State of Utah

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Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Alan Matheson
Executive Director

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

September 28, 2015

Commissioner Stan Wood
Wayne County Special Service District
P.O. Box 189
Loa, UT 84747

RE: Wayne County Long Hollow Class II Landfill Permit

Dear Commissioner Wood:

Enclosed is Permit No. 9416R2 for the Wayne County Long Hollow Class II landfill. A 30-day public comment period regarding renewal of this permit was held from August 20, 2015 to September 21, 2015. No comments were received.

This Permit expires on October 1, 2025. Please note that R315-311-1(4)(a) of the Utah Administrative Code requires an application for renewal 180 days before the expiration date.

Representatives of the Division of Waste Management and Radiation Control or the Central Utah District Health Department will conduct periodic inspections to assess compliance with the conditions of the Permit and the Solid Waste Permitting and Management Rules.

If you have any questions, please call Rob Powers at (801) 536-0255.

Sincerely,

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

STA/RDP/kl

Enclosures: Class II landfill Permit (DSHW-2015-002261)
Permit Attachments (DSHW-2015-002725)

(Over)

DSHW-2015-009955

195 North 1950 West • Salt Lake City, UT
Mailing Address: P.O. Box 144880 • Salt Lake City, UT 84114-4880
Telephone (801) 536-0200 • Fax (801) 536-0222 • T.D.D. (801) 903-3978
www.deq.utah.gov
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c: Bruce Costa, PhD., Health Officer, Central Utah Public Health Dept.
Nathan Selin, Env. Health Director, Central Utah Public Health Dept.
John Chartier, P.E., DEQ District Engineer

DIVISION OF WASTE MANAGEMENT AND RADIATION CONTROL
CLASS II SOLID WASTE PERMIT RENEWAL

WAYNE COUNTY LONG HOLLOW LANDFILL

Pursuant to the provisions of the *Utah Solid and Hazardous Waste Act*, Title 19, Chapter 6, Part 1, Utah Code Annotated (Utah Code Ann.) (the Act) and the *Utah Solid Waste Permitting and Management Rules*, Utah Administrative Code R315-301 through 320 adopted thereunder, a Permit is issued to

Wayne County as owner and operator

to own, construct and operate the Long-Hollow Class II Landfill located in the northwest 1/4 section of Section 22, Township 28 south, Range 2 east, Salt Lake Base and Meridian, Wayne County, Utah as shown in the Permit Renewal Application that was determined complete on July 14, 2015,(DSHW-2015-006846).

The Permittee is subject to the requirements of R315-301 through 320 of the Utah Administrative Code and the requirements set forth herein.

All references to R315-301 through 320 of the Utah Administrative Code are to regulations that are in effect on the date that this Permit becomes effective.

This Permit shall become effective October 1, 2015.

This Permit shall expire at midnight September 30, 2025.

Closure Cost Revision Date: October 1, 2020.

Signed this 28th day of September, 2015.

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

FACILITY OWNER/OPERATOR INFORMATION

LANDFILL NAME:	Wayne County Long-Hollow Class II Landfill
OWNER NAME:	Wayne County
OWNER ADDRESS:	18 South Main Street P O Box 189 Loa, Utah 84747
OWNER PHONE NO.:	(435) 691-2228
TYPE OF PERMIT:	Class II Landfill
PERMIT NUMBER:	9416R2
LOCATION:	Landfill site is located in Township 28 south, Range 02 east, Sections 21, 22, SLMB; Wayne County, Lat. 38° 21' 57", Long. 111° 41' 17"
PERMIT HISTORY	Permit renewal signed *September 28, 2015.*

The term "Permit" is defined in R315-301-2(55) of the Utah Administrative Code. The term "Director" as used throughout this Permit refers to the Director of the Division of Waste Management and Radiation Control.

Attachments to this Permit are hereby incorporated into this Permit. All representations made in the attachments are incorporated as part of this Permit and are enforceable under R315-301-5 of the Utah Administrative Code. Where differences in wording exist between this Permit and the attachments, the wording of this Permit supersedes that of the attachments.

This Permit consists of the signature page, Facility Owner/Operator Information section, Sections I through V and Attachments.

The facility as described in this Permit consists of a Class II waste disposal cell, a construction and demolition waste cell, a green waste area, a waste tire area, scrap metal area and a dead animal trench.

Compliance with this Permit does not constitute a defense to actions brought under any other local, state or federal laws. This Permit does not exempt the Permittee from obtaining any other local, state or federal permits or approvals required for operation of the landfill.

The issuance of this Permit does not convey any property rights, other than the rights inherent in this Permit, in either real or personal property, or any exclusive privileges other than those inherent in this Permit. This Permit does not authorize any injury to private property or any invasion of

personal rights, or any infringement of federal, state or local laws or regulations, including zoning ordinances.

The provisions of this Permit are severable. If any provision of this Permit is held invalid for any reason, the remaining provisions shall remain in full force and effect. If the application of any provision of this Permit to any circumstance is held invalid, its application to other circumstances shall not be affected.

By this Permit, the Permittee is subject to the following conditions.

I. GENERAL COMPLIANCE RESPONSIBILITIES

A. General Operation

The Permittee shall operate the landfill in accordance with all applicable requirements of R315-301 through 320 of the Utah Administrative Code for a Class II landfill that are in effect as of the date of this Permit unless otherwise noted in this Permit. Any permit noncompliance or noncompliance with any applicable portions of Utah Code Ann. § 19-6-101 through -125 and applicable portions of R315-301 through 320 of the Utah Administrative Code constitutes a violation of the Permit or applicable statute or rule and is grounds for appropriate enforcement action, permit revocation, modification or denial of a permit renewal application.

B. Acceptable Waste

This Permit is for the disposal of non-hazardous solid waste that include:

1. Municipal solid waste as defined by R315-301-2(47) of the Utah Administrative Code;

2. Commercial waste as defined by R315-301-2(14) of the Utah Administrative Code;

3. Industrial waste as defined by R315-301-2(35) of the Utah Administrative Code;

4. Construction/demolition waste as defined by 19-6-102(4), Utah Code Annotated and R315-301-2(17) of the Utah Administrative Code;

5. Special waste as allowed by R315-315 of the Utah Administrative Code and authorized in Section III-I of this Permit; and

6. Conditionally exempt small quantity generator hazardous waste as specified in R315-303-4(7)(a)(i)(B) of the Utah Administrative Code.

C. Prohibited Waste

1. Hazardous waste as defined by R315-1 and R315-2 of the Utah Administrative Code except as authorized by Permit Condition I.B.6 (Acceptable Waste);

2. Containers larger than household size (five gallons) holding any liquid, non-containerized material containing free liquids, or any waste containing free liquids in containers larger than five gallons; and

3. PCBs as defined by R315-301-2(53) of the Utah Administrative Code, except as authorized by in Section I.B (Acceptable Waste) of this Permit.

Any prohibited waste received and accepted for treatment, storage or disposal at the facility shall constitute a violation of this Permit, of Utah Code Ann. § 19-6-101 through 125 and of R315-301 through 320 of the Utah Administrative Code.

D. Inspections and Inspection Access

The Permittee shall allow the Director of the Division of Waste Management and Radiation Control or an authorized representative of the Director or representatives from the Central Utah Health Department to enter at reasonable times and:

1. Inspect the landfill or other premises, practices or operations regulated or required under the terms and conditions of this Permit or R315-301 through 320 of the Utah Administrative Code;

2. Have access to and copy any records required to be kept under the terms and conditions of this Permit or R315-301 through 320 of the Utah Administrative Code;

3. Inspect any loads of waste, treatment facilities or processes, pollution management facilities or processes, or control facilities or processes required under this Permit or regulated under R315-301 through 320 of the Utah Administrative Code; and

4. Create a record of any inspection by photographic, video, electronic, or any other reasonable means.

E. Noncompliance

If monitoring, inspection or testing indicates that any permit condition or any applicable rule under R315-301 through 320 of the Utah Administrative Code may be or is being violated, the Permittee shall promptly make corrections to the operation or other activities to bring the facility into compliance with all permit conditions or rules.

In the event of noncompliance with any permit condition or violation of an applicable rule, the Permittee shall promptly take any action reasonably necessary to correct the noncompliance or violation and mitigate any risk to the human health or the environment. Actions may include eliminating the activity causing the noncompliance or violation and containment of any waste or contamination using barriers or access restrictions, placing of warning signs or permanently closing areas of the facility.

The Permittee shall:

1. Document the noncompliance or violation in the daily operating record, including the day the event occurred or the day it was discovered;

2. Notify the Director by telephone within 24 hours or the next business day following documentation of the event; and

3. Submit to the Director within 30 days a written report describing the nature and extent of the noncompliance or violation and the remedial measures implemented to protect human health and the environment and to eliminate the noncompliance or violation.

Upon receipt and review of the assessment report, the Director may order the Permittee to perform appropriate remedial measures including development of a site remediation plan for approval by the Director.

In an enforcement action, the Permittee may not claim as a defense that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with R315-301 through 320 of the Utah Administrative Code and this Permit.

F. Revocation

This Permit may be revoked if the Permittee fails to comply with any condition of the Permit. The Director will notify the Permittee in writing prior to any proposed revocation and such action shall be subject to all applicable hearing procedures established under R305-7 of the Utah Administrative Code and the Utah Administrative Procedures Act.

G. Attachment Incorporation

Attachments to this Permit are incorporated by reference into this Permit and are enforceable conditions of this Permit, as are documents incorporated by reference into the attachments. Language in this Permit supersedes any conflicting language in the attachments or documents incorporated into the attachments.

II. DESIGN AND CONSTRUCTION

A. Design and Construction

The Permittee shall construct any landfill cell, sub-cell, run-on diversion system, runoff containment system, waste treatment facility, leachate handling system or final cover in accordance with the design submitted in accordance with the R315-301 through 320 of the Utah Administrative Code and Attachment 1.

The Permittee shall notify the Director upon completion of construction of any landfill cell, sub-cell, engineered control system or any feature where Director approval is required. No landfill cell or engineered control system may be used until as-built documents are submitted and construction is approved by the Director.

The Permittee shall notify the Director of any proposed incremental closure, placement of any part of the final cover or placement of the full final cover and shall be accompanied by a Construction Quality Control and Construction Quality Assurance (CQC/CQA) Plan.

A qualified party, independent of the owner and the construction contractor, shall perform the quality assurance function on cover components and other testing as required by the approved CQC/CQA Plan. The results shall be submitted as part of the as-built drawings to the Director.

All engineering drawings submitted to the Director shall be stamped and approved by a professional engineer with a current registration in Utah.

B. Run-On and Run-Off Control

The Permittee shall construct drainage channels and diversions as specified in Attachment 1 and shall maintain them at all times to effectively prevent runoff from the surrounding area from entering the landfill.

C. Alternative Design

This facility has demonstrated through geologic, hydrogeologic, climatic, waste stream and other factors that the landfill will not contaminate ground water and is approved for the alternative design as outlined in the Geohydrological Assessment in Attachment 2. Any contamination of ground water resulting from operation of the landfill may result in the revocation of this alternative design approval.

III. LANDFILL OPERATION

A. Operations Plan

The Permittee shall keep the Operations Plan included in Attachment 3 on site at the landfill or at the location designated in Section III.H of this Permit. The Permittee shall operate the landfill in accordance with the Operations Plan. If necessary, the Permittee may modify the Operations Plan, provided that the modification meets all of the requirements of R315-301 through 320 of the Utah Administrative Code and is as protective of human health and the environment as the Operations Plan approved as part of this Permit. Any modification must be approved by the Director as a minor modification under R315-311-2(1)(a)(xiii) of the Utah Administrative Code. The Permittee shall note any modification to the Operations Plan in the daily operating record.

B. Security

The Permittee shall operate the landfill so that unauthorized entry to the facility is restricted. The Permittee shall:

1. Lock all facility gates and other access routes during the time the landfill is closed.

2. Have at least one person employed by the Permittee at the landfill during all hours that the landfill is open.

3. Construct all fencing and any other access controls as shown in Attachment 1 to prevent access by persons or livestock by other routes.

C. Training

The Permittee shall provide training for all on-site personnel in landfill operation, including waste load inspection, hazardous waste identification and personal safety and protection.

D. Burning of Waste

Intentional burning of solid waste is prohibited and is a violation of R315-303-4(2)(b) of the Utah Administrative Code. Burning of material is allowed in a segregated area within the landfill site when the burning meets the requirements of R307-202-5 of the Utah Administrative Code. The Permittee shall extinguish all accidental fires as soon as reasonably possible.

E. Daily Cover

The solid waste received at the landfill shall be completely covered at the end of each working day with a minimum of six inches of earthen material. Waste in the construction/demolition cell shall be covered with a minimum of six inches of earthen material no less than quarterly to prevent fires and to control vectors, blowing litter, odor, scavenging and fugitive dust. At the end of each day of operation, the amount of cover placed shall be recorded in the operating record and certified by the operator.

An alternative daily cover material may be used when the material and operation meets the requirements of R315-303-4(4)(b) through (e) of the Utah Administrative Code.

F. Ground Water Monitoring

This facility is not required to monitor ground water in accordance with R315-303-3(3)(e)(iv) of the Utah Administrative Code.

G. Gas Monitoring

If the concentrations of explosive gases at any of the facility structures, at the property boundary or beyond the property boundary ever exceed the standards set in R315-303-2(2)(a) of the Utah Administrative Code, the Permittee shall:

1. Immediately take all necessary steps to ensure protection of human health and notify the Director;

2. Within seven days of detection, record in the daily operating record the explosive gas levels detected and a description of the immediate steps taken to protect human health;

3. Develop a remediation plan that meets the requirements of R315-303-3(5)(b) of the Utah Administrative Code; and

4. Submit the plan to, and receive approval from, the Director prior to implementation.

H. Waste Inspections

The Permittee shall visually inspect incoming waste loads to verify that no wastes other than those allowed by this permit are disposed in the landfill. The Permittee shall conduct a complete waste inspection at a minimum frequency of 1% of incoming loads, but no less than one complete inspection per day. The Permittee shall select the loads to be inspected on a random basis.

The Permittee shall inspect all loads suspected or known to have one or more containers capable of holding more than five gallons of liquid to ensure that each container is empty.

The Permittee shall inspect all loads that the Permittee suspects may contain a waste not allowed for disposal at the landfill.

The Permittee shall conduct complete random inspections as follows:

1. The Permittee shall conduct the random waste inspection at the working face or an area designated by the Permittee.

2. The Permittee shall direct that loads subjected to complete inspection be unloaded at the designated area;

3. Loads shall be spread by equipment or by hand tools;

4. Personnel trained in hazardous waste recognition and recognition of other unacceptable waste shall conduct a visual inspection of the waste; and

5. The personnel conducting the inspection shall record the results of the inspection on a waste inspection form in Attachment 4. The Permittee shall place the form in the daily operating record at the end of the operating day.

6. The Permittee shall properly dispose of any waste found that is not acceptable at the facility at an approved disposal site for the waste type and handle the waste according to the rules covering the waste type.

I. Disposal of Special Wastes

The Permittee may dispose of animal carcasses at the landfill working face and shall cover them with other solid waste or earth by the end of the operating day on which the carcasses are received. Alternatively, the Permittee may dispose of animal carcasses in a special trench or pit prepared for the acceptance of dead animals. If a special trench is used, the Permittee shall cover animals placed in the trench with six inches of earth at the end of each operating day.

The Landfill shall only accept non-friable asbestos waste for disposal. The Permittee shall handle and dispose of non-friable asbestos waste in accordance with R315-315-2 of the Utah Administrative Code and Attachment 3.

J. Self Inspections

The Permittee shall inspect the facility to prevent malfunctions and deterioration, operator errors and discharges that may cause or lead to the release of wastes or contaminated materials to the environment or create a threat to human health or the

environment. The Permittee shall complete these general inspections no less than quarterly and shall cover the following areas: waste placement, compaction, cover, fences and access controls, roads, run-on/run-off controls, litter controls and records. The Permittee shall record the inspections in the daily operating record on the day of the inspection. The Permittee shall correct the problems identified in the inspections in a timely manner and document the corrective actions in the daily operating record in Attachment 5.

K. Recordkeeping

The Permittee shall maintain and keep on file at the scale house, a daily operating record and other general records of landfill operation as required by R315-302-2(3) of the Utah Administrative Code and Attachment 5. The landfill operator, or other designated personnel, shall date and sign the daily operating record at the end of each operating day. The daily operating record shall consist of the following two types of documents:

1. Records related to the daily landfill operation or periodic events including:

    a. The number of loads of waste and the weights or estimates of weights or volume of waste received each day of operation and recorded at the end of each operating day;

    b. Major deviations from the approved Operations Plan, recorded at the end of the operating day the deviation occurred;

    c. Results of monitoring required by this Permit, recorded in the daily operating record on the day of the event or the day the information is received;

    d. Records of all inspections conducted by the Permittee, including the results of the inspections, and any corrective actions required and taken recorded in the record on the day of the event.

2. Records of a general nature including:

    a. A copy of this Permit, including all attachments;

    b. Results of inspections conducted by representatives of the Director and representatives of the local Health Department, when forwarded to the Permittee;

    c. Closure and Post-closure care plans; and

    d. Records of employee training.

L. Reporting

The Permittee shall prepare and submit to the Director an Annual Report as required by R315-302-2(4) of the Utah Administrative Code. The Annual Report shall include the period covered by the report, the annual quantity of waste received, an annual update of the financial assurance mechanism, a re-application for approval of the financial assurance mechanism, the results of gas monitoring and all training programs completed.

M. Roads

The Permittee shall improve and maintain all access roads within the landfill boundary that are used for transporting waste to the landfill for disposal as necessary to assure safe and reliable all-weather access to the disposal area.

N. Litter Control

Litter resulting from all operations of the landfill shall be minimized. The Permittee shall implement the following procedures when high wind conditions are present in addition to the litter control plans found in Attachment 3:

1. Reduce the size of the tipping face;

2. Reduce the number of vehicles allowed to discharge at the tipping face at one time;

3. Orient vehicles to reduce wind effects on unloading and waste compaction;

4. Reconfigure tipping face to reduce wind effect;

5. Use portable and permanent wind fencing as needed; and

6. Should high winds present a situation in which the windblown litter cannot be controlled, cease operations of the landfill until the winds diminish.

IV. CLOSURE REQUIREMENTS

A. Closure

The Permittee shall install final cover on the landfill as shown in the Attachment 6. The final cover shall meet, at a minimum, the standard design for closure as specified in the R315-303-3(4) of the Utah Administrative Code plus sufficient cover soil or equivalent material to protect the low permeability layer from the effects of frost, desiccation and root penetration. The Permittee shall submit to the Director a quality assurance plan for construction of the final landfill cover and

approval of the plan shall be received from the Director prior to construction of any part of the final cover at the landfill. A qualified person not affiliated with the Permittee or the construction contractor shall perform permeability testing on the re-compacted clay placed as part of the final cover.

B. Title Recording

The Permittee shall meet the requirements of R315-302-2(6) of the Utah Administrative Code by recording a notice with the Wayne County Recorder as part of the record of title that the property has been used as a landfill. The notice shall include waste disposal locations and types of waste disposed. The Permittee shall provide the Director with the recorded notice.

C. Post-Closure Care

The Permittee shall perform post-closure care at the closed landfill in accordance with the Post-Closure Care Plan contained in Attachment 6. Post-closure care shall continue until all waste disposal sites at the landfill have stabilized and the Director has authorized the owner or operator to discontinue a portion or all of the monitoring and maintenance activities as required in R315-302-3(7)(c) of the Utah Administrative Code.

D. Financial Assurance

The Permittee shall keep in effect and active the currently approved financial assurance mechanism or another mechanism that meets the requirements of R315-309 of the Utah Administrative Code and is approved by the Director to cover the costs of closure and post-closure care at the landfill. The Permittee shall adequately fund and maintain the financial assurance mechanism(s) to provide for the cost of closure and post-closure until termination of financial assurance in accordance with R315-309-11 of the Utah Administrative Code.

E. Financial Assurance Annual Update

The Permittee shall submit an annual revision of closure and post-closure costs for inflation and financial assurance to the Director as part of the annual report as required by R315-309-2(2) of the Utah Administrative Code.

F. Closure Cost and Post-Closure Cost Revision

The Permittee shall submit a complete revision of the closure and post-closure cost estimates by the Closure Cost Revision Date listed on the signature page of this Permit and any time the facility is expanded, any time a new cell is constructed or any time an existing cell is expanded.

V. ADMINISTRATIVE REQUIREMENTS

A. Permit Modification

Modifications to this Permit may be made upon application by the Permittee or by the Director. The Permittee shall be given written notice of any permit modification initiated by the Director.

B. Permit Transfer

This Permit may be transferred to a new permittee in accordance with R315-310-11 of the Utah Administrative Code.

C. Expansion

This Permit is for a Class II Landfill. The permitted landfill shall operate according to the design and Operations Plan described and explained in this Permit. Any expansion of the current footprint but within the property boundaries designated in Attachment 1 shall require submittal of plans and specifications to the Director. The plans and specifications shall be approved by the Director prior to construction.

Any expansion of the landfill facility beyond the property boundaries designated in the description contained in Attachment 1 shall require submittal of a permit application in accordance with R315-310 of the Utah Administrative Code.

Any addition to the acceptable wastes described in Section I.B shall require submittal of all necessary information to the Director and the approval of the Director.

D. Expiration

If the Permittee desires to continue operating this landfill after the expiration date of this Permit, the Permittee shall submit an application for permit renewal at least six months prior to the expiration date, as shown on the signature (cover) page of this Permit. If the Permittee submits a timely permit renewal application and the permit renewal is not complete by the expiration date, this Permit shall continue in force until renewal is completed or denied.

Attachments

1. Landfill Design and Construction Plans.
2. Geohydrologic Report.
3. Operations Plan;
4. Waste Inspections,
5. Daily Operating Log,
6. Closure and Post-Closure Plan,
7. Financial Assurance Mechanism,

Attachment 1
Landfill Design

Exhibit 1
Vicinity Topography Map

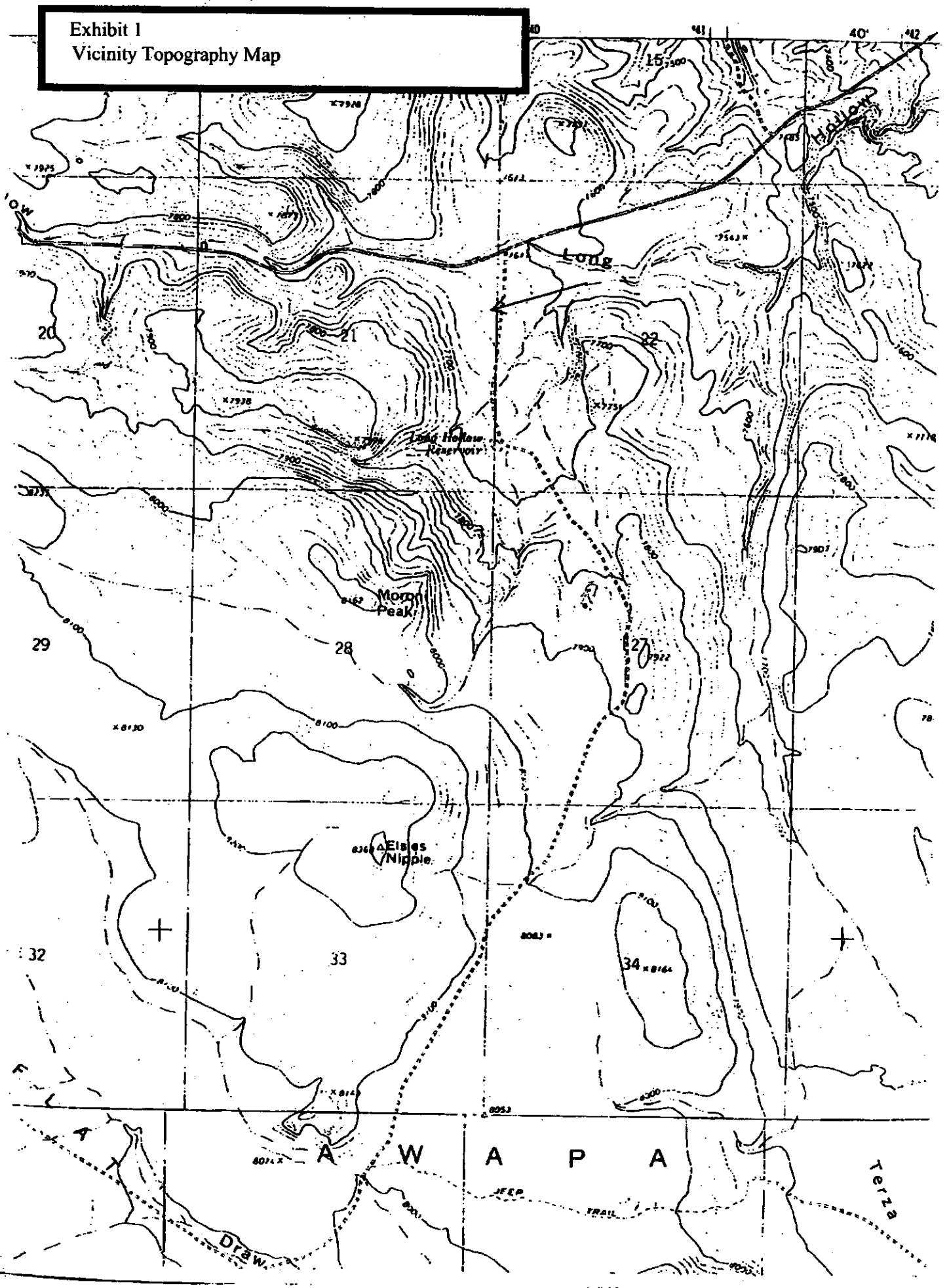
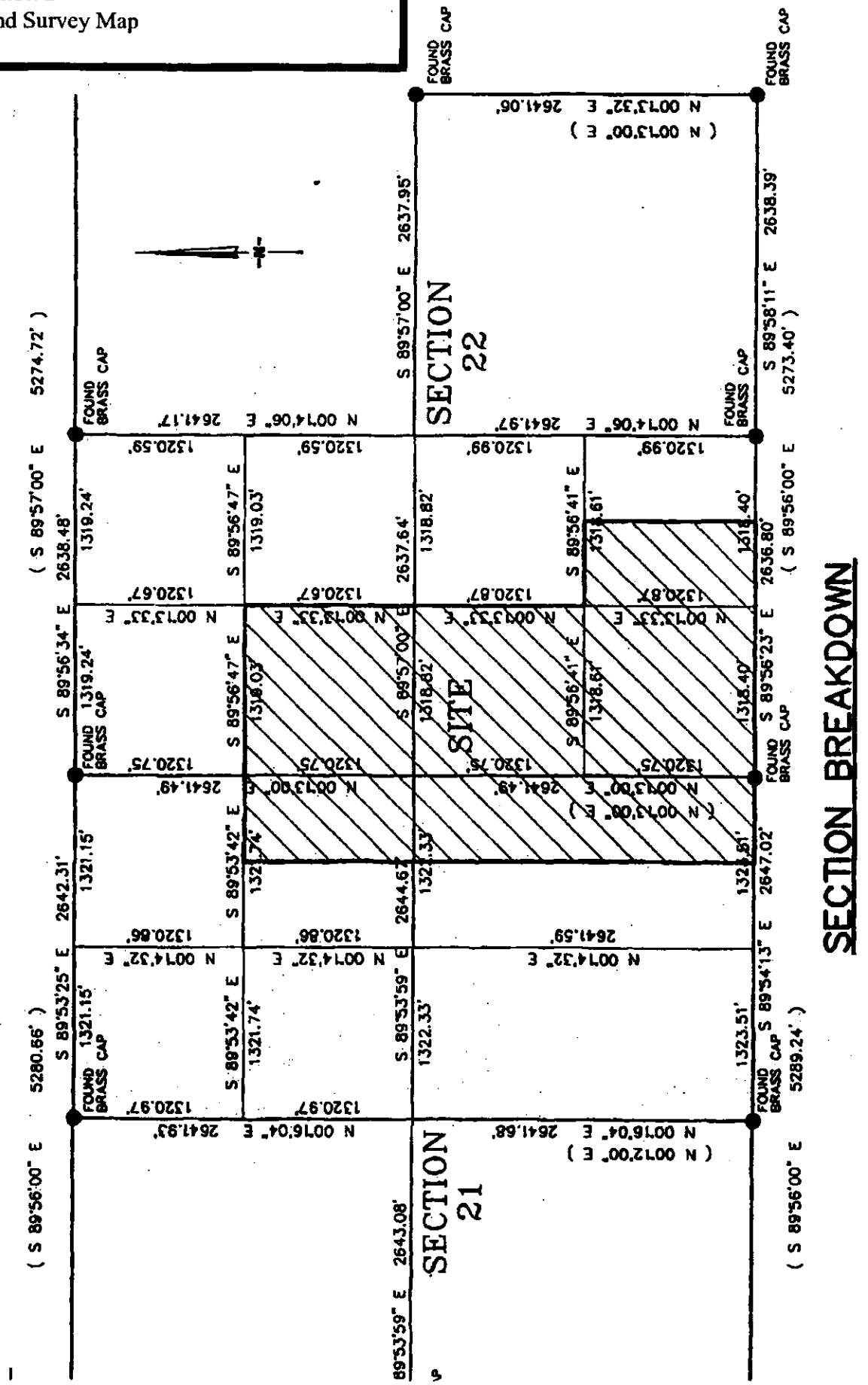


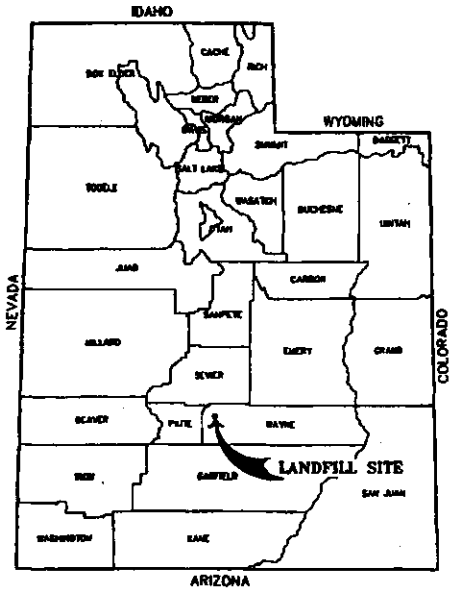
Exhibit 2
Land Survey Map



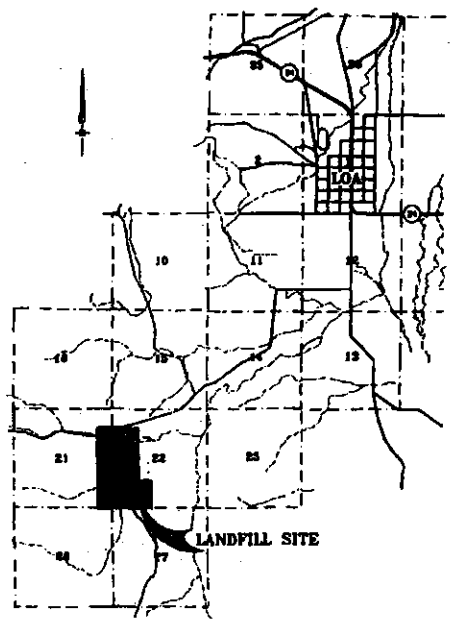
Wayne County Landfill Site

Roads, Drainage & Fencing

2003



LOCATION MAP



INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTIONS & DETAILS
3	CELL CROSS SECTIONS
4	OVERALL SITE PLAN
5	SITE DEVELOPMENT PLAN

APPROVAL

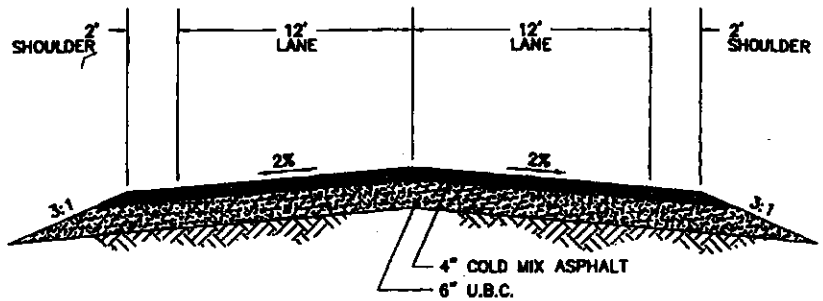
RECOMMENDED FOR APPROVAL:

ENGINEER DATE

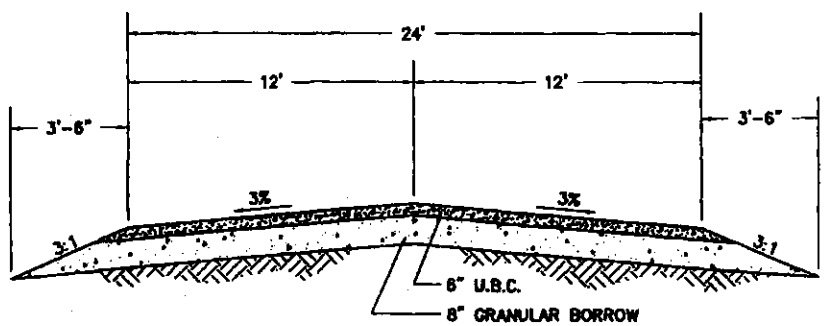
APPROVED:

DATE

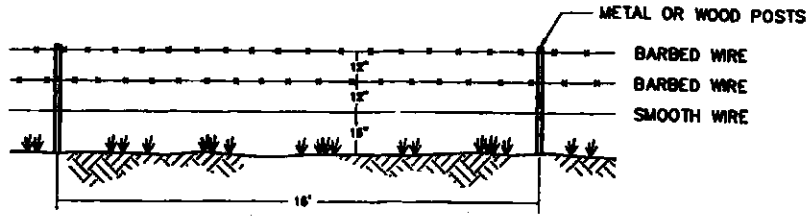
Exhibit 3
Landfill Cover Sheet



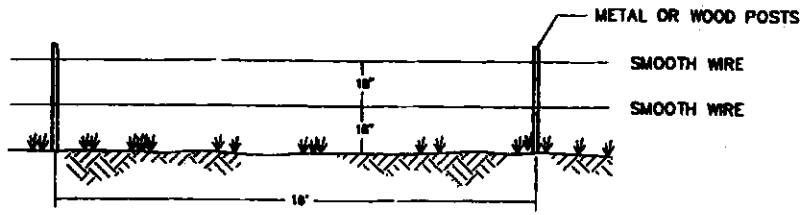
TYPICAL #1
LANDFILL ACCESS ROAD
DESIGN SPEED: 30 mph



TYPICAL #2
LANDFILL ON-SITE ROADWAY



3-STRAND WIRE BIG GAME FENCE



2-STRAND WIRE FENCE

Exhibit 3A
Landfill Typical Sections and Details

WAYNE COUNTY LANDFILL
TYPICAL SECTIONS & DETAILS

ENGINEER	DRAWN	SHEET NO.
T.D.D.	J.L.A.	2
CHECKED K.B.M.	PROJ#: 0303-041 DWG.NM: TYP-SEC	
SCALE AS NOTED	DATE 03/24/2003	

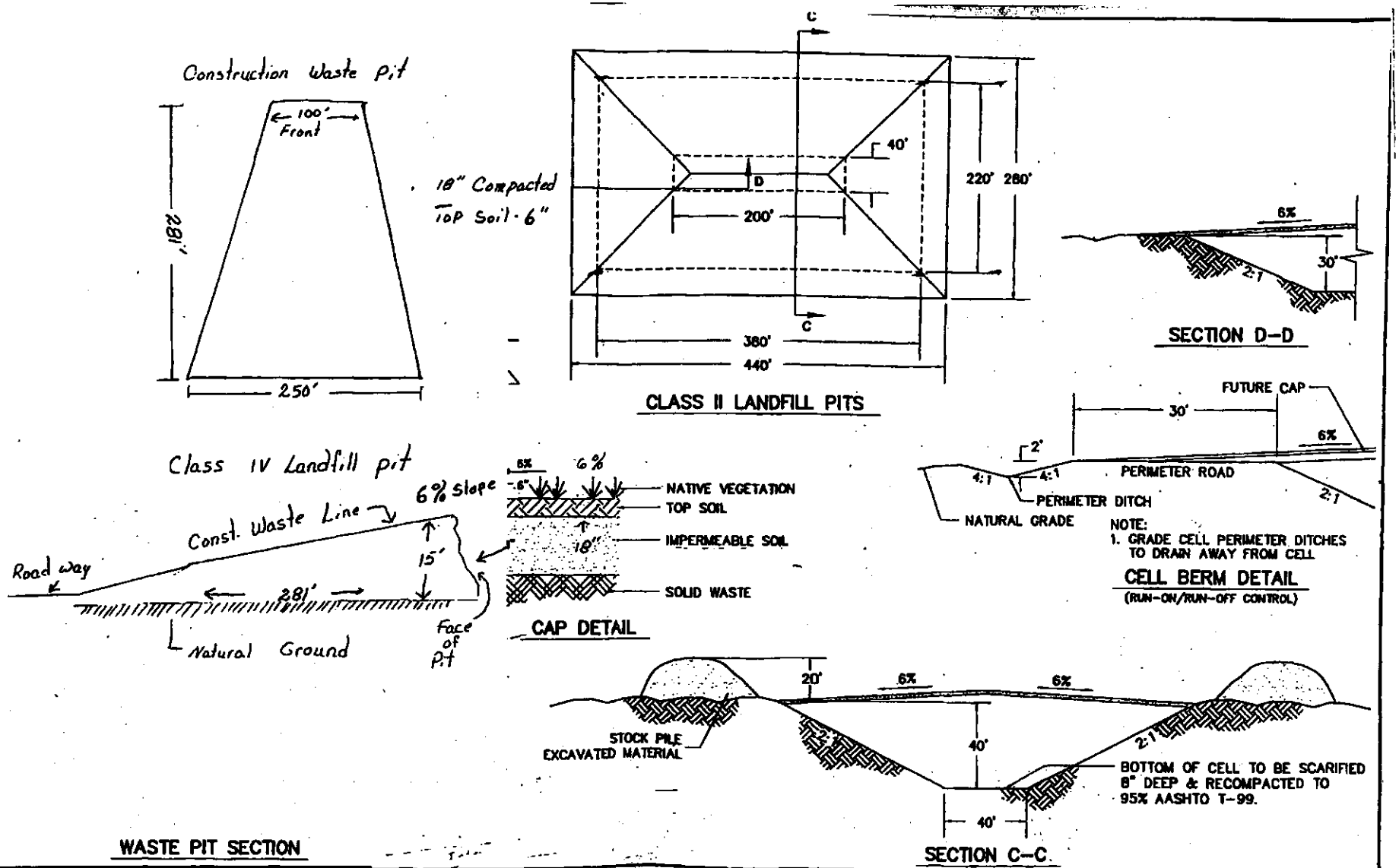


Exhibit 3B
Landfill Cell Cross Sections

WAYNE COUNTY LANDFILL
CELL CROSS SECTIONS

ENGINEER T.D.D.	DRAWN J.L.A.	SHEET NO. 3
CHECKED K.B.M.	PROJ#: 0303-041 SHEL.NM-CELL-SEC	
SCALE AS NOTED	DATE 03/24/2003	

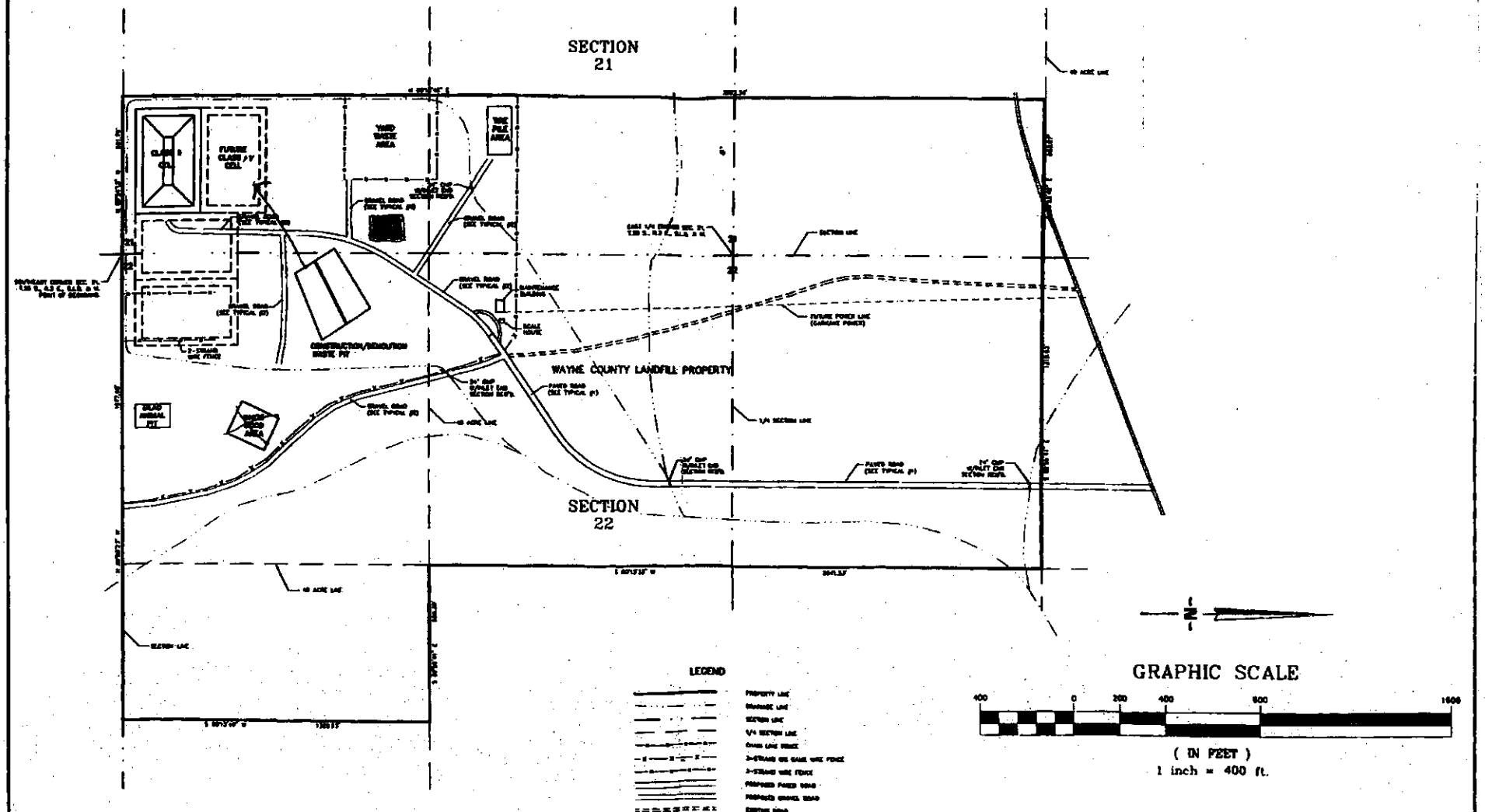


Exhibit 3D
Landfill Overall Site Plan

WAYNE COUNTY LANDFILL
OVERALL SITE PLAN

ENGINEER T.D.D.	DRAWN J.L.A.	SHEET NO. 4
CHECKED K.B.M.	PROJ#: 0303-041 DWG NM: OVERALL	
SCALE 1"=400'	DATE 03/25/2003	

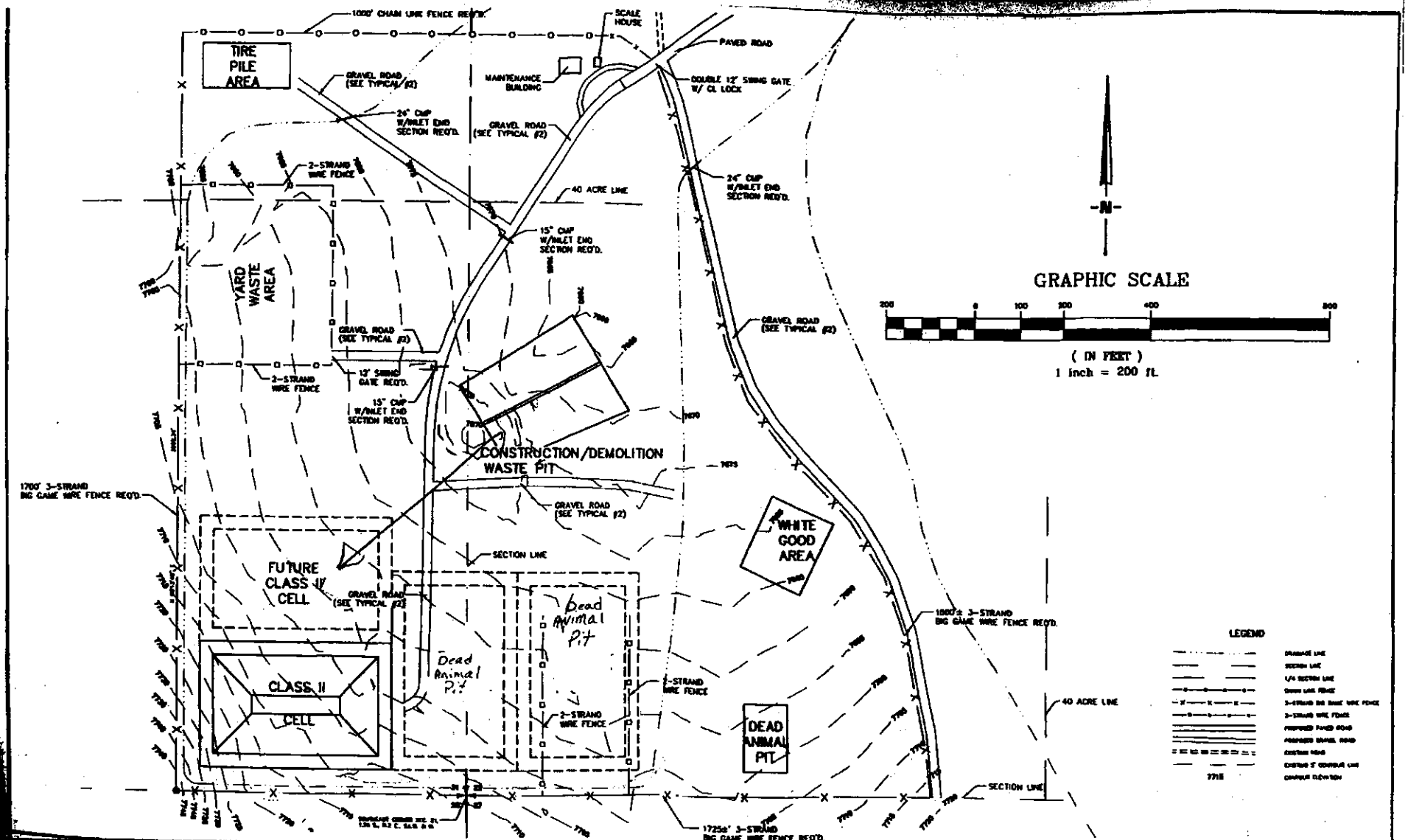


Exhibit 3C
Landfill Site Development Plan

WAYNE COUNTY LANDFILL
SITE DEVELOPEMENT PLAN

ENGINEER T.D.D.	DRAWN J.L.A.	SHEET NO. 5
CHECKED K.B.M.	PROJ#: 0303-041 SHELMA SITE	
SCALE 1"=200'	DATE 03/25/2003	

Attachment 2
Geohydrological Assessment

will provide the evaportraspiration needed to prevent water from penetrating the ET cover. Even in the winter months (October thru April) with a total average precipitation of 3 inches, and given a minimum soil porosity of 27.0, the depth of moisture penetration is only anticipated to reach 12 inches. This calculation is conservative as no run off has been considered. A minimum of the top 6 inches of this native soil must be capable of supporting vegetative growth and cover the entire landfill. If it is determined that native vegetation is not establishing on its own and a seed mix of drought tolerant species should be introduced.

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 also be corrected and appropriate measures will be implemented to identify and eliminate the source. Groundwater monitoring, leachate collection, and gas collection have not proposed for the Long Hollow Sanitary Landfill. Therefore, closure and post-closure activities associated with these functions will not be performed.

IV. GEOHYDROLOGICAL ASSESSMENT

I. GEOLOGY

The Long Hollow Landfill is situated in the high desert which makes up much of South Central Utah. The area is characterized by rugged mountains commonly known as the Fish Lake area and deep valleys of the Fremont River Basin. The landfill is located on the interface between the mountains and valleys with the surface made up of flat to rolling slopes of alluvial deposits of variable thickness. The elevation of the landfill is approximately 2,500 meters above sea level. East and down gradient of the landfill is the Fremont Valley near Loa. The valley is approximately 300 feet below the landfill's elevation.

Site specific geology of the landfill indicates the area predominantly covered by interbedded alluvial material. The surface material, characterized by silty sands, ranges in depth from 65 feet to 85 feet, and is slightly resistant to infiltration. Laboratory permeability rates for the material have been determined to be as low 1.91×10^{-6} cm/sec. The surface member is underlain by intermittent silts, sand and clays for a depth of 40 feet to 70 feet. This material overlays a very hard to moderately hard volcanic basalt which onsite drilling indicates is at least 165 feet thick. A detailed description of exploratory drill holes can be found in other sections of this permit application.

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. Onsite investigations demonstrate natural material will stand at slopes steeper than 2:1.

II. HYDROLOGY

The climate in the area is mainly dry, semi-arid, and continental. The seasons are well defined, and there is a fairly wide daily range in temperature. The average length of the growing season at Loa is assumed to be approximately 138 days. In any given year the length of the growing season may vary considerably from the average. Average annual precipitation at Loa is less than 10 inches. The largest amount of precipitation is during the months of July and August and the least during February and March. Data kept by the weather bureau on the velocity of wind near the landfill are not available for the area. It would appear, however, that 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.

III. ONSITE SOIL PROPERTIES

In order to determine onsite soil properties samples were obtained throughout the drilling depth of two exploratory drill holes located adjacent to an existing road which runs through the middle third of the active area of the landfill.

Data from the drill holes and topographic information indicate surface soils within the active area range from 65 feet to 85 feet in depth. Mechanical analysis and visual classification results indicate surface material is comprised of silty sands. Permeability of the material was also examined and found to be less than 2×10^{-5} cm/sec at 95% of maximum laboratory density. Exhibit 8 provides additional data concerning onsite soils.

IV. GROUNDWATER

No groundwater was encountered during previous drilling operations. Two drill holes located within active portions of the landfill were drilled to a depth of 300 feet and 200 feet respectively. Information regarding depth to groundwater, aquifers, directional flow rate, and water quality data is not available. A well located in Section 3, Township 28 South, Range 2 East (more than 2 miles from the facility) indicates groundwater at a depth of more than 300 feet.

V. WELLS AND WATER RIGHTS

Information was gathered from the State Engineer's office to determine quantity, location, and construction of any private and public wells within 2,000 feet of the landfill site. No wells were identified within the surveyed area. An expanded search determined the closest wells to the site are located in Section 3, Township 28 South, Range 2 East, 2 miles from active portions of the landfill. The 300 feet deep wells are separated from the landfill by two major drainages and more than 300 feet of topographic relief. Considering 1) the depth of the wells; 2) their distance from the landfill, and; 3) existing drainage patterns, the wells are considered hydraulically isolated from the landfill.

An examination of surface rights in the area was also conducted by the State Engineer's office. Six surface rights were found within the two sections occupied by the landfill. Each of the water rights is owned by the BLM and permits the withdrawal of water from intermittent streams and washes for stock watering. Exhibit 9 contains the documentation obtained from the State Engineer. Information is not available regarding background and surface water quality assessments in the area.

VI. SURFACE WATERS

No perennial streams, rivers, or permanent surface waters exist within close proximity of the landfill. The closest known surface waters are some flowing wells located approximately 2 miles north of the landfill which have a flow line approximately 300 feet below the final elevation of waste. One intermittent wash, Long Hollow Wash, is located at the Northern boundary of the landfill. The drainage flows only during times of heavy precipitation. It should be noted that the wash is located north of an existing road and is hydraulically isolated from the landfill. 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.

VII. WATER BALANCE

A worst case water balance for the site was performed utilizing the Army Corp of Engineers HELP Model, during the last application period, to assume leachate production. Estimates were developed utilizing temperature and precipitation data obtained from the Loa area and after examining soil properties determined from onsite drilling. Evapotranspiration was generated by the model using mean monthly

temperatures for the area and solarity indices corrected for latitude. Average annual values ranged from 95.6% to 99.5% of precipitation leaving less than 0.3 inches of available water for potential leachate production. In order to insure additional safety factor, onsite soils were given a permeability rate of only 3.1×10^{-3} cm/sec, the life of the cell was extended from 33 years (3 years active life & 30 years post closure) to 50 years (10 years active life & 40 years post closure), and it was assumed that all precipitation falling on the site throughout the 50 year period infiltrated the cover.

Results indicate no leachate was generated in the bottom 10 feet of waste; waste from 10 to 20 feet above the landfill bottom increased in moisture content less than 0.1 % during the 50 year evaluation period. Additional HELP Model simulations indicate more than 110 years are required for leachate to reach the landfill bottom considering the worst case scenario described above. Exhibits 10 and 11A – 11C are summary outputs from the HELP Model Evaluation.

VIII. WATER MONITORING SYSTEM

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 analysis: onsite geologic and hydrologic conditions; water balance and leachate production modeling, and; 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.

Onsite geologic and hydrologic conditions demonstrate a diminimus potential for hazardous constituents reaching groundwater resources. Drilling operations indicate a complete absence of groundwater for a depth of 320 feet. Examination of the closest wells indicates groundwater at elevations 600 feet below the landfill. Permeabilities for the surface material at depths of 20 feet identify laboratory results as low as 1×10^{-6} cm/sec. The permeabilities are for silty sands, and drill logs indicate underlying material to be comprised of intermittent silts, sands and clays with the clays having layers 12 inches to 18 inches thick. These underlying materials are typically more impermeable than the surface material. The intermittent layers of alluvial soils reduce the downward movement of water and dissolved material. Drill holes also indicate consistency, demonstrating a continuous nature of the subsurface material.

In addition to the extreme depth to groundwater and soil conditions which minimize the potential for liquid migration, climatic conditions eliminate the production of significant amounts of leachate. Precipitation is considerably less than 10 inches per year, and potential evapotranspiration exceeds precipitation by more than 500%. 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 diminimus potential for hazardous constituents reaching groundwater resources. The HELP model analysis described above indicates several centuries of 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. The worst case scenario was developed with numerous safety factors including extended open operation, a 40 year post closure period, use of free draining materials instead of impermeable onsite materials, containment of all precipitation to infiltrate the cover, bare ground conditions during a 10 year open period, and uncompacted cover material. In spite of these considerable efforts to create leachate production, results indicate the potential for hazardous constituents reaching the groundwater does not exist. Actual conditions will result in a greater level of confidence and a lower production of leachate than identified by the model.

Operational practices also reduce the amount of water that could possibly come in contact with the waste. Surface waters are diverted by a series of ditches roads and berms designed to protect landfill cells from run on water for storms considerably greater than the 25 year event. Neglecting the exterior ditch, the

perimeter road which serves as a berm or a channel, the interior ditch, and any specific channelizing performed by Wayne County, the perimeter dike alone prevents flow resulting from the 500 year event from entering the landfill. The size and progression of the units result in cells being brought to final elevation and closed in the minimum amount of time possible, reducing the amount of water entering the waste. Contouring operations reduce ponding and promote drainage away from active areas; use of alternate daily covers prevent the infiltration of limited precipitation into the waste. The limited working face requires 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 Executive Secretary is requested to suspend groundwater monitoring requirements in accordance with Subsection R315-303-3(1) of the Solid Waste Rules.

V. CLOSURE PLAN

I. CLOSURE SEASON AND YEAR

Closure operations at the Long Hollow Sanitary Landfill are performed on an ongoing basis. Adequate capacity exists at the landfill to continue operation for many, many years. A final closing date is estimated to be around Fall of 2012 on the existing cell. Ongoing closure operations are generally performed from May through October, the normal frost free construction period, or as weather permits. No area larger than one disposal unit will remain open longer than 6 months after reaching final elevation. For example, the first municipal solid waste disposal cell is 2.78 acres in size.

II. FINAL COVER, SEEDING, CONTOURING

Closure operations will consist of leveling, contouring, placement of 24 inches of appropriate covers and seeding, if necessary, to reduce infiltration and preserve the integrity of the completed areas of the landfill. Areas of the landfill reaching final elevation will be closed within 6 months. 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. Upon completion of the ET cover, 6 inches of native material similar to existing topsoil will be placed. If it is determined that the native vegetation is not establishing a seed mixture shall be developed after consultation with either a BLM or NRCS 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.

III. SITE CAPACITY

Site capacity for the entire Long Hollow Sanitary Landfill is estimated upon the figures in Exhibit 3C. Assuming the initial 20 acre parcel, trench style operation (40 feet bottom width, 2: 1 side slopes, 40 feet depth), five 8 foot lifts of waste with 1.5 foot intermediate cover, and an average density of 900 lbs. per cubic yard, waste volumes are estimated at 486,000 cubic yards or 218,800 tons.

IV. CLOSURE TIMING AND NOTIFICATION

Closure activities at the Long Hollow Sanitary Landfill will be performed on an ongoing basis. The operator shall notify the Executive Secretary of the intent to implement the closure plan in whole or part, 60 days prior to the projected final receipt of waste at the unit or facility. Closure will be initiated within

Attachment 3
Plan of Operations

the service area if an appropriate interlocal agreement or memorandum of understanding has been executed with the governmental solid waste manager where the waste is generated.

II. PLAN OF OPERATION

I. INTRODUCTION

This Plan of Operation has been prepared by Wayne County to reflect the operation of the Long Hollow Landfill in compliance with the Utah Solid Waste Permitting and Management Rules, R31 0-301 through 320 of the UAC. This Plan of Operation is an integral part of the application for a permit to operate a Class II facility as set forth in UAC R315-31 0-4, and is submitted to UDEQ as the solid waste management authority for Wayne County.

The Long Hollow Landfill is owned and operated by Wayne County. County offices are located at 18 South Main, Loa, Utah. The original Plan of Operation shall be retained in the County offices, and a copy of the Plan will be maintained at the landfill. All components of the landfill's operating record will be provided to UDEQ upon request for review. The responsibility for compliance with the Plan shall be that of the Landfill Manager. The plan will be available for review by employees involved in the daily operations of the facility, as well as to other parties and regulatory agencies, as requested.

II. HOURS OF OPERATION

Landfill personnel will be onsite during all hours the facility is open to the public. The schedule for operation of the Long Hollow Landfill is:

April 1st - October 15th
Monday, Wednesday, Friday 2 pm -7 pm
Saturday 1 pm - 5 pm
October 15th - April 1st
Monday, Wednesday, Friday 2 pm - 5 pm
Saturday 2 pm - 5 pm

Collection vehicles enter the landfill when the facility is not open to the public. Waste is not accepted from the public during these periods. The schedule is currently in operation at Wayne County's existing facility and is functioning adequately. Wayne County intends to revise the scheduled operation of the landfill as the need arises and solid waste volumes dictate.

III. SCHEDULE OF CONSTRUCTION

The existing layout and facilities are depicted on Exhibits 3A - 3E.

IV. WASTE HANDLING PROCEDURES

All incoming vehicles are stopped by the landfill attendant at the gate where a landfill employee directs all loads to the appropriate disposal area. Commercial vehicles are weighed before and after discharging waste loads. Private haul vehicle load weights are estimated based on type and volume of waste. The date, time, vehicle owner, and origin of the waste are recorded on the "Weighted on a Fairbanks Scale" form for every incoming load A copy of the form is included as Exhibit 4. A receipt is issued for every incoming load. Daily totals are recorded on the "Daily Operation Record" attached as Exhibit 5.

Commercial and private loads are inspected on a random basis, at a frequency of 1% of all loads, for the presence of prohibited waste. Incoming vehicles are stopped by the attendant at the scale house and

inspected for hazardous materials. A copy of the "Waste Inspection Form" is completed for all accepted and refused loads. A copy of this form is included as Exhibit 6. Inspection records are maintained in the Landfill office.

Landfill signs are positioned to direct incoming traffic to the appropriate disposal areas. Private haulers are directed to discharge their loads in a public discharge area near the base or top of the active face, depending on the configuration of the access road to the disposal area. Commercial haulers dump directly at the active disposal face.

Equipment dedicated to the Long Hollow Sanitary Landfill for waste and soil handling and general site operations are listed below:

- 1991 Kenworth Dump Truck
- 1990 Freightliner
- 1992 Peterbilt Roll-on Truck
- 2005 Sterling Condor Garbage Truck
- 2007 Sterling Condor Garbage Truck
- 816 CAT Compactor
- D8 CAT Dozer
- 544 G John Deere Loader
- 2001 Dodge Ram Pickup Truck
- 2002 Dodge Pickup Truck

Additional heavy equipment is available from the Wayne County Road Department on an as needed basis. Minor vehicle maintenance is performed onsite by landfill personnel. Major repairs are performed either at the County Road Department facilities or by a contractor.

V. HOUSEHOLD & COMMERCIAL WASTE

Most of the waste generated in the County is picked up and hauled to the Landfill by Wayne County Landfill personnel. Incoming waste from commercial and private haulers is discharged at or near the active disposal face. Landfill personnel move discharged loads from the unloading area to the active face. The waste is spread in layers not exceeding two feet in thickness, and compacted using multiple passes of a Caterpillar 816B steel wheeled landfill compactor. Waste is covered daily with six inches of soil. Wind fences are also placed around the working face of the household/commercial waste cell for litter control.

VI. INDUSTRIAL WASTES

The Long Hollow Landfill does not currently accept industrial waste. However, the facility will accept non-hazardous solid waste generated by industrial sources, provided sufficient documentation is submitted to verify the non-hazardous nature of the material.

VII. DEAD ANIMALS

The Long Hollow Landfill accepts dead animals for disposal in a separate monofill within the landfill property. All received dead animals are covered at the end of the working day with a minimum of six inches of soil.

VIII. WHITE GOODS AND SCRAP METAL

White goods and scrap metal are stockpiled in a designated area. A licensed metal recycling service is contracted to remove stockpile no less than once a year. Operating Records contain the date, volume, and tonnage for materials removed from the landfill.

IX. TIRES

Tires are currently stockpiled in a designated area until a sufficient amount is accumulated. At that time, the State of Utah is contacted and arrangements are made for tire pickup through the State funded tire recycling program. Operating Records contain the date, volume, and tonnage for materials removed from the landfill.

X. YARD WASTES

Yard waste is vegetative matter generated from landscaping, lawn maintenance, and land clearing operations and may include tree and brush trimmings, grass clippings, and other discarded material from yards, gardens and parks. Yard waste does not include garbage, paper, plastic, sludge, septage, or manure. Loads containing only stumps, branches, tree clippings, and/or grass clippings are directed to a designated yard waste stockpile. The stockpile is periodically burned after the appropriate permits are obtained from the local fire marshal.

XI. CONSTRUCTION/DEMOLITION WASTES

UAC 315-301-2(16) defines construction/demolition (C&D) waste as waste from building materials, packaging, rubble resulting from construction, remodeling, repair, and demolition operations on pavements, houses, commercial buildings, and other structures. Typical C&D waste includes bricks, concrete or other masonry materials, soil, rock, untreated lumber, rebar, and tree stumps.
Construction waste is deposited in a separate monofill and covered with a minimum of 6" of soil as often as is necessary to reduce the potential for fires and vector harborage.

XII. ASBESTOS WASTES

The Long Hollow Landfill currently accepts only non-friable asbestos for disposal.

XIII. HAZARDOUS/PCB WASTE EXCLUSION PROGRAM

According to UAC R3 1 5-303-4(7), an owner or operator shall not knowingly dispose, treat, store, or handle hazardous waste or waste containing PCSs. The following sections describe load inspection, training, and handling procedures employed at the Long Hollow Landfill. All incoming loads are visually inspected at or near the active disposal area. Private haul vehicles are also inspected at the gate for the presence of prohibited materials. The landfill manager is properly trained and certified to identify regulated hazardous or PCB wastes. Landfill employees are trained by the landfill manager in· proper screening and identification of hazardous and PCB wastes. Loads which are suspected of containing a high liquid content in accordance with these procedures are sent directly to another landfill which can accept hazardous or PCB wastes.

XIV. BULK LIQUIDS

Bulk liquids may not be disposed in the landfill. Loads which are suspected of containing a high liquid content in accordance with these procedures are sent directly to another facility which can accept bulk liquid wastes.

All vehicles containing nonhazardous sludge are directed to the proper disposal area where the waste is slowly spread on the ground for treatment. The driver is instructed to spread waste while driving slowly to prevent pooling of waste and to promote evaporation. The sludge spreading area is identified on the site development drawings on Exhibits 3D & 3E.

XV. TRAINING & SAFETY

The landfill manager, along with one additional employee, has attended the Manager of Landfill Operations training course provided by the Solid Waste Association of North America (SWANA). His training includes the following courses:

- Operational Issues for Landfill Managers
- Manager of Landfill Operations
- Basic First Aid and Safety Training
- Solid Waste Screening
- Training Sanitary Landfill Operating Personnel

The landfill manager is responsible for disseminating his knowledge regarding landfill operations to other landfill employees. All additional employees have been trained on the identification and exclusion of hazardous wastes. Safety procedures conform to OSHA guidelines and all personnel are encouraged to participate in additional landfill management, waste screening, safety, and first aid workshops.

All new employees are required to read the landfill permit application and permit within the first month of employment. Documentation that the application and plan has been read is included in the operating record. Initial training needed to work onsite is provided by the landfill supervisor. Additional training is provided during employment at the landfill.

Communications at the landfill are facilitated by two-way radios in each county vehicle and a cellular telephone in the landfill gatehouse. As a result, communication capabilities are sufficient to enable contact with emergency services to protect the safety of staff and users of the site.

XVI. INSPECTIONS AND MONITORING

Inspection and monitoring at the Long Hollow Sanitary Landfill on incoming material are performed on a random and routine basis to prohibit receipt of unacceptable wastes. Routine waste inspections are made during deposition, spreading, and covering operations to insure protection of the environment and absence of nuisances. When a vehicle enters the scale house, random loads are inspected and directed to a separate area near the working face. After unloading, a landfill operator spreads the load with equipment, and hand inspects the load using rakes and shovels, looking for hazardous and prohibited waste. Operational inspections are made by supervisory landfill personnel. Random inspections are conducted by the scale house operator on at least 1% of all incoming waste loads. Inspection results are recorded on the "Waste Load Inspection Form" included as Exhibit 6.

Compliance inspections are conducted quarterly by the Landfill supervisor to assess the integrity of cover, the condition of side slopes and vegetative cover, and the impacts of erosion. All structures, roads, fences, and gates, etc. are inspected quarterly and documented on the "Quarterly Landfill Inspection Form" which is attached as Exhibit 9. Any conditions that do not meet with the approval of the inspector are noted in writing. It becomes the responsibility of the landfill manager to correct the unsatisfactory conditions. In addition, a detailed annual inspection is conducted to verify compliance with all permit conditions and state and federal regulations. All inspections are kept on file at the Landfill office for review.

XVII. FUGITIVE DUST ABATEMENT

The landfill access road surface is constructed of cold mix asphalt. Internal landfill access roads are constructed of granulated borrow as shown on Exhibit 3B. Fugitive dust generation from internal site roads is minimal. Internal access roads are watered as necessary to prevent excessive generation of fugitive dust.

XVIII. FIRE / EXPLOSION CONTINGENCY PLAN

During construction of the initial cell, an alternate disposal site capable of storing one month's waste was developed. The alternative disposal site is the soil excavation area used to generate daily cover soil. In the event of a fire or an explosion that prohibits deposition of incoming waste in the existing cell, materials received at the landfill are diverted to the alternate storage site and are covered daily with a minimum of six inches of soil. Upon resolution of the unexpected event, the materials are transported to their final disposal destination and treated as incoming waste.

Landfill fires and explosions are difficult to control and require different techniques than many incidents handled by local volunteer fire departments. For this reason fires and/or explosions at the Long Hollow Sanitary Landfill are managed by landfill personnel. However, local fire departments will respond to and provide assistance if requested by the landfill manager. The outline for procedures to follow in case of fire or explosion is:

1. Secure Affected Area
2. Divert Incoming Waste
3. Isolate Fire / Explosion
4. Suppress Incident if Possible
5. Request Additional Assistance if Needed
6. Report & Record Necessary Information

XIX. 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 Long Hollow Sanitary Landfill in the event concentration limits are exceeded in a down gradient compliance monitoring well.

Currently, there are no monitoring wells at the Long Hollow Landfill. However, if the concentrations of parameters in down gradient wells exceed the concentration limits as substantiated by confirmatory analysis, owners and operators of the Long Hollow Sanitary Landfill will implement a corrective action program as outlined in R315-308.

XX. CONTINGENCY PLAN FOR OTHER RELEASES

This section describes corrective actions to be taken by the Long Hollow 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 analysis, owners and operators of the Long Hollow Sanitary Landfill will implement a corrective action program approved by the Executive Secretary.

XXI. EQUIPMENT MAINTENANCE

Active collection systems for leachate and / or explosive gases were not proposed or installed for the Long Hollow Sanitary Landfill. Therefore, no maintenance is required for these items.

Maintenance procedures for the equipment used in day to day operations are performed by landfill employees or contracted mechanics in accordance with manufacturers' recommendations and industry practices.

XXII. RUNON / RUNOFF CONTROL

Wayne County will control the runon and runoff resulting from the 25 year event from contacting solid waste and leaving the landfill. This will be accomplished through a series of best management practices. Each cell is surrounded with berm style stockpiling of excess excavated soil. The berms are approximately 10 feet nominal height and prevent sides for unit 1. The absence of any roads and existing topography South and West of the unit eliminate the possibility of unauthorized vehicular traffic. Fencing in these areas is intended to discourage unauthorized foot traffic. Fencing in areas which are adjacent to the main road are 6 foot chain link. The lockable access gates are provided in these areas.

XXIII. DISEASE VECTOR CONTROL

The primary method for disease vector control at the Long Hollow Landfill is providing appropriate cover at the close of each day's operation. The cover consists of a 6 inch minimum layer of earthen material.

Rodents and other vermin are not permitted to burrow in the active area of the landfill and trapping or extinction methods are implemented to protect the integrity of the disease vector control program.

III. ENGINEERING REPORT

I. SITING CRITERIA

The Long Hollow Sanitary Landfill complies with siting criteria currently mandated by Subtitle D 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 flood plain 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 are mitigated in accordance with State Historic Preservation Officer requirements. The Long Hollow Sanitary Landfill is not located in a dam failure flood area, above an underground mine, above a salt dome or bed, or adjacent to geologic features which could compromise the structural integrity of the facility. Additionally, the Class II disposal cells and the Class IVB disposal cells have no liners, and the leachate collection systems would not be damaged during a seismic event. Any damage on the surface could be easily repaired with onsite equipment.

IL LINER DESIGN

Current volumes of solid waste disposed, as measured by scales serviced by the Long Hollow Landfill, are well below 20 tons per day, and the facility is eligible for small landfill design exemptions. The landfill meets all the requirements of the small landfill exemption as explained in R315-303-3(3)(e) i.e. the average precipitation is less than 25 inches per year, with no evidence of groundwater contamination, and no reasonable alternative. These exemptions include liner design and groundwater monitoring. When

Attachment 4
Waste Inspection Form

Exhibit 6:
Waste Load Inspection Form

WASTE INSPECTION FORM

WAYNE COUNTY LANDFILL
SOLID WASTE DISPOSAL SITE
WASTE INSPECTION FORM

Date_____ Time_____ Truck_____

Hauler_____ License Plate # _____

Source of Waste (Generator) _____

Type of Waste _____

Driver's Name_____ Driver's Signature _____

Type of recyclable material found in load:

Cardboard	❒	Plastics	❒	Newsprint	❒
Metal	❒	Boxboard	❒	Glass	❒
Office Paper	❒	Other	❒		

Is there hazardous waste, dangerous goods or other prohibited waste in the load?

❒ No - no further action, sign form ❒ Yes - record type of waste

Type of hazardous waste prohibited materials found in load:

Propane Cylinders	❒	Oil	❒	Other	❒
Automotive Batteries	❒	Paint Cans	❒	Other	❒

Description of Waste _____
_____
_____

Actions Taken _____
_____
_____

Inspector's Signature _____ Date _____

Any waste suspected to be a regulated hazardous waste will be reported to the Red Deer Regional Health Unit and the Alberta Environment Protection's Pollution Control Division.

Attachment 5
Daily Operating Record

Exhibit 5

Daily Operating Record

WAYNE COUNTY LONG HOLLOW LANDFILL

Daily Operating Record: Date: _____ Operator: _____

Waste Origin			Total Weight	Total Volume	Waste Type	Total Weight	Total Volume	Total Loads	No Waste Inspection
Loa, Fremont	County Truck				Household				
	No Large Trucks				Construction Debris				
	No Pickups				Yard Waste				
	No Cars				Dead Animals				
					Tires				
					Metals				
Bicknell, Lyman	County Truck				Household				
	No Large Trucks				Construction Debris				
	No Pickups				Yard Waste				
	No Cars				Dead Animals				
					Tires				
					Metals				
Teasdale, Torrey	County Truck				Household				
	No Large Trucks				Construction Debris				
	No Pickups				Yard Waste				
	No Cars				Dead Animals				
					Tires				
					Metals				
Caineville, Haksville	County Truck				Household				
	No Large Trucks				Construction Debris				
	No Pickups				Yard Waste				
	No Cars				Dead Animals				
					Tires				
					Metals				
Capitol Reef National Park	County Truck				Household				
	No Large Trucks				Construction Debris				
	No Pickups				Yard Waste				
	No Cars				Dead Animals				
					Tires				
					Metals				
Other (Fed/State Lands)	County Truck				Household				
	No Large Trucks				Construction Debris				
	No Pickups				Yard Waste				
	No Cars				Dead Animals				
					Tires				
					Metals				

Exhibit 7:
Quarterly Inspection Form

WAYNE COUNTY LANDFILL
QUARTERLY INSPECTION FORM

Performed by_____ Date_____

		Overall Condition	
		Satisfactory	Needs Work*
I. Structures and Roads			
1.	Buildings	☐	☐
2.	Fences	☐	☐
3.	Gates	☐	☐
4.	Road leading to facility	☐	☐
5.	Inside perimeter road	☐	☐
6.	Gas monitor levels	☐	☐

*Specify recommended repairs and/or list actions taken: _____

_____

_____

_____

II. Operations			
1.	Litter and weed control	☐	☐
2.	Excavations	☐	☐
3.	Daily cover	☐	☐
4.	Final cover	☐	☐
5.	Waste Piles		
	A. Appliances	☐	☐
	B. Construction/Demolition	☐	☐
	C. Tires	☐	☐
	D. Inert waste	☐	☐
	E. Car bodies	☐	☐
	F. Yard waste	☐	☐
6.	Recyclables/Furniture storage area	☐	☐

*Specify recommended repairs and/or list actions taken: _____

_____

_____

_____

Attachment 6
Closure Plan

perimeter road which serves as a berm or a channel, the interior ditch, and any specific channelizing performed by Wayne County, the perimeter dike alone prevents flow resulting from the 500 year event from entering the landfill. The size and progression of the units result in cells being brought to final elevation and closed in the minimum amount of time possible, reducing the amount of water entering the waste. Contouring operations reduce ponding and promote drainage away from active areas; use of alternate daily covers prevent the infiltration of limited precipitation into the waste. The limited working face requires 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 Executive Secretary is requested to suspend groundwater monitoring requirements in accordance with Subsection R315-303-3(1) of the Solid Waste Rules.

V. CLOSURE PLAN

I. CLOSURE SEASON AND YEAR

Closure operations at the Long Hollow Sanitary Landfill are performed on an ongoing basis. Adequate capacity exists at the landfill to continue operation for many, many years. A final closing date is estimated to be around Fall of 2012 on the existing cell. Ongoing closure operations are generally performed from May through October, the normal frost free construction period, or as weather permits. No area larger than one disposal unit will remain open longer than 6 months after reaching final elevation. For example, the first municipal solid waste disposal cell is 2.78 acres in size.

II. FINAL COVER, SEEDING, CONTOURING

Closure operations will consist of leveling, contouring, placement of 24 inches of appropriate covers and seeding, if necessary, to reduce infiltration and preserve the integrity of the completed areas of the landfill. Areas of the landfill reaching final elevation will be closed within 6 months. 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. Upon completion of the ET cover, 6 inches of native material similar to existing topsoil will be placed. If it is determined that the native vegetation is not establishing a seed mixture shall be developed after consultation with either a BLM or NRCS 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.

III. SITE CAPACITY

Site capacity for the entire Long Hollow Sanitary Landfill is estimated upon the figures in Exhibit 3C. Assuming the initial 20 acre parcel, trench style operation (40 feet bottom width, 2: 1 side slopes, 40 feet depth), five 8 foot lifts of waste with 1.5 foot intermediate cover, and an average density of 900 lbs. per cubic yard, waste volumes are estimated at 486,000 cubic yards or 218,800 tons.

IV. CLOSURE TIMING AND NOTIFICATION

Closure activities at the Long Hollow Sanitary Landfill will be performed on an ongoing basis. The operator shall notify the Executive Secretary of the intent to implement the closure plan in whole or part, 60 days prior to the projected final receipt of waste at the unit or facility. Closure will be initiated within

30 days after receipt of final volume of waste. Closure activities shall be completed within 180 days from their starting time. Within 90 days after closure is completed, as built drawings will be submitted to the Executive Secretary. 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.

VI. FINANCIAL ASSURANCE PLAN

I. INTRODUCTION

This section of the permit describes compliance with Subsection R31S-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.

II. MECHANISMS

The mechanism used at the Long Hollow Sanitary Landfill is a dedicated escrow/capital improvement account. The account is established with the State Treasurer's Office, and the Utah State Treasurer serves as the escrow agent. A detailed set of procedures has been established by the Treasurer's office. Funds in excess of the estimate listed below may be used for capital improvements, to offset rate increases, operational expenses and other items deemed necessary by landfill managers. The Long Hollow Sanitary landfill may alter the mechanism to include insurance, surety bonds, trust funds, or other options as they become feasible with Executive Secretary approval.

III. COST ESTIMATE

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. A cost estimate detailing major closure and post closure components is included below. The Executive Secretary is identified as a required signatory on all withdrawals, and transactions affecting the integrity of the account are submitted to the Executive Secretary for approval.

Attachment 7
Financial Assurance

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