# **APPENDIX VIII-A**

# POST-CLOSURE MONITORING, INSPECTION, AND MAINTENANCE PLAN FOR SWMUs

#### 1. POST-CLOSURE CARE OF SWMUs

SWMUs that have been closed with waste in-place and require ongoing monitoring, inspection, and maintenance include SWMU 2 (Industrial Waste Lagoon), SWMU 12/15 (Sanitary Landfill/Pesticide Disposal Area), and SWMU 42 (Bomb Washout Facility - Building 539). The post-closure care requirements for these SWMUs are detailed below.

#### 1.A. INDUSTRIAL WASTE LAGOON (SWMU 2)

The monitoring, inspection, and maintenance requirements of this section apply to the Industrial Waste Lagoon (IWL) (SWMU 2) and associated ditches that remain on TEAD-N property (on-Depot). A risk assessment was completed on the ditch sections located on the BRAC Property, and no unacceptable risks were identified; therefore, no further action is required at the ditch sections on the BRAC Property.

The corrective measures for the IWL include soil and vegetative cover improvements, groundwater monitoring, and institutional controls. Monitoring, inspection, and maintenance are required to ensure that the corrective measures remain in effect over the long term. Post-closure use of or on the IWL and associated on-Depot ditches shall not disturb the integrity of the final cover, liner, or any other component of the containment system without the written approval of the Director.

- 1.A.1 Monitoring Plan
- 1.A.1.a. Security
- 1.A.1.a.i.

i. The Permittee shall protect against illegal trespassing on the IWL or on-Depot ditches. The entire TEAD-N property, which contains the IWL, shall be surrounded by barbed wire perimeter fences. On-Depot security shall be maintained by 24-hour surveillance, and by patrolling armed security personnel. In addition, on-Depot access shall be restricted and gained only through guarded gates.

- 1.A.1.a.ii. The IWL shall remain fenced and access gates shall be locked for the duration of the post-closure period. Access to the IWL shall be strictly enforced with access only being granted for inspection and maintenance of the cap and other investigative activities that are approved in writing by the Director.
- 1.A.1.b. Groundwater Monitoring

The Permittee shall perform groundwater monitoring for the IWL and on-Depot ditches as part of the SWMU 58 Groundwater Monitoring Program outlined in Module X.

#### 1.A.2 Inspection Plan

The IWL shall be inspected periodically as defined in Table 2 during the postclosure period to observe and document changes as they occur to the cover. Proper observation and documentation through inspection reports shall enable rapid repair or routine maintenance of the IWL cover should either be necessary. Inspection frequencies, procedures and documentation are applicable to the security fence, erosion damage, vegetative cover condition, and run-on/run-off control structures. Inspection schedules for the IWL and associated wastewater collection ditches are presented in Table 3. Information necessary for documentation of these inspections is listed in Table 4. An inspection form for the IWL and on-Depot ditches is presented in Attachment 25 to this Permit.

1.A.2.a. Routine Inspections

Visual inspections are the most efficient and cost-effective method of examining the integrity of the IWL cover. Visual inspections shall be made on foot by TEAD-N or contract personnel. Inspections shall document any breaches in the fence, wildlife, and unusual odors. The Permittee shall photograph the site during the site visit and visual inspection to document the physical conditions at the site. Photographs will be labeled with the location of the photograph, direction facing, date photographed, and a description of any relevant features in the photograph. Copies of the photographs shall be included in the inspection report.

#### 1.A.2.a.i. Erosion Damage

In the semi-arid environment in which TEAD-N is located, erosion will occur only after intense precipitation events. TEAD-N or contract personnel shall inspect the surface of the IWL cover on foot for evidence of erosion or ponded water as specified in Table 2 or within 24 hours of a storm event with precipitation amounts greater than two inches. If erosion damage greater that three inches in depth has occurred, or if vegetative cover has been destroyed due to erosion, corrective action shall be initiated within 72 hours.

#### 1.A.2.a.ii. Ponded Water

The inspection program shall monitor the presence of ponded water on the surface of the IWL cover. The purpose of the sloping cover is to promote drainage of excess water and the highly compacted foundation material should maintain the three to five percent slope for drainage. However, the presence of ponded water would indicate a localized differential settlement that may have the potential to compromise the IWL cover.

1.A.2.a.iii.

Subsurface Inspection

In the unlikely event that a large unexplained settlement problem or vegetative die-off occurs, it may become necessary to examine the subsurface conditions beneath the distressed areas. The drilling of soil borings and collection of continuous, undisturbed soil samples shall be conducted to investigate the problem only after other methods of subsurface inspection, such as geophysical techniques, have failed. Non-destructive geophysical techniques may reveal the location of the problem if there is sufficient contrast in the soil layers within the cap. The excavation of test pits shall not be conducted due to the complex layering of the soil cap, the presence of geo-fabrics and the impermeable synthetic membrane. If the exploratory boring penetrates the

	synthetic membrane, then it shall be excavated and patched according to the industry standards. Backfill for exploratory soil borings above and below the geo-fabric shall be of a low permeability, swelling clay material. The exploratory borings shall be backfilled from their total depth to the ground surface. Any means of investigation that shall breach the synthetic membrane shall be approved in writing by the Director.
1.A.2.a.iv.	Vegetative Cover Condition
	During each of the inspections, observations shall include the extent of bare areas susceptible to erosion and the presence of stressed vegetation. In addition, the Permittee or contract personnel shall note the presence of animal burrows. If repairs are made to the vegetative cover, monthly inspections shall be instituted until the vegetation has been re-established.
1.A.2.a.v.	Run-on Control Structures
	Surface water run-on shall be intercepted by ditches around the perimeter of the IWL. Observations shall include the presence of debris, vegetation, or soil. If debris, vegetation, or soil are present in run-on control ditches that would prevent proper drainage from the area, corrective action to clear the ditches shall be initiated within 72 hours.
1.A.2.a.vi.	Cover Surface Water Drainage System
	The cover surface water drainage system shall be inspected as specified in Table 2. Observations shall include the presence of debris in the discharge pipes or waterlogged soil condition that may indicate that the drains are not functioning. If debris is found in discharge pipes that would impede flow, corrective action shall be initiated within 72 hours to clear the pipes. However, it is possible that the drains may never receive any infiltration because annual potential evaporation exceeds rainfall at TEAD-N.
1.A.2.b.	Institutional Controls
	The Permittee shall verify that institutional control restrictions preventing residential use of the site are maintained as part of the TEAD-N Installation EMS. Any differences between the stated land use restrictions, and those identified in Table 1 will be stated in the inspection report.
1.A.3	Maintenance Plan
	This section describes a program of routine maintenance designed to maintain the IWL cover during post-closure care. Maintenance plans are presented for the security fences, erosion damage, settlement, vegetative cover, and run-on/run-off control structures.
1.A.3.a.	Security Fence Maintenance
	Repairs to the security fence around the IWL shall include patching holes in the chain-link fabric, reattaching the fabric to the posts, replacing chain-link fabric, or

replacing posts. Maintenance activities shall be initiated within 72 hours if deterioration of the fencing system is identified during any inspection event.

1.A.3.b. Erosion Damage

The most common problem on portions of the cover system is the development of large or small gullies. The cover system is especially susceptible to gullying when it has no vegetation. However, even after vegetation has been firmly established, gullying may continue to threaten the integrity of the cover. Areas most susceptible to gully formation on the IWL cover are those steeper slopes around the perimeter of the cap. If a gullying problem (as defined by linear erosional features greater than three inches in depth and greater than five feet in length) does develop, repair procedures shall consist of regrading and filling using stockpiled soil followed by re-establishment of vegetation. Corrective action shall be initiated within 72 hours upon identification of gullying during any conducted inspection.

1.A.3.c. Sideslope Stability

Another potential problem is that of sideslope stability. The cover sideslopes range up to 10 percent inclination, and there is a potential for slippage of material laterally down the slope. This process may be initiated by a high degree of saturation as may occur during spring melt cycles. Repairing sideslope stability shall entail a partial reconstruction of the sideslopes with subsurface drains. Corrective action to address material slippage laterally down slopes shall be initiated within 72 hours upon discovery during any inspection event. Design specifications for the reconstruction activities to be conducted shall be submitted to the Director for review and approval within seven working days prior to execution of reconstruction activities.

1.A.3.d. Vegetative Maintenance

Since vegetation has been established on the cover system, a certain amount of maintenance is necessary. If invading plants species become established on the cover system, the selective use of herbicides shall be used to control these plants. Under certain circumstances if an infestation of large insects threatens a stand of vegetation, the use of insecticides may become necessary. The application of herbicides or pesticides on the cover system shall be approved in writing by the Director prior to the initiation of any corrective action.

1.A.3.e. Soil Maintenance

Chronically weak vegetation may signal a need for revitalization of the vegetative soil layer. Soil characteristics which may be of concern are texture, water-holding capacity and drainage properties, nutrient content, and accumulation of toxic salts. In the event of vegetative die-off or stress, the cover soils shall be amended with appropriate nutrients to revitalize cover vegetation. A plan for the application of such nutrients shall be submitted for written approval to the Director.

1.A.3.f. Run-on/Run-off Control Structures

Run-on/run-off control ditches shall be kept clean of debris and vegetation. If debris or vegetation is found in these structures during inspections that may result in inadequate drainage of the capped lagoon, action shall be initiated within 72 hours to clear the drainage structures.

#### 1.B. SANITARY LANDFILL/PESTICIDE DISPOSAL AREA (SWMU 12/15)

The monitoring, inspection, and maintenance requirements of this section apply to the Sanitary Landfill/Pesticide Disposal Area (SWMU 12/15). The corrective measures for SWMU 12/15 include soil and vegetative cover improvements, groundwater monitoring, and land use controls. Post-closure monitoring, inspection, and maintenance are required to ensure that the corrective measures remain in effect over the long term. Post-closure requirements are documented in Attachment 5 of the Corrective Measures Implementation Plan for SWMU 12/15 (July 2005). Post-closure use of or on the former Sanitary Landfill/Pesticide Disposal Area shall not disturb the integrity of the final soil or vegetative cover, or any other component of the corrective measures without the written approval of the Director.

1.B.1 Monitoring Plan

#### 1.B.1.a. Security

- 1.B.1.a.i. The Permittee shall protect against illegal trespassing on the Sanitary Landfill/Pesticide Disposal Area. The entire TEAD-N property, which contains the Sanitary Landfill/Pesticide Disposal Area, shall be surrounded by barbed wire perimeter fences. Security on the Depot confines shall be maintained by 24-hour surveillance, and by patrolling armed security personnel. In addition, access to the Depot shall be restricted and gained only through guarded gates.
- 1.B.1.a.ii. The Sanitary Landfill/Pesticide Disposal Area shall remain fenced and access gates shall be locked for the duration of the post-closure period. Access to the Sanitary Landfill/Pesticide Disposal Area shall be strictly enforced with access only being granted for inspection and maintenance of the cap, maintenance and inspection of installation utility systems located on the site, and other investigative activities that are approved by the Director.

#### 1.B.1.b. Groundwater Monitoring

The Permittee shall perform groundwater monitoring for the Sanitary Landfill/ Pesticide Disposal Area as part of the SWMU 58 Groundwater Monitoring Program outlined in Module X.

## 1.B.2 Inspection Plan

SWMU 12/15 shall be inspected periodically to identify and document changes in the cover and the perimeter fence as they occur. Proper observation and documentation through inspection reports will enable rapid repair of the cover or fence, should it be necessary. Inspection frequencies, procedures, and

documentation are provided for the perimeter fence, erosion damage, ponded water, and vegetative cover condition. Inspection schedules are shown in Table 5. Information necessary for documentation of the inspections is listed in Table 6. An inspection form is provided as Attachment 26 to this Permit.

#### 1.B.2.a. Routine Inspections

Visual inspections are the most efficient and cost-effective method of examining the integrity of the landfill cover. Visual inspections shall be made on foot by TEAD-N or contract personnel. The Permittee shall photograph the site during the periodic site visits to document the physical conditions at the site. Photographs will be labeled with the location of the photograph, direction facing, date photographed, and a description of any relevant features in the photograph. Copies of the photographs shall be included in the inspection report.

#### 1.B.2.a.i. Perimeter Fence

The perimeter fence shall be inspected semi-annually. Breaches in the fence, broken strands, or other damage shall be documented on the inspection form and the approximate location shall be marked on a site map. Fence repairs shall be performed within 30 days after discovery of the requirement.

#### 1.B.2.a.ii. Erosion Damage

In the semi-arid environment in which TEAD-N is located, erosion will occur only after intense precipitation events. TEAD-N or contract personnel shall inspect the surface of the landfill cover on foot for evidence of erosion at midwet season and after the wet season, or within 24 hours of a storm event with precipitation greater than two inches . Corrective actions shall be implemented within 30 days of observations of exposed debris, loss of vegetative cover due to erosion, or other erosion damage greater than three inches in depth.

#### 1.B.2.a.iii. Ponded Water

TEAD-N or contract personnel shall inspect the surface of the landfill cover on foot for evidence of ponded water at mid-wet season and after the wet season, or within 24 hours of a storm event with precipitation greater than two inches. Infiltration through the soil cover and the buried debris may be accelerated due to increased volume of water in the ponded areas. Ponded areas of diameter greater than six feet shall be documented on the inspection forms. Corrective action shall be taken as appropriate to the specific depression within 30 days of discovery of ponding.

1.B.2.a.iv.

#### Vegetative Cover

TEAD-N or contract personnel shall inspect the surface of the landfill cover on foot for evidence of damage to the vegetative cover semi-annually or within 24 hours of a storm event with precipitation greater than two inches. Any areas showing evidence of dead, damaged, or stressed vegetation shall be identified on the inspection forms including location, size, and nature of

	damage. Replanting shall be performed as appropriate. The schedule for reseeding may depend on season. Other erosion control measures may be necessary if replanting is delayed. Monthly inspections shall be made at replanted areas until the vegetation is reestablished.
1.B.2.a.v.	Unusual Conditions
	In addition to documenting fence condition, erosion, ponding, and vegetation, observations of any unusual conditions shall be similarly documented. "Unusual conditions" include any conditions that may adversely affect the corrective measures that are not specifically addressed in this plan.
1.B.2.a.vi.	Site Photographs
	The Permittee shall photograph the site during periodic site visits to document the physical conditions at the site. Photographs will be labeled with the location of the photograph, direction facing, date photographed, and a description of any relevant features in the photograph. Copies of the photographs shall be included in the inspection report.
1.B.2.b.	Institutional Controls
	The Permittee shall verify that institutional control restrictions preventing residential use of the site are maintained as part of the TEAD-N Installation EMS. Any differences between the stated land use restrictions, and those identified in Table 1 will be stated in the inspection report.
1.B.3	Maintenance Plan
	This section describes a program of corrective maintenance designed to maintain the soil cover and perimeter fence at the landfill. Plans are presented for maintenance of the perimeter fence, eroded and ponded areas, settlement of soil cover, and the vegetative cover.
1.B.3.a.	Perimeter Fence Maintenance
	Repairs to the fence may include replacing broken/missing strands of barbed wire, missing/damaged signage, tightening loose strands of barbed wire, replacing posts, and replacing locks. Repair activities will be initiated within 30 days after observations of deficiencies are made.
1.B.3.b.	Erosion Damage
	On areas of minor slope, gullying is the most likely form of potential erosion damage. Corrective action will be initiated within 30 days after discovery of gullying. Re-covering and re-vegetation will be performed. Erosion control matting may also be used. At areas of significant slope, slumping may occur if the ground becomes saturated. Upon discovery of slumped areas, an engineering design for corrective action will be prepared and implemented. Corrective action will commence after review and approval of the design by a geotechnical engineer. The Director shall be notified of all repairs required.
1.B.3.c.	Ponding

Subsidence in the landfill may result in observations of ponding. Additional soil will be brought in to fill the ponded areas within 30 days after discovery.

1.B.3.d. Vegetation

Since vegetation, for the purpose of erosion control, is a required component of the landfill cover, a certain amount of maintenance is necessary. Since the landfill cover has no engineered barrier layers to protect, maintenance will not include control of "undesirable species." Maintenance is focused on ensuring vegetation remains viable to serve the purpose of erosion control. The need for maintenance will most likely be the result of erosion damage or operation of equipment (drill rigs, etc.) on the surface of the landfill. If damage occurs, reseeding will be the likely corrective action. If die-off of vegetation is observed, investigation into the cause of the die-off shall be performed before determining the corrective action. Soil amendments may be necessary before re-seeding the area. The Director shall be notified in writing within 30 days of any application of soil amendments and/or revegetation activities.

#### 1.C. BOMB WASHOUT FACILITY – BUILDING 539 (SWMU 42)

The monitoring, inspection, and maintenance requirements of this section apply to the Bomb Washout Facility - Building 539 (SWMU 42) located within the Administration Area of the TEAD-N facility. The corrective measures are outlined in the SWMU 42 SMP (2007) and consist of land use controls prohibiting residential use or development of the site, construction of a soil cover, and installation of a perimeter fence around the Bomb Washout Facility pond. Monitoring, inspection, and maintenance are required to ensure that the corrective measures remain in effect over the long term. Post closure use of or on the Bomb Washout Facility shall not disturb the integrity of the final cover, liner, or any other component of the containment system without the written approval of the Director.

1.C.1 Monitoring Plan

1.C.1.a. Security

1.C.1.a.i. The Permittee shall protect against illegal trespassing on the Bomb Washout Facility area. The entire TEAD-N property, which contains the Bomb Washout Facility, shall be surrounded by barbed wire perimeter fences. Security on the Depot confines shall be maintained by 24-hour surveillance and by patrolling armed security personnel. In addition, access to the Depot shall be restricted and gained only through guarded gates.

1.C.1.a.ii.

The Bomb Washout Facility pond shall remain fenced and access gates shall be locked for the duration of the post-closure period. Access to the Bomb Washout Facility Pond shall be strictly enforced with access only being granted for inspection and maintenance of the cap, and other investigative activities that are approved by the Director.

Inspection Plan			
Soil Cover/Site Inspections			
The Permittee shall perform a site visit on an annual basis and visually inspect the site, observing and noting any changes or abnormalities including soil erosion, soil color, habitat, vegetation, building construction, and digging. Any findings shall be recorded in the inspection report.			
The Permittee shall inspect the fence surrounding the Bomb Washout Facility pond. Breaches in the fence, broken strands, or other damage shall be documented on the inspection form and the approximate location shall be marked on a site map. Fence repairs shall be performed within 30 days after discovery of the requirement.			
The Permittee shall inspect the condition of the constructed soil cover to ensure its integrity and its capability to prevent the migration of lead contaminated soil. Any findings shall be recorded in the inspection report.			
The Permittee shall photograph the site during the annual site visit to document the physical conditions at the site. Photographs will be labeled with the location of the photograph, direction facing, date photographed, and a description of any relevant features in the photograph. Copies of the photographs shall be included in the inspection report.			
Institutional Controls			
The Permittee shall verify that institutional control restrictions preventing residential use of the site are maintained as part of the TEAD-N Installation EMS. Any differences between the stated land use restrictions, and those identified in Table 1 will be stated in the inspection report.			
Maintenance Plan			
This section describes a program of routine maintenance designed to maintain the Bomb Washout Pond during post-closure care. Maintenance plans are presented for the security fences, erosion damage and vegetative cover.			
Security Fence Maintenance			
Repairs to the security fence around the Bomb Washout pond shall include patching holes in the chain-link fabric, reattaching the fabric to the posts, replacing chain-link fabric, or replacing posts. Maintenance activities shall be initiated within 30 days after observations of deficiencies are made.			
Erosion Damage			
The most common problem on portions of the cover system is the development of large or small gullies. The cover system is especially susceptible to gullying when it has no vegetation. However, even after vegetation has been firmly established, gullying may continue to threaten the integrity of the cover. Areas most susceptible to gully formation on the cover are those steeper slopes around the perimeter of the cap. If a gullying problem (as defined by linear erosional			

features greater than three inches in depth and greater than five feet in length) does develop, repair procedures shall consist of regrading and filling using soil, followed by re-establishment of vegetation. Corrective action shall be initiated within 72 hours upon identification of gullying during any conducted inspection.

#### 1.C.3.c. Vegetative Maintenance

Since vegetation has been established on the cover system, a certain amount of maintenance is necessary. If invading plants species become established on the cover system, the selective use of herbicides shall be used to control these plants. Under certain circumstances, if an infestation of large insects threatens a stand of vegetation, the use of insecticides may become necessary. The application of herbicides or pesticides on the cover system shall be approved in writing by the Director prior to the initiation of any corrective action.

### 1.C.3.d. Soil Maintenance

Chronically weak vegetation may signal a need for revitalization of the vegetative soil layer. Soil characteristics which may be of concern are texture, water-holding capacity, and drainage properties, nutrient content, and accumulation of toxic salts. In the event of vegetative die-off or stress, the cover soils shall be amended with appropriate nutrients to revitalize cover vegetation. The Director shall be notified in writing within 30 days of any application of soil amendments.

# 2. INSTITUTIONAL CONTROL VERIFICATIONS

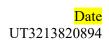
The Permittee shall conduct annual institutional control inspections on all sites identified in Table 1. As part of this inspection, the Permittee shall:

- 2.A. Verify that the institutional control restrictions outlined in Condition VIII.C.2 are documented in the Installation EMS for SWMUs identified in Table 1 that are located on-Depot. Any differences between the stated land use restrictions in the Installation EMS and those identified in Table 1 will be discussed in the inspection report.
- 2.B. Verify that there have been no modifications to the institutional controls outlined in Condition VIII.C.3, as described in the Covenants, Conditions, and Restrictions (CC&Rs) attached to the BRAC Property deed for SWMUs identified in Table 1 for any property originally located on the BRAC Property, regardless of the current owner. Any differences between the stated land use restrictions and those identified in Table 1 will be discussed in the inspection report.

#### **On-Depot and Off-Depot Institutional Controls**<sup>1</sup> BRAC Property Institutional Controls<sup>2</sup> **Temporary Restrictions Long-Term Restrictions** Groundwater Remediation and Monitoring Groundwater Groundwater Building Remediation Residential System Withdrawal SWMU Coordination Restriction and Monitoring Restriction Restriction Requirement Groundwater Restrictions SWMU Residential Excavation System Withdrawal Article VI Article VI Article VI Article VII Article VII Restriction Section 6.2 SWMU Description Restriction Restrictions Restriction Section 6.1 Section 6.3 Section 7.1.1 Section 7.3 Industrial Waste $\checkmark$ $\sqrt{}$ $\checkmark$ 2 Lagoon and on-Depot ditches Laundry $\checkmark$ $\checkmark$ $\checkmark$ 11 Effluent Ponds Pesticide √ $\sqrt{}$ $\checkmark$ 12 Disposal Area Sanitary √ $\sqrt{}$ 15 $\checkmark$ Landfill Drum Storage 1 29 Yard Contaminated $\sqrt{}$ $\sqrt{}$ 37 Waste Processor Bomb Washout 42 Facility - $\sqrt{}$ $\sqrt{}$ Building 539 Storm Water $\sqrt{}$ $\sqrt{}$ 45 Holding Pond Used Oil Dumpsters -46 Buildings 522, $\sqrt{}$ 602, 611, and 619 $\mathbf{A}$ 48 Old Dispensary V Chromic $\checkmark$ Acid/Alodine 51 Drying Beds TCE Plume and Related Solvent √ 3 58 $\sqrt{}$ Sources - On-Depot

#### Table 1 – SWMU Institutional Controls

Appendix VIII-A Post-Closure Care Plan for SWMUs Tooele Army Depot – North



12

TCE Plume and Related Solvent								
Sources – BRAC Property							N	N N
TCE Plume – Off-Depot				٦				
TEAD-N Property	√ 4	$\sqrt{5}$	1					
BRAC Property					1	$\checkmark$		

#### **NOTES:**

<sup>1</sup> On-Depot allowed uses and restrictions are defined in the CMS, CMIP, and/or SMP for each SWMU.

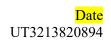
<sup>2</sup> BRAC Property allowed uses and restrictions are defined in the Covenants, Conditions, and Restrictions (CC&Rs) that are attached to all properties located in the BRAC Property. Long-term restrictions are defined in Article VI of the CC&Rs, and temporary restrictions are defined in Article VII. Exhibit D of the CC&Rs contains a summary of both categories of restrictions.

<sup>3</sup> On-Depot groundwater withdrawal restrictions per Section 4.4.2 of the SWMU 58 Groundwater Management Area (GWMA) Plan (2010).

<sup>4</sup> On-Depot residential restrictions per the Land Use Implementation Plan for TEAD-N which has been incorporated into the TEAD-N.

<sup>5</sup> On-Depot excavation restrictions per the TEAD-N dig permit system.

Appendix VIII-A Post-Closure Care Plan for SWMUs Tooele Army Depot – North



# Table 2 – Post-Closure Inspection Method and Frequency IWL and Associated Ditches

Inspection Item	Inspection Method	Inspection Frequency*
Security Fence	Routine Patrol	Semi-annual
Presence of Wildlife	Routine Patrol	Semi-annual
Unusual Odors	Routine Patrol	Semi-annual
Erosion Damage	Close-up	Semi-annual
Ponded Water	Close-up	Semi-annual
Vegetative Cover	Close-up	Semi-annual
Animal Burrows	Close-up	Semi-annual
Run-on/Run-off Control Structures	Close-up	Semi-annual
Cover Drainage System	Close-up	Semi-annual

#### NOTE:

\* Following a rainfall event greater than 2 inches, an inspection will be conducted as soon as possible.

Likewise, in the event of an abnormal snow melt event, an inspection will be conducted as soon as possible.

# Table 3 – IWL Inspection Period

Yearly Quarter <sup>1</sup>	Inspection Period**
2	April 1 - June 30
4	October 1 - December 31

NOTE:

<sup>1</sup> Any differences between the stated land use restrictions, and those identified in Table 1 will be stated in the inspection report.

\*\*Coincides with groundwater monitoring events.

# Table 4 – IWL Inspection Requirements

Inspection Item	Required Information
Security Fence	Presence of breaches, damage, corrosion
Presence of Wildlife	Number, types, location, and activities
Unusual Odors	Description, location, wind direction, strength, or odor
Erosion Damage	Extent, location, depth of gullies
Ponded Water	Size, depth, location, time since last precipitation event
Vegetative Cover	Condition, extent and location of bare soil and stressed vegetation
Animal Burrows	Locations, number, animal types
Run-on/Run-off Control Structures	Presence of debris, vegetation, and soil
Cover Drainage System	Discharge, presence of waterlogged soil

#### Table 5 – Post-Closure Inspection Frequency Sanitary Landfill/Pesticide Disposal Area (SWMU 12/15)

Inspection Item	Inspection Frequency*
Perimeter Fence	Semi-annual
Unusual Conditions	Semi-annual
Erosion Damage	Semi-annual/24-hour post-precipitation
Ponded Water	Semi-annual/24-hour post-precipitation
Vegetative Cover	Semi-annual/24-hour post-precipitation

#### NOTE:

\* Following a rainfall event greater than 2 inches, an inspection will be conducted as soon as possible.

Likewise, in the event of an abnormal snow melt event, an inspection will be conducted as soon as possible.

#### Table 6 –Post-Closure Inspection Requirements Sanitary Landfill/Pesticide Disposal Area (SWMU 12/15)

Inspection Item	<b>Required Information</b>
Perimeter Fence	Barbed wire missing/broken/loose, damaged/missing signage, damaged posts, locks, location
Unusual Conditions	Description, location
Exposed Debris	Description, location, extent
Erosion Damage	Extent, location, depth of gully/slump
Ponded Water	Size, depth, location, time since last rain
Vegetative Cover	Nature of problem, extent, location