



# Item 11

## Travis County Commissioners Court Agenda Request

**Meeting Date:** July 16, 2013

**Prepared By:** Thomas Weber      **Phone #:** (512) 854-4629

**Division Director/Manager:** Jon A. White, Director, Natural Resources & Environmental Quality

**Department Head/Title:** *Carl B. Josephson*  
Steven M. Manilla, P.E., County Executive-TNR

**Sponsoring Court Member:** County Judge Samuel T. Biscoe

### **AGENDA LANGUAGE:**

Consider and take appropriate action on the following requests:

- A) Approval of funding of one-time operational improvements at the closed U.S. 290 Landfill ; and
- B) Approval of funding for a groundwater investigation to address compliance concerns of the Texas Commission on Environmental Quality.

### **BACKGROUND/SUMMARY OF REQUEST:**

The US 290 closed landfill is Travis County's largest landfill. It was operated between 1968-1982. Although closed, it remains a significant TNR responsibility in terms of ongoing resources necessary to comply with environmental laws.

The landfill has been closed for 31 years and was closed in compliance with municipal solid waste regulations in effect at the time. However, since closure, the landfill has produced extraordinary quantities of leachate. This is most likely the result of the inappropriate siting of the landfill atop areas of natural groundwater seepage and also due to infiltration of storm water through the cap. TNR just completed a significant project to improve the landfill cap by placement of low permeability clay and drainage improvements to prevent ponding of water. TNR manages an ongoing leachate collection system and pumps leachate into the City's sewer system to prevent surface seepage and unauthorized discharges to surface waters.

The leachate collection system was part of the Phase I remediation construction completed by Western Waste Contractors in 1995 at a total cost of \$1,730,000. The construction included access roads, recapping selected areas, erosion control, topsoil and revegetation, drainage improvements, and 19 leachate extraction wells.

The leachate system and landfill infrastructure is now 18 years old and in need of frequent maintenance and repairs. The Commissioners' Court has funded on-going

routine operation and maintenance, but special or one-time needs cannot be covered by the routine line item annual budget.

**STAFF RECOMMENDATIONS:**

TNR Natural Resources & Environmental Quality Division (NREQ) recommends the Commissioners' Court approve of expenditures with unused funds from two existing sources: 1) surplus funds previously allocated to us for the Final Cover Maintenance Plan (completed June 2013) and 2) funds being provided to Travis County from Austin Country Flea Market that resulted from our 2012 agreement. NREQ requests we use \$48,768 of these remaining funds to address one-time operational and maintenance needs. We also request using up to \$50,000 of these remaining funds to complete a groundwater investigation at the site. Both of these needs will ensure compliance with state requirements and the groundwater investigation is the final step required to address the 2009 Notice of Violation (NOV) from the Texas Commission on Environmental Quality (TCEQ) which cited Travis County' non-compliance.

Action Item A (Detailed Information):

In January, NREQ had SCS Field Services (SCS), the contractor for operations and maintenance (O&M) at the landfill, evaluate maintenance and repair needs to the leachate tank/pump station and well system. SCS identified four maintenance and repair tasks. These tasks are:

- 1) Pump 101 replacement at the leachate tank/pump station.
- 2) Pump 102 discharge valve replacement and additional discharge valve installation.
- 3) Cleanout of the leachate collection system tank.
- 4) Callout box installation.

The first two tasks listed are part of the tank/pump station and critical mechanical components needing to be replaced in pumping leachate to the City of Austin sewage system. Task three is removal of solids that have accumulated in the bottom of the tank with a vacuum truck. Over the last 18 years, sediment suspended in the leachate has settled to the bottom of the tank, thus reducing the amount of volume within the tank. Task four is basically a notification system that would be installed using the existing phone line onsite to notify both contractor and County staff of a potential overflow of the tank due to a power failure.

Since that January evaluation by SCS, the County contracted with LD Kemp Excavating, Inc., to address the 2009 NOV that requested the County to correct subsidence and ponding of water on the landfill cap and maintenance to the final soil cover to keep surface water from seeping into the landfill. In addressing these issues, the landfill roads became heavily deteriorated by the heavy equipment. SCS re-evaluated the landfill after the remediation work was completed at the request of

the County to determine if any damage, other than the road had occurred to the leachate system. SCS recommended three additional tasks that need to be added to the four above mentioned tasks.

- 5) Decommissioning of 10 abandoned leachate extraction wells.
- 6) Resurfacing of Access Roads.
- 7) Adding a New Access/Security Gate between the flea market and area Travis County uses for leachate collection.

Task five is plugging extraction wells that are no longer used to remove subsurface leachate. These wells have not pumped leachate for several years and need to be plugged so that surface water does not infiltrate the landfill cap through the wells and to satisfy requirements by TCEQ and the Texas Department of Licensing & Regulation (TDLR) concerning closed landfills and proper abandonment of wells. Bentonite clay would be used to plug the wells. The sixth task is to resurface various portions of site access roads with additional asphalt in areas that have deteriorated or were damaged during recent final cover construction. Task seven would relocate a security gate from a location near the front of the flea market that is difficult to drive due to drainage issues to a new location. The gate allows Travis County and the O&M contractor to access the portion of the landfill where the leachate system is operated and to secure the area from the flea market visitors and unauthorized personnel. All of these seven proposed maintenance projects would be beneficial with respect to ongoing operation of the site.

#### Action Item B Detailed Information:

In response to the TCEQ 2009 NOV, NREQ also commissioned SCS to prepare a preliminary groundwater source investigation and report. The conclusions of the report indicated that upgradient, percolating groundwater may be flowing laterally into the landfill and is then being extracted by our leachate wells. This report was then discussed with TCEQ and resulted in direction to NREQ that further groundwater investigation should be undertaken to verify the preliminary conclusions. TCEQ and NREQ agreed this further study would be appropriate to delay until finishing the final cover maintenance plan (See Attachment 1).

Therefore, NREQ now recommends that a groundwater investigation be performed to further study and help determine the source and flow pattern of groundwater causing the landfill to produce large volumes of leachate. If this recommendation is approved by the Commissioners' Court, the groundwater investigation would be placed out for bid by the Purchasing Department to find and select a provider for professional groundwater/subsurface investigations and reporting. Pending consideration of specific proposals, NREQ identifies the scope of this study to include drilling, completion, subsurface logging, top of casing elevation surveys, and measurement of groundwater levels of six wells upgradient from the landfill. Further, the service provider would review relevant data and records on groundwater flow

from the adjacent landfill system at Waste Management of Texas' facility and prepare a report of the finding from these tasks. The approximate cost of these services would be \$50,000. TNR would then continue to monitor water levels in the wells on a routine basis using in-house staff and equipment. Results from the service provider and ongoing data collection would be provided to TCEQ.

### **ISSUES AND OPPORTUNITIES:**

In working with TCEQ and Austin Country Flea Market, the County gained opportunities and showed good faith in being a good neighbor and co-existing with the flea market and satisfying the TCEQ NOV. Another opportunity is using the remaining final cover improvements funding as well as funding from the agreement with Austin Country Flea Market to pay for additional repairs and maintenance to the landfill.

The same issues that have persistently been part of the landfill's past may likely continue in the future for the landfill: that being management of high levels of leachate production. Now that final cover improvements and improved surface management by the flea market have reduced the potential for water penetration through the cap, we are ready to turn to an investigation of upgradient groundwater flow into the landfill. Ultimately, an understanding of groundwater patterns and reducing the volume of leachate pumped could lead to less O&M costs, achieving TCEQ post-closure objectives, and less Travis County costs and liability. These issues will in all likelihood always be with the County, but with persistence and continued repairs and maintenance over time these issues should diminish to a point where the County can enter into post closure.

### **FISCAL IMPACT AND SOURCE OF FUNDING:**

The estimated cost to do the indicated work is based on a time and materials basis not to exceed the cost shown in the table included as Attachment 2. The estimated cost for the work includes project management and administration, labor, equipment and materials, and vendor services assumed necessary for completion of the work.

The funding source for the work would come from existing funding that remains following completion of the Final Cover Maintenance Plan. The remaining uncommitted balance as of July 3, 2013 is \$264,188.

Additional remaining funds are also available for these expenditures, from funds being paid to the County by an agreement with Austin Country Flea Market as part of the 2012 remediation settlement. A payment plan calls for a total amount of \$100,000 being remitted to Travis County through 2017 and the fund balance at this time from Austin Country is \$15,000.

**EXHIBITS/ATTACHMENTS:**

Attachment 1 - October 25, 2011 Update on compliance provided to TCEQ

Attachment 2 - Budget for this request

**REQUIRED AUTHORIZATIONS:**

Cynthia McDonald	Financial Manager	TNR	(512) 854-4239
Steven M. Manilla	County Executive	TNR	(512) 854-9429
Alan Miller	Financial Analyst	PBO	(512) 854-9106
Jon A. White	Division Director	NREQ	(512) 854-7212

**CC:**

Thomas Weber	Program Manager	NREQ	(512) 854-4629
Keith Coburn	Project Manager	NREQ	(512) 854-5866

: :  
**0801 - NREQ- US 290 Landfill**

**290 Landfill Remediation Reconciliation**  
**As of 07/03/2013**

	Description	Travis County	Commitment Item	Austin Country
Total Funds		\$ 1,320,524.15	Alloc Reserve	\$ 30,000.00
Less:				
LD Kemp Excavating, Inc.	4100023538	\$ (930,427.34)	511780	\$ (30,000.00)
LD Kemp Excavating, Inc.	Chg Order	\$ (29,722.46)	511780	
BPI, Inc.	Pending PO	\$ (96,186.00)	511780	
<b>Balance Remaining</b>		<b>\$ 264,188.35</b>		<b>\$ -</b>
Other Receipts				
	Oct 2012			\$ 5,000.00
	Jan 2013			\$ 5,000.00
	Apr 2013			\$ 5,000.00
	Jul 2013			
		\$ 264,188.35		\$ 15,000.00

**Total**

\$ 1,350,524.15

**ATTACHMENT 1**

Copy of Correspondence to TCEQ

Regarding compliance with 2009 Notice of Violation



TRANSPORTATION AND NATURAL RESOURCES  
STEVEN M. MANILLA, P.E., COUNTY EXECUTIVE  
NATURAL RESOURCES & ENVIRONMENTAL QUALITY

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1010 Lavaca Street, 3<sup>rd</sup> Floor  
PO Box 1748  
Austin, Texas 78767  
(512) 854-9383  
FAX (512) 854-4697

October 25, 2011

Mr. Barry Kalda, Section Manager  
Texas Commission on Environmental Quality  
Region 11 – Austin  
2800 S. Interstate Highway 35  
Suite 100  
Austin, Texas 78704-5700

Re: Update on Compliance Plan, TCEQ MSW ID #684, Travis County Landfill, 9500 E.  
Hwy. 290

Dear Mr. Kalda:

The Natural Resources and Environmental Quality Division of Travis County (NREQ) is providing this update on our progress to address the deficiencies your office noted at the above-referenced facility. As we recently discussed, NREQ continues its progress to fully achieve compliance to correct the deficiencies, but full implementation of the December 14, 2009, compliance plan has not yet been completed.

The principal reasons for not yet completing all actions in our plan are two-fold. First, there is a strong desire by Austin Country, the operator of the flea market on the landfill, to remain in business on this site. Second, our governing Commissioners' Court requested that Travis County seek funding for the remedial plan to complement County (taxpayer) funding from the landfill property owner and Austin Country.

Please refer to my letter of March 29, 2011, which outlines several steps taken earlier this year to assess the landfill cover in the flea market area. Since that time, additional steps were taken:

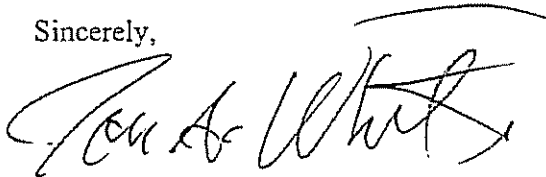
- Austin Country and Travis County further examined the subsidence areas to determine the specific areas needing corrective action (on June 15, 2011)
- Austin Country's consultant, AM Environmental, prepared a conceptual remedial design to address subsidence and ponding in the flea market area (on July 14, 2011)
- The parties met with AM Environmental and Travis County's contract engineer (SCS Engineers) to discuss revisions to the 2010 remedial plan for the flea market area (on August 15, 2011)

- SCS Engineers provided a proposal to Travis County that expands the scope of services of its existing contract, to prepare engineering specifications for the final cover remediation (on August 26, 2011)
- The Travis County Commissioners' Court approved a modification to the SCS Engineers contract, to allow for the expansion of the scope of services (on October 25, 2011)

NREQ will now proceed with completion of the remedial plan as described in Attachment A. Initial steps of the compliance plan were undertaken, but now the remaining steps supersede the plan provided to your office on December 14, 2009. I also bring to your attention that Travis County undertakes frequent and regular monitoring of the landfill and operates and maintains a comprehensive leachate collection system at the landfill. The system continues to successfully capture leachate and prevents unauthorized discharges into water in the State. Attachment B describes the month-to-month quantity of leachate captured and discharged to the City of Austin's sanitary sewer collection system.

If you need further information, please do not hesitate to contact me at (512) 854-7212 or Thomas Weber at 854-4629.

Sincerely,



Jon A. White, Director  
Natural Resources and Environmental Quality Division  
Transportation and Natural Resources Department

Enclosure

cc: Mr. Pladej Hunt Promptuntagorn, MSW Permits (MC-124), TCEQ  
Mr. Joe T. Robertson, 3506 Bonnie Rd., Austin, TX 78703  
Mr. M. Lee Cook, Austin Country, Inc., 9500 U.S. Hwy. 290 E., Austin, TX 78724

ATTACHMENT A

REVISED REMEDIATION PLAN  
TRAVIS COUNTY MSW LANDFILL – HWY US 290 EAST  
October 25, 2011

As outlined below, this plan is intended to address the deficiencies specified by TCEQ in the notice of violation letter dated October 15, 2009:

30 TAC §330.463(a)(1) – Correction of subsidence or ponding of water on a closed MSW landfill.

30 TAC §330.453(a) – (c) – Maintenance of a final soil cover over a closed MSW landfill.

1. By January 9, 2012, SCS Engineers prepares and submits a draft set of plans (75% completion level) describing the proposed remedial work.
2. By January 31, 2012, Travis County and associated parties meets with TCEQ Municipal Solid Waste and Region 11 staff to present the remedial plan and receive comments.
3. By February 29, 2012, SCS Engineers incorporates comments from TCEQ, Travis County, and AM Environmental, and submits technical specifications for the remediation to include construction, bidding documents, and engineer's cost estimate.
4. By March 31, 2012, Travis County, Austin Country, and Joe Robertson establish a cost sharing agreement for funding the remediation work.
5. By April 30, 2012, NREQ will request approval by the Commissioners Court of the cost sharing agreement, Travis County funding, and approval to submit a permit modification request (to reflect the structures built on the landfill needing a 30 TAC §330.954 registration) to TCEQ.
6. By June 1, 2012, Travis County will issue a solicitation for the remediation work through a formal Invitation for Bids (IFB).
7. By August 31, 2012, a Notice to Proceed will be issued to the selected engineering firm under contract to carry out the construction phase of the landfill cover repairs. This phase will include preparation of a storm water pollution prevention plan and TPDES coverage. Demolition of select structures and pavement are components of this phase of the project. The construction activities will implement the appropriate repairs to fill subsided and eroded areas, re-contour drainage ways, and to re-establish an adequate final cover and pavement. A chain link fence with controlled access points will be placed between the flea market and the remaining landfill area under Travis County care. An estimated eight months is forecasted for the construction phase.
8. Within 60 days of completion of the construction phase (approx. April 30, 2013), a final report will be prepared by the contractor documenting the repairs that were made, inclusive of as-built engineering drawings, cross-sectional topography of the surface with

the final cover, and details describing the specifications of the final cover. Upon acceptance of the report, it will be provided to TCEQ's Waste Permits Division and Austin Regional Office.

9. Following the construction phase (Step 7), Travis County will monitor site conditions at least weekly and within 24-hours after significant rainfall events until site stabilization and a vegetative or final cover is established. Areas of the site requiring maintenance or attention will be addressed during this timeframe to expedite site stabilization.
10. Following site stabilization (Step 9), Travis County will visually monitor site conditions to determine if subsidence has been arrested. Visual monitoring will be complemented with two annual surveys of the surface of the final cover. The duration of this phase is expected to be approximately two years.

30 TAC §330.463(a)(3) – Investigation of a release from a closed MSW landfill.

On August 6, 2010, Travis County provided TCEQ a preliminary groundwater source investigation prepared by SCS Engineers. The conclusions in this report indicate that the local geology results in percolating water that travels laterally to low elevations at the base of hills. At this landfill, the Travis County leachate collection system prevents the leachate from discharging laterally to surface waters. It is our further conclusion that the investigation by SCS Engineers provides justification that this alleged violation can be considered as resolved and no longer an outstanding compliance issue.

In discussions with your office, we indicated a willingness to carry out the recommendations of SCS Engineers for further study of the leachate and subsurface conditions (see Appendix G, Page 5 of the report). We discussed with you that it would be more appropriate to delay this study until after conclusion of the remediation work to correct subsidence and ponding, and after observation of any changes in leachate production. Ultimately, if the remediation work does not result in decreased leachate production, it is in Travis County's interest to further study the issue and consider other ways to potentially reduce leachate pumping and those associated costs of wastewater disposal.

30 TAC §330.954(d)(1) – Registration of structures over a closed MSW landfill unit.

30 TAC §330.959(b)(5)(A)(i) – Ensure explosive levels of methane do not occur in existing structures.

Travis County neither owns nor leases any enclosed structure at the MSW Landfill site. The property is owned by Mr. Joe T. Robertson. It is the understanding of Travis County that Austin Country, Inc. built the structures in question and is a lessee of Mr. Robertson. TCEQ received a registration application from Austin County on September 2, 2010. The application has not been declared administratively complete, pending modification of the landfill permit. As discussed above in Step 5 of the remediation plan, Travis County intends to submit the modification to TCEQ following Commissioners' Court approval of the funding agreement with Austin Country. This is forecasted for April 30, 2012. It is our understanding that technical analysis using air monitoring within structures at the flea market determined that methane levels are not presently a safety hazard.

**ATTACHMENT B**  
**LEACHATE COLLECTION VOLUMES**  
**TRAVIS COUNTY LANDFILL**  
**U.S. HWY. 290 EAST, AUSTIN, TX**

MONTH	YEAR	LEACHATE VOLUME (gallons)
August	2009	204,979
September	2009	292,602
October	2009	760,437
November	2009	682,005
December	2009	923,135
January	2010	811,413
February	2010	691,123
March	2010	1,820,265
April	2010	713,246
May	2010	589,596
June	2010	465,133
July	2010	525,643
August	2010	353,225
September	2010	663,971
October	2010	374,268
November	2010	274,325
December	2010	266,051
January	2011	210,817
February	2011	362,410
March	2011	265,539
April	2011	243,235
May	2011	203,199
June	2011	91,786
July	2011	124,874
August	2011	150,213
<b>TOTAL</b>	Aug2009- Aug2011	<b>12,063,490</b>

LEACHATE COLLECTION VOLUMES  
TRAVIS COUNTY LANDFILL  
U.S. HWY. 290 EAST, AUSTIN, TX

PERIOD OF TIME	LEACHATE VOLUME (gallons)
October 2000 – March 2001	3,634,095
April 2001 – September 2001	3,319,249
October 2001 – March 2002	3,969,454
April 2002 – September 2002	1,934,300
October 2002 – March 2003	5,828,082
April 2003 – September 2003	3,674,079
October 2003 – March 2004	2,462,639
April 2004 – September 2004	3,565,678
October 2004 – March 2005	4,477,448
April 2005 – September 2005	1,968,012
October 2005 – March 2006	1,415,978
April 2006 – September 2006	1,921,118
October 2006 – March 2007	4,347,885
April 2007-September 2007	4,985,439
October 2007-March 2008	1,554,080
April 2008-September 2008	720,672
October 2008-March 2009	534,637
April 2009-September 2009	1,757,930
October 2009-March 2010	5,688,378
April 2010-September 2010	3,310,814
October 2010-March 2011	1,753,410
<b>TOTAL</b>	<b>62,102,705</b>

## ATTACHMENT 2

Budget Detail Describing Proposed Funding request

TASK	TASK NAME	COST
<b>COURT ITEM A</b>		
1	Pump 101 replacement	\$3,801.00
2	Pump 102 discharge valve replacement and additional discharge valve installation	\$5,334.00
3	Tanks cleanout	\$4,520.00
4	Callout box installation	\$2,813.00
5	Decommissioning of abandoned wells	\$11,500.00
6	Resurfacing of Access Roads	\$15,800.00
7	Gate and Fence Improvements	\$5000.00
<b>COURT ITEM B</b>	Subsurface groundwater investigation	\$50,000.00
<b>TOTAL</b>		\$98,768.00