquid to the groundwater. Worst case scenarios were used, so actual conditions should result in a greater level of confidence and a lower production of leachate than identified by the model.

Operational practices will also reduce the amount of water that could possibly come in contact with the waste. Surface waters will be diverted by a series of ditches and berms designed to protect landfill cells from run on water for storms considerably greater than the 25-year event. The size and progression of the units will result in cells being brought to final elevation and closed in the minimum time possible, reducing the amount of water entering the waste. Contouring operations will reduce ponding and promote drainage away from active areas; use of alternate daily covers may prevent the infiltration of limited precipitation into the waste. The limited

working face will require the removal of any snow from the active area, so incoming waste can be deposited. All of these measures result in the reduction of an extremely limited source of moisture.

Considering onsite geologic and hydrologic conditions, water balance and leachate production modeling, and operational practices which reduce the amount of water contacting the waste, groundwater monitoring and vadose zone monitoring are not justified. In fact, installation of monitoring wells may provide a more viable conduit for groundwater contamination. The Director is requested to exempt the Kanab Sanitary Landfill from groundwater monitoring requirements in accordance with Subsection R315-303-3 (3)(e) of the Solid Waste Rules.

PRELIMINARY ENGINEERING REPORT

SITING CRITERIA

The Kanab Sanitary Landfill complies with siting criteria currently mandated by regulation and recognized by the State of Utah Solid and Hazardous Waste Committee. Specifically, no airport is located within 10,000 feet of the landfill. The site is free from unstable areas and is not located within a 100-year floodplain or in any wetland. In addition to federal mandated criteria, the site is compatible with existing land uses, long term landfill operation and is in a remote area free from dwellings and other incompatible structures such as churches, schools, hospitals, etc.. Cultural resources within the landfill will be mitigated in accordance with State Historic Preservation Officer requirements.

SOLID WASTE MANAGEMENT COMPLIANCE

The Kane County Solid Waste Management Plan required by Senate Bill 255 identifies the need for landfills capable of long-term service in the planning area. The plan further recommends that re-permitting the landfill be made a top priority in the coming years. The Kanab Sanitary Landfill is in compliance with that recommendation and with the Solid Waste Management Plan.

FACILITY LIFE

The anticipated facility life for the Kanab Landfill cannot be accurately estimated. Based on the overall size of the property, relatively low waste volumes, and current efficiencies, facility life is estimated far in excess of the permit and is considered 20 years for this permit renewal process.

LINER DESIGN

Current volumes of solid waste disposed by generators serviced by the Kanab Landfill are well below 20 tons per day, and the facility is eligible for small landfill design exemptions. The Kanab Sanitary Landfill is a natural attenuation Class II facility. No liner is required for the facility.

CELL DESIGN AND OPERATION

The Kanab Sanitary Landfill is designed to minimize active areas and to reach final elevation as soon as practical in order to minimize infiltration and leachate generation. The cells are designed to accommodate from two to five years of waste and to expand in an orderly fashion.

Cells may be excavated as much as 30 feet in depth and may extend approximately 50 ft. in height. Bottom widths will range from 40 feet to 200 feet. Length of the cells varies with volumes of waste, season of the year, and soil stockpile needs; but approximate 200 feet. Currently cell height is above initial excavations and deposition is in a fill condition.

Near the close of each working day waste is spread, compacted, and covered with 6 inches of native soil or an alternate daily cover. When daily waste volumes are too small to permit efficient use of landfill space, solid waste may be stockpiled at the working face and covered with an alternate daily cover (a synthetic blanket designed to prevent infiltration).

The 50-foot cell height described earlier is a nominal dimension and does not consider final slopes to promote drainage or additional covering requirements. Cells are anticipated to consist of solid waste compacted in lifts ranging from 7 feet to 12 feet and covered with 6 inches to 12 inches of daily or intermediate cover material. Several lifts may be accommodated in the nominal height. Exhibit 8 is an illustration of the proposed cell progression. Exhibit 9 is a conceptual design of a typical cell.

EQUIPMENT AVAILABILITY

Minimum equipment requirements at the Kanab Sanitary Landfill are limited to a landfill-type compactor for daily operations and periodic use of additional equipment (dozer, scraper, grader, compactor, etc.) for specific covering, stockpiling, contouring and compacting operations. The facility has already exceeded those requirements. Over time, adequate equipment will be acquired to guarantee the needs of the landfill will continue to be met.

BORROW SOURCES

The Kanab Sanitary Landfill will utilize onsite borrow materials for daily cover, final cover, and soil liners. Current estimates indicate more than 3 million cubic yards of suitable material is available within the landfill limits. Current cell locations utilize excavated on-site material and provide ongoing borrow operations. Onsite soils will be augmented with existing offsite borrow sources as needed.

LEACHATE COLLECTION, TREATMENT, AND DISPOSAL

The Kanab Sanitary Landfill is a natural attenuation facility located in an arid region with favorable soil conditions. No leachate collection or disposal will occur at the facility.

LANDFILL GAS CONTROL AND MONITORING

Due to the arid nature of the climate at the Kanab Sanitary Landfill and the nature of waste accepted at the facility, landfill gas concentrations are not anticipated to reach significant levels. The relatively open area of the proposed facility is designed to accommodate dissipation of any landfill gases prior to reaching the property boundary.

Monitoring for landfill gases will be conducted as part of the quarterly inspections performed by landfill managers. Monitoring requirements inside buildings will be met by installing methane detectors in any building on the site. Results will be recorded on quarterly inspection forms.

Should unacceptable levels of landfill gases be detected, contingency plans described in other areas of this permit will be implemented. If gas levels exceed 25% of the lower explosive limit in structures or the 100% of the lower explosive limit at property boundaries, immediate action will be taken to protect human health, and the Director will be contacted within 24 hours. Additional state regulations, including operating record notations within seven days and implementation of a remediation plan within sixty days, will be completed.

RUNON/RUNOFF CONTROL

The District will control the run on and runoff resulting from storms smaller than the 25-year event from contacting solid waste and leaving the landfill. This will be accomplished through a series of best management practices. Any potential surface drainages will be diverted around cells. Daily, intermediate and final cover material will be excavated from the uphill side of active areas and will be accumulated at the interface between the natural ground and the waste cell, creating excavated areas and berms to prevent any surface waters from contacting the waste.

Runoff will be controlled through ditches, berms, roads, ditches, and other passive systems as needed. No formal run on/runoff control systems are planned for the Kanab Landfill.

CLOSURE / POST CLOSURE PLAN

CLOSURE/POST CLOSURE PLAN

Closure of active portions of the Kanab Sanitary Landfill contemplates controlling, minimizing, and eliminating threats to human health and the environment from post closure escape of solid waste constituents, contaminated runoff, or waste composition products to the ground, groundwater, surface water, and the atmosphere. When an area of the landfill exceeding 5 acres reaches final elevation it will be covered within 60 days with 12 inches of intermediate cover and graded to promote drainage. The surface shall be free from ponding and shall minimize infiltration.

The area will be covered with a minimum of 18 inches of material having a hydraulic conductivity of less than 1×10^{-5} cm/sec or an alternate final cover approved by the Director. The impermeable barrier will be covered with 6 inches of native soil or 6 inches of material capable of supporting vegetative growth.

Post closure care of sections of the landfill will consist of maintaining the integrity of the final and vegetative covers. Any areas subject to erosion will also be corrected; and appropriate measures will be implemented to identify and eliminate the source. Groundwater monitoring, leachate collection, and gas collection are not proposed for the Kanab Sanitary Landfill.

CLOSURE SCHEDULE

Closure operations at the Kanab Sanitary Landfill will be performed on an ongoing basis. Adequate capacity exists at the landfill to continue operation for many years. A final closing date cannot be determined at this time. Ongoing closure operations will generally be performed from April through November, the normal frost free construction period, or as weather permits. No area larger than 5 acres that has achieved final elevation will remain open longer than 6 months.

FINAL COVER, SEEDING, CONTOURING

Closure operations will consist of leveling, contouring, placement of appropriate covers and seeding as necessary to reduce infiltration and preserve the integrity of the completed areas of the

landfill. Areas of the landfill reaching final elevation will receive intermediate cover within 60 days. Closure operations will include leveling and contouring using intermediate cover to reduce infiltration and ponding. Excess material not meeting permeability requirements may be stripped and utilized in other operations or left in place. After grading operations promoting drainage are

complete, a geosynthetic clay liner or 18 inches of material with a permeability of 1×10^{-5} cm/sec or less will be installed. Alternate designs meeting the performance standard of impermeable material may be used if approved by the Director prior to placement. Upon completion of the impermeable cover, 6" of native material similar to existing topsoil will be placed and seeded. The seed mixture shall be developed after consultation with local range specialists and verifying availability of local seed markets. Recently closed sections of the landfill will be evaluated as part of the quarterly inspection process during the first year and then placed on post closure status.

SITE CAPACITY

Site capacity for the entire Kanab Sanitary Landfill property cannot be accurately estimated. Assuming an initial 40-acre parcel covered by this permit, trench style operation (40 ft. bottom width, 4:1 side slope, 30 ft. depth), three 8.5 foot lifts of waste with 1.5 foot intermediate cover, and an average density of 900 lbs. per cubic yard, waste volumes can be estimated at 1,056,000 cubic yards or 475,200 tons.

CLOSURE TIMING AND NOTIFICATION

Closure activities at the Kanab Sanitary Landfill will be performed on an ongoing basis. The Director will be notified of closure progress by reviewing quarterly and annual reports, and by contacting Division of Solid and Hazardous Waste inspectors who have visited the site. Considering the ongoing nature of closure operations and the justification for performing closure operations as a cell reaches final elevation, alternate notification procedures may not be feasible.

In addition to the ongoing notification indicated above, The Director will be notified in writing prior to initiation of final cover operations, and the final cover design and the construction quality assurance/quality control (QA/QC) plan will be submitted to the Director for review and approval. The QA/QC plan for closure will include tests for permeability and depth. Permeability tests, where required, will be performed at the rate of test per 9,000 cubic yards of material and will randomly selected throughout the working area. Permeability tests may include in field or laboratory tests, nuclear density extrapolations, or other industry wide procedures and practices. Depth tests will utilize standard cross section survey methods and will be performed at a rate equal to or greater than tests performed for permeability. Closure as built and certification

of closure according to the plan identified above will be signed by a registered professional engineer and forwarded to the Director within 90 days of completion.

FINAL INSPECTION

The Kanab Landfill is anticipated to operate well beyond the life of this permit. At least 60 days prior to any closure, the Division of Solid and Hazardous Waste will be contacted, and a final inspection will be scheduled. The Director will be informed of incremental closure of individual cells through routine state inspections, annual reports, and renewal applications. In addition, a QA/QC plan will be submitted for approval prior to any closure operations. Within 90 days of unit and/or facility closure, as built plans signed by a professional engineer shall be forwarded to the Director

Landfill owners and operators shall allow the Director of the Utah Solid and Hazardous Waste Control Board or an authorized representative, including representatives from the local District Health Department, upon representation of credentials, to enter during operating hours and/or inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under this permit.

A record of the inspection may be made by photographic, videotape, electronic or other reasonable means, and a copy of any such record shall be provided to the owner and the operator within a reasonable time.

SITE MONITORING

No permanent monitoring devices are proposed for the Kanab Sanitary Landfill. Landfill gas in closed sections will be monitored as described for active cells in the Preliminary Engineering Report section of this document.

No groundwater monitoring wells, lysimeters, vadose zone equipment or other monitors are planned for this facility. Surface waters in closed portions of the landfill will be evaluated as part of the annual inspection. Monitoring will be limited to identifying situations which promote infiltration.

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LAND TRANSFERS AND USES

Plats and a statement of fact concerning the location of any disposal sites shall be recorded as part of the record of title with the County Recorder not later than 60 days after certification of closure. Upon recording, proof of the record of filing will be submitted to the Director.

POST CLOSURE MAINTENANCE

Post-closure care of inactive sections of the landfill will consist of maintaining the integrity of the final and vegetative covers. Any areas subject to erosion will be corrected, and appropriate measures will be implemented to identify and eliminate the source. No active or technical devices are proposed for use at the Kanab Sanitary Landfill. Best management practices will be implemented to minimize infiltration and assure the integrity of the run-on/run-off system. Evaluation of the system will be made during the quarterly inspections, and corrective measures, if any, will be implemented. Run-on and run-off from events smaller than the 25-year storm will be controlled.

No leachate collection devices are proposed for the facility. Closed portions of the landfill will be inspected as part of the quarterly reviews performed by the landfill operator. Closed areas will also be inspected as part of the in-depth annual inspection. Any deficiencies will be repaired as soon as practical. For those failures which jeopardize the environmental integrity of the facility or permit the uncontrolled infiltration of significant amounts of moisture, corrective measures will be initiated immediately.

No alternate land use for closed sections has been developed to date. Closed cells will remain under the jurisdiction of the landfill manager. If alternate land use plans are developed, they will be addressed during the permit renewal process, or a separate permit modification may be processed.

RESPONSIBLE PARTIES

The applicant, property owner, and responsible party for the post closure care period is:

Western Kane County Special Service District No. 1

P.O. Box 36

Kanab, UT 84741

Attn: Danny Little

Phone: (435) 644-5645

It should be noted Western Kane County Special Service District County is continually upgrading solid waste management services. Future agreements, potential special service district creation, the extended life of the landfill, and alternate ownership/operation scenarios may require modification of this section of the permit. In addition, the District may contract site operations with private entities. The District will notify the Director of any changes in responsible party status at least 30 days prior to

their effective date. Other changes to the information listed above will be provided in annual reports and permit renewal documents.

This section of the permit describes compliance with Subsection R315-309, Financial Assurance of the Administrative Rules for Solid Waste Permitting and Management. Cost estimates consider the most expensive option during the period and are based on a third-party performing closure and post closure care.

MECHANISMS

The Western Kane County Special Service District complies with financial assurance test requirements for local governments based on: 1) acceptable bond ratings; 2) financial statements prepared in conformity with generally accepted accounting principles for governments audited by independent CPAs; 3) reference to closure and post closure costs in current and subsequent annual financial reports. To date, Western Kane County Special Service District has met financial assurance requirements by maintaining an existing, dedicated escrow account with the State Treasurer. In accordance with Director approval, funds in excess of the estimate listed below maybe used for capital improvements, to offset rate increases, operational expenses and other items deemed necessary by landfill managers. The Kanab Sanitary Landfill is preparing documents to verify passage of the local government test. If, the District is unable to pass the financial test, it may continue its dedicated escrow account or it may alter the mechanism to include the government test, insurance, surety bonds, trust funds, or other options as they become feasible.

SCHEDULE OF PAYMENTS

The Western Kane County Special Service District has made payments to a dedicated escrow account with the State Treasurer's office to insure the availability of sufficient funds for closure and post closure care. The District will contribute minimum payments of \$50,000 and inflation percentage costs annually until the UPTIF fund balance reaches the minimum requirement of closure and post-closure costs. If the District passes the local government financial test, or another financial mechanism, they may execute it after it is approved by the Director.

COST ESTIMATE

Closure and post-closure cost estimates were developed considering the largest area of the disposal facility requiring final cover during the operating period and using projections for a third party to perform the work. Estimates were developed using Utah State guidance, historical costs, project records and

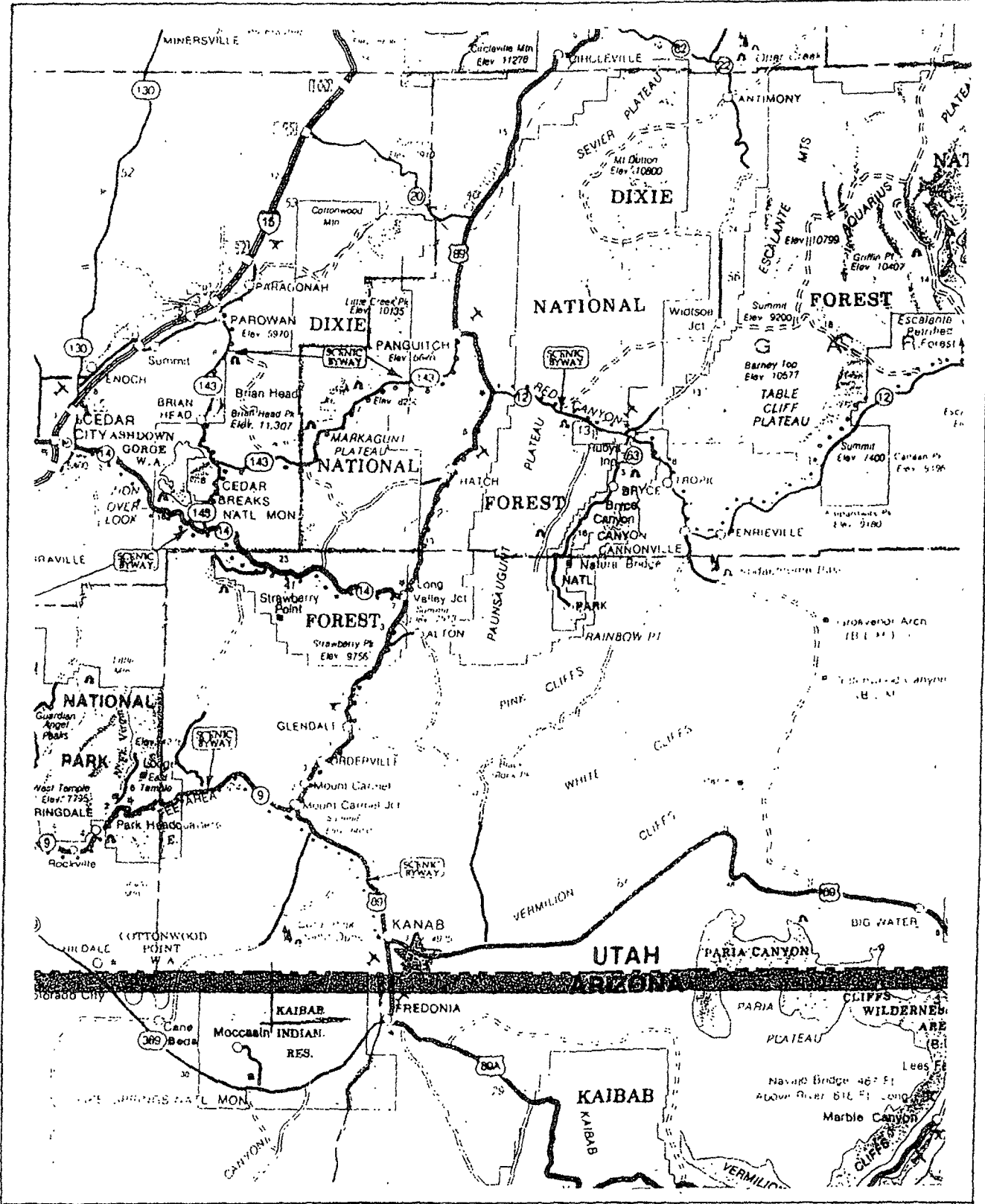
standardized rates for Kane County. A cost estimate summary identifying major closure and post-closure components is included below, and detailed information regarding closure and post-closure costs is included under separate cover. Items that are identified in the rules but are not applicable to the Kanab Landfill have not been listed.

Closure Costs

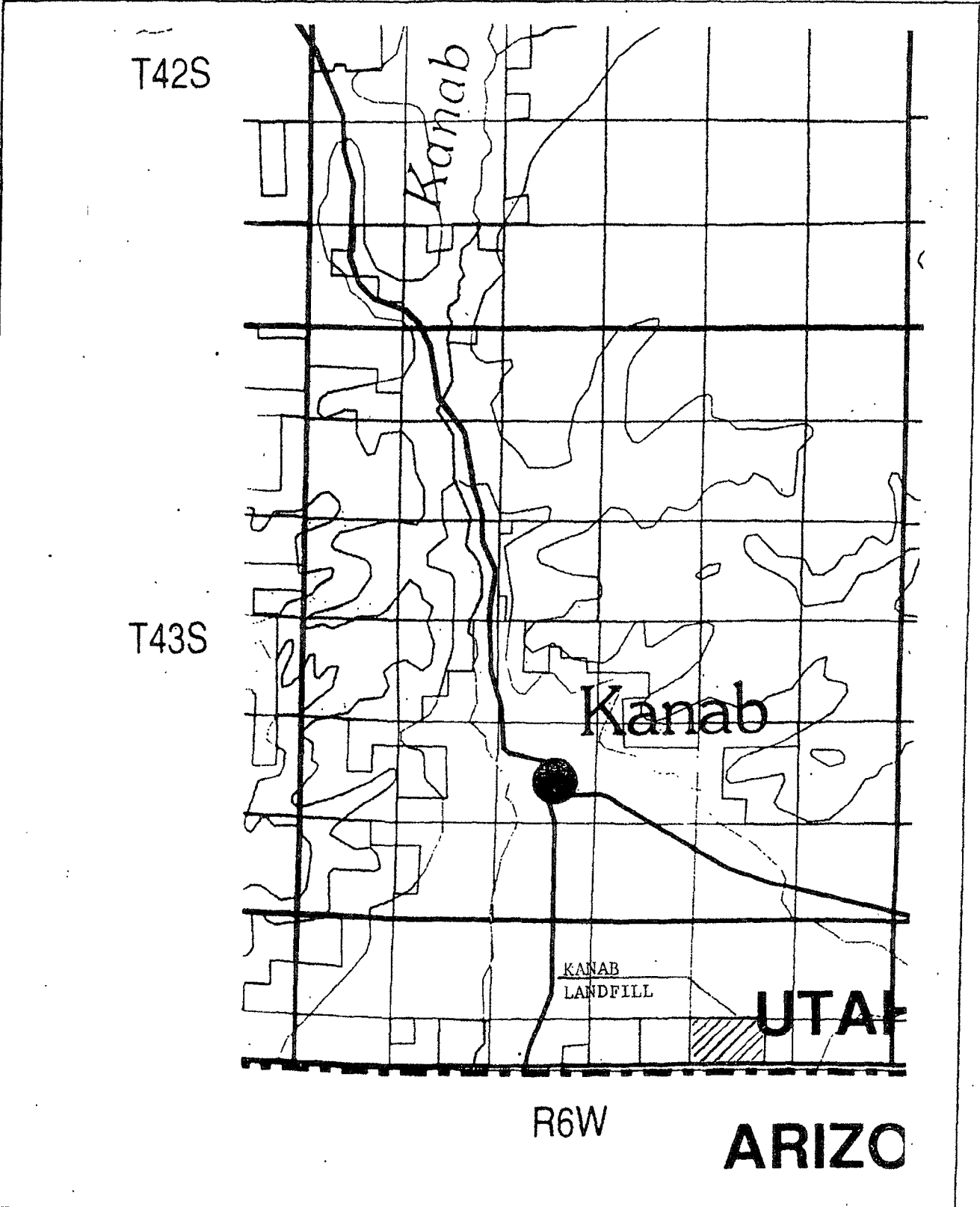
Survey / Site Evaluation	\$ 3,000.00 (IR Engineering)
Project Management	10,250.00 (Skutumpah Ent)
Site Repair	5,000.00 (Skutumpah Ent)
Grading	3,800.00 (Skutumpah Ent)
Clay Cover	190,000.00 (Skutumpah Ent)
Soil Cover	34,000.00 (Skutumpah Ent)
Vegetation	3,400.00
Gas Collection	600.00
Subtotal	\$250,050.00
Contingency	25,005.00 (10%)
TOTAL	\$275,055.00

Post-Closure Costs

Engineering	\$26,000.00 (IR Engineering)
Cover Maintenance	3,760.00 (Skutumpah Ent)
General Maintenance	2,300.00 (Skutumpah Ent)
Subtotal	\$32,060.00
Contingency	3,206.00 (10%)
TOTAL	\$35,266.00



KANAB SANITARY LANDFILL.
 Exhibit I. General Vicinity Map



KANAB SANITARY LANDFILL

Exhibit 2a, Project Location Map

The United States of America

To all to whom these presents shall come, Greeting:

Serial: Utah 46835

WHEREAS,

Western Kane County Special Service District #1

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. 44 S., R. 6 W.,
sec. 11, lots 1 thru 5, inclusive, NW ¼ NE ¼.

containing 227.790 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 Western Kane County Special Service District #1, the land above described for use as a solid waste sanitary landfill: TO HAVE AND TO HOLD the same, together with all rights, privileges, immunities, and appurtenances, of whatsoever nature, thereunto belonging, unto the same Western Kane County Special Service District #1, 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); and
2. All mineral deposits in the lands so patented, and the right of the United States, or persons authorized by the United States, to prospect for, mine, and remove such deposits from the same under applicable laws and regulations as the Secretary of the Interior may prescribe; and

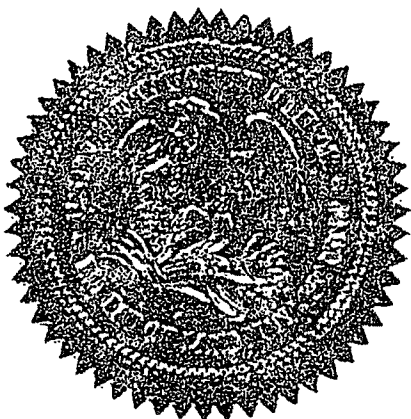
ENTRY NO. 78688
 DATE FEB. 24 1994
 BY DEPUTY YJ CARLISO
 RECORDED AT REQUEST OF Western Kane Co. S. L.L. FEES
 AT 11:30 A.M.
 KANE COUNTY RECORDER
 BOOK 0133 PAGE 402-403

Patent Number 43-94-0008

Serial: Utah 46835

The Western Kane County Special Service District #1, 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, 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 the land described above, 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.

The above described land has been used for solid waste disposal. Solid waste commonly includes small quantities of commercial hazardous 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 liner or final cover of the landfill unless excavation is conducted subject to applicable State and Federal requirements.

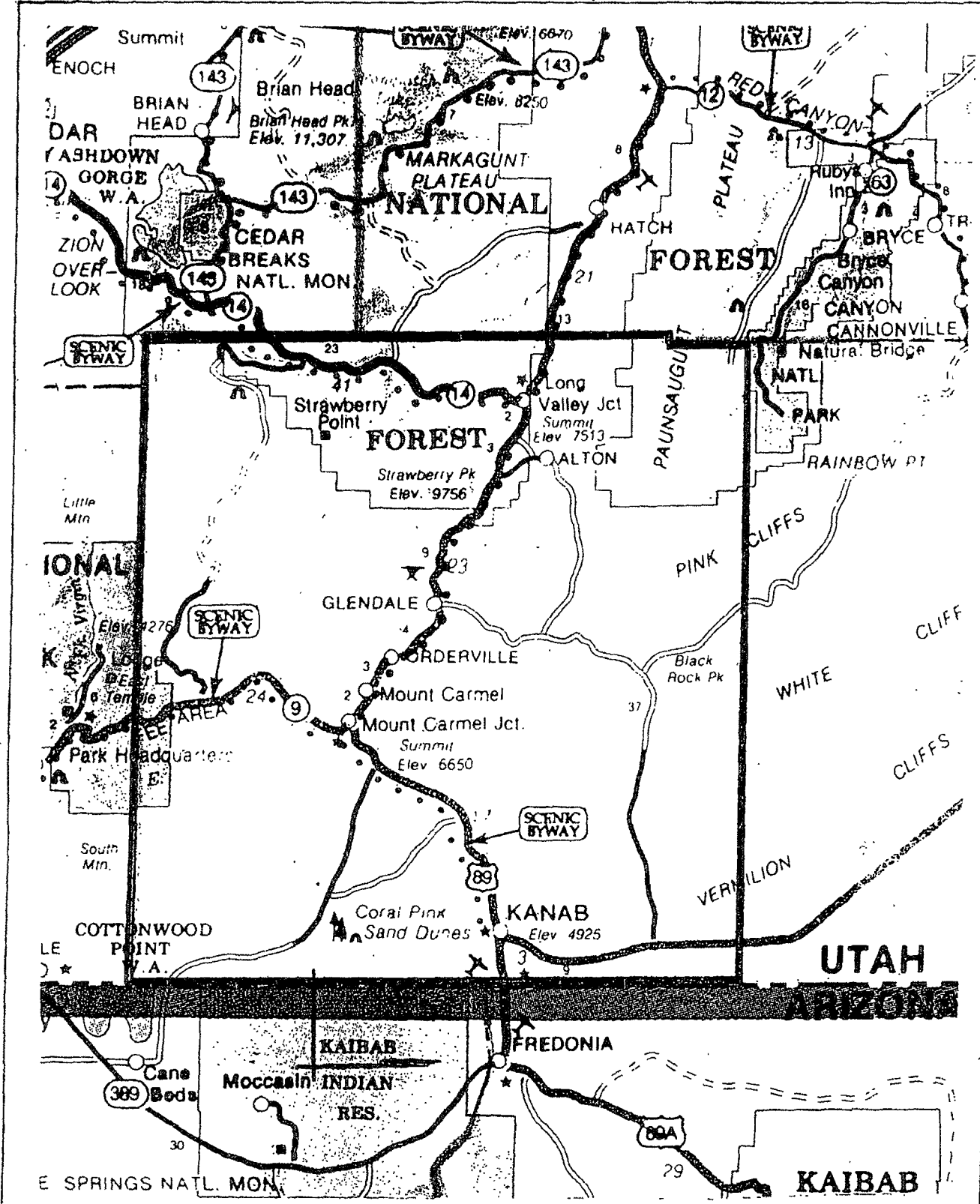


IN TESTIMONY WHEREOF, the undersigned authorized officer of the Bureau of Land Management, in accordance with the provisions of the Act of June 17, 1948 (62 Stat. 476), has, in the name of the United States, caused these letters to be made Patent, and the Seal of the Bureau to be hereunto affixed

GIVEN under my hand, in Salt Lake City, Utah
the tenth day of January
in the year of our Lord one thousand nine hundred and
ninety-four and of the Independence of the
United States the two hundred and eighteenth

By Paul D. Stephenson
Chief, Branch of Lands and Minerals, Operations

Patent Number 43-94-0008



KANAB SANITARY LANDFILL

Exhibit 3. Service District Boundaries

KANAB WKCSSD LANDFILL WASTE INSPECTION REPORT

DATE	LOC	HAULER	LICS/TRK #	VEH TYPE	TIME	WASTE DESCRIPTION	INSPECTOR	INSPECTED Y N		OBSERVATION ACTIONS	YARD S	TIRES

Exhibit 4a

WKCSSD Landfill Inspection Log				Date
AREA OF INSPECTION	CONDITION	REPAIRS NEEDED	COMMENTS	
Date:	Inspector:			

Exhibit 5



UNIZICKER & WELLS DRILLING

WELL DATA FORM

OWNER NAME Kanab Landfill

Hoje # 1 of 2

Page of

Well Log DEPTH (feet) FROM TO		WATER	PERMEABLE high low	UNCONSOLIDATED						CONSOLIDATED		ROCK TYPE	COLOR	DESCRIPTIONS AND REMARKS (include comments on water quality if known.)
				C L I A Y	S S	G R A V E L	C O B B L E S	O T H E R						
0	6		XX											
6	12		XX	X										
12	16		XX											
16	23		X	X										
23	28		X											
28	33			XXX										
33	35		X	X										
35	55							X	Shale	grey				
55	60							X	Shale	pink				
60	200							X	Shale	Red				
													Total depth 200'	
													Test diameter 5"	
													No water encountered	



UNIZICKER & WELLS DRILLING

WELL DATA FORM

OWNER NAME Kanab Landfill Hole # 2 of 2 Page of

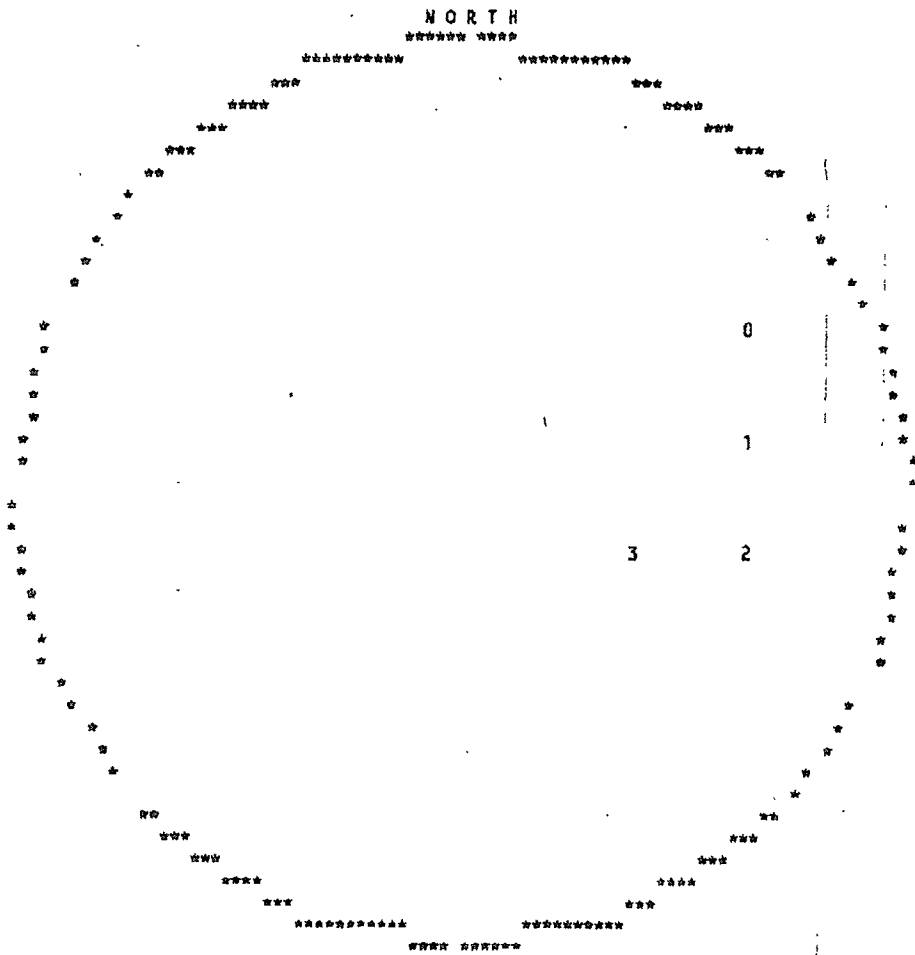
Well Log		WATER	PERMEABLE		UNCONSOLIDATED					CONSOLIDATED		ROCK TYPE	COLOR	DESCRIPTIONS AND REMARKS (include comments on water quality if known.)
			high	low	CLAY	SILT	GRAVEL	COBBLES	BOLDER	OTHER				
DEPTH (feet)	FROM	TO												
	0	5	X		X									
	5	6	X		XX									
	6	15	X		XX									
	15	17	X		X		XX							
	17	21			XX						0	yellow		
	21	23			XX							Red		
	23	200	X						X		shale	Red		
														Total depth 200'
														Test diameter 5"
														No water encountered

KANAB SANITARY LANDFILL
 Exhibit 6b. Onsite Soil Data

UTAH DIVISION OF WATER RIGHTS
WATER RIGHT POINT OF DIVERSION PLOT CREATED THU, JAN 16, 1997, 3:56 PM
PLOT SHOWS LOCATION OF 4 POINTS OF DIVERSION

PLOT OF AN AREA WITH A RADIUS OF 5280 FEET FROM A POINT,
S 1320 FEET, W 1320 FEET OF THE NE CORNER,
SECTION 11 TOWNSHIP 44S RANGE 6W SL BASE AND MERIDIAN

PLOT SCALE IS APPROXIMATELY 1 INCH = 2000 FEET



KANAB SANITARY LANDFILL

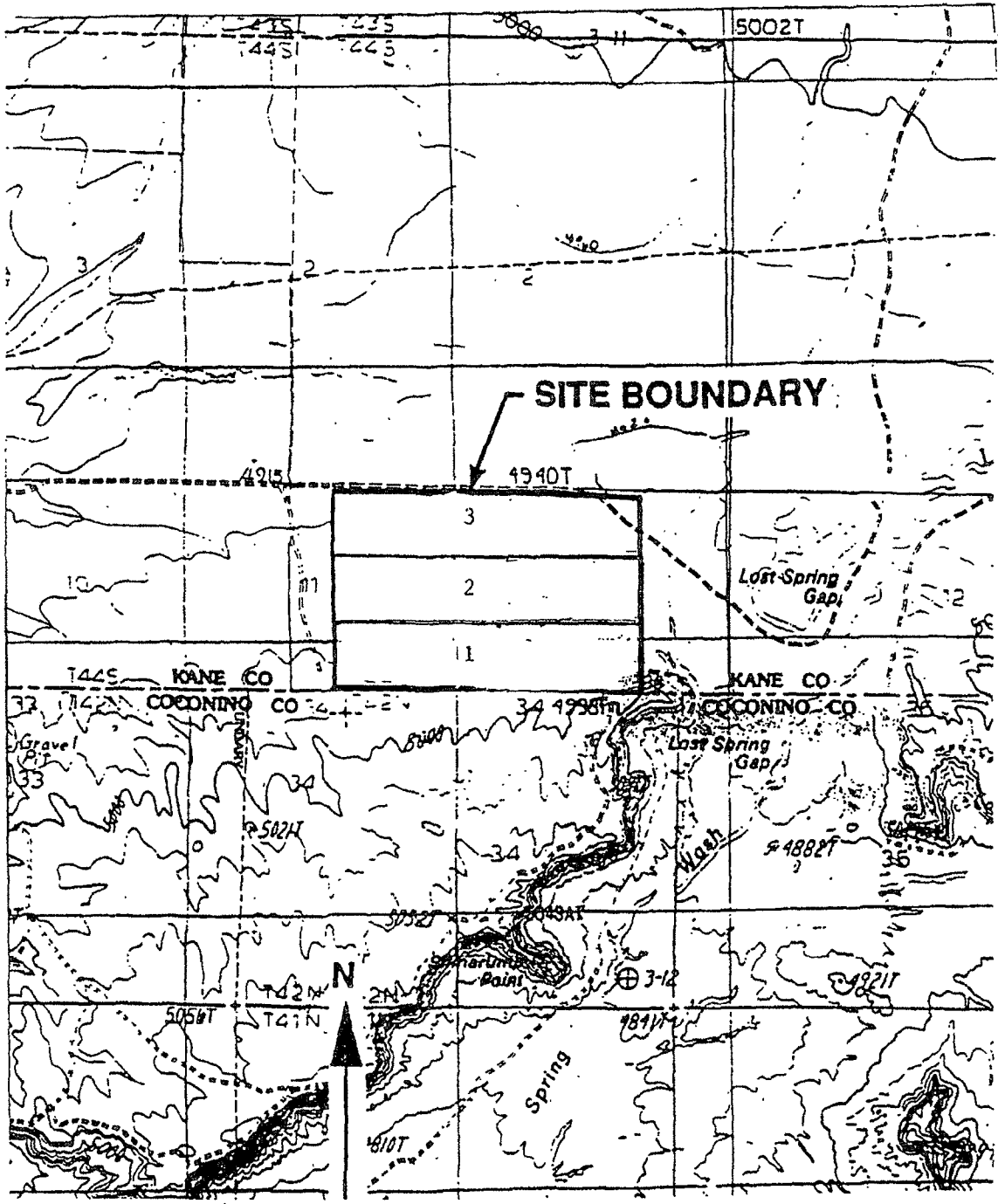
Exhibit 7a. Well and Water Right Documentation

UTAH DIVISION OF WATER RIGHTS
 NWPLAT POINT OF DIVERSION LOCATION PROGRAM

MAP CHAR	WATER RIGHT	QUANTITY		SOURCE DESCRIPTION or WELL INFO			POINT OF DIVERSION DESCRIPTION				U A P T S U P R														
		CFS	AND/OR AC-FT	DIAMETER	DEPTH	YEAR LOG	NORTH	EAST	CNR	SEC	TWN	RNG	B&M	N	P	R	R	R	W	P	D				
0	85 620	.0000	.00	Lost Spring Wash																		X	X	X	
		WATER USE(S): STOCKWATERING			3718 Olive Highway			PRIORITY DATE: 00/00/1864				Oraville			CA 95965										
1	85 140	.0000	.00	Lost Spring Wash																			X	X	X
		WATER USE(S): STOCKWATERING			P.O. Box 627			PRIORITY DATE: 00/00/1864				Kanab			UT 84741										
2	85 140	.0000	.00	Lost Spring Wash																			X	X	X
		WATER USE(S): STOCKWATERING			P.O. Box 627			PRIORITY DATE: 00/00/1864				Kanab			UT 84741										
3	85 141	.0000	.00	Unnamed trib. to Lost Spring W																			X	X	X
		WATER USE(S):			P.O. Box 627			PRIORITY DATE: 00/00/1864				Kanab			UT 84741										

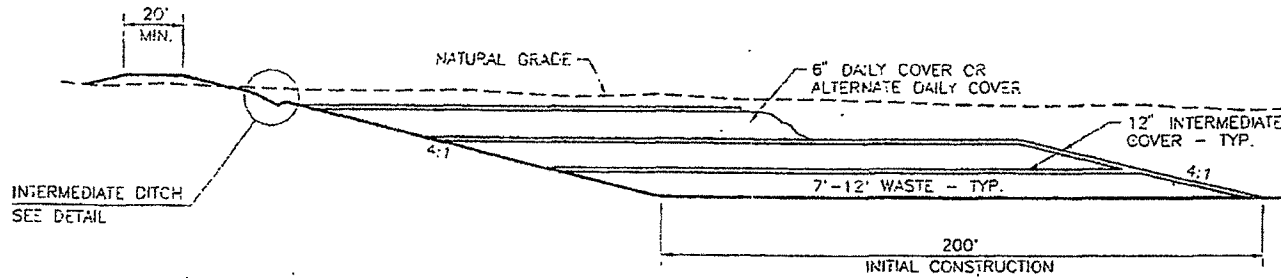
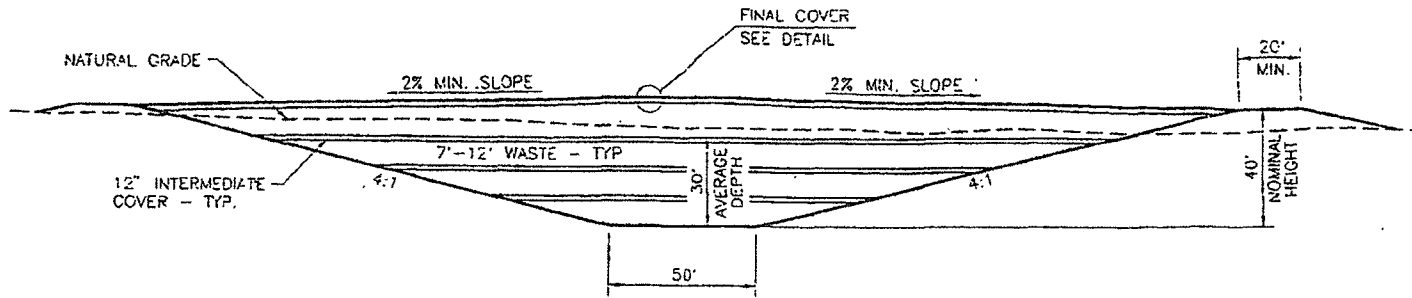
KANAB SANITARY LANDFILL

Exhibit 7b. Well and Water Right Documentation



KANAB SANITARY LANDFILL

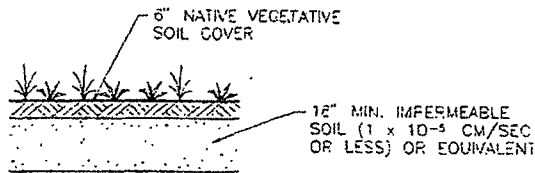
Exhibit 8. Proposed Cell Progression



Brian B. Brenner

NOTES.

1. ALL SIDE SLOPES 4:1 OR FLATTER
2. INITIAL CELL BOTTOM DIMENSIONS 50' x 200'
3. STOCKPILE SUITABLE MATERIAL FOR FINAL COVER DURING EXCAVATION
4. STOCKPILE TOP 6" OF NATIVE MATERIAL FOR LATER TOPSOIL USE



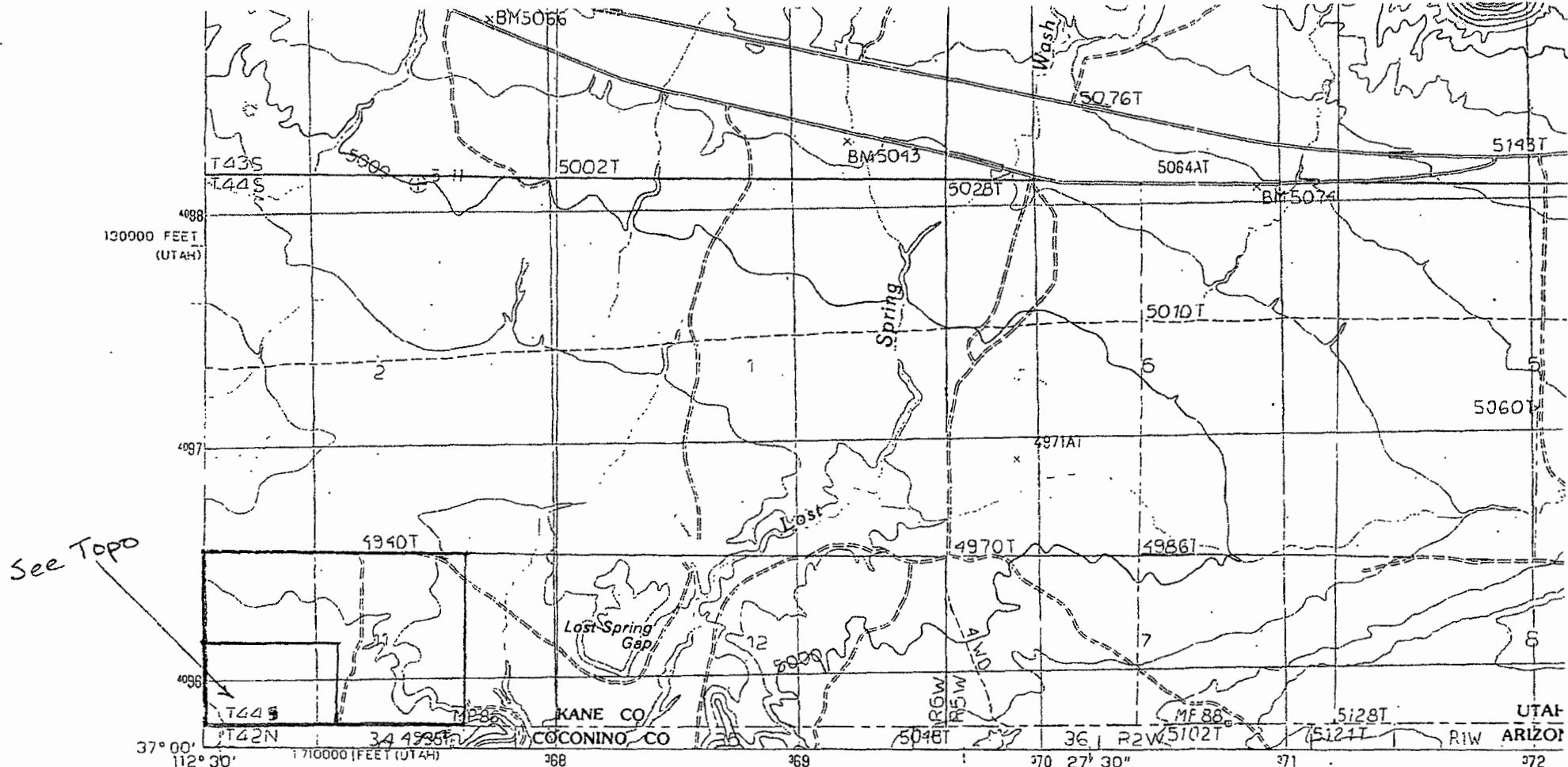
INTERMEDIATE DITCH DETAIL

FINAL COVER DETAIL

KANAB SANITARY LANDFILL
CONCEPTUAL DESIGN

EXHIBIT 9

DESIGNED	CHECKED	DRAWN
BB		CJC
DATE	DRAWING NO.	
	...	
SCALE	SHEET NO.	
NONE	1 OF 1	

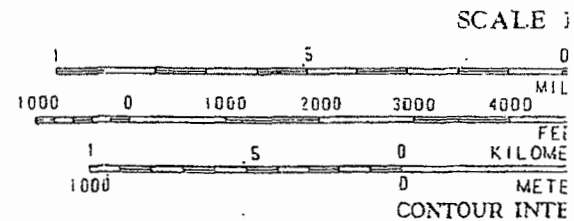
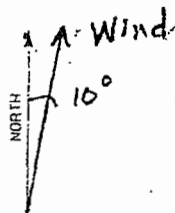


PRODUCED BY THE UNITED STATES GEOLOGICAL SURVEY
 CONTROL BY USGS, NOS/NOAA
 COMPILED FROM AERIAL PHOTOGRAPHS TAKEN 1983
 FIELD CHECKED 1985 MAP EDITED 1987
 PROJECTION LAMBERT CONFORMAL CONIC
 GRID: 1000-METER UNIVERSAL TRANSVERSE MERCATOR ZONE 12
 10,000-FOOT STATE GRID TICKS UTAH, SOUTH ZONE
 ARIZONA, CENTRAL ZONE

UTM GRID DECLINATION 0° 52' WEST
 1987 MAGNETIC NORTH DECLINATION 13° 30' EAST
 VERTICAL DATUM NATIONAL GEODETIC VERTICAL DATUM OF 1929
 HORIZONTAL DATUM 1927 NORTH AMERICAN DATUM

To place on the predicted North American Datum of 1983,
 move the projection lines as shown by dashed corner ticks
 (6 meters north and 67 meters east)

There may be private inholdings within the boundaries of any
 Federal and State Reservations shown on this map
 Where omitted, land lines have not been established
 No distinction made between houses, barns, and other buildings
 All marginal data and lettering generated and positioned by
 automated type placement procedures



PROVISIONAL MAP
 Produced from original
 manuscript drawings. Informa-
 tion shown as of date of
 photography. 1

THIS MAP COMPLIES WITH NATIONAL
 FOR SALE BY U.S. GEOLOGICAL SURVEY
 OR RESTON, VA



Western Kane County Special Service District No. 1
Solid Waste Fund
Ratio of Cash to Expenditures
Calendar Year Ended December 31, 2020

Cash and Cash Equivalents		<u>\$ 2,951,021</u>
Operating Expenses	\$ 1,193,313	
Less Depreciation	<u>\$ (299,334)</u>	
Net Cash Expenditures	\$ 893,979	
Equipment Purchases	<u>\$ 542,689</u>	
Total Expenditures		<u>\$ 1,436,668</u>
Ratio of Cash to Expenditures		205.41%

Exhibit 11