

# **EXHIBIT S**

## **I. CLOSURE & POST-CLOSURE**

### **I.1 BACKGROUND**

This section constitutes the post-closure plan and estimate for Laraway RDF as required under Illinois Administrative Code 703.183(m) and 703.183(p) and 40 CFR 270.14(b)(13) and 270.14(b)(16). Also included in this section are descriptions of the security, communication, training and inspection programs. The plan identifies the activities, which will continue throughout the post-closure care of the facility.

The completed land disposal unit (Areas 1 and 2) will be inspected to check the integrity of the waste containment system on a routine basis. In addition, a groundwater monitoring system as described in Section E will continue to be sampled and analyzed throughout post-closure care. For costing purposes, the post-closure care period is assumed to be thirty years.

### **I.2 SUMMARY (PERMIT SECTION II.A)**

The Post-Closure Care section of the original RCRA Part B Post-Closure Permit Application and issued Post-Closure Permit described the mechanisms for ensuring the integrity and/or operability of the various environmental systems at Laraway RDF.

The environmental systems include the following:

1. Landfill cap
2. Run-on & run-off structures
3. Liner/Leachate management system
4. Landfill gas management system
5. Groundwater monitoring system
6. Security system (fence, gates, locks)

The mechanisms for ensuring integrity and/or operability of the environmental systems include:

1. Inspections
2. Repairs, maintenance, enhancements
3. Training
4. Documentation, notices & certifications
5. Post-closure cost estimates (for purposes of financial assurances)

Areas 1 and 2 were certified closed by IEPA on November 3, 1989. Post-closure care and maintenance, which commenced on that day will continue until November 3, 2019. (30 years after the date the certification of closure is approved by IEPA).

As a matter of record, the surface impoundments 5 and 6 were also certified by IEPA as clean closed on November 3, 1989. Appendix 15 contains documentation of clean closure of the impoundments. Since no wastes were left in place, the impoundments are not subject to post-closure.

### **I.3 UNIT IDENTIFICATION (PERMIT SECTION II.B)**

Section II Condition B.2 of the Permit correctly states that Areas 1 and 2 are no longer permitted to accept hazardous waste. However, wastes, which are exhumed from Areas 1 and/or 2 during corrective action activities may be reconsolidated back into these areas and the cap repaired and certified in accordance with the approved Closure Plan and certified by an Illinois Professional Engineer. Documentation records will be maintained in the Laraway RDF Operation/Post Closure Record. The corrective action activities that may result in reconsolidation of exhumed waste include those associated with the groundwater corrective action program described in Section 5 as well as intrusive repairs to the cap system (including impacted surface soils from leachate spills, seeps, etc), leachate collection system, groundwater monitoring system, and/or gas management system that may be necessary during post-closure.

### **I.4 CLOSURE PLANS**

**Not Applicable.** All RCRA closure activities at Laraway RDF are complete. No further closure activities are required.

### **I.5 POST-CLOSURE PLAN**

#### **I.5.1 Post-Closure Inspection Plan**

In general, formal post-closure inspections will be conducted semi-annually during the post-closure period. Table I-1 identifies the items to be included in the formal inspections and the frequency of inspection. Additional informal inspections will be conducted during monitoring events and after significant repairs.

Findings made during each formal inspection will be recorded on the post-closure inspection log. Copies of all inspection logs will be kept at Laraway RDF. Figure I-1 is an example inspection log that may be used during post-closure. Documentation of all repairs or replacements (other than minor grading, vegetation or similar minor maintenance efforts) required to properly maintain the site will be kept with the inspection logs and/or placed in the operating record. Problems identified and corrected during informal inspections will also be documented in the operating record.

Laraway RDF will either contract with an outside consultant/contractor or have its own personnel perform the routine inspections.

#### **I.5.1.1 Cover Inspections**

The closed RCRA Unit (Areas 1 and 2) will generally be inspected semi-annually for the remainder of the Post-Closure care period. This frequency is adequate to provide maintenance of the facility. This frequency also follows the two wet seasons of the year, spring and fall, which are the most probable seasons during which maintenance of the facility will be required.

Inspection will include checking for and noting the location of; soil erosion drainage; cover subsidence, settlement and displacement such that positive surface water drainage and/or run-off is impaired; damaged or poor vegetative cover; and damaged cover drainage. Laraway RDF will either contract with a consultant to perform the inspection or have its own representative perform the inspection.

#### **I.5.1.2 Leachate Management System Inspections**

The leachate management system will generally be inspected semi-annually as long as leachate is being removed. This frequency is adequate to provide maintenance of the facility.

#### **I.5.1.3 Run-On/Run-Off System Inspections**

Berms, ditches and retention ponds, which are components of the run-on and run-off systems will be inspected concurrent with cover inspections, since the two systems work integral with one-another.

#### **I.5.1.4 Groundwater Monitoring System Inspections**

The groundwater monitoring system proposed in Section E of this submission will be inspected as described in Section E. In general, the groundwater monitoring wells will be inspected during each sampling event.

#### **I.5.1.5 Benchmark Inspections**

Benchmarks, including monitoring wells used for surveying and recordkeeping purposes, will be inspected concurrent with cover inspections or during the routine groundwater well sample events.

#### **I.5.1.6 Gas Management System Inspections**

The gas management system will be inspected concurrent with cover inspections.

#### **I.5.1.7 Fence & Gate Inspections**

Approximately 11,100 linear feet of perimeter fencing and three gates will be kept in good repair and

inspected at least semi-annually with the cover system inspections.

## **I.5.2 Post-Closure Monitoring Plan**

Post-closure monitoring will be performed on leachate and groundwater. Laraway RDF will either contract with a consultant/contractor or have its own personnel perform the sampling. Required laboratory work will be performed by an independent laboratory.

### **I.5.2.1 Leachate Sampling**

During post-closure care to date, unique (not composited) leachate samples have been collected from each of the ten drum trench manholes (Area 2) and numerous risers and intermediate tanks in the co-disposal hill (Area 1). Leachate samples have been analyzed for the complete list of Appendix I constituents and the totality of information available is such that continued exhaustive monitoring would yield little benefit.

Because the leachate analytical database is now extensive, the Site proposed to perform representative leachate sampling in lieu of unique extraction point sampling. This would be accomplished for Area 1 by obtaining a representative leachate sample from either intermediate tank CT-1 or CT-2 (all Area 1 leachate is accumulated in one of these tanks prior to load-out via tanker truck). And for Area 2, by obtaining a sample from one of the accumulation tanks used to isolate and ship drum trench leachates (which must be managed separately from the Co-Disposal area leachate due to different leachate characteristics).

The Site does not propose to continue sampling individual risers in Area 1 or individual manholes in Area 2, since any measureable variation in leachate quality would have occurred by now (since the Site is approximately half-way into the 30 year post-closure period). More detailed leachate evaluations would of course occur prior to any solicitation to discontinue leachate extraction in either area.

The composite leachate samples will be analyzed for the Appendix I list until one of the following occurs:

1. A sampling point has complete Appendix I data for four (4) sampling events. Appendix I parameters which are not detected during any of the four events may be removed from the Appendix I list for that sampling point for any subsequent event; or
2. An Appendix I parameter is not detected in any of the leachate samples for four (4) consecutive years. That parameter(s) may be dropped from all subsequent analyses.

A full Appendix I analysis will be conducted every fourth year. Results of the annual leachate sampling and analysis will be submitted to IEPA by June 1 of each year.

### **I.5.2.2 Groundwater Monitoring**

Groundwater monitoring at Laraway RDF will be conducted in accordance with the proposed monitoring programs presented in Section E of this submission when approved by IEPA.

### **I.5.3 Post-Closure Maintenance Plan**

Laraway RDF will either hire an appropriate contractor or have its own personnel perform routine maintenance and repairs that are identified as a result of an inspection.

#### **I.5.3.1 Cover Maintenance & Repairs**

Maintenance and routine repair activities to the cover systems will respond to the specific need(s) determined from the inspections. The following items will be repaired as necessary;

- Areas of settlement, subsidence and displacement;
- Ponding on the cover;
- Cracks or erosion channels on the cover greater than five inches wide or six inches deep, which are capable of causing an integrity problem with the synthetic and/or compacted clay cover;
- Gas or odor problems;
- Dead, stressed, or damaged vegetation;
- Vector problems;
- Leachate seeps

Since most of the vegetative cover is comprised of a wildflower mixture, annual mowing is generally not necessary. Depending upon the weather conditions, which directly impact the quality of the wildflowers, mowing may or may not be conducted. Similarly, the frequency and type of fertilization will be dependent upon the quality of the vegetative cover together with weather conditions. Based on the quality of the vegetative cover to date, the need for annual fertilization is not anticipated.

Any item requiring repair or maintenance will be fixed or replaced to provide performance equal to a new item.

Based on actual observations since Areas 1 and 2 have been closed, very little settlement has been experienced. For post-closure cost purposes, however, WMII assumes that three percent of the cover area will be required to be dressed every five years.

Laraway RDF will either contract with a local contractor to perform the routine maintenance or have its own personnel perform the maintenance as a result of inspection.

Whenever maintenance operation activities occur to repair the final cover, the final cover will be repaired to the conditions specified in the closure plan. It will be verified in accordance with the following procedures, inspected and certification records placed in the site operation/post-closure record.

Excavations into the final cover may be necessary for a variety of reasons. Examples of situations requiring excavation into the final cover include; making repairs and/or enhancements to the leachate management and/or gas management systems; soil remediation associated with corrective action, and/or spill clean-up activities associated with Area 1 or 2 leachate or gas condensate. Excavations would be required to remove or install components to the environmental systems. Exhumed waste and contaminated soil would be reconsolidated in the landfill and the cap repaired to the condition achieved during the approved RCRA closure, or such waste may be disposed of off-site.

The final cover consists of a compacted clay component over the entire landfill, a synthetic component over the top portions of the landfill, and a protective and vegetative component. Following are the procedures for repairing each component of the final cap.

### **Compacted Clay Component**

The methods used for re-compacting the clay cap will vary from location to location depending upon the size of the retrofit, repair, or addition. In general, re-compaction will consist of placing cohesive soil in lifts not to exceed the length of a sheepsfoot compactor foot or, where a sheepsfoot compactor is not used, then not to exceed six inches and compacting with appropriately sized equipment.

For smaller excavations/repairs (typically tied to repairing wells or other “stick-ups”) the integrity of the replacement soils will be visual and documented via photographs in the operating record for the Site. For larger excavations the integrity of the compacted clay component will be verified using an industry accepted hydraulic conductivity test. It is anticipated that the frequency of testing would be one-test per acre unless field conditions warrant a more thorough evaluation (e.g., variations in color or other physical features).

### **Synthetic Liner Component**

Repair patches to the synthetic cap will extend at least 8-inches beyond the area being patched. To verify the integrity of the synthetic cap after a repair or improvement, welds will be field-tested using a vacuum to check for leaks. A 1-inch (minimum) piece of the weld ("bone") will be checked for weld strength using a tensiometer.

### **Protective Soil & Vegetative Component**

A protective soil cover will be applied above the synthetic component. A minimum of 6-inches of soils capable of supporting vegetation will be applied over the protective soils. The area will be

seeded with shallow rooted grasses and/or wildflowers as soon as possible, weather permitting.

### **I.5.3.2 Leachate/Liner System Maintenance & Repairs**

The leachate management system in Areas 1 and 2 was generally installed as a retro-fit system and is comprised of a series of gravel/pipe trenches, vertical extraction/monitoring risers or manholes, and tanks. These are described in detail below.

The Area 1 and 2 liner systems are generally comprised of on-site low permeability soils. Since the site is in post-closure, and functioning leachate and cover systems are in place, it is not anticipated that any repairs to the liner systems will be necessary.

#### **Existing System**

##### Area 1

The originally permitted leachate collection system for the co-disposal hill consists of a perimeter trench around the north, west and south side of the co-disposal hill. Leachate from the perimeter trench is collected at four - Perimeter Leachate Extraction Risers (PLER) where it is pumped through permanent piping to intermediate collection Tanks 1 or 2 (CT-1 and CT-2). A third intermediate tank, CT-3, collects leachate from a few extraction points near DTM's 7-9 and gas condensated from the line leading to the utility flare.

Along the eastern side of the co-disposal hill, leachate is collected at eight - Leachate Extraction Risers (LER) where it is also pumped through permanent piping to collection Tanks CT - 1 or 2. In addition, several interior gas/leachate extraction wells (W) are pumped through permanent piping to collection Tanks CT -1 or 2 (the exact number and location of these interior points may vary to meet leachate extraction demands).

For each of the intermediate collection tanks the Site has the ability to either pump directly out of each tank into an adjacent tanker truck or portable container/tank or else pump via dedicated forcemain into one of several accumulation tanks located within Area2 (i.e., tanks 15-19). Leachate levels in the co-disposal hill are measured in thirteen Leachate Well (LW) piezometers. All extracted leachates are transported via tanker truck to an off-site facility for treatment.

##### Area 2

Leachate from the drum trenches is removed from ten manholes, one dedicated manhole for each trench (DTM's). Drum trench leachate for DTM's 1-5 and 10 are generally pumped to one of the accumulation Tanks (Tanks 15-19) via a dedicated forcemain system; and occasionally are alternatively pumped via submersible or vacuum pump directly into a tanker vehicle or similar vehicle. The remaining drum trenches (i.e., DTM 6-9) do not have a dedicated pump and are solely managed by the submersible or vacuum pump scenario. In any case, the leachates are ultimately transported off-site for treatment.

## Approved Improvements

The existing leachate management system detailed above was made possible through a number of approved modifications; the most significant was approved on October 21, 1993. A copy of the IEPA approval letter is provided in Appendix 16. The attached approval included the following improvements:

1. Approval to pump from additional extraction points as necessary. An "extraction point" is defined as any and all constructed devices at which leachate can be measured and from which leachate can be pumped without jeopardizing the integrity of the device. Existing extraction points generally include PLERs, LERs, DTMs, Ws, TRs, and LCRs

Some locations may be continually pumped for an extended time and others may be pumped periodically depending upon the liquid levels. Pumps may or may not be dedicated.

2. Approval to replace piezometers LW1 through LW8 and LW10 through LW13. These piezometers, which have been replaced, are used to monitor leachate elevations in the landfill. A unique maintenance elevation has been determined for each piezometer and the information has been entered into the operating record.
3. Approval of an option to add permanent piping from leachate collection riser manholes (LCR) to existing Collection Tank CT - 3. (Note: This has been completed and construction documentation entered into the operating record.)
4. Modify some existing trench risers (TR) to add riser pipe and monitor the leachate head levels in the perimeter trench. (Note: This has been completed and the construction documentation entered into the operating record.)
5. Add an additional gas/leachate well (W-21) at a location to be determined. (Note: This has been completed and documentation entered into the operating record.)
6. Replace permanent piping from PLER 4 to Collection Tank CT - 2. (Note: This has been completed and the construction documentation entered into the operating record.)
7. Replace permanent piping from PLER 1 to Collection Tank CT - 1. (Note: This has been completed and the construction documentation entered into the operating record.)
8. Add new PLER 5 in southwest corner of co-disposal hill.
9. Replace permanent piping from W-1 through W-4 to PLER 4.

10. Add additional piping (force main) along the north central edge of the co-disposal hill to Collection Tank CT – 2 near the southeast corner of the co-disposal hill, and from W-20 to existing leachate lines near the south central edge of the co-disposal hill.

(NOTE: Based on the results of some of the leachate system improvements, the need for this improvement is no longer apparent. The force main, therefore, may or may not be installed at some later date.)

11. Add new PLER-5A and PLER-5B if necessary. (Note: For simplicity, these devices will be named PLER-6 and PLER-7 respectively)

As noted above, some of these improvements have been completed while others may be completed at a later date depending on changing leachate management needs. Figure I-2 shows the approximate current locations of existing system components and approved improvements.

### **Portable Leachate Collection Tank Systems**

Based on the experience at Laraway RDF to date, WMII has determined a potential need for a more versatile mechanism for collecting leachate once it is removed from the landfill. The quantity of leachate pumped from individual locations in the landfill will vary considerably over time. For example, one area may yield substantial amounts for several weeks or months and will then go essentially dry for months. Another area may yield moderate, but consistent amounts of leachate for extended periods of time.

Currently, leachate is collected by two mechanisms; first, it can be directed to one of the three permanent collection tanks (CT1, CT2, CT3), or; second, leachate can be pumped directly into tank trucks for off-site treatment. In some cases, these systems are the most appropriate. However, at certain pumping locations long lengths of over ground hoses are needed to direct leachate to one of the permanent collection tanks or a tank truck. The use of a tanker truck at lower yielding extraction points is not practical since it may take several weeks for a tanker to be filled.

To minimize these problems, WMII may use portable leachate collection tank/container systems, which can be moved as necessary around the landfill. Multiple portable leachate collection tank/container systems may be operated at any given time. The portable collection system(s) will not be used for greater than 90-day storage and, therefore, **does not require a permit**. Considering the basic portable and temporary features of the proposed collection system, WMII believed that the proposed collection systems should be identified as containers, and not as tanks. Identifications as containers will not require WMII to obtain certifications of the collections systems under RCRA Tank System standards. The system is described in this section because it is considered an essential component of the leachate management system.

### **Future Enhancements**

The leachate management system is a dynamic environmental control system. Information

contributing to its effectiveness has developed based on actual operations of the system. It is reasonable to assume that new information will develop in the future. This may indicate the need for additional enhancements to maintain the permitted performance standard of the system, which may be similar to the components of the current system.

WMII will notify IEPA of minor modifications to existing components via a Class 1 Modification. Examples of Class 1 Modifications might include, but are not limited to modification to existing or installation of additional components of the following system features: PLER's, LER's, DTM's, W's, TR's, LCR's. They might also include replacement of existing piping with different size or type piping; replacement of existing collection tanks; pumps; pump systems; etc. The replacement of various mechanical components (e.g., pumps, valves, etc.) with similar or identical components is not considered an activity requiring a permit modification or notification.

In the event WMII identifies the need for more significant modifications, WMII will notify IEPA with a Class 1(\*) or other appropriate modification prior to making changes.

Whenever an enhancement is made that requires excavation into the final cover, WMII or its consultant will repair and certify the cap as described above (Cover Repairs). If the enhancement requires excavation into waste, a project specific health and safety plan will be developed prior to construction. The health and safety plan will address personnel or air monitoring at the construction location to ensure the safety of those working on the project.

Exhumed refuse from these enhancement construction activities will be returned to the excavation from which it originated or it will be collected in containers such as roll-off boxes and reconsolidated in a designated area in the co-disposal hill. The actual reconsolidation location will be determined in the field based on field conditions and to ensure integrity to the landfill. The vegetative and clay layers will be removed and stockpiled for later reuse. The clay portion of the cap will be excavated. The refuse will be placed within the excavation and the clay portion of the cap will be repaired and certified as described previously.

The synthetic layer may be folded back for reuse if inspection indicates that it is in good or easily repairable condition. If the excavation procedures have damaged the synthetic, the damaged portion will be removed and a patch will be installed, inspected, verified, and certified as described. The "spoiled" synthetic cap may be cleaned and salvaged or reconsolidated in the landfill as waste.

A variety of installation procedures will be used to complete the repairs, retrofits, and improvements described in this plan. In general, the leachate piezometer and other vertical piping will be installed using a drill rig. Heavy equipment (e.g. backhoes, trenchers, etc.) will be used for permanent (horizontal) pipe installation, trench riser retrofit, etc. A variety of compaction equipment will be used to repair the clay cap. Any decontamination requirements for equipment or devices may be performed within the excavation footprint or be performed elsewhere on-site depending on project specifics (i.e., room available, hazards, etc.). Any decontamination efforts outside the expansion footprint would adhere to the appropriate containment, cleanup, disposal, etc. procedures as

mandated by regulation or other guidelines.

The repairs, retrofits, and improvements will be made by contractors and/or WMII personnel, depending upon the work. All workers will have adequate training and medical monitoring.

## **Leachate Removal**

### *Co-Disposal Area (Area 1)*

As described earlier, pumps are installed at various vertical extraction points within the co-disposal hill. These extraction locations facilitate movement of “pumpable” leachate to one of three permanent intermediate collection tanks (CT1, CT2, CT3); which is in-turn pumped to one of five accumulation tanks located along the east side of Area 1 (i.e., tanks 15-19). The vertical extraction points are normally set in automatic mode with pump cycling based on liquid levels at each point.

The Site may also pump directly from these tanks using submersible or vacuum pumps into an adjacent tanker vehicle or portable tank/container (e.g., Frac tanks). “Pumpable” leachate is defined as a material that would generally be extractable using typical leachate pumping units.

Leachate piezometers (13 points) in the co-disposal area (Area 1), which may or may not have dedicated pumps, are checked once a month for leachate levels. If “pumpable” leachate is present, it will be pumped until recharge yields are impractical to continue pumping. Recharge yields are considered impractical if the pump does not cycle (i.e. pump) within a 15-minute period.

### *Drum Trench Manhole Area (Area 2)*

The extraction points (drum trench manholes) in the drum trenches (Area 2) will be pumped automatically or via tanker/vacuum vehicle once each working day for “pumpable” liquid, until recharge yields are impractical to continue daily pumping. Recharge yields are considered impractical if the pump does not cycle (i.e. pump) within a 15-minute period.

When automatic or daily pumping of a drum trench manhole becomes impractical, a weekly pumping schedule for that manhole will commence. The manhole will be inspected for the presence of leachate at least once a month. If leachate is present above 1-foot (over the liner), it will be pumped until recharge yields are impractical to continue daily pumping. Recharge yields are considered impractical if the pump does not cycle (i.e. pump) within a 15-minute period.

If a manhole is essentially dry (i.e. less than a level capable of being pumped) for two consecutive weeks during the weekly pumping schedule, a monthly pumping schedule for that manhole will commence. The manhole will be inspected for the presences of leachate once a month. If leachate is present, it will be pumped each working day until recharge yields are impractical, as defined previously, to continue daily pumping.

If any extraction point is essentially dry (i.e. less than a level capable of being pumped) for two

consecutive months during the monthly pumping schedule, a quarterly pumping schedule for the extraction point will commence. Conversely, if a previously dry extraction point begins to yield volumes suitable for practical removal, the pumping schedule will revert to the more frequent routine.

The volume of leachate removed from each extraction point during a year will be included in an annual report, which will be submitted to IEPA by June 1 of each year.

### **Leachate Elevation Monitoring**

The ultimate goal of the leachate management system is to remove pumpable leachate until no more than 1-foot of leachate remains on the landfill liner. WMII anticipates that the “pumpable” leachate level of 1-foot, as monitored, will be achieved by the end of the post closure care period. To monitor the effectiveness of the leachate management system in achieving the 1-foot goal, WMII will measure leachate elevation in thirteen leachate piezometers for Area 1 (LW-1R – LW-8R, LW-9, and LW-10R – LW-13R), as well as the drum trench manholes for Area 2 (DTM’s 1-10).

A unique maintenance elevation has been established for each piezometer based on the field observations made during piezometer construction and the observed base grade (i.e. top of the liner) at each piezometer location. Monthly leachate elevation readings will be obtained at each piezometer or manhole until there have been twelve sampling events of leachate levels showing 1-foot or less of leachate (based on the unique maintenance elevations for each piezometer). When this occurs, leachate elevation readings will be obtained quarterly.

The record of leachate elevations obtained in a year will be included in the required annual hazardous waste report sent to the IEPA each year.

### **Routine Maintenance & Repair**

After the leachate management system is complete, maintenance activities and repairs will be made to ensure proper operability of the system. Examples of maintenance activities and repairs include, but are not limited to; installing, removing, replacing pumps; replacement of broken or malfunctioning components with like-kind components.

Routine maintenance and repairs, which will be conducted without a permit modification will be documented in the operating record.

#### **I.5.3.3 Run-On/Run-Off System Maintenance & Repairs**

Repairs or maintenance to prevent run-on or run-off from damaging cap will be performed.

#### **I.5.3.4 Groundwater Monitoring System Maintenance & Repairs**

Damage or wear which may impact the capability of the groundwater monitoring well to yield a representative sample or change the groundwater monitoring program will be repaired or replaced before the next sampling event.

#### **I.5.3.5 Benchmark Maintenance & Repairs**

Routine -maintenance such as cutting vegetation around benchmarks will be conducted. Repairs will be made as necessary.

#### **I.5.3.6 Gas Management System Maintenance & Repairs**

The gas management system design and general operational requirements are permitted under another (non-RCRA) program. That permit allows WMII to modify the gas control system on an as-needed basis in order to operate the system most efficiently.

The gas management activities that are included in the RCRA Part B Post-Closure Permit include the following:

1. Flare landfill gas throughout the post-closure period.
2. If subsurface gas creates problems, submit a Corrective Action Plan for approval, and upon approval, implement the plan.

In addition to the two specific gas related Permit conditions, a general Permit condition requires the cap to be repaired and certified whenever modifications to the gas management system require excavations into the final cap.

##### **I.5.3.6(a) Flare Gas**

The gas management system directs landfill gas to a central flare station where the gas is flared (burned). Historically the flare has operated on a nearly continuous schedule. However, in the future, as less gas is generated in the landfill, it may be possible that insufficient landfill gas will be available to support a constant flare.

WMII will submit a Class 1(\*) Modification to IEPA requesting approval of alternate methods for gas removal and/or flaring at the time sufficient technical information is available to support the request.

In order to improve the efficiency of the gas management system, it may be necessary from time to time to turn off the system in order to allow landfill gas to equilibrate. By doing this, static gas

pressures in the landfill can be measured in order to identify locations with high gas levels. This type of testing will generally take approximately one-month to complete. During this time, the flare will not operate. Since this is considered a normal operation and not a change to the system, there will be no modification to the permit.

#### **I.5.3.6(b) Subsurface Gas Problems**

Subsurface gas problems could include detection of landfill gas at the property line, in structures, in monitoring wells, stressed vegetation, or a number of other conditions. In most cases, the condition can be corrected with non-destructive modifications to the gas management system. For example, when leachate accumulates in a gas extraction well (W), the gas removal efficiencies from that well diminish substantially. By removing accumulated leachate, gas removal is generally improved. Similarly, if the well screen in a gas well becomes clogged (e.g. with silt), gas removal will be reduced. WMII may try a number of non-destructive methods to un-clog a well screen. These remedies will not require a corrective action plan or a permit modification.

When non-destructive modifications or the installation of additional gas wells are not adequate to correct a subsurface gas problem and it is necessary to excavate into the final cap in order to modify the gas management system, WMII will prepare a corrective action plan. The corrective action plan will describe the gas problem, the proposed remediation, and the mechanism to verify the effectiveness of the corrective action. The corrective action plan will be submitted as a Class 1(\*) Modification.

#### **I.5.3.6(c) Repair of the Final Cap**

Whenever a modification to the gas management system requires excavation into the final cap, the cap will be repaired and certified in accordance with the approved closure plan and as described previously in the Cover Repairs subsection.

Routine maintenance to the gas system will be performed to ensure proper operability of the system. Repairs will be made as necessary

#### **I.5.3.7 Fence & Gate Maintenance & Repairs**

Routine maintenance to the fence, gates and locks will be performed to ensure adequate site security. If repairs are indicated, an outside fencing contractor is expected to make necessary repairs.

### **I.5.4 Continued Land Treatment**

**Not Applicable.** There are no post-closure land treatment operations occurring at Laraway RDF.

## **I.6 NOTICE-IN-DEED & CERTIFICATION**

Notice to the local land authority by Laraway's owner/operator was made previously and was submitted in the Part B Permit Application (11/15/84). The referenced Notice in Deed and the accompanying survey plat showed the location and dimensions of Areas 1 and 2.

The original Notice in Deed included a permitted area known as Trench 11. Because Trench 11 was never used for hazardous waste management, i.e., no hazardous wastes were treated, stored or disposed in the unit, WMII later revised the Notice in Deed and the survey plat to exclude Trench 11 as a hazardous waste unit.

A notation on the deed to the facility property was made in accordance with Illinois law that will notify any potential purchaser of the property that:

- The land has been used to manage and dispose of hazardous waste.
- Use of the land is restricted as per post-closure care and use of the site.
- The survey plat and record of the location of hazardous waste disposed of in Area 1 and 2 at Laraway are on file with the local land authority.

The revised Notice in Deed and survey plat was submitted prior to issuance of the Part B Post-Closure Permit.

Subsequent to the revised Notice in Deed, slight discrepancies in the survey have been detected, noted and corrected. The corrected survey has been sent to Will County for recording. Copies of the original Notice in Deed and the most recent corrected survey are provided in Appendix 17.

## **I.7 CLOSURE COST ESTIMATE**

**Not Applicable.** Since all RCRA closure activities at Laraway RDF are complete, no additional costs are associated with closure activities.

## **I.8 FINANCIAL ASSURANCE FOR CLOSURE**

**Not Applicable.** Since all RCRA closure activities at Laraway RDF are complete, there is no financial assurance requirement for closure.

## **I.9 POST-CLOSURE COST ESTIMATE**

The costs for each component of the post-closure care and maintenance are presented on Table I-2. Although WMII may perform many of the post-closure care and maintenance activities, the cost

estimate assumes all work will be performed by outside (non-WMII) personnel.

#### **I.10 FINANCIAL ASSURANCE FOR POST-CLOSURE**

During the active and post-closure live of Laraway RDF, WMII has used several financial assurance mechanisms for post-closure care in accordance with the requirements under 35 IAC 724.245. Currently, the post-closure financial assurance are met by a letter of credit. A copy of the current instrument, which has been provided to IEPA previously, is shown in Appendix 18. Financial assurance is reviewed and updated annually and provided to IEPA.

#### **I.11 LIABILITY REQUIREMENTS**

During the active and post-closure live of Laraway RDF, WMII has used several mechanisms to comply with the liability insurance requirements contained in 35 IAC 724.247. There is a pending Class 1\* permit modification proposing to eliminate the liability insurance requirements for the Site. A copy of this request is included in the list of pending/recently approved permit applications in Appendix 21 to this Renewal Application.

#### **I.12 STATE MECHANISMS**

**Not Applicable.** There are no unique state required mechanisms nor has the state assumed legal responsibility for Laraway's post-closure care and maintenance.

**Table I-1**  
**Typical Post-Closure Inspection Plan & Schedule**

COMPONENT TO BE INSPECTED	INSPECTION PROCEDURE	FREQUENCY OF INSPECTION
Groundwater monitoring network	<ol style="list-style-type: none"> <li>1. Check for subsidence or settlement around wells.</li> <li>2. Check condition of protective pipe, concrete collar, and operability of lock.</li> <li>3. Check condition of bumper posts, if present.</li> <li>4. Check presence and operability of dedicated sampling equipment and condition of riser pipe.</li> </ol>	Corresponding to each routine groundwater sampling event
Groundwater Extraction System (including extraction and treatment components)	Check presence, condition and operability equipment	Each day Site personnel are present , but no less frequent than semi-annually (problems will be documented in weekly pumping system data reports)
Cover system (including: - Stormwater Structures - Stickups - Fencing/Security)	<ol style="list-style-type: none"> <li>1. Check for signs of differential settling, subsidence, erosion, cracking, ponding of water, burrowing.</li> <li>2. Check for loss of vegetative cover and vegetative growth that could be detrimental to cover integrity (i.e. deep rooted species).</li> <li>3. Note presence of leachate seeps or gas bubbles.</li> </ol> <p>Note: See attached example inspection form for other inspection points.</p>	Semi-annually
Leachate Mgt. System	<ol style="list-style-type: none"> <li>1. Check for subsidence or settlement around sumps.</li> <li>2. Check leachate levels.</li> <li>3. Check condition of concrete collar; operability of lock.</li> <li>4. Ensure pumping system operation (at a frequency coinciding with level measurement requirements)</li> <li>5. Ensure accumulation tank function/integrity (at a frequency commensurate with 90-day storage requirements)</li> </ol>	<p><b>Levels:</b> Monthly until level is below the pump operating level for two consecutive months, then;  Quarterly until level is below the pump operating level for two consecutive quarters, then;  Semi-annually.</p> <p>Note: Will revert back to the next level up if pump operation level is exceeded during a routine monitoring event)</p> <p><b>General Inspections:</b> Semi-annually</p>
Hazardous Waste warning signs	Check for presence & condition.	Corresponding to each routine groundwater sampling event
Benchmarks	Check for presence & condition.	Semi-annually
Gas Mgt. System	<ol style="list-style-type: none"> <li>1. Check for significant soil settlement around the wells.</li> <li>2. Inspect exposed piping, valves, and fittings for leaks or damage.</li> </ol>	Semi-annually

