

# POST CLOSURE CARE PLAN

Edinburg Regional Disposal Facility

Edinburg, Hidalgo County, Texas

TCEQ Permit MSW-956C



**Prepared for:** City of Edinburg  
Department of Solid Waste Management  
8601 North Jasman Road  
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INTENDED FOR PERMITTING  
PURPOSES ONLY

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## **EXECUTIVE SUMMARY**

30 TAC §330.63(i) & §330.463(b)(3)(B)

This post-closure plan is prepared in accordance with 30 TAC Chapter 330 Subchapter K and the City shall place a copy of this plan in the operating record upon issuance of this permit. The post-closure plan includes a description of the monitoring and maintenance activities required and the frequency at which these activities will be performed. The City is the responsible for overseeing and conducting post-closure care activities.

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Also included in this post-closure plan is a description of the planned uses of any portion of the closed unit during the post-closure period in accordance with 30 TAC §330.465. A detailed written estimate, in current dollars, of the cost of post-closure care maintenance and any corrective action as described in this post-closure care plan or required by the TCEQ is included in Part III9B, TCEQ Post-Closure Cost Estimate Form.

## **1.0 POST-CLOSURE CARE REQUIREMENTS**

### 30 TAC §330.463(b)(3)(A)

Monitoring and maintenance activities are required in post-closure care period. Post-closure care activities will follow the measures and conditions specified in Appendix III8A, TCEQ Post Closure Care Plan Form. A description of these activities and the frequency at which these activities will be performed are included in the following sections.

### **1.1 Post-Closure Care Period**

#### 30 TAC §§330.463 (b)(1) & §330.463(b)(2)

After professional engineer certification of the completion of closure requirements for a municipal solid waste management unit as accepted by the TCEQ, the City shall conduct post-closure care for the unit for 30 years, unless revised by the TCEQ. The post-closure care period may be decreased by the TCEQ if the City submits to the TCEQ for review and approval a documented certification, signed by a licensed professional engineer and including all applicable documentation necessary to support the certification, which demonstrates that the reduced period is sufficient to protect human health and the environment. The TCEQ may also reduce the post-closure period for the unit if all wastes and waste residues have been removed during closure. The post-closure period care period may be increased by the TCEQ if it is determined that the lengthened period is necessary to protect human health and the environment. If there is evidence of a release from a municipal solid waste unit, the TCEQ may require an investigation into the nature and extent of the release and an assessment of measures necessary to correct an impact to groundwater.

### **1.2 Inspection Activities and Correction of Problems**

#### 30 TAC §330.463 (b)(1)(A)

The site operator will conduct periodic inspection of the closed units to identify and document deficiency conditions and conduct maintenance and corrective action to maintain compliance. Tables III8-1 through III8-6 provide information on the inspection items and deficiency conditions that the site operator will look for during inspection of the major components of the landfill and the site during the post-closure care period. The City shall correct, as needed, erosion of cover material, lack of vegetative growth, leachate or methane migration, and subsidence or ponding of water on the unit. If any of these problems occur after the end of the five-year post-closure period or persist for longer than the first five years of post-closure care, the City shall be responsible for their correction until the TCEQ determines that all problems have been adequately resolved. Other inspection and maintenance provisions that apply during the post-closure care period as specified in the facility's site operating plan, site development plan, or applicable rules will remain in effect.

The City shall retain the right of entry to and maintain all rights-of-way of a closed municipal solid waste management unit in order to conduct periodic inspections of the closed unit, conduct maintenance and/or remediation activities, as needed, in order to maintain the integrity and effectiveness of all final cover, facility vegetation, and drainage control system, to correct any effects of settlement, subsidence, ponded water, erosion, or other events or failures detrimental to the integrity of the closed unit and to prevent any surface run-on and run-off from eroding or otherwise damaging the final cover system.

### 1.2.1 Right of Entry and Rights-of-way

During the post-closure monitoring and maintenance period of the site, the facility access and Rights-of-way will be inspected quarterly. At a minimum, maintenance will be performed as needed prior to the next scheduled inspection.

**Table III8-1: Access and Right-of-way Inspection Items**

Inspection Item	Types of Deficiency Conditions
Gates, Gate Locks and Barriers	Damaged, gates unlocked/locks missing, signs of site entry detected
Fence and other Access Control Barriers	Damaged, broken, signs of entry detected
Vegetation Control in Areas of the Facility other than the Final Cover	Vegetative stress, overgrowth, vegetation other than what was designated in that area

### 1.2.2 Final Cover

During the post-closure monitoring and maintenance period of the site, the final cover will be inspected quarterly. Monitoring and maintenance activities will be performed to maintain the integrity and effectiveness of the final cover system. Items included in the quarterly assessment will include inspection of the final cover for vegetation, erosion, and functionality of the surface water drainage system. Erosion, cuts, and depressions in the final cover will be noted, as will damage and debris and sediment build-up in the drainage system. Maintenance will include performing final cover repairs to fill erosion cuts and low areas. Drainage systems will be regraded as necessary and cleared of debris and sediment, as needed, to facilitate continued performance. At a minimum, maintenance will be performed as needed prior to the next scheduled inspection.

**Table III8-2: Final Cover Inspection Items**

Inspection Item	Types of Deficiency Conditions
Vegetation and other Ground Cover Materials	Vegetative stress, vegetation height and whether mowing is required, presence of weeds or sprouting saplings that may develop root systems capable of compromising the final cover, erosion and functionality of the surface water drainage system

<b>Inspection Item</b>	<b>Types of Deficiency Conditions</b>
Settlement	Settlement or other problems developed between inspections
Subsidence	Cuts and depressions
Ponded Water	Damage, debris or sediment buildup, potential for ponding
Erosion	Rills and depressions, soil loss, gullies

### **1.2.3 Drainage Control System**

During the post-closure monitoring and maintenance period of the site, the drainage control system will be inspected quarterly. Monitoring and maintenance activities will be performed to maintain the integrity and effectiveness of the drainage control system. Items included in the quarterly assessment will include functionality of the surface water drainage system. Drainage systems will be regraded as necessary and cleared of debris and sediment, as needed, to facilitate continued performance. At a minimum, maintenance will be performed as needed prior to the next scheduled inspection.

**Table III8-3: Drainage Control System Inspection Items**

<b>Inspection Item</b>	<b>Types of Deficiency Conditions</b>
Vegetation within Drainage Control Structures	Vegetative stress or overgrowth, sediment buildup, damage to the control structures, cracks in the channel lining, impairment of flow
Component Failures	Outlet structure damage or clogging, other structural damages, impairment of flow
Wash Outs	Erosion, depressions or cuts, ponded areas
Sediment Build Up	Presence of obstructions in the flow paths erosion, settlement and ponding

### **1.2.4 Leachate Collection and Removal System**

30 TAC §330.463(b)(1)(B)

The City shall maintain and operate the leachate collection and removal system throughout the post-closure care period in accordance with the requirements of 30 TAC §330.331 and §330.333 and Part III3, Waste Management Unit Design Report. The components of the leachate collection and removal system will be routinely inspected to maintain its integrity and effectiveness. The need for maintenance will be assessed based on performance during routine monitoring. At a minimum, maintenance will be performed as needed prior to the next scheduled inspection. The TCEQ may allow the City to stop managing leachate if the City demonstrates to the approval of the TCEQ that leachate no longer poses a threat to human health and the environment.

**Table III8-4: Leachate Collection and Removal System Inspection Items**

Inspection Item	Types of Deficiency Conditions
Leachate Pumps	Visible damage to pumps, abnormal flow rates or odors.
Leachate Forcemain	Visible damage to forcemains, abnormal flow rates or odors.
Leachate Collection Lines	Abnormal flow rates or odors. Leachate collection lines may need periodic cleaning or flushing to dislodge biological mass or fines than may have clogged the pipe perforations.

### 1.2.5 Landfill Gas Management System

The City shall maintain and operate the landfill gas management system throughout the post-closure care period in accordance with the requirements of Part III6, Landfill Gas Management Plan. The components of the landfill gas management system will be routinely inspected to maintain its integrity and effectiveness. The need for maintenance will be assessed based on performance during routine monitoring. At a minimum, maintenance will be performed as needed prior to the next scheduled inspection.

**Table III8-5: Landfill Gas Management System Inspection Items**

Inspection Item	Types of Deficiency Conditions
Gas Wells	Visible damage and landfill gas extraction performance.
Lateral and header piping	Cracks, bends, breakage or blockage of landfill gas flow
Condensate Sumps	Visible damage and performance.
Flare Station	Visible damage and performance. May need calibration.

### 1.2.6 Groundwater and Gas Monitoring Systems

During the post-closure monitoring and maintenance period of the site, the groundwater and gas monitoring systems will be routinely inspected to maintain their integrity and effectiveness. Particular attention will be paid to ensure that monitoring equipment is calibrated according to the manufacturers' recommendations. Maintenance of the groundwater and gas monitoring systems will be performed prior to or during the next scheduled sampling or monitoring event, depending on the extent of the repairs or maintenance required.

**Table III8-6: Groundwater and Gas Monitoring Inspection Items**

Inspection Item	Types of Deficiency Conditions
Groundwater Monitoring Wells	Visible damage to protective casing, well locks, or concrete pads.
Landfill Gas Monitoring Probes	Visible damage to protective casing, well locks, or concrete pads.

## 1.3 Continuation of Monitoring Programs

Groundwater and gas monitoring programs in effect during the life of the unit shall be continued during the post-closure care period. If there is evidence of a release from a municipal solid waste unit, the TCEQ may

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require an investigation into the nature and extent of the release and an assessment of measures necessary to correct an impact to groundwater.

### **1.3.1 Groundwater Monitoring System**

30 TAC §330.463(b)(1)(C)

Groundwater monitoring activities will continue throughout the post-closure care period in accordance the requirements of 30 TAC Chapter 330 Subchapter J and Part III5B, Groundwater Sampling and Analysis Plan (GWSAP). All groundwater monitoring wells including in the groundwater monitoring network will be monitored semi-annually unless otherwise approved by the TCEQ. If there is evidence of a confirmed statistically significant increase over constituent background values, the City shall implement an assessment monitoring plan outlined in Part III5B, GWSAP.

### **1.3.2 Gas Monitoring System**

30 TAC §330.463(b)(1)(D)

Landfill gas monitoring activities will continue throughout the post-closure care period, in accordance with the requirements of 30 TAC Chapter 330 Subchapter I and Part III 6, Landfill Gas Management Plan, as conducted during the active facility operations. All structures and permanent gas monitoring probes will be sampled quarterly unless otherwise approved by the TCEQ. If there is evidence of confirmed landfill gas migration from the waste management units at the facility, the City shall implement the contingency plan in Part III6, Landfill Gas Management Plan.

## **1.4 Documentation and Record Keeping**

30 TAC §330.463(b)(3)

The City will document and maintain detailed records of all inspection results and schedules, maintenance, monitoring results and schedules, or remediation activities of any other actions to be taken to maintain compliance in the site operating record.

The City shall place a copy of the post-closure care plan in the operating record by the initial receipt of waste. The post-closure care plan shall include, at a minimum, the following information:

### **1.4.1 Description of Monitoring and Maintenance Activities**

30 TAC §330.463(b)(3)(A)

The post-closure care plan shall include a description of the monitoring and maintenance activities required in 30 TAC §330.463(b)(1) for each unit, and the frequency at which these activities will be performed.



Monitoring and maintenance activities required and the frequency at which these activities will be performed are included in §1.0, Post-Closure Care Requirements and Appendix III8A, TCEQ Post Closure Care Plan.

#### **1.4.2 Post-Closure Care Responsibility**

30 TAC §330.463(b)(3)(B)

The post-closure care plan shall include the name, address, and telephone number of the office or person responsible for overseeing and/or conducting the post-closure care activities at the closed unit or facility during the post-closure period. The City is responsible for overseeing and conducting post-closure care activities.

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#### **1.4.3 Post-Closure Planned Uses**

30 TAC §330.463(b)(3)(C)

The post-closure care plan shall include a description of the planned uses of any portion of the closed unit during the post-closure period in accordance with 30 TAC §330.465, Certification of Completion of Post-Closure Care. Currently, post-closure land use is anticipated to be open space, and will be in accordance with requirements for development over a closed MSW landfill in post-closure care in 30 TAC §330.954(c).

#### **1.4.4 Post-Closure Care Cost Estimate**

30 TAC §330.463(b)(3)(D)

The post-closure care plan shall include a detailed written estimate, in current dollars, of the cost of post-closure care maintenance and any corrective action as described in the post-closure care plan or required by the executive director or the commission and which satisfies the requirements specified in 30 TAC §330, Subchapter L. A detailed post-closure care cost estimate, in current dollars, is included in Part III9B, TCEQ Post-Closure Care Cost Estimate Form.

## **2.0 COMPLETION OF POST-CLOSURE CARE**

Completion of post-closure care will follow the conditions specified in Appendix III8A, TCEQ Post Closure Care Plan Form.

### **2.1 Certification of Post-Closure Care Completion**

30 TAC §330.465(a)

Following completion of the post-closure care maintenance period for each municipal solid waste landfill unit, the City shall submit to the TCEQ for review and approval a certification, signed by an independent licensed professional engineer, verifying that post-closure care has been completed in accordance with this post-closure plan. The submittal to the TCEQ shall include all applicable documentation necessary for the certification of completion of post-closure care. Once approved, the certification and all applicable documentation will be included in the site's operating record.

## **2.2 Voluntary Revocation**

30 TAC §330.465(b)

Upon completion of the post-closure care period for the final unit at a facility, the City shall also submit to the TCEQ a request for voluntary revocation of the facility permit. Once approved, the voluntary revocation and will be included in the site's operating record.

**APPENDIX III8A**

**TCEQ POST CLOSURE CARE PLAN FORM**