Attachment 1.0 - Landfill Design and Construction Plans

1. Landfill Design and Construction Plans including all expansion plans.

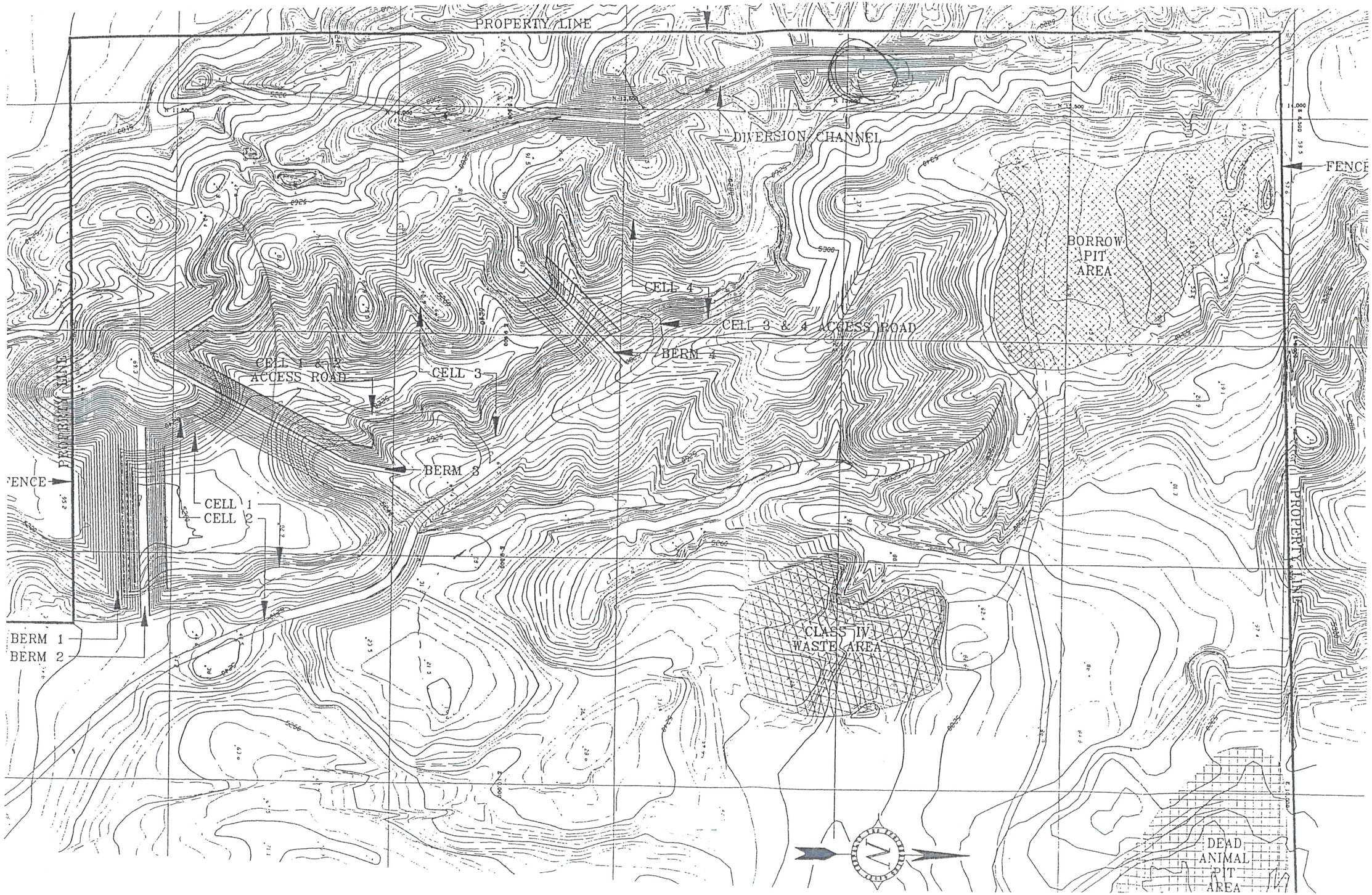
4.5 DESIGN APPROACH AND OBJECTIVES

The landfill expansion was designed to utilize an existing draw and an “area method” of operation. Figure 4.1 shows the location of the closed portions of the landfill, the cells as designed by The Engineering Group, and the other active area on the site.

4.5.1 General Cell Design

The original development plan called for four “cells” to be constructed; each atop the proceeding cell as the filling operation proceeded up the draw as shown in Figure 4.1. Each cell would be formed by the floor and walls of the draw and a 20’ high earthen berm between the walls of the draw. The engineering report in Appendix C summarizes the "level" volume, top and floor elevations, berm volume, surface area at full level, and closure surface area of each cell.

Solid waste would be initially placed at the base of the berm and then spread and compacted on the face of the berm as shown in Figure 4.2. At the close of each day, soil cover would be spread over the waste forming the working face for the next day. As filling proceeds, the top elevation of the waste would be held constant to form the floor of the next cell. When a cell is filled, the berm for the next cell would be constructed and the process repeated. Figure 4.3 shows the method used for excavating and covering at the dead animal sites.



Source: Uintah County Solid Waste Landfill Development Plan 1995, Freston, Ostler, Vernon & Associates, Inc.

NO.	DATE	REVISION

DRAWING IS NOT TO SCALE IF BAR DOES NOT MEASURE 1 INCH

0 1/2 1

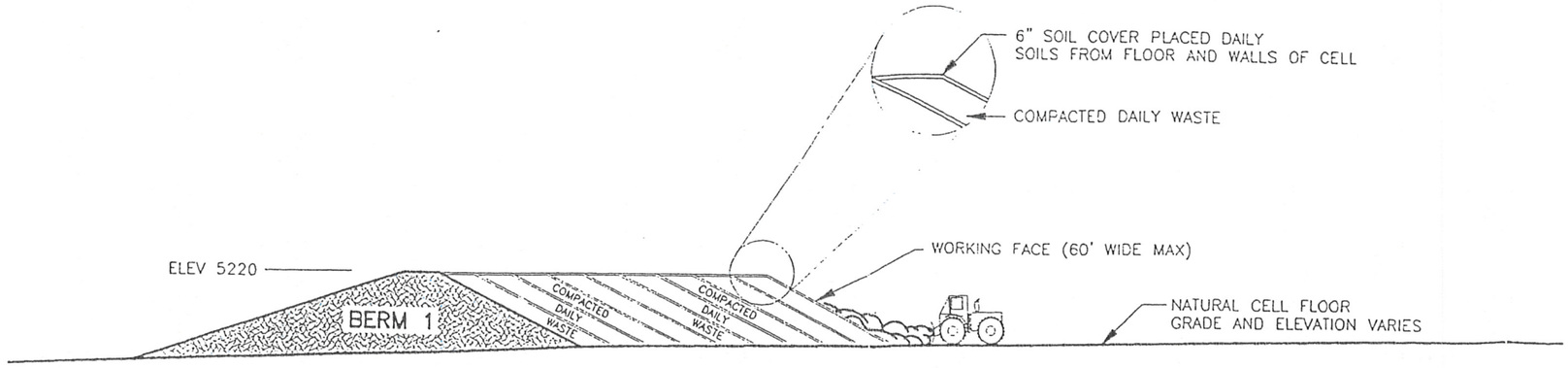
UINTAH COUNTY LANDFILL

UINTAH COUNTY, UTAH
UINTAH COUNTY LANDFILL
LANDFILL DEVELOPMENT PLAN

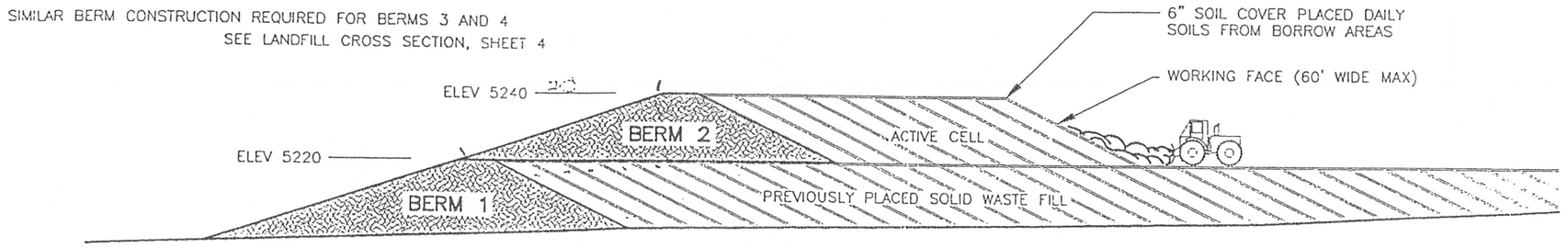
ADVANCED ENVIRONMENTAL ENGINEERING
1975 N. MAIN, SUITE #3, LAYTON UTAH, 84041
PHONE: 801.773.3155 FAX: 801.773.3156

DESIGN:	LV
DRAWN:	RP
CHECKED:	LV
DATE:	2009-02-24

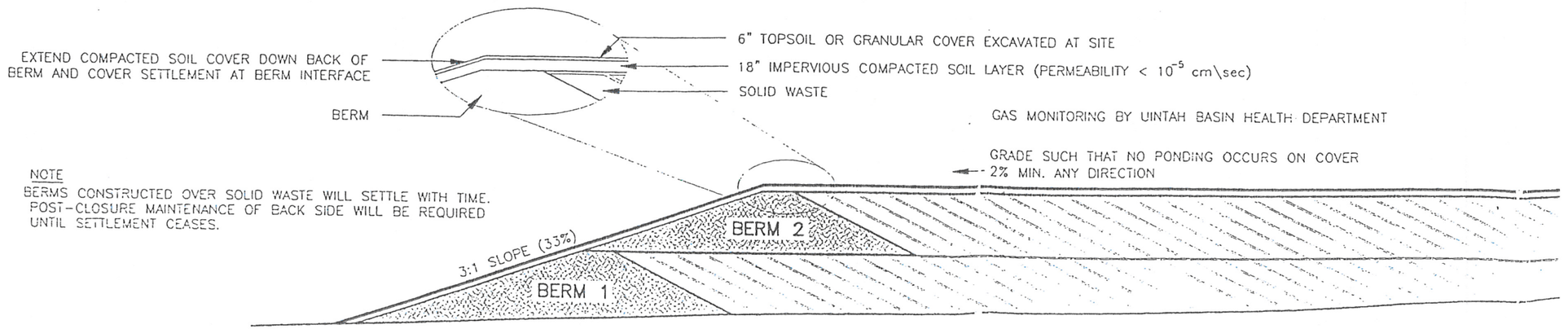
FIGURE:
4.1



INITIAL CELL DEVELOPMENT AREA METHOD



SUBSEQUENT CELL DEVELOPMENT AREA METHOD



FINAL CLOSURE

Source: Uintah County Solid Waste Landfill Development Plan 1995, Freston, Ostler, Vernon & Associates, Inc.

NO.	DATE	REVISION

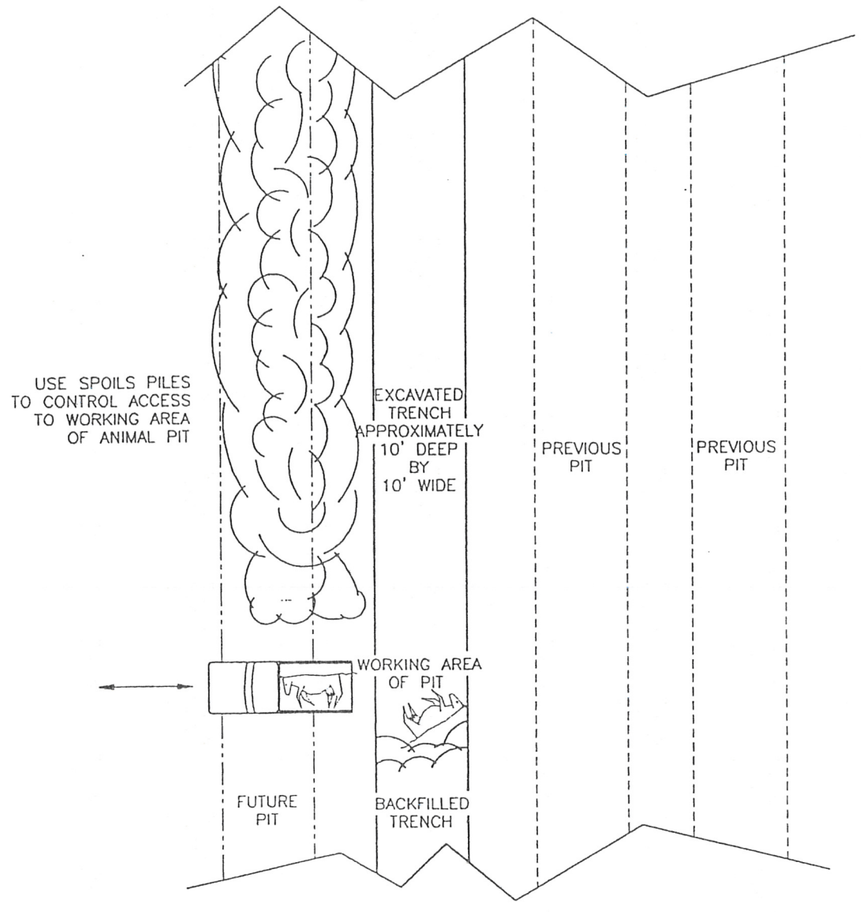
DRAWING IS NOT TO SCALE IF BAR DOES NOT MEASURE 1 INCH
0 1/2 1

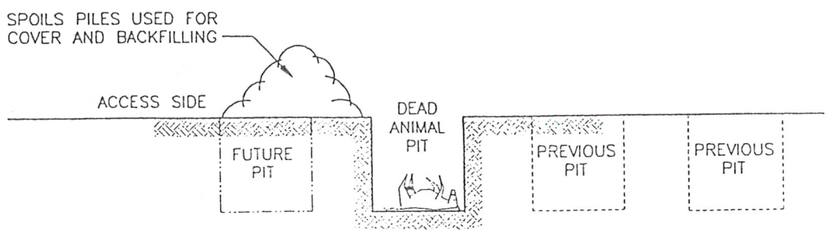
UINTAH COUNTY LANDFILL
UINTAH COUNTY, UTAH
UINTAH COUNTY LANDFILL
LANDFILL METHOD DAILY / FINAL COVER

ADVANCED ENVIRONMENTAL ENGINEERING
1975 N. MAIN, SUITE #3, LAYTON UTAH 84041
PHONE: 801.773.3155 FAX: 801.773.3156

DESIGN: LV
DRAWN: RP
CHECKED: LV
DATE: 2009-02-24

FIGURE: 4.2





Source: Uintah County Solid Waste Landfill Development Plan 1995, Freston, Ostler, Vernon & Associates, Inc.

NO.	DATE	REVISION

DRAWING IS NOT TO SCALE IF BAR DOES NOT MEASURE 1 INCH

0 1/2 1

UINTAH COUNTY LANDFILL

UINTAH COUNTY, UTAH
UINTAH COUNTY LANDFILL
LANDFILL METHOD DEAD ANIMAL PIT

ADVANCED ENVIRONMENTAL ENGINEERING
1975 N. MAIN, SUITE #3, LAYTON UTAH 84041
PHONE: 801.773.3155 FAX: 801.773.3156

DESIGN:	LV
DRAWN:	RP
CHECKED:	LV
DATE:	2009-02-24

FIGURE:
4.3

Attachment 2 - Operations Plan

2. Operations Plan

5.1 PURPOSE

The purpose of the Plan of Operation (OP) is to provide a written description of the daily operation of the Uintah County Landfill. The wastes accepted at the Uintah County Landfill include any non-hazardous waste as outlined below:

- municipal solid waste
- commercial waste
- industrial waste
- construction/demolition waste
- dead animals
- grease pit and animal waste by products
- special wastes as allowed by UAC R315-315
- conditionally exempt small quantity generator hazardous waste as specified in UAC R315-303-4(7)(a)(i)(B)
- PCB's as specified by UAC R315-315-7(2)

Uintah County Landfill currently receives about 51,000 tons of waste per year. The service area of Uintah County Landfill includes all of Uintah County. Uintah County Landfill is a solid waste management facility incorporating the following operations:

- Municipal solid waste disposal in an area fill method
- Construction, demolition, and similar debris in a separate fill area using trench or area fill methods

A landfill is a dynamic system that undergoes continual development. Changes may occur in quantities of disposed materials, topography of the landfill, demographics of the service area, and administrative or regulatory requirements. These changes would be accomplished to conserve landfill space and protect human health and the environment. The intent of this OP is to provide an accurate description of the daily operations and procedures while allowing for modifications, which may be required to compensate for operational changes.

5.2 RESPONSIBILITY AND LOCATION

The Landfill is owned by Uintah County and Vernal City and is operated and administered by Uintah County. It is located in portions of Section 17, T4S, R22E, SLM, approximately 3 miles East of Vernal. The County Commission has assigned Greg Jensen as Landfill Supervisor. Daily operations of the Landfill are under the management of Mr. Jensen. When he is absent, David Alexander, Assistant Supervisor, may be designated in charge of the landfill.

At the beginning of each working day, the Landfill Supervisor is responsible for informing his operators where to direct the various types of waste for disposal. The operators and/or the Landfill Supervisor are responsible for directing each customer to the proper location for disposal of their waste. The Landfill is attended by an operator or the Landfill Supervisor at all times the Landfill is open.

5.2.1 Equipment

The Owner is responsible for maintaining the necessary equipment to off-load, spread, compact waste, control dust, and perform other facility operations. In the event that one unit of equipment cannot operate due to maintenance or repair, the other units will be utilized at capacity to push refuse to the working face and to place cover material. In reserve through the County's road department, equipment resources are also available. The landfill currently owns and operates the following equipment:

Compactor - 2008 Bomeg 772
Loader – 1994 Caterpillar 938F

Loader – 2006 Caterpillar 938G
Scraper – 1992 Caterpillar 623E
Dozer – 2006 Caterpillar D7H
Dozer – 1990 Caterpillar D7
Grader – 1995 Caterpillar 140G
Water Truck

5.3 ON-SITE SOLID WASTE HANDLING PROCEDURES

The landfill uses a truck scale for weighing waste loads for commercial compacted loads. For all other loads, the operator at the gate will perform load counts on a daily basis, making a record of the number, type, and maximum volume of each delivery vehicle arriving at the site. This record will identify pick-ups, commercial trucks, and private vehicles.

The Landfill site road is a two-way road. At the entrance gate, the operator in the gatehouse directs vehicles to the appropriate disposal area. The operator at the working face of the cell assists in directing traffic for unloading as necessary. Once dumping is completed each vehicle proceeds out of the site along the two-way road.

The site is operated as an area fill method, with waste being placed at the base of a berm and then spread and compacted on the face of the berm. Waste is then covered with soil.

Incoming waste is deposited at the working face under the direction of the Landfill Supervisor or a designated operator. Refuse is spread in thin layers approximately 1 to 2 feet thick across the working face. At the end of the working day, the operator spreads cover material over the refuse until a layer of soil is achieved to a depth of approximately 6 inches.

5.4 MONITORING SCHEDULE

Appendix F contains the current monitoring Plan. A summary of this plan is listed here. The local health department has agreed to contract with Uintah County and will be responsible for periodic monitoring of landfill gases. If any gas is generated it will be expected to accumulate under areas of the trench which have been filled and covered, and may extend to the sides of the trench. However, due to the size, remote location, and arid nature of the site, high levels of landfill gas is neither expected to be generated nor to migrate off site. The Landfill Supervisor will coordinate activities with the health department to perform gas monitoring on a quarterly basis using a methane detection meter capable of measuring methane at levels below the Lower Explosive Limit for methane. Gas monitoring is to be done near the boundary of the landfill to determine if migration of methane is occurring. Direct readings shall be recorded in a log book.

The landfill does not monitor for leachate. A monitoring sump was previously shown in Figure 4.4. If future conditions would warrant, the sump could be used for monitoring or for leachate collection and an evaporation "treatment" system could be built adjacent to the sump on the cover of Cell 2.

5.5 Stormwater Control

Stormwater run-on will be prevented from entering the active portion of the site due to the strategic placement of a diversion channel designed to redirect the flow of stormwater run-on

5.6 ACCESS CONTROL

The Landfill is open Monday thru Saturday, from 8 am to 5 pm and is closed on Sundays and seven (7) holidays. Fencing and gates will restrict access to the site at all times; the gate is locked when the Landfill is closed. All vehicles must pass through the entry gate which is manned by a Landfill Operator.

5.7 SIGNS

The entrance to the landfill has a sign posted which identifies the landfill, the owner/operator, hours of service, fees, and restrictions. Other signs are or will be posted at the landfill directing traffic flow, providing safety information, and demarcating boundaries of the active sites.

5.9 EMERGENCY OPERATIONS PLAN

A copy of the Emergency Operations Plan is contained in Appendix F. A summary of the plan is listed here. The landfill site currently comprises a total of approximately 200 acres, and in the instance there is an unforeseen event or if on-site roads become impassable, the two cells adjacent to the entrance will be used as emergency disposal cells or the Landfill Supervisor may elect to temporarily close the site. The Class I site may be utilized temporarily in the event the Class IV site becomes inaccessible.

In emergency situations such as a fire or failure of run-off containment system, emergency response teams will be deployed by central dispatch by phoning 911. All personnel at the landfill will receive first aid training. It is expected that approximate response time is 10 minutes from the placement of an emergency call to central dispatch and arrival at the landfill.

5.10 CONTINGENCY PLAN

The Contingency Plan is designed to minimize hazards to human health or the environment from any unplanned sudden or non-sudden discharge to air, soil, surface, or groundwater. The provisions of this plan would be carried out immediately upon an emergency situation or release, which could threaten human health or the environment. Emergency evacuation of the site could be necessary given the nature of the waste materials stored and processed at the site. Incidents at the landfill could be caused by fire, explosion, or toxic vapor generation.

5.10.1 Fire or Explosion

A landfill fire is particularly hazardous due to the presence of discarded household chemicals, paints, fuels, etc. No open fire burning will be intentionally allowed at the site. A fire may be started by spontaneous combustion in refuse containers, but is usually the result of vandalism or disposal of hot coals and ashes. Daily cover effectively prevents fires from spreading throughout the landfill.

If a fire is observed during operation hours, the burning material will be separated from other material and covered with soil. Small fires may be extinguished with fire extinguishers provided in the site vehicles or by using a water truck, if available.

Fires which occur during times that the landfill is closed are more difficult to control due to the time available for the fire to spread. If a fire is reported after hours, the Landfill Supervisor may utilize site equipment to segregate the burning portion and bury the fire with soil. Otherwise, the fire may be allowed to burn itself out, or the local fire department may be called to assist in controlling the blaze.

5.10.2 Vehicle Fires

In the event that a disposal vehicle carrying a burning or smoldering load of waste enters the landfill site:

1. The vehicle should be directed to the designated fire suppression.
2. Once burning waste is removed from the vehicle, the application of cover material by landfill equipment or the application of water by the on-site water truck will be used to extinguish the fire. Suffocation with cover material will be the primary method used to extinguish fire.
3. Vehicles and any equipment in the “fire zone” will be inspected and sprayed with water while working to quench the fire.
4. Precautions should be taken throughout the entire fire-fighting operation including using a hot-spot observer.

5. If, at any time, additional assistance is required, local fire-fighting units will be contacted.

5.10.3 Ground Fire / Below Cover Fire

In the event that waste placed on the ground or waste that was previously covered erupts into fire:

1. It will be isolated from previously deposited waste immediately. This will be done by either moving burning waste to the designated fire suppression area or by concentrating the burning waste in one spot using landfill equipment.
2. Once burning waste is separated from other exposed waste, the fire will be extinguished by the application of cover material by landfill earth moving equipment or the application of water by the on-site water truck. Suffocation using cover material will be the primary method used to extinguish fire.
3. Vehicles and any equipment in the "fire zone" would be inspected and sprayed with water while working to quell the fire.
4. Precautions should be taken throughout the fire-fighting operation, including using a hot-spot observer.
5. If, at any time, additional assistance is required, local fire-fighting units will be contacted.

5.10.4 Explosion

In the event that an explosion should occur at the landfill or in any structure associated with the landfill site:

1. All personnel and equipment in the area, including those in surrounding buildings will be evacuated immediately.
2. All landfill personnel will be accounted for.
3. Local emergency personnel will be contacted.
4. The Landfill Supervisor will be informed of the situation if he/she is not already at the site.
5. The explosion area will be restricted to all personnel until cleared for reentry by local emergency personnel.
6. Precautions should be taken throughout the entire emergency response operations.
7. The Landfill Supervisor will be the only person authorized to make statements to the media.

5.10.5 Explosive Gas Release

Methane gas release would be detected using a methane detection meter capable of measuring methane levels below the 25% Lower Explosion Limit. Gas monitoring would be conducted around the disposal area and in any of the facility structures. Upon detection of explosive gases equal to or above the lower explosion limit, the Owner or Operator would take the following steps:

1. Immediately upon detection, steps would be taken to protect human health. These steps would include accounting for all landfill personnel and moving all equipment and personnel away from the release area, shutdown of any electrical devices that could cause ignition, notify emergency personnel (fire, police) and advise them of the situation, monitor the release area and surrounding areas with a combustible gas indicator and document reading for placement into the operating record, determination of the cause of explosive gas, and keep the area closed until corrective actions are taken.
2. Within 24 hours the Executive Secretary would be notified.
3. Within seven days of detection, the explosive gas levels would be recorded in the operating record along with a description of the steps taken to protect human health.
4. Within 60 days of detection, a remediation plan that had been approved by the Director would be implemented and a copy of the plan placed in the operating record. Upon implementation, the Director would be notified.

5.10.6 Failure of Drainage Containment System

If the containment system were to fail, the following actions would be taken:

1. Construct berms and ditches to divert water around the containment failure area using site soils or readily available materials.
2. Analyze and evaluate the extent of damage to the containment system.
3. Identify the mechanism of failure.
4. If warranted call a qualified professional to discuss possible solutions.
5. Develop and implement corrective actions.

5.10.7 Temporary Equipment Breakdown / Extreme Weather Events

Uintah County owns numerous pieces of equipment that could be promptly mobilized if warranted. If this equipment were not available, rental equipment will be investigated. Should an extreme weather event occur, waste entering the facility would be temporarily stored in the two cells adjacent to the landfill entrance. Haulers would be notified to temporarily stop shipping waste and would be given directions to other nearby landfills. Waste would then be briefly stored in the open cells until the event passed. The open cells near the gate house were designed for adequate storage for temporary extreme events like this.

5.11 ALTERNATIVE WASTE HANDLING AND DISPOSAL PLAN

The Landfill site currently comprises a total of approximately 200 acres, and in the instance there is an unforeseen event or if on-site roads become impassable, the two cells adjacent to the entrance will be used as emergency disposal cells or the Landfill Supervisor may elect to temporarily close the site. The Class I site may be utilized temporarily in the event the Class IV site becomes inaccessible and vice versa.

5.12 PROCEDURES FOR CONTROLLING DISEASE VECTORS

The use of daily cover and the exclusion of specific types of solid waste are necessary to control vectors and the subsequent spread of disease. Special waste such as infectious waste, liquid waste and tires, which may directly carry disease or lead to the propagation of disease vectors, would be immediately covered at the working face. Landfill personnel to the extent possible would inspect the site for signs and indications of disease vectors. If observations were made the Landfill Supervisor would be contacted immediately. If disease vectors were to become a problem, pest control specialists would be contacted to reduce the spread of disease.

5.13 PROCEDURES FOR EXCLUDING THE RECEIPT OF HAZARDOUS WASTE

A “Prohibited Waste” control program designed to detect and deter attempts to dispose of hazardous and other unacceptable waste has been implemented at the Uintah County Landfill Facility. The program is designed to protect the health and safety of employees, customers, and the general public, as well as protect against contamination of the environment. The Landfill Supervisor would be in charge of hazardous waste activities.

The Landfill specifically excludes the following types of waste:

- hazardous waste
- toxic waste and pathological/infectious waste
- liquid waste (including paints, septage and sump wastes)
- chemical wastes
- white goods containing chlorofluorocarbons (CFC's)
- gas cylinders
- batteries
- tires

The person at the gate and the person at the working face is responsible for identification and prohibition of excluded wastes. All employees are trained in methods and techniques for spotting liquid waste, drums, waste in sealed containers, infectious waste, and waste which exhibit unusual odors or markings. All such waste will be refused access to the Landfill; if such waste is discovered on the working face it will be segregated from the other waste pending alternative disposition or disposal as directed by the Landfill Supervisor.

Policies and procedures in place at the landfill include random inspection of loads coming onto the site. Daily inspection sheets include a "red sheet" that indicates which loads will be subject to random inspection. The Landfill Supervisor has the ultimate authority to decide on whether to accept or reject a waste material.

White goods are redirected from the disposal area to a storage area for unloading. These materials may be removed from the site on a periodic basis for recycling or alternative disposal. Construction/demolition and similar debris is directed to the Class IV Landfill for disposal. Dead animal carcasses are directed to a separate pit designated for disposal of such waste and this pit is covered regularly on a daily basis.

The waste disposed at the proposed landfill would be visually inspected prior to final placement. The waste would be inspected at off-site transfer stations and on-site. Further information about each of these inspection locations are listed below:

- The proposed landfill only accepts waste from any transfer stations that have a waste inspection plan approved by the Director. Operators at the transfer stations would visually inspect waste for hazardous materials before loading for transit.

- On-site inspection would be conducted at the working face. Landfill Operators will be trained in the recognition of prohibited waste. A random testing program would be conducted of all waste that has not already been inspected at transfer stations. These inspections would be conducted on one percent of all loads not obtained from transfer stations with a waste inspection plan approved by the Director. A sample form for these inspections has been included in Appendix H. All waste would be visually inspected, as it is being placed, spread and compacted in the cell and upon finding any unacceptable waste the following steps would be taken:

    1. Using landfill equipment such as an excavator or a loader, separate the questionable waste from the other waste in the load. Move the questionable waste away from the operating area of the tipping floor or tipping face so that operations can continue.
    2. Notify the Landfill Supervisor immediately of the problem and the Generator of the waste and wait for direction
    3. Keep all other landfill personnel and equipment away from the questionable wastes until notified by the Landfill Supervisor or his/her designee to do otherwise.
    4. The Landfill Supervisor shall notify the generator of the problem and allow the Generator 24 hours to remove the material from the premises.
    5. If the Generator does not respond in a timely fashion, remove the waste from the Landfill and dispose of it in a facility appropriate for the type of waste. Note the details of all actions in the Operating Record.

5.14 GENERAL TRAINING AND SAFETY PLAN

Each employee at the landfill facility would be trained to have a working knowledge of the maintenance and operational techniques necessary to operate and maintain the landfill facility in a manner to preserve human health, safety, and the environment. Training would be accomplished through on-the-job training (OJT) and classroom training sessions. The Landfill Supervisor, or a designated professional trainer, would be in charge of directing the training programs. Initial training would be completed within three months of employment followed by an annual review of basic waste management skills.

5.14.1 Training Schedule

The Landfill Supervisor is encouraged to pass the SWANA Manager of Landfill Operations (MOLO) course or equivalent. In addition, operators are encouraged to take one or both of the SWANA training courses: Landfill Operator Training, and Waste Screening or equivalent. Continuing education efforts include the following:

Introductory Training

Synopsis of solid waste regulations, record keeping, and transporter requirements.

- Requirement: All Personnel
- Method: OJT
- Review: Quarterly

Policies and Procedures Security, inspections and emergency response.

- Requirement: All Personnel
- Method: Lecture
- Video Course OJT
- Review: Quarterly

Safety

Personal protection, hazardous waste recognition, hazardous material handling, emergency response, and first aid.

- Requirement: All Personnel
- Method: Classroom/Video Course
- Review: Annual

A Safety Training meeting is held once a week taking a minimum of 15 minutes. Training documents would be kept with the Plan of Operation for a rolling five year period.

Attachment 3 - Security

3. Construction of access controls including fencing,

4.9 Perimeter Fencing

A fence is presently installed around the boundary of the site which would impede entry by large animals or the public.

Attachment 4 - Groundwater Monitoring

4. Groundwater Monitoring,

4.4.5 Groundwater

1. The bottom of the proposed landfill would be located approximately 3,000 feet above the highest level of groundwater at the site. The site would be located on the relatively impervious Mancos Formation.
2. The landfill is not located over a sole source aquifer.
3. The proposed landfill would not be located over groundwater classified as IB by the Utah Division of Water Quality.
4. The Total Dissolved Solids (TDS) content of the groundwater in the aquifer below the landfill is estimated to be greater than 10,000 mg/l. The aquifer is located approximately 3,000 feet below the landfill.
5. The landfill is not located in any designated water source protection area, nor within 250 days groundwater travel time to any public water supply source. Hydraulic conductance for the Mancos Formation is typically 10-4 cm/sec which translates to a distance of 7 feet in 250 days.
6. The landfill is located over an area where there is an extreme depth to groundwater, where there is a natural impermeable barrier above the groundwater, and where groundwater is relatively poor quality with high TDS. Exemption of groundwater quality monitoring is proposed.

Attachment 5 - Gas Monitoring

5. Gas Monitoring

5.3 SCHEDULE FOR CONDUCTING INSPECTIONS AND MONITORING

Appendix E contains the current monitoring Plan. A summary of this plan is listed here. The local health department has agreed to contract with Uintah County and will be responsible for periodic monitoring of landfill gases. If any gas is generated it will be expected to accumulate under areas of the trench which have been filled and covered, and may extend to the sides of the trench. However, due to the size, remote location, and arid nature of the site, high levels of landfill gas is neither expected to be generated nor to migrate off site. The Landfill Supervisor will coordinate activities with the health department to perform gas monitoring on a quarterly basis using a methane detection meter capable of measuring methane at levels below the Lower Explosive Limit for methane. Gas monitoring is to be done near the boundary of the landfill to determine if migration of methane is occurring. Direct readings shall be recorded in a log book.

The landfill does not monitor for leachate. A monitoring sump was previously shown in Figure 4.4. If future conditions would warrant, the sump could be used for monitoring or for leachate collection and an evaporation “treatment” system could be built adjacent to the sump on the cover of Cell 2.

APPENDIX E
MONITORING PLAN

The purpose of this monitoring plan is to help prevent problems that may be preventable through identification and prompt remediation efforts. A sample schedule for monitoring and inspection of the landfill facilities to ensure proper operation and maintenance is provided in the Appendix H. Listed below are monitoring guidelines for groundwater monitoring, leachate monitoring and control system, and landfill gas monitoring system.

1. Groundwater Monitoring System

   There is not a ground water monitoring system at the Uintah County Municipal Landfill because of site conditions listed in the current engineering report. The landfill is exempt from groundwater monitoring.

2. Leachate Monitoring and Control System

   The Class I Landfill is equipped with a leachate monitoring sump. The station is comprised of a 40' drain providing gravity flow to a centrally located sump positioned at the lowest elevation of Cell 1 and down gradient from Cells 2, 3, and 4. The landfill does not currently monitor for leachate, however, this sump is available for future monitoring if necessary.

3. Landfill Gas Monitoring System

   The Tri-County Health Department has agreed to contract with Uintah County and will be responsible for quarterly monitoring of landfill gases. If any gas is generated it will be expected to accumulate under areas of the trench which have been filled and covered, and may extend to the sides of the trench. The Landfill Supervisor will coordinate activities with the health department to perform gas monitoring on a quarterly basis using a methane detection meter capable of measuring methane at

levels below the Lower Explosive Limit for methane. Gas monitoring is to be done near the boundary of the landfill to determine if migration of methane is occurring. Gas will be measured by inserting a steel rod into the ground about 50 feet from the edge of the trench, removing the rod and inserting the gas probe. Direct readings shall be recorded in a log book.

Attachment 6 - Inspections

6. Waste Inspections

5.7 PROCEDURES FOR EXCLUDING THE RECEIPT OF HAZARDOUS WASTE

The person at the gate and the person at the working face is responsible for identification and prohibition of excluded wastes. All employees are trained in methods and techniques for spotting liquid waste, drums, waste in sealed containers, infectious waste, and waste which exhibit unusual odors or markings. All such waste will be refused access to the Landfill; if such waste is discovered on the working face it will be segregated from the other waste pending alternative disposition or disposal as directed by the Landfill Supervisor.

Policies and procedures in place at the landfill include random inspection of loads coming onto the site. Daily inspection sheets include a "red sheet" that indicates which loads will be subject to random inspection. The Landfill Supervisor has the ultimate authority to decide on whether to accept or reject a waste material.

White goods are redirected from the disposal area to a storage area for unloading. These materials may be removed from the site on a periodic basis for recycling or alternative disposal. Construction/demolition and similar debris is directed to the Class IV Landfill for disposal. Dead animal carcasses are directed to a separate pit designated for disposal of such waste and this pit is covered regularly on a daily basis.

The waste disposed at the proposed landfill would be visually inspected prior to final placement. The waste would be inspected at off-site transfer stations and on-site. Further information about each of these inspection locations are listed below:

The proposed landfill only accepts waste from any transfer stations that have a waste inspection plan approved by the Director. Operators at the transfer stations would visually inspect waste for hazardous materials before loading for transit.

On-site inspection would be conducted at the working face. Landfill Operators will be trained in the recognition of prohibited waste. A random testing program would be conducted of all waste that has not already been inspected at transfer stations. These inspections would be conducted on one percent of all loads not obtained from transfer stations with a waste inspection plan approved by the Director. A sample form for these inspections has been included in Appendix H. All waste would be visually inspected, as it is being placed, spread and compacted in the cell and upon finding any unacceptable waste the following steps would be taken:

1. Using landfill equipment such as an excavator or a loader, separate the questionable waste from the other waste in the load. Move the questionable waste away from the operating area of the tipping floor or tipping face so that operations can continue.
2. Notify the Landfill Supervisor immediately of the problem and the Generator of the waste and wait for direction
3. Keep all other landfill personnel and equipment away from the questionable wastes until notified by the Landfill Supervisor or his/her designee to do otherwise.
4. The Landfill Supervisor shall notify the generator of the problem and allow the Generator 24 hours to remove the material from the premises.
5. If the Generator does not respond in a timely fashion, remove the waste from the Landfill and dispose of it in a facility appropriate for the type of waste. Note the details of all actions in the Operating Record.

Attachment 7 - Recordkeeping

7. Record Keeping

5.15 RECORD KEEPING AND REPORTING

The Landfill Supervisor shall maintain the following operating records for the landfill:

- Records of inspection and maintenance
- Records of training and notification procedures
- Records of groundwater monitoring
- Records of landfill gas monitoring
- Records of weights and volume of waste received, number of vehicles
- Deviations from the plan of operation
- Records of placement or recirculation of leachate
- Records of any gas condensate
- Prepare an annual report and place the report in the facility's operating record.
- A copy of the permit including the permit application
- Closure and Post-closure care plans
- Results of inspections conducted by representatives of the Utah Solid and Hazardous Waste Control Board and representatives of the Tri-County Health Department when forwarded to the permittee

Sample forms for maintenance and gas monitoring are provided in Appendix H.

Attachment 8 - Litter Control

8. Litter Control

5.8 DUST AND LITTER CONTROL

Dust is controlled by watering of the roadways as necessary. The Landfill Supervisor will be responsible for determining when dust control is warranted.

Litter is caused by refuse being windblown at the working face during unloading and by improper transportation of waste in uncovered vehicles. To control litter at the working face, refuse is spread and compacted upon arrival. On windy days, refuse is to be dumped at or near the base of the working face. Blow fences will not be utilized or needed due to operational contingencies listed above.

Transporting refuse in an open truck without cover is not allowed. Signs located on the road leading to the landfill and at the main gate will indicate that all loads must be covered and a doubling of the fee is possible for not doing so. The operator at the entry gate will report repeat violators to the appropriate authorities.

Litter is not uncommon along the roadways leading to and/or in close proximity to a landfill, but proper operation and effective controls will effectively reduce such litter. Work-release parties from local correctional institutions are utilized for collecting litter in these areas.

Attachment 9 - Closure and Post-Closure

9. CLOSURE AND POST–CLOSURE PLANS

6.1 PURPOSE

Closure activities would be implemented as each module within the disposal cell is completed. These closure activities would minimize the need for further maintenance, and minimize or eliminate the threat to human health and the environment from post-closure escape of solid waste constituents, leachate, contaminated run-off or waste decomposition products to the ground, ground water, surface water, or the atmosphere. A Monitoring Plan has been developed to prevent problems through careful monitoring and inspection. The plan provides details on groundwater monitoring, leachate monitoring, and landfill gas and is included in Appendix E.

6.2 FINAL COVER AND GRADING

The final cover would commence no later than 30 days after the final volume of waste was received in each module and would be completed within 180 days after the beginning of the closure activities.

The waste surface would be prepared so as to be free of irregularities, protrusions, vegetation, excessive water, loose soil or abrupt changes in grade. Drainage channels would be constructed around the cell as indicated by the drawings to help prevent erosion and divert any run-on and run-off in a controlled manor. Berms would be placed and used as needed.

Final cell cover would consist of at least 24 inches of native clay soils which would be placed and compacted over the solid waste. Because of the lack of adequate precipitation for vegetation, a topsoil layer will not be provided on the final cover.

6.2.1 REVEGETATION

The native soils are cohesive, and once wetted, would dry to a hard crust on the surface. If left undisturbed, dust would not be produced from the crusted surface. Eventually sparse native vegetation, as now occurs on surrounding areas, would establish in the native soil cover.

6.3 FINAL INSPECTION

The Owner or Operator shall notify the Executive Secretary of the Solid and Hazardous Waste Control Board (hereafter called Executive Secretary) of the intent to implement the closure plan 60 days prior to the projected final receipt of waste. The Owner or Operator would commence implementation of the closure plan within 30 days of final volume of waste and the cover would be completed within 180 days. The Owner or Operator then would have 90 days to submit the following items to the Executive Secretary: Closure plan sheets signed by a professional engineer registered in the State of Utah and a certificate from the engineer. The certificate would require a final inspection performed by the engineer to verify that the landfill was in compliance with all closure requirements as outlined in the permit and closure plans. Inspection would include cell cover design, run-on and run-off control, proper final grading to promote run-off, and restriction of access to the site by fencing. No later than 60 days after certification of closure, submit plats and a statement of fact concerning the location of any disposal site would be given to the county recorder

to be recorded as part of the record of title. Proof of record of title then would be submitted to the Executive Secretary.

6.4 OPINION OF PROBABLE COSTS FOR CLOSURE

The opinion of probable costs for the final closure and post-closure care of the Landfill Facility was been prepared by Uintah County to comply with the Financial Assurance requirements, Rule R315-309-3(7)(d), and was submitted with the 2007 Solid Waste Landfill Annual Report. The opinion of probable costs for closure and post closure maintenance of the Landfill was estimated at $187,532.

6.5 POST-CLOSURE MAINTENANCE

Contact information for the Post-Closure Care Provider is listed below:

Name: Greg Jensen
Address: 152 East 100 North
Vernal, Utah 84078
Phone: (435) 789-6018

Post-closure care would be conducted in accordance with this Post-Closure Plan. The schedule for post-closure activities would begin on the date of completion of closure of the disposal cell and continue for 30 years, or until the Executive Secretary determined that the disposal unit had become stabilized and human health and the environment were sufficiently protected. The Owner would initiate post-closure activities within six months following completion of closure. Table 6.2 lists a monitoring and inspection schedule for post-closure care.

TABLE 6.1 POST-CLOSURE MONITORING AND INSPECTION SCHEDULE

Task	Schedule
Landfill Gas	Quarterly
Run-on/Run-off	Quarterly
Leachate Collection System	Quarterly
Cover Erosion	Quarterly
Settlement	Quarterly
Fencing	Quarterly
Vegetation	Quarterly

In the event that significant settlement occurred within the closed landfill, the area would be surveyed and additional soil would be obtained from the site and placed in a manner to preserve the design finish grade. Any such soil placed on the unit would not be re-vegetated. Post-closure activities would be financed as outlined in the Financial Assurance Plan. Post-closure care and monitoring would be completed, as determined by the Executive Secretary, when either the 30 year post-closure period was complete, or the unit had stabilized. Upon completion of post-closure care, a post-closure period certificate would be submitted to the Executive Secretary signed by the Owner or Operator.

APPENDIX H
SAMPLE FORMS

FAMILY NOTIFICATION LIST
Uintah County Municipal Landfill

Employee Name	Emergency Contact		Address
	Name	Telephone #	

Landfill Gas Quarterly Monitoring Results
Uintah County Municipal Landfill
Year_____ Quarter_____

Date: _____ Time:_____

Name of Gas Sample Collector _____

Temperature _____ Weather _____

Monitoring device should be calibrated prior to initiating sampling.

Accomplished? Yes___ No___

Methane Monitoring Location	**Measured % LEL**	**Regulatory Action Limit (% LEL)**
1. NW Corner Scale/Gate House		25
2. SW Emergency Cell		25
3. SW Cell 1 and Cell 2		25
4. SW Corner Active Cell		25
6. North Boundary		100
7. South Boundary		100

- Gas Sample Collector: If measured % LEL equals or exceeds internal action limit, contact the facility manager.
- Facility Manager: If measured %LEL equals or exceeds regulatory action limit, notify the State Director in compliance with 40 CFR 258.23(c).

Comments:

_____

_____

_____

_____

_____

_____

_____

QUARTERLY INPECTION LOG
Uintah County Municipal Landfill

Area of Inspection	Needs Repair	Date of Repair	Comments
Off-loading Area			
Scale House			
Run-on/Run-off			
Roads			
Harborage			
Leachate Sump			
Perimeter Fencing and Access Gates			
Fugitive Waste collection System			
Fugitive Waste			
Cell			
Date:	Inspector:		

Note: Annual Report due before March 1.

RANDOM INSPECTION FORM

Date:_____ Time:_____

Inspected by:_____

Load Origin:_____

How was the inspection conducted?

_____
_____
_____
_____
_____

What was found during inspection?

_____
_____
_____
_____
_____
_____
_____
_____

Is corrective action necessary? If so what?

_____
_____
_____
_____
_____
_____