# CLOSURE PLAN FOR THE TOWN OF TIVERTON SOLID WASTE LANDFILL

#### TIVERTON, RHODE ISLAND

October 2014

DOCUMENT 3 OF 4

Prepared by:

Pare Corporation 8 Blackstone Valley Place Lincoln, Rhode Island 02865

Prepared for:

Town of Tiverton 343 Highland Road Tiverton, Rhode Island 02878

PARE Project No. 94139.01/022

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- B. PRELIMINARY OPINION OF PROBABLE CLOSURE & POST CLOSURE COSTS
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- 1 EXISTING SITE PLAN
- 2 LANDFILL CLOSURE FINAL GRADE PLAN

#### CERTIFICATION

#### PREPARER

This Plan was developed by the preparer so noted as certified below utilizing the best available information regarding the existing conditions and operations at the Tiverton Municipal Sanitary Landfill located off of Main Road (Route 77), Tiverton, Rhode Island.

The contents herein are for compliance with applicable sections of the State of Rhode Island Department of Environmental Management Office of Waste Management, Rules and Regulations for Composting Facilities and Solid Waste Management Facilities (Regulations), January 1997, as amended April 2001 and October 2005, and are, to the best of our knowledge, an accurate and complete representation of the facilities described herein.

This Plan shall be updated, as required to reflect changes in operation, equipment, etc. and/or regulatory requirements.

#### CERTIFICATION OF PREPARER

Timothy P. Thies, P.E. Managing Engineer Pare Corporation

10/31/14

Date

TIMOTHY P. THIES

NO. 9054

REGISTERED PROFESSIONAL ENGINEER (CIVIL)

#### OWNER/OPERATOR

This Plan to the best of my knowledge is a complete and accurate representation of the existing conditions and operations at the Tiverton Municipal Sanitary Landfill. The Owner and Operator of the facility is the Town of Tiverton, Rhode Island. Reference "Documentation of Ownership" contained in Appendix C of the Document Titled "Operation Plan for the Town of Tiverton Solid Waste Landfill".

CERTIFICATION OF OWNER/OPERATOR

Stephen Berlucchi, P.E. Director of Public Works

Town of Tiverton, Rhode Island

Date

#### 1.0 INTRODUCTION

This Closure Plan addresses the requirements of the State Solid Waste Regulations outlined in the "State of Rhode Island and Providence Plantations, Department of Environmental Management (RIDEM), Rules and Regulations for Composting Facilities and Solid Waste Management Facilities, Regulation DEM-OWM-SW04-01", January 1997, as amended April 2001 and October 2005. These will be referred to as the "Regulations" throughout this Plan.

The Tiverton Landfill is currently active as of September 2014. The Town of Tiverton shall notify the RIDEM 90 days prior to the anticipated closure date. After implementation of the Closure Plan, the RIDEM shall be notified in order that RIDEM personnel may conduct an inspection.

#### 2.0 ACCESS CONTROL

A locking gate located at the entrance of the landfill access road controls entry into the Tiverton Landfill. A perimeter fence does not enclose the landfill area. Natural features such as trees, dense under-brush, stonewalls, and wetlands currently discourage entry from directions other than the access road and unauthorized entry has not historically been a problem at the landfill. After the closure, the locking gate will remain as the main security control. "No Trespassing" signs will be posted on this gate and along the landfill property lines. In the future, if this gate is found to be ineffective, the Town will take appropriate counter measures to restrict access. Post-closure site security will be in accordance with Section 3.0 of the Post Closure Plan, document 4 of 4 of these License Renewal documents.



#### 3.0 MONITORING

#### 3.1 Groundwater and Surface Water Monitoring

A water quality monitoring program as required by the RIDEM Regulations, is currently being implemented for the landfill. Currently, the landfill is in a Detection Monitoring Program for the parameters listed in Appendix A of the Regulations, as well as mercury and tin.

The current monitoring program is conducted on a quarterly basis at the designated background and compliance wells as described in the Groundwater Monitoring Plan (document 2 of 4 of these License Renewal documents). Monitoring will be done at the active compliance and background wells at the time of landfill closure.

Monitoring will be done on a semi-annual basis of designated background and compliance wells during the closure and 30-year post-closure period as a continuation of the current Groundwater Monitoring Program. A semi-annual report detailing the monitoring results shall be submitted to the RIDEM following each semi-annual monitoring event.

Throughout the closure period, the monitoring wells will be properly maintained by the Tiverton Department of Public Works. In the event that a monitoring well is damaged or destroyed, the Town will notify the RIDEM and a replacement well will be installed in accordance with the RIDEM Rules and Regulations for Groundwater Quality. At this time, no surface water monitoring locations are proposed during the closure and post-closure periods. Monitoring procedures shall be in accordance with the latest RIDEM approved Groundwater Monitoring Plan and corresponding addenda. The well locations are shown on the Existing Site Plan attached to that document.

#### 3.2 <u>Landfill Gas Monitoring</u>

Monitoring for landfill decomposition gases (methane) around the landfill will be performed with a Combustible Gas Indicator (CGI) on a quarterly basis during the closure period, as required by Section 2.3.08 of the Regulations. If landfill gas levels exceed twenty five percent

(25%) of the Lower Explosive Limit (LEL) for methane in the on-site structures and/or exceed twenty five percent (25%) of the LEL for methane at the facility property boundary, the Town will notify the RIDEM and take appropriate steps to protect human health, including implementation of appropriate remedial measures. All such steps and measures shall be coordinated with the RIDEM. Closure construction health and safety provisions and action levels, as they pertain to landfill gas and other potentially harmful substances, will be incorporated into future contract documents prepared for landfill capping.

The locations of monitoring for decomposition gas shall be as follows:

- All on-site building structures.
- Toe of the landfill slope (low areas).
- Spot-checks at areas along the northern, southern, and eastern property lines of the facility and in areas of stressed vegetation is observed (a potential sign of landfill decomposition gases).

In addition, decomposition gas monitoring will be conducted at up to three (3) gas-monitoring wells downgradient from the western portion of the landfill, and at landfill cap gas vents (assuming installation of a passive gas ventilation system). These wells will be installed at the time of final closure to detect landfill decomposition gas in the subsurface unsaturated zone, which may migrate towards the recreation portion of the landfill property. The locations of these wells will be coordinated with the RIDEM prior to installation. The subsurface migration of landfill decomposition gas to off-site human receptor(s) appears to be unlikely for this site due to the substantial distance between the actual landfill cell and adjacent residences.

Landfill gas monitoring will also be performed during the thirty-year post-closure period in concurrence with the semi-annual monitoring program. A combustible gas indicator (CGI) will be used to monitor landfill gas.

Monitoring will occur within all on-site buildings and along the property lines. In the onsite buildings, monitoring will be performed at all floor corners, floor drains and floor service pits; landfill gas is usually heavier than air and tends to linger along building floors.

Along the property lines, a slam bar or probe will be used to puncture the subsurface soils. A CGI will then be used to measure the gas located in the underlying soil. Monitoring points will be chosen based on the gas levels recorded. If gas is not found, points may be extended up to 100 feet apart. On the other hand, if gas is found, monitoring point location distances will be decreased so that the landfill gas migration plume can be delineated.

If landfill gas levels exceed 25% of the lower explosive limit (LEL) for methane in onsite structures and/or exceed 25% of the lower explosive limit for methane at the facility property boundary, the Town will remediate the situation by following the steps outlined in section (d) of section 2.3.08 of the Solid Waste Regulations.

Stressed vegetation is also a sign that landfill gases are present at the landfill. If stressed vegetation is observed during the inspection, the stressed areas will be noted within the inspection report.

Since the date of the preceding Operating License Renewal (November 2011, last revised in March 2013), Pare Corporation has reported no detectable concentrations of landfill decomposition gases during the quarterly monitoring rounds.

#### 4.0 FINAL GRADES

The "Landfill Closure Final Grade Plan", included as <u>Attachment 2</u>, shows the final landfill contours at the top of the landfill. The maximum elevation of the landfill, once the final cap is in place, will be at or lower than the permitted maximum elevation of 160 feet, relative to the National Geodetic Vertical Datum of 1929 (NGVD 29). The cap grades shown range between a minimum slope of 5% at the top of the landfill and a maximum slope of 33% (3:1) on the side slopes. The elevations shown on the Landfill Closure Final Grade Plan, provided as <u>Attachment 2</u>, are based on an existing benchmark at the landfill which is set at an arbitrary datum 3.5 feet below Mean Sea Level. The permitted maximum elevation of the landfill relative to this datum is 156.5 feet.

It had been determined by the RIDEM Office of Waste Management (OWM) that significant filling of the portion of the licensed landfill to the North of the landfill access road with trash shall constitute a "lateral expansion" of the landfill. RIDEM determined that any such lateral expansion of the landfill would require design and permitting in accordance with the current Solid Waste Regulations, including construction of a baseliner and a leachate collection and a management system. However, trash filling to the north of the access road within a depression that had been subject to trash filling in the past has been allowed. This area, which is currently being filled, and the active southern portion are the only two areas of the licensed landfill where future trash filling is proposed at this time. These areas are represented by the shaded areas on the Landfill Closure Final Grade Plan.

It is anticipated that filling of portions of the licensed landfill beyond these shaded areas will be done so using off-site common borrow or RIDEM approved Alternate Cover Material to reach the proposed cap sub-grade elevations. However, the Town may choose to reconsider lateral expansion of the landfill at some point in the future. Any such future consideration of a lateral expansion of the landfill would be incorporated into future renewal Operating License application documents. Also, this Closure Plan incorporates a three-phase capping approach, which is discussed in more detail in the following section. The three-phase capping approach was first proposed and approved as part of the 2005 landfill license document.

The final grading will be performed in a manner that will create a stable, mounded landform maximizing surface water runoff and minimizing infiltration. This will also minimize the potential for leachate generation. The Town may, in the future, wish to redesign the landform based on the availability of ACM and/or other factors. Any modification of the final grades would be submitted to the RIDEM for approval.



#### 5.0 FINAL CLOSURE COVER SYSTEM

#### 5.1 General

The Town shall install a final cover system as specified in Section 2.1.09(5) of the Regulations as part of the final closure construction. The final cover system will meet and/or exceed the requirements of Section 2.2.12 of the Regulations. Provisions will be made to mitigate the build-up of decomposition gases under the final cover by installing a gas venting system in the final closure cap. A passive gas venting system is anticipated for this facility. Final cover system details will be further addressed in engineering plans that will be submitted to the RIDEM for review and approval prior to facility closure. During closure the Town shall adhere to all material specifications, construction requirements, and certification requirements outlined in the Regulations and approved engineering plans.

Within 45 days of completion of the landfill final closure cover system, the Town will submit to the RIDEM a Construction Certification Report certifying that the facility has been properly closed in accordance with the Regulations and the approved engineering plans. Individual Construction Certification Reports will be prepared and submitted to the RIDEM for each phase of capping, as described in Section 6 below. Upon completion of landfill closure, the Town shall commence the implementation of the Post-Closure Monitoring and Maintenance Operations Manual (document 4 of 4 of these License Renewal documents), which is provided under separate cover.

#### 5.2 Closure Cover System Components

Upon reaching the maximum capacity of the landfill, the Town shall install a final cover system in accordance with Section 2.2.12 of the Regulations. The final cover system design will be submitted to the RIDEM for review and approval and will meet the requirements of the Regulations. The type of cover system will be selected in consideration of the availability of materials and cost at the time of closure, and will likely be one of the four configurations described below.

#### Alternative 1

- Stabilization Geotextile Fabric, at a minimum where Final Cover is absent, overlain by;
- Minimum six-inch layer of bedding soil, at a minimum where Final Cover is absent, overlain by;
- Minimum twenty-four-inch layer of low permeability soil exhibiting a coefficient of permeability no greater than  $1x10^{-7}$  cm/sec, overlain by;
- Minimum twelve-inch soil drainage layer of sand exhibiting a minimum coefficient of permeability of  $1x10^{-3}$  cm/sec, with four-inch diameter corrugated perforated HDPE pipe wrapped in filter fabric, overlain by;
- Separation Geotextile Fabric, overlain by;
- Minimum six-inch layer of subsoil, overlain by;
- Minimum six-inch layer of topsoil and vegetative cover.

Note that minor grading modifications may be required to those shown on the attached Landfill Closure Final Grade Plan should this cap profile be selected.

#### Alternative 2

- Stabilization Geotextile Fabric, at a minimum where Final Cover is absent, overlain by;
- Minimum six-inch layer of bedding soil, at a minimum where Final Cover is absent, overlain by;
- 60 mil High Density Polyethylene (HDPE) geomembrane, Geosynthetic Clay Liner (GCL) or other approved impervious medium, overlain by;
- Minimum twelve-inch soil drainage layer of sand with four-inch diameter corrugated perforated HDPE pipe wrapped in filter fabric, overlain by;
- Separation Geotextile Fabric, overlain by;
- Minimum six-inch layer of subsoil, overlain by;
- Minimum six-inch layer of topsoil and vegetative cover.

#### Alternative 3

- Stabilization Geotextile Fabric, at a minimum where Final Cover is absent, overlain by;
- Minimum six-inch layer of bedding soil, at a minimum where Final Cover is absent, overlain by;

- 60 mil HDPE geomembrane, GCL or other approved impervious medium, overlain by;
- Composite Drainage Net (CDN), overlain by;
- Minimum eighteen-inch layer of subsoil, overlain by;
- Minimum six-inch layer of topsoil and vegetative cover.

#### Alternative 4

- Stabilization Geotextile Fabric, at a minimum where Final Cover is absent, overlain by;
- Minimum six-inch layer of bedding soil, at a minimum where Final Cover is absent, overlain by;
- Geosynthetic Clay Liner (GCL), overlain by;
- Composite Drainage Net (CDN), overlain by;
- Minimum eighteen-inch layer of subsoil, overlain by;
- Minimum six-inch layer of topsoil and vegetative cover.

Profiles of each final cover alternative are included in Appendix B.

The vegetated top cover shall be designed and constructed to maintain vegetative growth, minimize erosion and provide a surface drainage system capable of conducting stormwater runoff across the landfill cover. The vegetated top cover's root structure shall not penetrate beyond the vegetative and subsoil layer.

A recommended seeding mixture shall consist of:

Birds - Foot Trefoil	10%
Crown Vetch	50%
Creeping Red Fescue	10%
Perennial Rye Grass	30%

The seeding mixture shall be applied at the rate of eighty-four pounds per acre (84 lbs/acre) by the hydroseeding method. The Town may utilize other seeding mixtures and application methods and rates as long as an acceptable permanent growth of vegetation can be achieved. Application rates for lime and fertilizer shall be determined by the seeding bed and seed mixture

components.

The landfill capping system shall include a venting system to remove landfill decomposition gas from beneath the low permeability soil or geomembrane layer. The need for active (versus passive) venting system shall be determined based upon the total tonnage of land filled waste, in accordance with the RIDEM Division of Air Resources, Air Quality Regulations.



# 6.0 CLOSURE COVER SYSTEM INSTALLATION AND MAINTENANCE

#### 6.1 Anticipated Closure Date

Based on the Landfill Closure Final Grade Plan, past trash landfilling rates, and the results of the 2014 Mid-Year height survey, it is estimated that the landfill will reach its capacity some time in 2016 or 2017. Calculations are provided in Appendix A. This is based on several assumptions pertaining to future landfilling rates, landfill operations, etc. The town uses a "Pay-As-You-Throw" (PAYT) system which has significantly reduced the amount of solid waste coming into the landfill. Landfilling rates prior to PAYT (May 2011) were approximately 6,000 tons per year. From 2011 to 2014 the landfilling rates have ranged from 3,300 to 4,800 tons per year. Since the implementation of PAYT, the landfilling rates have been significantly lowered and have extended the life of the landfill.

The Town, through its landfill consultant, will continually update the landfill closure date as new information becomes available. Existing conditions grades are provided on the Existing Site Plan (Attachment 1). Areas of proposed future trash landfilling are shown on the Landfill Closure Final Grade Plan.

As stated previously, the Town is proposing to cap the landfill in three phases as shown on the Landfill Closure Final Grade Plan. The size and configuration of the cap phases are conceptual, and subject to modification as the closure date approaches. The purpose of the phased capping approach is to provide the Town with a longer time period to accrue the necessary closure funds than would otherwise be attainable from a single phase capping approach, while taking measures to mitigate threats to human health and the environment from uncapped sections of the landfill.

The first phase (Phase I) of capping would be the south active portion of the landfill. Phase I will be the first section to be capped, but the last section to be completely filled. There is a minor amount of additional filling of the southern-most section of the landfill in Phase 1. The last portion of Phase I to be filled (and the final portion of the landfill) will be the access road between southern landfill face and the northern "depression", which is being filled currently.

Once the access road is filled, capping of Phase I will commence. In accordance with Section 2.3.04 (c) (3), (4) of the Solid Waste Regulations, preparation for capping would begin within 30 days of final filling in this phase. The actual start of cap construction would be within one year of the most recent receipt of waste in this phase. The cap system would be installed within 180 days from the start of construction, unless an extension becomes necessary and is approved by the RIDEM. Based upon current projections, Phase I would reach capacity and preparation for Phase I capping would commence sometime around 2017. The Town updates and adjusts its projections annually.

The "depression" north of the landfill access road within Phase II is currently being filled. Preparation for Phase II capping would be initiated within three years from completion of the Phase I cap or within thirty days of completing waste filling of the depression, whichever is later.

Preparation for Phase III capping would be initiated within three years of completion of the Phase I/II cap. The Phase III cap would be over an older portion of the landfill that is not currently, or planned in the future, to receive additional waste.

During the interim periods between capping phases, the Town will monitor uncapped areas and undertake appropriate maintenance measures as outlined in the facility Operation Plan. Grass cover will be established and maintained to limit potential erosion and sedimentation from closed, uncapped areas of the landfill during these interim periods. The Town will inspect the integrity of the grass cover periodically. Also during these interim periods, uncapped areas may be filled/graded to the proposed cap subgrade contours pending borrow/Alternate Cover Material availability and Town funding. Grass cover will be re-established in areas of the landfill that are graded and/or otherwise disturbed by interim cap subgrade preparation. The Town will continue to conduct groundwater monitoring per the facility Groundwater Monitoring Plan.

#### 6.2 <u>Final Cover Implementation Schedule</u>

The Town of Tiverton shall notify the RIDEM a minimum of 90 days prior to the anticipated closure date for each phase. The Town shall prepare and submit to the RIDEM for approval, engineering plans and specifications for the Final Closure System.

An estimate of the number of days to construct each component for each phase of the final cover system is as follows:

Component of Final Cover	No. of Days (Estimated)
- Landfill surface grading, gas collection system, 6 inch	60
bedding layer and stabilization fabric, where	
required.	
- Low permeability cover (soil or Geomembrane)	45
- Drainage layer (soil or CDN)	45
- Drainage controls and vegetative top cover	30
TOTAL:	180

It is estimated that the landfill footprint requiring final cover is approximately 33 acres.

#### 7.0 DRAINAGE CONTROL

During the construction of the landfill Final Closure System, proper grading techniques shall be implemented to mitigate ponding of stormwater runoff (see Section 4.0). A permanent vegetative cover will mitigate erosion of the soil cover material. At the time of closure, the Town will construct a surface drainage system that will protect the Final Cover System and surrounding areas from flooding, erosion, and sedimentation. Currently, it is envisioned that the drainage system would consist of riprap drainage swales and downchutes on the face of the landfill, perimeter drainage swales at the toe of the landfill slope, and detention basin(s), as needed. The detention basin(s) would need to be sized to appropriately mitigate the 25-year, 24-hour storm event. The size and design of the detention basin, if required, would be determined as the landfill approaches closure. Conceptual ten-foot wide drainage swales sloped at 5% along the face of the landfill and a reserve area for siting of future drainage structures are shown on the Landfill Closure Final Grade Plan.

Based upon previous conversations with the RIDEM Office of Water Resources and PARE and the Town's understanding of the Rhode Island Pollutant Elimination Discharge System (RIPDES) regulations, the RIPDES program addressing Stormwater Discharge Associated with Industrial Activity does not appear to be applicable to this facility. However, coverage under the RIPDES General Permit for Stormwater Discharge Associated with Construction Activity shall be required. Also, permitting through the RIDEM Office of Water Resources Freshwater Wetlands Program and the United States Army Corps of Engineers will likely be required.

#### 8.0 EROSION CONTROL

#### 8.1 General

The purpose of erosion control measures is to prevent the loss of topsoil and cover material from the Final Cover System and to protect downgradient areas from erosion and sedimentation. An area allocated for proposed drainage structures is shown on the Landfill Closure Final Grade Plan. The purpose of these structures, if needed, will be to mitigate erosion and sedimentation at and downgradient from the landfill. Silt fence or haybales are to be installed prior to the commencement of the closure construction activities and shall be maintained until disturbed areas have been stabilized with permanent vegetative cover. During the construction phase, it may become evident that other areas will require erosion control measures. It will be the responsibility of the Town or contractor to implement these measures as the need arises, in accordance with the closure construction contract documents.

#### 8.2 <u>Silt Fence and Haybales</u>

Silt fence or haybales shall be installed at the down-slope interface of completed slopes that have established vegetative growth and incomplete or disturbed slopes. Silt fence is recommended for this application, but haybales may be used in lieu of silt fencing where areas will be disturbed for less than 60 days. The silt fence and haybales will reduce downgradient sedimentation by removing sediment transported by sheet flow during stormwater runoff. Haybale check dams, or other methods of mitigating erosion and sedimentation per the Rhode Island Erosion and Sedimentation Handbook, will be installed in all drainage swales receiving stormwater runoff from uncapped areas of the landfill.

#### 8.3 Slope Stabilization Controls

Erosion control blankets, nets or woodchips will be placed in areas that have recently received final cover and have the potential to erode. Such controls will minimize erosion on landfill side slopes and will also retain soil moisture and modify soil temperature to further enhance vegetative growth. Slope Stabilization controls should be inspected and replaced as necessary

until a permanent vegetative cover can be established. Capped slopes will be seeded at such a time to establish a strong stand of vegetative growth prior to the winter months.



#### 9.0 FINANCIAL ASSURANCE

#### 9.1 Final Cover System

PARE's opinion of probable construction costs for the construction of the Final Cover System is between \$9 million and \$11 million, or about \$275,000 to \$335,000 per acre of cap. This cost accounts for construction materials and labor, engineering fees, permitting, inspection, certification, and storm water management. These opinions of probable construction costs were developed from a closure cost analysis conducted by PARE in February 2008 and updated for each license renewal, including September 2014 and consider various final cover alternatives, and is provided in Year 2014 dollars. Supporting calculations for each of the final cover alternatives described in Section 5.2 of this Plan are provided in Appendix B – Preliminary Opinion of Probable Closure & Post Closure Costs. These preliminary opinions of probable construction costs shall continue to be adjusted for inflation and other factors per each License Renewal.

The Town has established Financial Assurance for Landfill Closure and Post-Closure Care by using the "Local Government Financial Test: to satisfy the financial assurance demonstration as required by the Solid Waste Regulation No. 2, Appendix D". This document is provided in Appendix C – Financial Assurance Provisions.

In addition to the financial assurance test described above, the Town maintains a "Restricted Account" for landfill closure. The Town maintains the "Restricted Account" with the intent of paying for the closure and post-closure costs for the landfill facility from this account and only financing the difference. This Fund is financed through two types of contributions: annual "General Fund Contributions" of \$168,304 (if approved by the Town each year) and annual contributions of approximately \$450,000 from the revenue generated by the recently-implemented "Pay As You Throw" program. As of October 2014, the balance of this account is \$5,980,503.42. The General Fund Contribution shall be re-evaluated on an annual basis to account for inflation. This account, through resolution of the Town Council, cannot be utilized for purposes other than those associated with landfill closure.

#### 9.2 <u>Post-Closure Costs</u>

PARE's preliminary opinion of probable costs in current (Year 2014) dollars, to hire a third party to conduct post-closure care of the landfill is approximately \$68,000 annually; supporting calculations are provided in Appendix B. This opinion includes the total costs of conducting post-closure care including annual and periodic costs extended over the entire post-closure care period. This preliminary opinion of probable costs shall be adjusted per License Renewal for inflation and other factors.

Per the Regulations, the Town will file an estimate of the closure and post-closure care costs with the RIDEM once capacity has been reached or operations have otherwise been terminated at the landfill.

#### 9.3 <u>Deed Restriction</u>

Following closure of the landfill, the Town shall record a notation on the deed to the landfill property. The Town shall inform the RIDEM of the notation, and shall place a copy of this document in the landfill's operating record. The deed restriction shall at a minimum, notify any potential purchaser of the property that:

- 1. The property has been previously utilized as a solid waste municipal landfill.
- 2. The land's future use is restricted subject to limitations of the State Solid Waste Regulations and any applicable Federal, State, or local Regulations.

# APPENDIX A CAPACITY AND SITE LIFE CALCULATIONS



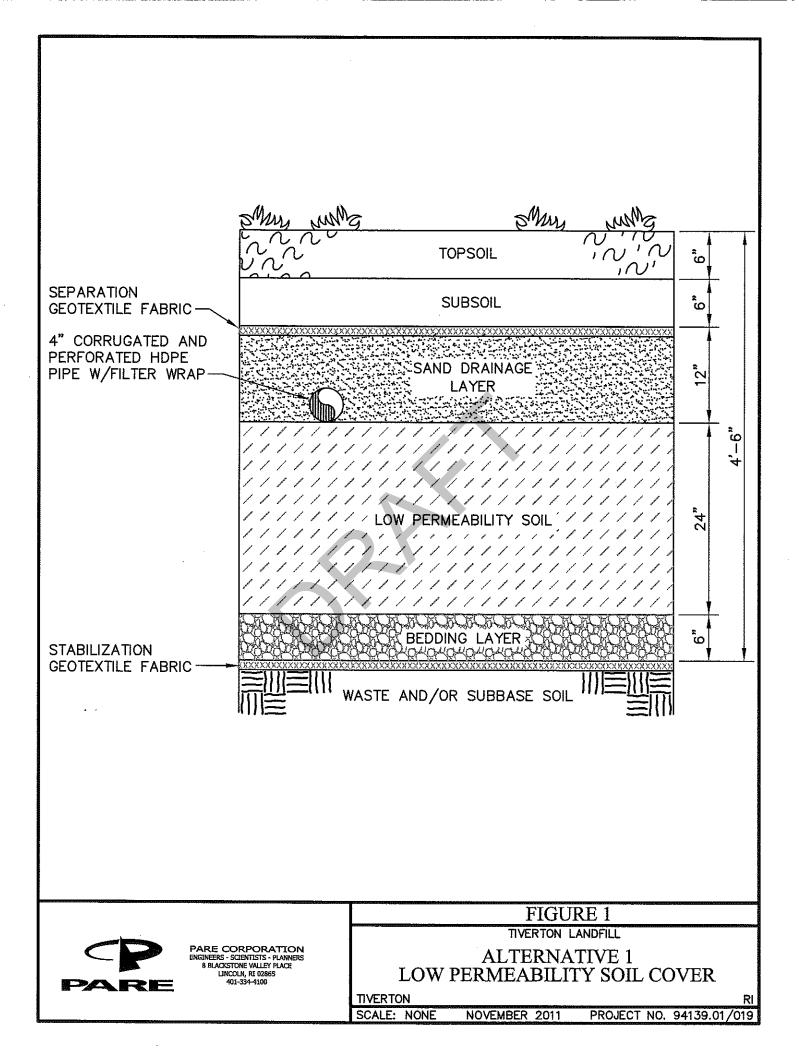


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### APPENDIX B PRELIMINARY OPINION OF PROBABLE CLOSURE & POST CLOSURE COSTS





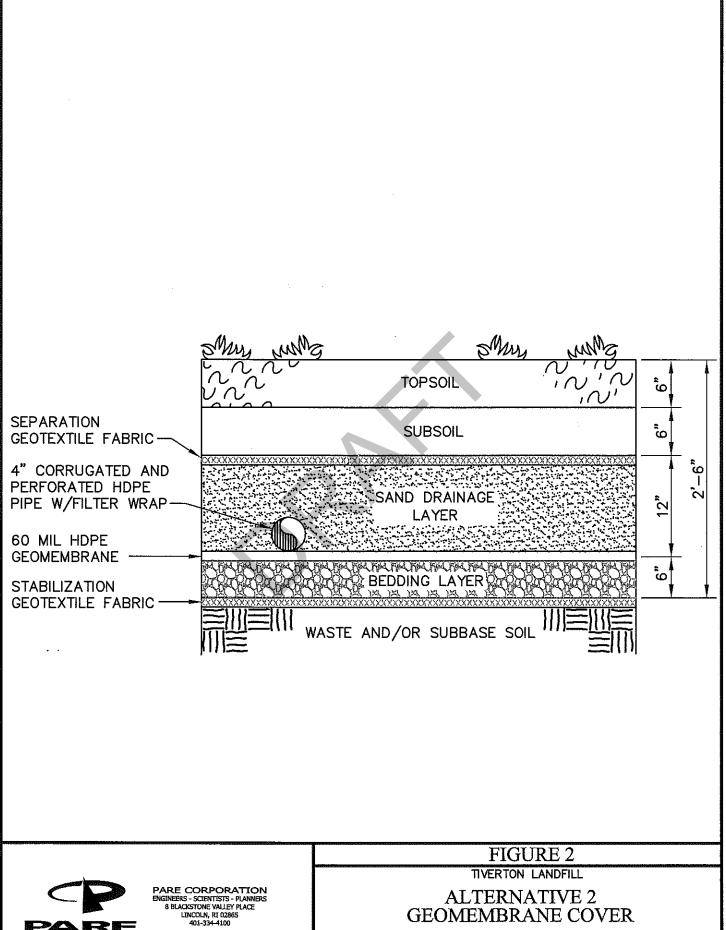
# Opinion of Probable Construction Cost Alternate 1: Low Permeability Soil Cap

Tiverton Landfill Closure and Capping Tiverton, Rhode Island PARE Project No. 94139.01/019

Prepared By: SPD Checked By: TPT

Work Item	Quantity	Unit Price*		r Prit	Total	Notes
1. Clearing and Grubbing	11.5	\$ 8,19	8,192.60 /ACRE	RE \$	94,214.90	Inactive Portion of the Landfill Only, RSMeans 31 11 10.10 0260
2. Rough Grading	106,000	69	0.24 /SY	4	25,440.00	Primarily Inactive Portion of the Landfill, RSMeans 31 22 16.10 3310
3. Stabilization Geotextile Fabric	1,420,000	4	0.25 /SF	↔	355,000.00	Furnish and Install, New England Liner Systems Quote, 9-14-11
4. Bedding	17,000	8	25.98 /CY	4	441,660.00	Furnish, Install, and Compact, RSMeans 31 23 23.23 6200
5. Low Permeability Soil	105,000	8	24.46 /CY	69	2,568,300.00	Furnish, Install, and Compact, 24" Layer, RSMeans 31 23 23.15 6065
6. Drainage Sand	52,500	\$	22.14 /CY	₩	1,162,350.00	Furnish and Install, 12" Layer, PARE Estimate
7. Corrugated and Perforated Drainage Pipe	19,750	8	10.94 /LF	64	216,065.00	4" Pipes, RSMeans 33 46 16.30 2100
8. Separation Geotextile Fabric	1,420,000	69	0.25 /SF	€9	355,000.00	Furnish and Install, New England Liner Systems Quote, 9-14-11
9. Subsoil	26,500	₩	19,66 /CY	↔	520,990.00	Furnish and Install, RSMeans 31 23 23.23 6200
10. Topsoil	26,500	e9 69	39.65 /CY	64	1,050,725.00	Furnish and Install; 6" Layer, RSMeans 31 23 23.15 7010
11. Diversion Benches	1,200	G €9-	97.75 /LF	₩	117,300.00	Active Landfill Only, PARE Estimate
12. Downchutes	09	\$ 44	442.75 /LF	€	26,565.00	Active Landfill Only, PARE Estimate
13. Hydroseeding	1,420,000	€9	0.06 /SF	€9	85,200.00	RSMeans 32 92 19.14 4600
14. Passive Gas Venting System	32.5	\$ 20,70	20,700.00 /ACRE	RE \$	672,750.00	PARE Estimate
		Sub-Total		<del>69</del>	7,692,000.00	
15. Mobilization/Demobilization (5%)			รา	€>	385,000.00	
		Sub-Total		€9	8,077,000.00	
16. Stormwater Management			57	49	187,000.00	
17. Engineering Fees (6%)			rs	649	485,000.00	
18. Material Testing and Quality Control (6%)			L.S	69	485,000.00	
	•	Sub-Total		€9	1,157,000.00	
19. Contingency (10%)	` '		S.J	↔	923,000.00	
	•	TOTAL		₩	10,157,000.00	

<sup>\*</sup> Unit price calculation for RSMeans sources based on 2007 RSMeans unit price x 2007 RSMeans City Cost Index for Newport, Rhode Island (1.04) x 2007-2011 ENR Construction Cost Index (1.15).





TIVERTON

SCALE: NONE

NOVEMBER 2011

PROJECT NO. 94139.01/019

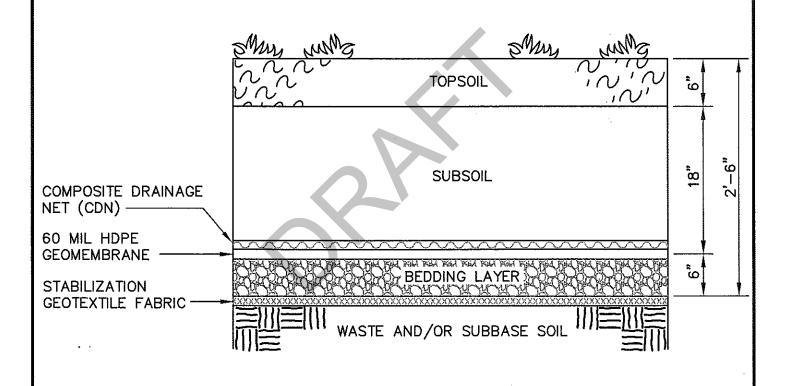
# Opinion of Probable Construction Cost Alternate 2: Geomembrane Cap

Tiverton Landfill Closure and Capping Tiverton, Rhode Island PARE Project No. 94139.01/019

Prepared By: SPD Checked By: TPT

Work Item	Quantity	Unit Price <sup>⋆</sup>	Ċ		Total	Notes
1. Clearing and Grubbing	11.5	\$ 8,192.60	8,192.60 /ACRE	€9	94,214.90	Inactive Portion of the Landfill Only, RSMeans 31 11 10.10 0260
2. Rough Grading	106,000	\$ 0.2	0.24 /SY	€9	25,440.00	Primarily Inactive Portion of the Landfill, RSMeans 31 22 16.10 3310
3. Stabilization Geotextile Fabric	1,420,000	\$ 0.25	0.25 /SF	€>	355,000.00	Furnish and Install, New England Liner Systems Quote, 9-14-11
4. Bedding	17,000	\$ 25.90	25.98 /CY	69	441,660.00	Furnish, Install, and Compact, RSMeans 31 23 23.23 6200
5. 60-mil HDPE Geomembrane	1,420,000	\$ 0.6	0.65 /SF	€9	923,000.00	Furnish and Install, New England Liner Systems Quote, 9-14-11
6. Drainage Sand	52,500	\$ 22.14	22.14 /CY	↔	1,162,350.00	Furnish and Install, 12" Layer, PARE Estimate
7. Corrugated and Perforated Drainage Pipe	19,750	\$ 10.94	10.94 /LF	64	216,065.00	4" Pipes, RSMeans 33 46 16.30 2100
8. Separation Geotextile Fabric	1,420,000	\$ 0.28	0,25 /SF	69	355,000.00	Furnish and Install, New England Liner Systems Quote, 9-14-11
9. Subsoil	26,500	\$ 19,66	19.66 /CY	€	520,990.00	Furnish and Install, RSMeans 31 23 23.23 6200
10. Topsoil	26,500	39.66	39.65 /CY	643	1,050,725.00	Furnish and Install; 6" Layer, RSMeans 31 23 23.15 7010
11. Diversion Benches	1,200	97.76	97.75 ALF	643	117,300.00	Active Landfill Only, PARE Estimate
12. Downchutes	09	\$ 442.75 /LF	/LF	69	26,565.00	Active Landfill Only, PARE Estimate
13. Hydroseeding	1,420,000	\$ 0.06	0.06 /SF	₩	85,200.00	R\$Means 32 92 19.14 4600
14. Passive Gas Venting System	32.5	\$ 20,700.00 /ACRE	ACRE	<b>69</b>	672,750.00	PARE Estimate
	S	Sub-Total		€9-	6,046,000.00	
15. Mobilization/Demobilization (5%)			rs	69	302,000.00	
	lα	Sub-Total		69	6,348,000.00	
16. Stormwater Management			rs	49	187,000.00	
17. Engineering Fees (6%)			rs	€9	381,000.00	
18. Material Testing and Quality Control (6%)			rs	€9	381,000.00	
	, "	Sub-Total		69	949,000.00	
19. Contingency (10%)	` I		rs	€	730,000.00	
	1-	TOTAL		44	8,027,000.00	

<sup>\*</sup> Unit price calculation for RSMeans sources based on 2007 RSMeans unit price x 2007 RSMeans City Cost Index for Newport, Rhode Island (1.04) x 2007-2011 ENR Construction Cost Index (1.15).



NOTE: THE SUBSOIL THICKNESS HAS BEEN INCREASED FROM 6" TO 18" TO MAINTAIN A TOTAL CAP THICKNESS OF 2.5 FEET.



PARE CORPORATION ENGINEERS - SCIENTISTS - PLANNERS 8 BLACKSTONE VALLEY PLACE LINCOLN, RI 02865 401-334-4108 FIGURE 3

TIVERTON LANDFILL

ALTERNATIVE 3
GEOMEMBRANE WITH CDN COVER

TIVERTON
SCALE: NONE

NOVEMBER 2011

PROJECT NO. 94139.01/019

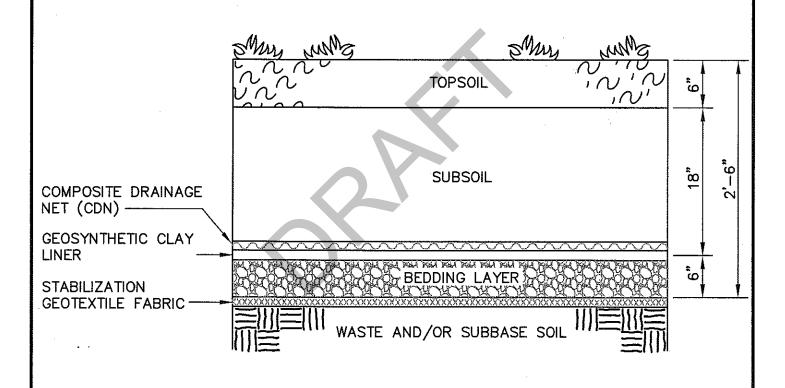
# Alternate 3: Geomembrane with Composite Drainage Net (CDN) Cap Opinion of Probable Construction Cost

Tiverton Landfill Closure and Capping Tiverton, Rhode Island PARE Project No. 94139.01/019

Prepared By: SPD Checked By: TPT

Work Item	Quantity	Unit Price*	Chit		Total	Notes
<ol> <li>Clearing and Grubbing</li> </ol>	11.5	\$ 8,192,6	8,192,60 /ACRE	€9	94,214.90	Inactive Portion of the Landfill Only, RSMeans 31 11 10.10 0260
2. Rough Grading	106,000	\$ 0.2	0.24 /SY	€9	25,440.60	Primarily Inactive Portion of the Landfill, RSMeans 31 22 16.10 3310
<ol> <li>Stabilization Geotextile Fabric</li> </ol>	1,420,000	69	0.25 /SF	€9	355,000.00	Furnish and Install, New England Liner Systems Quote, 9-14-11
4. Bedding	17,000	\$ 25.91	25.98 /CY	€9	441,660.00	Furnish, Install, and Compact, RSMeans 31 23 23.23 6200
5. 60-mil HDPE Geomembrane	1,420,000	\$ 0.65	5 /SF	<del>69</del>	923,000.00	Furnish and Install, New England Liner Systems Quote, 9-14-11
6. Composite Drainage Net (CDN)	1,420,000	\$ 0.90	O /SF	€9	1,278,000.00	Furnish and Install, New England Liner Systems Quote, 9-14-11
9. Subsoil	78,750	\$ 19.6	19.66 /CY	69	1,548,225.00	Furnish and Install, RSMeans 31 23 23.23 6200
10. Topsoil	26,500	\$ 39.68	39.65 /CY	69	1,050,725.00	Furnish and Install; 6" Layer, RSMeans 31 23 23.15 7010
11. Diversion Benches	1,200	12'26 \$	97.75 ALF	€9	117,300.00	Active Landfill Only, PARE Estimate
12. Downchutes	09	\$ 442.7	442.75 /LF	69	26,565.00	Active Landfill Only, PARE Estimate
13. Hydroseeding	1,420,000	€>	0.06 /SF	€9	85,200.00	RSMeans 32 92 19.14 4600
14. Passive Gas Venting System	32.5	\$ 20,700.00	20,700.00 /ACRE	€9	672,750.00	PARE Estimate
		Sub-Total		69	6,618,000.00	
15. Mobilization/Demobilization (5%)			rs	₩.	331,000.00	
		Sub-Total		€4>	6,949,000.00	
16. Stormwater Management			LS	↔	187,000.00	
17. Engineering Fees (6%)			rs	€9	417,000.00	
18. Material Testing and Quality Control (6%)			S	↔	417,000.00	
		Sub-Total		€	1,021,000.00	
19. Contingency (10%)			LS	₩	797,000.00	
		TOTAL		<b>5</b> 3	8,767,000.00	

<sup>\*</sup> Unit price calculation for RSMeans sources based on 2007 RSMeans unit price x 2007 RSMeans City Cost Index for Newport, Rhode Island (1.04) x 2007-2011 ENR Construction Cost Index (1.15).



NOTE: THE SUBSOIL THICKNESS HAS BEEN INCREASED FROM 6" TO 18" TO MAINTAIN A TOTAL CAP THICKNESS OF 2.5 FEET.



PARE CORPORATION ENGINEERS - SCIENTISTS - PLANNERS 8 BLACKSTONE VALLEY PLACE LINCOLN, RI 02865 401-334-4160 FIGURE 4

TIVERTON LANDFILL

ALTERNATIVE 4 GCL WITH CDN COVER

TIVERTON

SCALE: NONE NOVEMBER 2011

PROJECT NO. 94139.01/019



# Opinion of Probable Construction Cost

Alternate 4: Geosynthetic Clay Liner (GCL) with Composite Drainage Net (CDN) Cap

Tiverton Landfill Closure and Capping Tiverton, Rhode Island PARE Project No. 94139.01/019

Prepared By: SPD Checked By: IPI

Work Item	Quantity 11 5	Unit Price*	It Price* Unit	Total	Notes Notes
aria Giudonig	0.11		1 / Y		inactive Portion of the Landfill Only, RSMeans 31 11 10.10 0250
Rough Grading	106,000	\$ 0.2	0.24 /SY	\$ 25,440.00	Primarily Inactive Portion of the Landfill, RSMeans 31 22 16.10 3310
Stabilization Geotextile Fabric	1,420,000	\$ 0.25	5 /SF	\$ 355,000.00	Furnish and Install, New England Liner Systems Quote, 9-14-11
	17,000	\$ 25.9	25.98 /CY	\$ 441,660.00	Furnish, Install, and Compact, RSMeans 31 23 23.23 6200
Geosynthetic Clay Liner (GCL)	1,420,000	\$ 1.00	JSF	\$ 1,420,000.00	Furnish and Install, New England Liner Systems Quote, 9-14-11
Composite Drainage Net (CDN)	1,420,000	\$ 0.90	O /SF	\$ 1,278,000.00	Furnish and Install, New England Liner Systems Quote, 9-14-11
	78,750	\$ 19.6	19.66 /CY	\$ 1,548,225.00	Furnish and Install, RSMeans 31 23 23.23 6200
	26,500	\$ 39.6	39.65 /CY	\$ 1,050,725.00	Furnish and Install; 6" Layer, RSMeans 31 23 23.15 7010
11. Diversion Benches	1,200	\$ 97.7	97.75 /LF	\$ 117,300.00	Active Landfill Only, PARE Estimate
12. Downchutes	09	\$ 442.7	442.75 /LF	\$ 26,565.00	Active Landfill Only, PARE Estimate
13. Hydroseeding	1,420,000	\$ 0.0	0.06 /SF	\$ 85,200.00	RSMeans 32 92 19.14 4600
14. Passive Gas Venting System	32.5	\$ 20,700.0	20,700.00 /ACRE	\$ 672,750.00	PARE Estimate
	ļω	Sub-Total		\$ 7,115,000.60	
15. Mobilization/Demobilization (5%)			rs	\$ 356,000.00	
	100	Sub-Total		\$ 7,471,000.00	
16. Stormwater Management			rs	\$ 187,000.00	
17. Engineering Fees (6%)			rs	\$ 448,000.00	
18. Material Testing and Quality Control (6%)			rs	\$ 448,000.00	
	1 -	Sub-Total		\$ 1,083,000.00	
19. Contingency (10%)	1		rs	\$ 855,000.00	
	ι.	TOTAL		\$ 9,409,000.00	

<sup>\*</sup> Unit price calculation for RSMeans sources based on 2007 RSMeans unit price x 2007 RSMeans City Cost Index for Newport, Rhode Island (1.04) x 2007-2011 ENR Construction Cost Index (1.15).

#### OBJECTIVE:

To develop an opinion of probable post-closure operation and maintenance costs for the Tiverton Landfill 30-year post-closure period.

#### **ASSUMPTIONS:**

- Detection monitoring will be required at the 5 groundwater monitoring locations on a semi-annual basis
- Landfill Decomposition gas monitoring will be performed on a quarterly basis.
- Landfill gas collection system operation and maintenance on a monthly basis

ITEM	DESCRIPTION	UNIT QUA	NTITY UI	NIT COST	TOTAL
1.)	Mowing and General Maintenance	LS	1	\$3,100.00	\$3,100.00
2.)	Groundwater Sampling	LS	2	\$4,300.00 *	\$8,600.00
3.)	Landfill Decomposition Gas Monitoring	LS	4	\$1,300.00	\$5,200.00
4.)	Quarterly Inspection and Report	LS	4	\$600.00	\$2,400.00
5.)	Annual Report	LS	1	\$2,200.00	\$2,200.00
6.)	Active Landfill Gas Collection System	MON	12	\$1,600.00	\$19,200.00
7.)	Landfill Gas Collection System Electric Costs	YR	1	\$8,800.00	\$8,800.00
	Subtotal		•		\$49,500.00
8.)	Scope and Budget Cont	ingencies @ 2	25%		\$61,875.00

<sup>\* =</sup> Unit Cost includes Groundwater Monitoring Report preparation and submittal.

# APPENDIX C FINANCIAL ASSURANCE PROVISIONS





Rating Update: MOODY'S AFFIRMS A2 RATING ON TOWN OF TIVERTON'S (RI) LONG-TERM GENERAL OBLIGATION RATING

Global Credit Research - 23 Jul 2007

#### A2 AFFIRMATION AFFECTS \$3.7 MILLION IN OUTSTANDING DEBT

Tiverton (Town of) RI Municipality

#### Opinion

NEW YORK, Jul 23, 2007 — Moody's Investors Service has affirmed A2 rating on Town of Tiverton's (RI) \$3.7 million in outstanding long-term general obligation unlimited tax debt. The rating reflects the town's stable residential tax base, satisfactory financial position despite recent draws on its reserves and a manageable debt burden.

#### STEADILY GROWING RESIDENTIAL TAX BASE

The Town of Tiverton's primarily residential \$2.6 billion tax base continues to grow as a result of its proximity to many of New England's metropolitan areas. Located just 20 miles south of Providence (G.O. rated A3); the town's diverse tax base serves as a bedroom community to the metropolitan area. The town has seen significant assessed and full value growth from 2002 to 2007, averaging an annual growth rate of 23.2%, including two significant revaluations in 2004 and 2007 that tripled the tax base since 2002. Net of revaluations, the assessed and full values grew at an average annual rate of 1.9%, reflecting ongoing residential development and market appreciation. Further growth is anticipated given ongoing construction of a new upscale residential housing project. However, overall construction activity is showing signs of a slowdown, particularly during 2006 and 2007. Residential income levels exceed state medians, and full value per capita is a solid \$171,585, more than one and one-half times the state median of \$91,843, reflective of high-quality new developments and water-front properties.

#### SATISFACTORY RESERVES DESPITE MODEST DRAW-DOWNS

The town's financial position remains satisfactory with adequate reserve levels despite two consecutive years of draw-downs. The town has historically been able to replenish the majority of General Fund balance appropriations, given conservative budgeting practices. However, the town ended fiscal 2006 with a General Fund balance of \$3.7 million (12.8% of General Fund reserves), down from a peak of \$4.6 million (18.2% of revenues) in fiscal 2004. The fiscal 2006 budget appropriated \$1.3 million of General Fund reserves as a revenue source. Use of reserves at year end was limited to \$308,000, after the town replenished approximately \$1 million of the appropriation due to strict expenditure controls. Overall operating reserves (inclusive of the General and School Unrestricted Funds) were adequate at year-end fiscal 2006, with \$3.8 million (11.2% of operating revenues). Management expects balanced operations in fiscal 2007, at minimum, which had a reduced fund balance appropriation of \$600,000. While the town's law requires that the town maintain a minimum of 3% of current year's operating budget, it aims to maintain reserves approximating 6% of unreserved General Fund balance, which may provide the town with additional financial flexibility. Going forward, the town's ability to restore structural balance and augment reserves to levels consistent with the current rating category will remain an important rating factor.

#### MANAGEABLE DEBT BURDEN

Moody's expects that the town's 1.3% direct debt burden will remain slightly above average but manageable despite moderate future borrowing plans given continued tax base expansion. When factoring in state school building aid, the town's debt burden falls slightly to 0.9% of full valuation. Future borrowing plans include approximately \$20 million in the near term for completion of a new elementary school and renovations of two existing school buildings, which the town anticipates permanently financing through RIHEBC. Debt service was a modest 2.1% of expenditures in fiscal 2006 but is expected to increase slightly given the current issue and future issuances.

#### **KEY STATISTICS**

2005 Population (estimate): 15,336

2007 Full value; \$2.6 billion

Full value per capita: \$171,585

PCI as % of state: 105,4%

MFI as % of state: 111.6%

Overall debt burden: 1.3%

Adjusted debt burden: 0.9%

Payout of principal (10 years): 45.2%

FY06 General Fund balance: \$3.7 million (12.8% of revenues)

G.O. debt outstanding: \$3.7 million

#### Analysts

Catie Y. Tsao Analyst Public Finance Group Moody's Investors Service

Christopher Coviello Backup Analyst Public Finance Group Moody's Investors Service

Edith Behr Senior Credit Officer Public Finance Group Moody's Investors Service

#### Contacts

Journalists: (212) 553-0376 Research Clients: (212) 553-1653



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	Nov.	10	. 2	() (	1	0:	43AM
Fiscal Year 2010 - 2011			Balance	\$0.00	\$0.00	\$12,270,348.25	
FISC			(a				

Credits

Debits

Begin Balance

As Of 6/30/2011 (Effective Date)

Trial Balance Town of Tiverton

Fund 100 - GENERAL FUND

\$0.00 \$0.00 \$186,501,526.48

\$190,982,527.70

\$7,789,347.03

TAXES RECEIVABLE 1999 PAXES RECEIVABLE 1998

Assels

A-100-217-998-01

A-100-217-999-01

Account Number

Account Description

\$30,463.99

\$30,785.56

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11/9/2011 10:26:59 AM

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TIVERTON

\$6,121.2 ŝ

\$1,618.88

\$15,009.91

\$16,995,83 \$29,280,50

\$0.00

\$817.02

58,107.12 561,676.79

FIRE DETECTION & PREVENTION

POLICE COMPUTER GRANT

BYRNE STIMULUS

\$0.00

\$6,995,294.84

\$6,976,482.88

S0.00

ND. PARK COMM, PAYABLE

PIR CKS.- STOP PAYM

ROSSI COLLECTIONS

TAX REFUNDS

JINCLAIMED PROPERTY

FORFEITURES

--100-002-153-01

.-100-002-175-01

--100-002-128-01

--100-002-125-01

L-100-002-201-01

L-100-002-202-01 1-100-002-204-01 \_-100-002-206-01 -100-002-207-01

-100-002-200-01

ACCOUNTS PAYABLE

\$0.00

\$52,762.13

\$0.00 \$7.33 \$0.00 \$0.00

\$935.60

\$34,015.17

\$0.00

\$71,594.09

(\$11.22) \$0.00

\$1,772.85

\$2,719,67

SO 08 \$7.34

\$114,642,59

\$114,642.58

50.00 (\$99,496.82) (\$28,347.53)

\$606,545.00

\$726,571.55

\$20,528.73 \$28,347,53 52,336,488.82

52,336,485.82

\$0.00

AUNTA

Desalval bect

\$194,819.71 \$248,849.42

S168,304.00 SAN PACE

\$165,061.41

50.00

1191,577.12 5248,849.42 \$31,303,77

DUE TO LANDFILL SINKING FUND

DUE TO INDUSTRIAL PARK

DUE TO TREAS SOFTWARE

DUE TO OTHER FUNDS

JTERACY SET ASIDE - SCHOOL

REDEMPTION OF TAX SALE

.-100-002-209-01

--100-002-208-07

-100-002-215-01 .-100-002-216-01 --150-002-217-01

-- 100-002-210-01

TAX INTEREST REFUNDS

EQUITY FUND - ARTICLE 31

\$47,390.21

\$0.00

\$8,706.98 (51, 161.00)

\$54,220.87

\$38,134.43

è

\$397.44 57,862.24

> \$2,000.00 \$29,038,44

\$2,844.74 127,480.00 \$10,493.35 \$2,418.00

(\$1.00)\$1,936.20

\$9,969,90

\$2,418.00

\$100,945.81

103,987.51

(\$1.00)

\$9,056.40

50.00 50.00

\$2,459.65

MUNICIPAL COURT - STATE OF RI

F.O.P. SUBSTANCE ABUSE ED.

DRUG TASK FORCE

CRIME PREVENTION

SLDG, SURCHARGE AND RADON

HUNTING & FISHING LICENSE

AARRIAGE LICENSES

STAMP TAX

\$6,014,70

No.6556

\$0.00 (\$784.99) \$0.00

\$6,035.00

\$6,372.00 \$8,328.00 \$15,960.84

(\$127.00)

(\$527.02)

\$5,218.01 529,800.00

PLUMBING AND MECHANICAL PERMITS

RI HISTORICAL RECORD FUND

CERTIFIED COPIES

Environmental & Transportation Planning

Marketing

Sign

JOB NO: COPIES TO

-100-002-224-01

-100-002-225-01 ..100-002-226-01 -100-002-227-01 --100-002-228-01 .-100-002-229-01 .-100-002-230-D1 -100-002-231-01 .-100-062-232-01 -100-002-233-01

-- 100-002-221-01 --100-002-222-01 -100-002-223-01

--100-002-220-01

\_-100-002-218-01

-100-002-219-01

DEER PERMITS

ELECTRICAL PERMITS

P.B/DEVELOPERS(ESCROW)A/C

JOB FILE

L-100-002-235-01

--100-002-234-01

PB/SUBDIVISION REV.EXP.A/C

MPACT FEES

(\$448.99)

\$14,570.08 527,833.16 558,540.00

> 529,040.88 98,340.00

\$8,475.00

P. 1

30.00

- \$3,107.81

Page 4 of 10

\$0.00

\$3,107.81

Fund 100 - GENERAL FUND	Trial Balance Town of Tiverton As Of 11/9/2011 (Effective Date)		T. M	11.9/2011 Fiscal Yea
Account Number	Account Description	Begjn Balance	Debits	Gredits
A-100-217-997-01	TAXES RECEIVABLE 1997	\$0.00		

Fund 100 - GENERAL FUND		Trial Balance Town of Tiverton As Of 11/9/2011 (Effective Date)		\$	11.15 Fiso	(2) - 11/9/2011 10:21:47 AM Fiscal Year 2011 - 2012
Account Number		Account Description	Begin Balance	Debits	Credits	Balance .
A-100-217-997-01 A-100-217-998-01		TAXES RECEIVABLE 1997 TAXES RECEIVABLE 1998 TAXES BECEIVABLE 1999	\$0.00	•		\$0.00 \$0.00 \$0.00
A-100-217-933-01	4988		\$12,267,333.77	\$78,068,127.51	\$57,296,903.32	1:43 96:255'8EU'EE\$
- 480 862 42E.04		SYRVIE CHEMINE	7.400A			CAGE /
L-100-002-128-01		POLICE COMPUTER GRANT	\$0.00			10'D\$
L-100-002-153-01		FIRE DETECTION & PREVENTION	\$6,121.20	53,986.88	\$1,440.00	\$3,574.32
L-100-002-175-01		FORFEITURES	\$34,015,17			
L-100-002-200-01		UNCLAIMED PROPERTY	\$0.00 \$34 E04 00	#6 830 054 04	10 000 00 P	
L-10U-002-20  -31 L-100-002-202-81		NOCCONTS PRIME IN IND BARK COMMA PAYABLE	50.45c,1 t4	\$6,170,300.0¢	94,109,400.44	U OUS
L-100-002-204-01		PIR CKS. STOP PAYMT.	(\$11.22)	\$171.23	\$492.47	\$310.02
L-100-002-208-01		ROSSI COLLECTIONS	\$0.00			\$0.00
L-100-002-207-01		TAX REFUNDS	\$7.34	\$12,501.50	\$9,964.24	(\$2,529.92)
L-100-002-208-01		TAX INTEREST REFUNDS	\$0.00			\$0.00
L-100-002-209-01		REDEMPTION OF TAX SALE	\$0.00			\$0.00
L-100-002-210-01		EQUITY FUND - ARTICLE 31	(\$99,496.82)			(\$98,496.82)
L-100-002-215-01	Than	LITERACY SET ASIDE - SCHOOL	(\$28,347.53) for one need			(\$28,347.53) \$2 336.488.83
_			44,335,408,02	000 0 000 0 000 0 000 0 000 0 000 0 000 0	5078 OR8 OR	20.00+jour.
	wile etech	LANDFILL - PAYT (2011)	\$0.00	\$53,833.87	\$276,956.96 20,755,754	5223,123.09
1.400-002-218-01 <b>D.4 (A.5) (Lassaule</b>	Laserye	DUE TO LANDFILL SINKING FUND DUE TO INDUSTRIAL PARK	\$184,813.71 \$248.849.42	940,0301.30	\$200°; 32.10	5248.849.42
		DRUG TASK FORCE	536,134,43	\$19,464.26	\$14.405.93	\$33,076.1
L-100-002-221-01		F.O.P. SUBSTANCE ABUSE ED.	80.00			\$0.0¢
L-100-002-222-01		CRIME PREVENTION	\$7,862.24	\$814.26		\$7,047.98
1-100-002-223-01		MUNICIPAL COURT - STATE OF RI	\$397.44	\$11,463.00	\$14,088.00	53,022.44
L-100-002-224-01		BLDG, SURCHARGE AND RADON	\$1,936.20	\$4,175,95	\$3,786.65	51,546.90
L-100-002-225-01		HUNTING & FISHING LICENSE	(\$4.00)	\$834,00	\$834.00	(\$1.00)
L-100-002-226-01		STAMP TAX	\$6,014.70	\$21,549,90	\$38,054.40	\$22,519.20
L-100-002-227-01		MARRIAGE LICENSES	20.00			0.08 80.00 80.00
L-100-002-228-01		DEER PERMITS	50.00			\$0.00
L-100-002-229-01		CERTIFIED COPIES	(\$784.99)	\$2,242.00	\$2,242.00	
L-100-002-230-01		RI HISTORICAL RECORD FUND	\$20.00	\$5,343,00	\$2,844.00	(\$2,479.00)
L-100-002-231-01		ELECTRICAL PERMITS	(\$1,917.78)	\$6,798.66	55,945,04	(\$1,771.40) NS
L-100-002-232-61		PLUMBING AND MECHANICAL PERNITS	\$4,010.29	\$9,199.04	.59,892.96	\$4,704.21
L-100-002-233-01		IMPACT FEES	80.00	\$20,860.00	\$26,820.00	\$5,960.00
L-100-002-234-01		PB/SUBDIVISION REV.EXP.A/C	\$9.00			\$0.00

	Nov.10	. 201	10:43	AM	TIVE	RTON CP	W
(3) 11/9/2011 10:29:19 AM	ai Year 2011 - 2012	Balance \$0.00	\$1,151,393.47 \$514,645.91 \$0.00	\$2,154,839,43 \$0,00	53,820,878	(\$354,901.76) \$0.00 \$0.00	(\$354,901.76)
11/5	Fiscal	un .				0 6	<b>.</b>

DUE (TO)/FROM GENERAL FUND - 100

SCHWAB INVESTMENT CITIZENS INVESTMENT

CASH

Account Description

Account Number A-300-000-103-01 A-300-000-104-01 A-300-001-099-01 A-300-001-100-01 MISCELLANEOUS RECEIVABLES

Assets.....

INVESTMENTS

A-300-001-105-01

A-300-001-135-01

L-300-002-100-01

L-300-002-201-01 L-300-002-292-01

3

As Of 11/9/2011 (Effective Date)

Trial Balance Town of Tiverton

Fund 300 - Landfill Closure Fund

	Begin Balance	Debits	Credits	Balance
	\$0.00			\$1,151,393,47
AL FUND - 100	\$014,045.91 \$0.00 \$0.00			\$514,645.91 \$0.00
IVABLES	32, 134, 339, 43 30.00			34,154,633,43 50.00
	\$3,820,878.81			53,820,878
AL FUND - 100	(3194,820.56)	\$189,668.30	\$29,587.10 \$22,912.27	(\$354,901.76)
	\$0.00			\$0.00
	(\$194,820.56)	\$212,580.57	\$52,499.37	(\$354,901.76)
NED FUND BALANCE	\$4,015,899.37 \$0.00		\$168,304.00	\$4,015,699.37
1	80.00	\$31,135.07	\$22,912.27	(\$8,222,80)
porar casa All Acet.	\$4,015,699.37	\$31,135.07	\$191,216.27	\$4,175,780.57
Neseance.	\$3,820,878.81	\$243,715.64	\$243,715.64	\$3,820,878.81
•	\$7,641,757.62	\$243,715.64	\$243,715.64	\$7,641,757.62

UNRESERVED/UNDESIGNED FUND BALAI

Liabilities.....

EXPENDITURE CONTROL

300 Landfill Closure Fund - Memo Only

Total Liabilities And Equities

Equities

REVENUE CONTROL

R-300-002-800-09

X-300-002-500-09

E-300-002-296-01

DUE TO/(FROM) GENERAL FUND - 109

ACCOUNTS PAYABLE DEFERRED REVENUE

### ATTACHMENT 1 EXISTING SITE PLAN



# ATTACHMENT 2 LANDFILL CLOSURE FINAL GRADE PLAN

