

Landfill Criteria Public Comments Received

February 9, 2018

From: Andy Andrasi <aandrasi@centraltexasrefuse.com>
Sent: Wednesday, December 13, 2017 4:13 PM
To: Raine, Woody
Cc: Mike Lavengco
Subject: RE: Comment on Draft Landfill Criteria by Dec. 13, 2017
Attachments: Response to Austin Resource Recovery's - Draft Landfill Criteria Dec 2017.docx
Importance: High

Woody,

Attached please find our comments regarding the Draft Landfill Criteria for Austin Resource Recovery and ZWAC's consideration.

Respectfully submitted,

Andy

ANDY ANDRASI
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Thank you.

From: Austin Resource Recovery [mailto:woody.raine=austintexas.gov@mail104.suw13.rsgsv.net] **On Behalf Of** Austin Resource Recovery
Sent: Tuesday, November 28, 2017 9:04 AM
To: Andy Andrasi <aandrasi@centraltexasrefuse.com>
Subject: Comment on Draft Landfill Criteria by Dec. 13, 2017

Comment on Draft Landfill Criteria based on recommendations by
the Council Waste Management Policy Working Group

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DRAFT LANDFILL CRITERIA

City Council Waste Management Policy Working Group

ARR encourages stakeholders to comment on [Draft Landfill Criteria](#) by email to woody.raine@austintexas.gov by Dec. 13, 2017.

ARR invites feedback not only on the criteria, but also on defining or scoring the criteria.

These criteria were developed in response to recommendations by the **City Council Waste Management Policy Working Group** directing Staff to develop landfill criteria to include considerations such as:

- community impact and social equity
- carbon footprint
- amount and type of waste
- existing levels of hazardous materials at landfill

You can view the Draft Landfill Criteria [here](#).

You can view other materials from the Council Working Group meetings at austintexas.gov/workinggroup

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You are receiving this email because you've previously identified yourself as interested in issues relating to City of Austin hauling, contracting, or waste management policy issues.

Our mailing address is:

Central Texas Refuse, Inc.
Response to Austin Resource Recovery's – "Draft Landfill Criteria"

As one of Austin and Central Texas' largest independent hauling companies that does not own a landfill and having served this region since 1981, Central Texas Refuse respectfully submits the following comments for consideration in the development of the Draft Landfill Criteria – Decision Matrix.

Our overriding concern is that should the City of Austin decide through some form of decision matrix to exclude City of Austin Municipal Solid Waste from area landfills that do not meet or exceed the criteria, independent third party haulers that do not own a landfill would be ineligible to participate in city waste contracts by virtue of existing contracts under the following scenarios:

- Should a landfill be excluded from accepting the City's MSW, existing contracts between a hauler and the excluded landfill would preclude the hauler from participating in the bid process
- The exclusion of a landfill could result in extended driving distances and impose time constraints to an "acceptable" landfill that would make any attempt to bid cost prohibitive to be considered
- Should multiple landfills fail to meet the criteria, the resulting hauling to landfills geographically displaced from Austin would result in skyrocketing costs.

Modern Landfills are highly engineered and regulated facilities that are sanctioned by the State of Texas to accept MSW, Class 1 and Hazardous Wastes and are necessary to maintain the health, safety and welfare of the population. As a hauler, we comply with all local, state and federal statutes regarding the disposal of the materials we haul and only haul to state approved landfills.

For a municipality to subjectively decide not to send waste to a licensed state regulated landfill through a decision matrix seems highly irregular and could cost the city and its' citizens significant money and resources in order to comply along with denying hauling companies the opportunity to bid on city contracts.

While the goals of Zero Waste are laudable, in the foreseeable future they cannot be accomplished by simply eliminating landfills and creating monopolistic markets. There are currently, and in a zero waste equation will continue to be, material that cannot be economically or sustainably recovered, reused or recycled that need to be addressed through landfilling until such time that technology or the collective societal mindset regarding throwing things away is achieved.

The elimination of a landfill such as Waste Management's Austin Community Landfill, that is permitted and has a long term usable life, would result in a monopoly by the remaining local landfill and hauler who would then be in a position to exclude third party haulers from their site and raise tipping fees for the City of Austin and all others who now must use their facility

exclusively. Then the question becomes, would this be in the best interests of the citizens of Austin?

Comments regarding the “Draft Landfill Criteria”:

- General comments:
 - How will each item be weighted?
 - How will bias and subjectivity be eliminated from the decision matrix?
 - Is the City creating a level playing field?
 - How will this criteria stand up to:
 - Existing TCEQ Permit Qualifications
 - Legal challenge
 - What will be the public input process to develop the Criteria?
 - What will be the time frame to develop the Criteria?
 - Who has the expertise and impartial credentials to lead the development of the Criteria?
 - ZWAC
 - ARR Staff
 - Third party consultants
 - State Regulators
- Item 1 “Carbon Footprint”
 - What will determine acceptable gas emission levels and beneficial use?
 - Should the criteria be established, will an existing landfill have enough notice and time to address any deficiencies they may have (without the interim penalty of being cut off until they meet the criteria)?
- Item 2 “Environmental, Zero Waste and Sustainability”
 - 2A. should fall under Item 3 (see notes below)
 - 2B. what level of use is the city looking for? Will the percentage of the landfill alternative fuel use need to exceed a certain percentage? Will that percentage be in line with what the City of Austin currently uses?
 - 2C. what exactly is being asked for?
 - 2D. how can this be structured to eliminate bias and subjectivity?
 - 2E. what threshold would be considered too much? Where will hazardous materials go?
 - 2F. this would fall under Item 3 (see notes below)
- Item 3 “Operational Considerations”
 - How can any of these items be effectively measured without introducing bias and subjectivity in order to compare to all available landfill options?
 - All of the listed items are elements of the landfills state issued permit and would be met by any landfill. To use these as criteria will not distinguish one from another.

- Item 4 “Community Impact and Social Equity”
 - 4A. This could fluctuate from pay period to pay period theoretically. How often will this reviewed?
 - 4B. What is the expectation? How often will this be reviewed?
 - 4C. This seems very subjective and could be perceived as being geared towards a specific site.

From: Alfonso Sifuentes <asifuentes@gghcorp.com>
Sent: Wednesday, December 13, 2017 4:32 PM
To: Raine, Woody
Subject: RE: Comment on Draft Landfill Criteria by Dec. 13, 2017
Attachments: Comments to ARR Landfill Criteria Dec13 2017.pdf

Mr. Raine,

Please find attached Green Group Holdings/ 130 Environmental Park's comments to the Landfill Criteria presented by ARR to the Austin City Council Waste Management Policy Working Group.

Regards,

Alfonso Sifuentes | senior project manager
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From: Austin Resource Recovery [mailto:woody.raine=austintexas.gov@mail104.suw13.rsgsv.net] **On Behalf Of** Austin Resource Recovery
Sent: Tuesday, November 28, 2017 9:04 AM
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You are receiving this email because you've previously identified yourself as interested in issues relating to City of Austin hauling, contracting, or waste management policy issues.

Our mailing address is:

Austin Resource Recovery
PO Box 1088
Austin, TX 78767

[Add us to your address book](#)



December 12, 2017

GREEN GROUP HOLDINGS, LLC
Comments on Draft Landfill Criteria Presented by Austin Resource Recovery
to the Austin City Council Waste Management Policy Working Group

GGH BACKGROUND: GGH is currently proposing to build 130 Environmental Park, a Greenfield project which will consist of a Type I MSW Landfill, Type V Transfer Station and other facilities for storage and processing of waste materials. The proposed site will be located on a 1,229- acre tract in northern Caldwell County, approximately four miles north of Lockhart and 30 miles south of Austin. However, the permitted area will only be 520 acres, including a landfill footprint of 202 acres. Over 500 acres will remain undeveloped and in a natural condition. 130 EP will be situated in the northeast corner of Hwy 183 and FM 1185. On September 6, 2017 TCEQ issued an order for approval of the permit for 130 EP; then on November 13, 2017 TCEQ made the order final.

Austin City Council Waste Management Policy Working Group made a recommendation to Staff to develop landfill criteria for waste diversion that would include considerations such as: community impact and social equity, carbon footprint, amount and type of waste, and existing levels of hazardous materials at the landfill. As a result, Austin Resource Recovery (ARR) prepared a matrix that would be open for comments. We generally agree with the recommended Criteria and will expect that it will likely be expanded upon as more comments are submitted. Nevertheless, our main area of concern is that any new site such as 130 EP can be penalized for a lack of sufficient historical data of its facilities or operations. Even though, one can make an assessment on the future operational integrity of a new site based on the character displayed during the long and adversarial permitting process; as well as the current relationships with the host community. A case in point: Given the controversial nature of landfills, 130 EP continues to gain public and private support for its development while being a model of a good community partner through its contributions and involvement in educational, civic, religious, and kid-friendly organizations.

DRAFT LANDFILL CRITERIA: As recommended by Staff, the following outline will include GGH comments added to the indicated section.

1. CARBON FOOTPRINT
 - 1.A. Landfill gas emissions
 - 1.B. Landfill gas beneficial use

Comments: A good landfill candidate should have incorporated in its design the management of landfill gas; a proven source of green energy. However, how would it be documented as a new site? Will it consist of industry standards?
2. ENVIRONMENTAL ZERO WASTE, AND SUSTAINABILITY
 - 2.A. Permit compliance
 - 2.B. On-site use of alternative fuels
 - 2.C. Zero Waste activities
 - 2.D. Other environmentally sustainable practices
 - 2.E. Existing Levels of Hazardous Material

- 2.F. Hazardous waste screening
- 2.G. Site construction (Is the site constructed in a way that is environmentally sustainable?
Does the site exceed state regulations?)
- 3. OPERATIONAL CONSIDERATIONS
 - 3.A. Experience/ Qualifications (Event though the site is new, what considerations are there
for existing operations outside of the market area? For the experience of the personnel
and operators?)
 - 3.B. General contingency plans
 - 3.C. Safety procedures/ training
 - 3.D. Emergency procedures
 - 3.E. Financial capability and risk
 - 3.F. Hours and days of operation
 - 3.G. Efforts to reduce exposure to toxics other hazards
 - 3.H. On-site fatalities or catastrophes
 - 3.I. Natural disaster mitigation (Are systems and resources in place?)
 - 3.J. Other monitoring activities performed by the operator
- 4. COMMUNITY IMPACT AND SOCIAL EQUITY
 - 4.A. Diversity of workforce
 - 4.B. Living Wage
 - 4.C. Commitment to community relations
 - 4.D. Community giving initiatives (Innovative ways to support the community, such as host
Agreements, strategic partnerships, etc.)

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From TDS.

10/308
11/8/17

From: Bob Gregory
To: "steve.adler@austintexas.gov"; "kathie.toyo@austintexas.gov"; "ora.houston@austintexas.gov"; "delia.garza@austintexas.gov"; "sabino.renteria@austintexas.gov"; "greg.casar@austintexas.gov"; "ann.kitchen@austintexas.gov"; "jimmy.flannigan@austintexas.gov"; "leslie.pool@austintexas.gov"; "ellen.troxclair@austintexas.gov"; "alison.alter@austintexas.gov"; "Jim.Wick@austintexas.gov"; "Amy.Everhart@austintexas.gov"; "amy.smith@austintexas.gov"; "shannon.halley@austintexas.gov"; "david.chincanchan@austintexas.gov"; "ken.craig@austintexas.gov"; "Marti.bier@austintexas.gov"; "michael.searle@austintexas.gov"; "kurt.cadena-mitchell@austintexas.gov"; "cj.hutchins@austintexas.gov"; "geno.rodriguez@austintexas.gov"; "katherine.nicely@austintexas.gov"; "neesha.dave@austintexas.gov"; "donna.tiemann@austintexas.gov"; "john.lawler@austintexas.gov"; "Leslev.varghese@austintexas.gov"; "Louisa.Brinsmade@austintexas.gov"; "Jackie.Goodman@austintexas.gov"; "cedi.gratias@austintexas.gov"; "Shelby.Alexander@austintexas.gov"; "Joi.Harden@austintexas.gov"; "Ashley.richardson@austintexas.gov"; "alba.sereno@austintexas.gov"; "bc-gerard.acuna@austintexas.gov"; "Bc-cathy.gattuso@austintexas.gov"; "bc-joshua.blaine@austintexas.gov"; "bc-kendra.bones@austintexas.gov"; "bc-heather-nicole.hoffman@austintexas.gov"; "bc-shana.joyce@austintexas.gov"; "bc-amanda.masino@austintexas.gov"; "bc-ricardo.rojo@austintexas.gov"; "bc-kaiba.white@austintexas.gov"; "bc-b.christopher@austintexas.gov"; "bc-Melissa.Rothrock@austintexas.gov"; "bc-Peter.Einhorn@austintexas.gov"; "bc-Robert.Stratmann@austintexas.gov"; "bc-Meagan.Harding@austintexas.gov"; "BC-Debra.Danburn@austintexas.gov"; "BC-Fredda.Holmes@austintexas.gov"; "BC-Mary.Kahle@austintexas.gov"; "bc-DonnaBeth.McCormick@austintexas.gov"; "bc-Jmichael.Ohueri@austintexas.gov"; "BC-Luis.Soberon@austintexas.gov"; "bc-Dennis.Speight@austintexas.gov"; "bc-Brian.Thompson@austintexas.gov"; Gary.Newton; "mwhellan@qdhm.com"; "dibutts@sbcglobal.net"; "Mark.Nathan"; Ryan.Hobbs; Adam.Gregory
Cc:
Bcc: Bob Gregory
Subject: Important Email for Tuesday Work Session
Date: Monday, November 6, 2017 8:34:00 PM

Mayor Adler and Council Members:

TDS understands that Agenda Item 42 on your November 9th Council meeting agenda (consideration of a staff proposed revised Anti-Lobbying Ordinance) is being postponed **for at least six months**, and that you will only take up Item 50 (consideration of re-applying the current ALO to the biosolids solicitation with perhaps two modifications) at this week's meeting.

Accordingly I'm writing in advance of tomorrow's work session discussion to briefly share TDS' **core concerns** with regard to Item 50 only. This item has been sponsored by Council Member Alter and would reverse Council's 12/15/16 suspension of the ALO with regard to the biosolids management solicitation.

City staff's six-month postponement of Item 42 is itself the best evidence of the scope of stakeholder concerns about the current ALO, plainly arguing against the reapplication of the ordinance to waste solicitations as Item 50 proposes.

On Thursday, we will ask you to **please vote NO on Item 50** and instead **please vote to leave the ALO suspended for the biosolids solicitation and all waste services solicitations**, as Council voted separately to do on 4/6/17, until Council has finally taken action on a revised ALO and administrative rules, as has been recommended to you by both the Solid Waste Policy Working Group (PWG) and Zero Waste Advisory Commission (ZWAC):

- PWG: "The existing ALO should remain suspended until Council approves proposed revisions."
- ZWAC: "Continue to keep the ALO in a suspended state until such time that both the final ALO and subsequent governing rules are drafted and adopted by Council."

To be clear, TDS cannot submit to the restrictions and potential staff interpretations of the

current ALO. We are encouraged that the solicitation for biosolids processing finally seems to have been restructured to close significant loopholes and deficiencies previously opposed by TDS (which we believe could have led to significant environmental problems and legal issues for the City), and we are hopeful that we may be able to submit a competitive response to the City's RFP.

However, for the reasons explained below, if the Council were to choose on Thursday to apply the current ALO or a slightly modified version to the biosolids solicitation, TDS would be forced to make any proposal to provide biosolids composting services to the City outside of the staff's procurement process pursuant to our 30-year Waste Disposal & Yard Trimmings Processing Contract.

TDS' **core concerns** follow:

1. FREE SPEECH

TDS believes that the slightly revised current ALO (Item50) – as well as the current staff-proposed revised ALO attached to the postponed Item 42 – allows City staff to restrict speech far beyond what is allowed under the law to accomplish their procurement process goals and to **disqualify and debar solicitation respondents for exercising free speech rights legally protected under the Texas Constitution and U.S. Constitution's First Amendment.**

TDS believes that any version of the ALO must allow waste services providers who respond to City solicitations – and all other City vendors who respond to City solicitations, if the Council so chooses – to:

- 1. Communicate about any facility, product, service, program, permit application, proposal or contract, including any solicitation or solicitation response, to any audience at any time without restriction, excluding identified City officials and employees;**
- 2. Express any view about any political or policy issue, including any City contracting or operations issue, to any audience at any time without restriction, excluding identified City officials and employees; and**
- 3. Communicate about any facility, product, service, program or permit application and express any view on any political or policy issue to any City official or City employee at any time without restriction, excluding only direct, solicitation-specific advocacy during the procurement process as defined by the ALO, assuming the ALO is Constitutionally compliant.**

If any ALO does not allow a vendor who responds to a City solicitation to exercise the free speech rights as defined above, it should not be adopted by the City Council. **Indeed, we urge you to please ask City staff DIRECTLY at Tuesday's work session whether the current ALO does or does not allow respondents to exercise these rights.**

[CLICK HERE to read an important legal memo from attorney Jim Hemphill detailing First Amendment concerns in the staff-proposed revised ALO](#) which are also each relevant to the current ALO.
[CLICK HERE to read a specific list of free speech activities any ALO should allow.](#)

To be clear, TDS believes that the current ALO, if it is now reapplied to waste services solicitations, is ripe for a legal challenge to determine whether it is Constitutional or goes beyond the restrictions on speech allowed by state and federal law during the government procurement process.

2. WORKING GROUP PROCESS

Please recall again that City Council has voted twice to suspend the ALO for waste services solicitations – [first just for the biosolids management solicitation](#), and later for all waste services solicitations [in order to allow waste industry stakeholders to participate in the Council-created PWG process and subsequent discussion before boards/commissions and Council](#) about the ALO itself, its accompanying administrative rules, the original controversial procurement and waste policy issues that stalled every staff-proposed City waste contract in 2016, and ultimately [the PWG recommendations](#).

However at this point **seven of the eight PWG recommendations have not yet been considered by Council or Boards/Commissions** (as specifically directed in Council’s 3/23/17 [discussion](#) and adopted [resolution](#)), meaning that to reverse Council’s suspension of the current ALO with regard to the biosolids management solicitation would be to **disallow certain waste industry stakeholders from participating in the forthcoming policy discussions**.

We are aware of language in Council Member Alter’s proposed ordinance suggesting that Council’s 12/15/16 suspension of the ALO for the biosolids solicitation can be reversed and the current ALO re-applied in a way that protects the ability of waste industry stakeholders to participate in the ongoing process, but **we not aware of any actual proposed revisions to the language of the current ALO itself** that would in fact resolve the communication restrictions that Council originally acted to waive.

3. EMBEDDED POLICY

As we have long observed to be City staff’s practice, **staff has embedded the biosolids solicitation to which Item 50 speaks with a staff-preferred waste services policy**, which in fact reflects a different position than a PWG policy recommendation now pending before ZWAC (scheduled for consideration on 11/8/17) for a recommendation to Council.

Specifically, the revised biosolids management solicitation includes a Scoring Matrix that has removed all potential scoring related to “Local Business Presence.” **This is contrary to the PWG recommendation** to revise the “Local Business Presence” scoring matrices for waste services solicitations to resolve the scoring disadvantage for waste services providers with offices located just outside the City limits, as is appropriate and preferable for waste processing and disposal facilities.

- **PWG: “Within waste management matrices, revise the definition of “local” to more accurately represent local business presence. The current point allowance favors businesses with offices within the city limits regardless of the type, nature, or history of their presence in the local**

community. At the same time it penalizes businesses with headquarters just outside the city limits but with substantial business presence in the Austin area.”

Thus if Council votes to re-apply the current ALO the biosolids solicitation – even if Item 50 could somehow erase the current ALO’s broader restrictions on speech unrelated to the solicitation based on revised ordinance language not yet seen – industry stakeholders would still be disallowed from communicating with City officials about this pending policy issue, as it is embedded into the solicitation itself.

4. LEVEL PLAYING FIELD

TDS’ position against Item 50 is additionally based on the serious concern **that to re-apply the current ALO to the biosolids management solicitation would in effect twice absolve a prospective vendor**, Synagro, of an [alleged violation of the current ALO](#) that occurred in 2016 in conjunction with the previous iteration of this same solicitation.

Indeed, the fact that [Council acted on 12/15/16 to retroactively suspend the current ALO for the previous biosolids solicitation](#) clearly reveals Council’s view at the time that Synagro was at risk of being disqualified from that solicitation and thus also disqualified from responding to the current revised solicitation. To simply now re-adopt the exact same ALO rules which we believe Synagro violated in 2016 would plainly be to accommodate the current vendor to a deeply troubling extent.

5. TRANSPARENCY AND FAIRNESS

Finally, TDS’ core concerns about both the current and both of the staff-proposed revised ALO drafts relate to transparency and fairness – that the ALO should allow City policymakers and community stakeholders to ensure that the City’s waste services solicitations and contracts are compliant with established City policies, and should protect solicitation respondents from disqualification or debarment based on City staff’s subjective interpretation of vaguely-worded ordinance provisions without the ability to appeal.

As we have shared before, TDS’ transparency and fairness concerns about the ALO originate with **the conflict inherent in the local waste services industry being regulated by an acknowledged competitor**, and with our experience of being illegally disqualified (i.e. [later overturned by a federal judge](#)) under the ALO in conjunction with a then-secret effort in 2010 by City staff – led by Austin Assistant City Manager **Robert Goode** and former Austin Public Works Director **Howard Lazarus** – to compete in the local marketplace for processing recyclables.

Please understand that municipalities like Austin have broad legal authority to control and compete in the waste services marketplace, up to and including imposing exclusive franchise agreements with preferred vendors and even complete transformation of all private waste services into a public utility. Just last week, the [City of Reno, NV threatened fines and jail time for local businesses not utilizing the City’s exclusive waste services franchise contractor, Waste Management, Inc.](#) (WMI). WMI is also the [exclusive franchise contractor for the City of Ann Arbor, MI](#), where City Manager Howard Lazarus [terminated an existing contract with another company for processing recyclables in](#)

[order to award the business to WMI](#). The City of Los Angeles has also recently [imposed franchised contractors on all local businesses to disastrous effect](#).

[CLICK HERE to read a 9-year chronology of City staff's efforts to control and compete in Austin's waste services marketplace, including unprofessional, unethical, and even illegal actions intended to harm TDS specifically and favor City staff's preferred waste contractors.](#)

[CLICK HERE](#) to see a copy of the full City staff RFP response presented by **Howard Lazarus** in February 2010 for the City's recycling services RFP No. RDR0005, including Mr. Lazarus' signature on the ALO certification page certifying that he and his City staff would not contact other City staff during a time period he oversaw ARR and other departments covering for Robert Goode who temporarily oversaw Austin Energy, and explicitly detailing City staff's plan to "cut out the middle man" and "control the flow of recyclables."

Based on our broad concerns about free speech, and our industry-specific concerns about transparency and fairness, TDS has long advocated for a **full exemption from the ALO for all waste services solicitations and contracts**, just as [social services; cultural arts; federal, state and City block grant; and real estate solicitations and contracts are each exempt from the ALO](#).

Alternatively, we now urge the City Council to ONLY adopt any ALO – whether for the biosolids solicitation, or any other waste services solicitation – that:

1. **Prohibits only direct, solicitation-specific advocacy, and specifically allows speech protected by the Texas and U.S. Constitution, beyond which a procurement process restriction on speech is allowed.**
2. **Allows appeal of any disqualification to both the Ethics Review Commission (or another Council-designed body) and the City Council.**
3. **Allows a single offense to result in only one disqualification.**
4. **Stays the solicitation process during disqualification appeals.**
5. **Does not allow staff to compel recusals by City officials.**
6. **Does not allow staff to consider "mitigating factors" in determining disqualifications and instead utilizes "mitigating factors" on appeal.**
7. **Eliminates debarment; alternatively, debarment should be made to apply only to future solicitations and should be appealable to both the Ethics Review Commission (or another Council-designed body) and the City Council.**
8. **Requires Council to approve the ordinance's administrative rules.**
9. **Begins the restricted contact period no sooner than 14 days after each solicitation is issued and to continue to apply no later than 14 days before each proposed contract is posted for consideration by either a City board or commission or the City Council.**

To be clear, because **City staff is both regulator and acknowledged competitor**, TDS believes staff must not be considered a neutral or objective arbiter of policy or conduit of information about City waste services solicitations and contracts.

Indeed, even as City staff has shown that it can interpret the current ALO to limit or allow a wide

range of restricted or allowed contacts and representations to fit their agenda, they have at the same time **often chosen to ignore what state and county statute allows or requires of solid waste processing and disposal facilities and service providers**. Their tendency to make up the rules as they go – and the significant long-term cost of such gamesmanship to Austin ratepayers – is the reason waste solicitation respondents and community stakeholders must be able to point out where City staff is or may be violating City policy and environmental regulations before contracts are awarded.

This is why TDS **additionally** urges the Council to please only adopt any ALO that requires staff to share core elements of draft solicitations (including the Scope of Work and the Scoring Criteria) with appropriate boards/commissions prior to issuance, and to post full negotiated contract documents with sufficient time for review by boards/commissions and City Council prior to a requested vote to recommend or authorize, as has twice been recommended to Council by ZWAC.

[CLICK HERE for ZWAC's resolution requesting review of core elements of draft waste solicitations prior to issuance of the solicitation and posting of full negotiated contracts prior to a requested vote to recommend](#) (adopted unanimously on 7/12/17 and 8/9/17).

Finally, for your information, following please find a list of critical links to additional information reflecting the positions of boards/commissions and various stakeholders on ALO revisions, which in many cases endorse the core concerns about the current ALO that we have expressed above, and **argue strongly against its re-application to the biosolids solicitation on Thursday.**

Once again, TDS believes City staff's planned delay of six months in bringing a proposed revised ALO to Council for consideration is itself the very best evidence of the scope of serious concerns with the current ALO and the risk of voting to re-apply it to waste solicitations.

[CLICK HERE for PWG's recommended changes to the current ALO.](#)

[CLICK HERE for key differences between PWG's ALO recommendations and the "resulting" staff ALO recommendations.](#)

[CLICK HERE for ZWAC's recommended changes to the staff proposed revised ALO.](#)

[CLICK HERE for TCE's recommended changes to the staff proposed revised ALO.](#)

[CLICK HERE for TDS' positions on TCE's recommended changes to the staff proposed revised ALO.](#)

[CLICK HERE for TDS' 25 recommended changes to the staff proposed revised ALO.](#)

[CLICK HERE for 18 recommended changes as a whole to the staff proposed revised ALO agreed to by TDS, SYNAGRO, and TCE.](#)

[CLICK HERE for TDS' redlined version of the staff proposed revised ALO.](#)

Thank you again for your important efforts and for your consideration of these requests. As always, please do not hesitate to contact me directly with any questions or concerns you may have. **Please do not reinstate the ALO to apply to the Biosolids Management solicitation, so TDS can respond to it directly.**

Sincerely,
Bob Gregory

Founder & CEO
Texas Disposal Systems
512-619-9127 (m)

Chronology of Solid Waste, Recycling, Organics and Zero Waste under Austin Assistant City Manager Robert Goode and Others

Texas Disposal Systems (TDS) was founded in Austin in 1977, forty years ago. Over that time we have developed the solid waste management facilities that enable us to provide environmental services to many thousands of customers across Texas. We have also consistently advocated for, and defended, policies at the local and state level that are environmentally protective, transparent, fair, economically sustainable, and consistently and vigorously enforced. The manner in which we've done so has resulted in our Travis County recycling, composting and disposal facility being named the best managed landfill in North America by the Solid Waste Association of North America, and the induction of our founder and CEO into the Environmental Industries Association Hall of Fame, among many other awards.

TDS is proud to be the City of Austin's primary partner in managing solid waste and recyclables. For over twenty years TDS has provided excellent service to the City through several different contracts. TDS has also remained engaged in all aspects of City policy development and application with regards to the local solid waste, recycling and organics management industry. This industry is unique in that the City functions as both a competitor with, and regulator of, licensed waste haulers. Our industry is further unique in that the City does have the statutory authority to eliminate the competitive market for commercial solid waste, recycling and organics services which currently exists, and to seize the associated revenue for itself and the flow of discarded material to facilities the City owns or controls through contracts. On several occasions in the past, the City staff has explicitly sought from the City Council the means to exercise this authority; however, the Council has consistently voted to maintain and protect the competitive private market that haulers, processors and generators of waste, discarded trash, recyclables and compostable materials rely on. Unfortunately, staff has continued to seek the means to expand its control over the private solid waste services market through the staff controlled procurement process by embedding significant policy implications and facility management authorizations within solicitations and the resulting contracts, while utilizing the Anti-Lobbying Ordinance to stifle dissent and control what City Boards and Commissions, and City Council members can see and hear.

The following chronology shows that since the appointment of Assistant City Manager Robert Goode in 2008, TDS has been all too frequently forced to oppose staff's explicit and implicit efforts to establish policies that are detrimental to TDS, other private solid waste management companies, and commercial businesses and institutions, and that are inconsistent with the established policies of the City Council. The chronology further reveals the staff's apparent attempts to harm TDS, and their tendency to avoid doing business with TDS, if at all possible, regardless of the adverse financial impact on the City.

TDS strongly believes that many of the initiatives and actions included in this chronology illustrate a pattern directed by Assistant City Manager Goode and other City management officials that constitutes:

- Misuse of City Departments and City Ordinances for the advancement of an agenda unsanctioned by City Council;
- Noncompliance with key duties, functions and responsibilities pursuant to the City of Austin [Job Description](#) for Assistant City Managers and other positions;
- Wasting City resources through questionable purchasing practices and contract negotiations; and
- Favoritism of contractors and an apparent disregard for fiduciary responsibility to Austin's ratepayers.

TDS has no choice but to view all initiatives of current and former City staff related to solid waste, recycling and organics management through the context of the following history. We offer this account to you in the hope that it will provide context to the frequent conflicts between TDS and City staff, and will inform your decisions as you chart the City's future.

March 2008

Robert Goode was [appointed](#) as Assistant City Manager overseeing Austin Resource Recovery and several other City departments. Previously Robert Goode served as Director of

Transportation and Public Works for the City of Fort Worth. While working for the City of Fort Worth, Mr. Goode reported to then-Assistant City Manager Marc Ott.

- June 5, 2008 City staff proposed and recommended award and execution of a no-bid contract with [Vista Fibers/Greenstar](#) for transportation, processing and marketing of City collected residential single-stream recyclables. The contract was presented and recommended to City Council as a no cost to the City, profitable revenue-generating contract with projected City net revenue of approximately \$3,000,000 during the initial two-year term, and an additional \$1,500,000 during the two six-month extension options, for a total estimated profit to the City of \$4,500,000. However, contrary to staff's representation to City Council, the Greenstar contract actually **cost** the City \$2,834,265 for the initial 2-year contract term. While Greenstar charged Austin to process and market its single-stream recyclables, the cities of San Antonio and Dallas received payments from Greenstar to provide the same recycling processing and commodity sales services for their residential single-stream recyclables. City staff also represented to City Council that Greenstar objected to ZWAC's [recommendation](#) that the transportation component of the contract be solicited under a separate bidding process, and that Greenstar [would not guarantee](#) receipt of the City's recyclables if the transportation component was removed from the contract, a representation that was later determined through separate conversations between TDS and Greenstar personnel to be false. City staff apparently knew a separate bidding process would have allowed TDS to offer its existing transportation services to the City at a lower price than what Greenstar charged for the same services.
- July 2008 City staff had to be forced to pay TDS approximately **\$350,000** in recycling revenues that were improperly [withheld](#) from payment while TDS used the City's dual-stream recycling facility on Todd Lane. TDS discovered that City staff arbitrarily changed, without notice or justification, the overall composition of TDS curbside recyclables to include nearly 35% green glass, resulting in an artificial decrease in the calculated value of TDS' curbside recyclables processed by the City.
- August 2008 City staff "shelved" approximately **\$1,000,000** in [planning and design services](#) included in a \$3,500,000 contract with R.W. Beck, Inc. for engineering, permitting and design services of City-owned Materials Recovery Facility (MRF). The City's plans to build its own MRF were scrapped after the projected costs for the project [skyrocketed](#) to a reported **\$72,000,000**.
- August 28, 2008 City staff recommended execution of a 20-year [\\$2,300,000,000 no-bid agreement](#) to purchase 100 megawatts of power generated from wood waste to energy biomass (Nacogdoches biomass contract). City Council approved execution of the Nacogdoches biomass contract at its regular meeting on August 28, 2008. Since that time, significant concerns have been raised by the City Council and community stakeholders about the City's obligations and costs associated with the wood waste to energy biomass project, often referred to as a ["boondoggle"](#) that reportedly costs Austin ratepayers approximately \$50,000,000 per year. In February 2016, the City Council approved a \$325,000 contract with [Jackson Walker LLP](#) to review the biomass contract to identify means for reducing the City's enormous financial exposure. City staff reported the plant would be fueled primarily with wood waste, leaving other waste products as a possible fuel source.
- Sept. 2008 City staff declared [commercial collection](#) of solid waste and recyclables a public utility under Article XI of the City Charter and proposed non-exclusive franchise agreements for all private haulers that included a **minimum 4% hidden tax on all Austin businesses, apartment complexes, institutions and non-profit organizations** for commercial waste and recyclables collection services. The proposed franchise agreements would have also granted City

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Management and staff broad powers to set service charges, to regulate the number of collection vehicles used by haulers and to direct collected materials to City-owned and operated or contractually controlled facilities. TDS responded to Assistant City Manager Goode's franchise proposal with an aggressive [petition campaign](#) that over the course of approximately three weeks generated nearly 3,000 individual business signatures, over 30 individual proclamations from various large businesses and industry trade organizations, and a collective Hauler's Resolution signed by 17 local solid waste and recyclables haulers. The TDS [petition campaign](#) and pleas from businesses and haulers ultimately convinced City Council to direct City Management and staff to withdraw the controversial franchise proposal. See www.texasdisposal.com/austinwastehaulerfranchise for more details.

Oct. 16, 2008

City staff proposed and recommended execution of a **\$198,000** [contract for debris removal](#) services from 30 acres of City-owned property located on FM973 near the airport. The property was used by a City contractor to sort and recycle construction and demolition waste generated by contractors participating in Austin Energy's Green Builder program and to provide reports to the builders and to the City reporting the weight of each commodity sorted and that the commodities were recycled. City staff then allowed the unsorted debris to be [disposed](#) of at the Waste Management, Inc. Austin Community Landfill instead of being recycled as originally intended. It is believed that the City paid tens of thousands of dollars in additional hauling and disposal fees to dispose of the material. It is unknown how many Austin Energy Green Builder projects were affected by City staff's decision to dispose of construction waste materials that were reported to Austin Energy and in LEED certification project applications as recycled with specific pounds of different commodities diverted.

Oct. 31, 2008

[Without Council's consent or knowledge](#), Assistant City Manager Goode and City legal staff negotiated and executed a [Rule 11 Agreement](#) with [restrictive covenants](#) to drop the unanimous City Council opposition to the landfill capacity expansion in the contested case hearing involving the proposed expansion of BFI's (a.k.a. Allied Waste and Republic Services) controversial Sunset Farms Landfill in northeast Austin, reportedly in exchange for permanent closure of the landfill to the receipt of waste for disposal and the transfer of waste on or before November 1, 2015 – a direct contradiction of a Council resolution and policy to oppose the expansion of the Sunset Farms Landfill. In response, Council passed [Resolution No. 20081211-071](#) directing the City Manager to enter into a \$25,000 contract with an outside law firm to assess the City's options for dealing with the unauthorized Rule 11 Agreement. Eight years later, in December 2016, when Mr. Goode and City staff proposed to award the Citywide Dumpster Collection Services and special events services contract to Republic Services (previously BFI) and to direct City-generated waste to the beleaguered adjacent Waste Management, Inc. Austin Community Landfill – another contradiction of Council policy – TDS demonstrated that the Sunset Farms Landfill restrictive covenants negotiated and executed by Mr. Goode and City legal staff in 2008 were effectively [unenforceable](#), having been signed on behalf of entities that did not own the land comprising the landfill at the time. As a result, the entities in control of the Sunset Farms Landfill could at any time move forward with a permit modification or a permit amendment to their TCEQ Permit No. 1447A to eliminate the November 1, 2015 closing date requirement and re-open the landfill for waste disposal, processing and/or transfer station activities.

Nov. 16, 2009

After privately seeking and securing a commitment from TDS founder and CEO Bob Gregory to participate in a competitive solicitation to build and operate a Materials Recovery Facility (MRF) and offer other recycling options for the City to consider, Assistant City Manager Robert Goode and City staff issued [Request For Proposal No. RDR0005](#), subject to the City's Anti-Lobby

Ordinance (ALO) restrictions, for Recycling Services and the provision of a MRF under a new long term contract.

Dec. 2009 – March 2010

City staff proposed and recommended execution of Option 3 of the restated and amended contract with Greenstar for transportation, processing and marketing of single-stream recyclable materials for a 36-month initial term (10/1/08 – 9/30/11) with four six-month extension options (10/1/11 – 9/30/13). Approval of this item would have completely negated the justification for the City's 11/16/2009 RFP No. RDR0005 - for Recycling Services and provision of a MRF - and would have resulted in a massive staff-projected loss to the City of **\$12,393,589** over the full contract term of the staff recommended restated and amended Greenstar contract. Mr. Goode and City staff also placed their Greenstar contract revision and extension recommendation on two separate ZWAC agendas ([12/9/2009](#) and [2/10/2010](#)) and four separate Council agendas ([12/17/2009](#), [2/11/2010](#), [2/25/2010](#), [3/25/2010](#)). City Council ultimately rejected the staff's recommendation and denied the Greenstar contract amendment, instead expressing a desire to see whether the City's RFP for recycling services would produce a local, financially favorable, and lower carbon footprint long-term partner.

January 2010

[Bob Gedert](#) began his service as director of Austin Resource Recovery (ARR), under the direction of Assistant City Manager Robert Goode. In FY10-11, when Mr. Gedert assumed his role as ARR director, the ARR enterprise fund balance was **\$24,256,000**. When Mr. Gedert retired from ARR 7 years later, the FY16-17 approved [enterprise fund balance](#) was **\$4,781,276**.

January 21, 2010

After TDS sent an email to the Zero Waste Advisory Commission (ZWAC) on 12/8/2009 urging the Commission to reject City staff's proposed amended and restated contract with Greenstar, and explained how approval of the item would have completely negated the need for the City's 11/16/2009 RFP for Recycling Services, due to the fact that the City's single stream recyclables could not be dedicated to fund the cost of both contracts, Assistant City Manager Goode and City staff sent TDS an official [letter](#) that stated that the TDS email to ZWAC was a prohibited representation under the City's Anti-Lobbying Ordinance (ALO), and therefore TDS was disqualified from competing for the City's RFP No. RDR0005 for Recycling Services and provision of a MRF. In addition to disqualifying TDS from competing for the City's RFP, the City also disqualified Greenstar for a communication it sent to a City attorney in response to TDS' email to ZWAC. Once it became known that TDS had already purchased its own sorting equipment and was moving ahead to construct its new 107,000 square foot MRF in southeast Travis County, we believe that Mr. Goode and City staff set out to eliminate two of the leading contractors most capable of servicing the City's impending contract for recycling services, but, in their haste to attempt to derail the TDS construction of its MRF, they did not realize that they had disqualified TDS from competing for the RFP before TDS was even qualified to be *disqualified*, because TDS had not yet become a respondent as defined under the City's ALO. After exhausting all City administrative remedies to have the disqualification overturned, TDS was forced to file a lawsuit against the City for improperly assessing the disqualification and to have the disqualification removed from its record. In March 2014, U.S. District Court Judge Lee Yeakel ruled that the City acted improperly when it found that TDS violated the ALO, and entered a judgment that the violation be removed from TDS' record. TDS estimates the City spent tens of thousands of dollars in legal fees defending City staff's improper disqualification of TDS. See www.texasdisposal.com/cityofaustin for more details.

February 9, 2010

The City received eight competing proposals in response to its RFP No. RDR0005 for Recycling Services, including a [competing proposal](#) submitted by the City of Austin Public Works Department to build and operate a \$45.7 million MRF located at the City's closed FM812

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landfill. City staff's RFP response included an Executive Summary, which plainly revealed City staff's longtime desire to seize control of the local waste services marketplace: "The development of a MRF in the Austin area will allow the City to take control over the flow of recyclables and will provide a 'regional solution' for these materials. By operating its own MRF, the City can eliminate the 'middle man' that otherwise would be sharing profits from the sale of commodities when processing is contracted out." Not only did City staff evaluate and score its own RFP response, staff favorably ranked its proposal third behind Republic Services and Waste Management, Inc., potentially knowing the Council would have concerns about contracting with either private company on a long-term basis given both companies problematic facility operating records in Austin. In addition, Howard Lazarus, Austin's then Director of Public Works, later testified under oath in the above-referenced TDS v COA improper disqualification litigation that his department spent \$100,000 preparing its response to the City's RFP for Recycling Services. Mr. Lazarus also signed the RFP's required Anti-Lobby Ordinance compliance certification, indicating that City staff had not communicated with City staff and City officials concerning the RFP solicitation or their response since 11/16/09, and would not communicate with other City staff or City officials about the City's RFP response until the completion of the procurement process, which would have been impossible. The Executive Summary in City staff's RFP response also revealed the staff's transition plan: "Contingent upon the approval to proceed with the building of a city-owned and operated Single-Stream MRF, SWS will extend the current processing contract and continue transferring single-stream materials to the Greenstar Facility in San Antonio until such time as the new Single-Stream MRF would be operational." Clearly, staff's motives to extend the Greenstar contract and disqualify TDS from the RFP process were intended to pave the way for a City-owned and operated MRF and discourage TDS from building and operating a competing MRF.

February 9, 2010 In lieu of responding to the City's RFP No. RDR0005 for Recycling Services, TDS submitted to City Council and ZWAC an unsolicited proposed contract amendment to its 30-year Waste Disposal and Yard Trimmings Processing contract with the City of Austin. TDS' proposed contract amendment included offers for:

- construction and operation of a single stream MRF to receive, process and market the City's recyclables starting on 10/1/2010;
- brush grinding and composting services for yard waste, biosolids and food waste materials;
- 20-year contract extension for landfill disposal services;
- siting, permitting, construction and operation of a north Austin solid waste and recyclables transfer station for joint use by the City and TDS to significantly reduce transportation cost and impact; and
- shared facilities agreement for office space, tire maintenance, vehicle washing, cart storage and maintenance, vehicle maintenance shop, and diesel and alternative fuel stations.

Other departments and Mr. Goode orchestrated the rejection of TDS' proposed contract amendment and disqualified TDS again from the RFP services solicitation process, even though TDS still had not become a respondent to the RFP subject to the disqualification. To date, Mr. Goode has not pursued any of the unsolicited option items proposed by TDS, which would have resulted in many millions of dollars in cost savings to the City and its ratepayers.

Feb. 10, 2010 In response to the pending March 1st retirement of Austin Energy General Manager Roger Duncan, City Manager Marc Ott named Assistant City Manager Robert Goode as the interim General Manager of Austin Energy effective 2/26/2010. Simultaneously, Mr. Ott also appointed Public Works Director Howard Lazarus to fill the role as Assistant City Manager effective 2/26/2010. Mr. Ott later hired Larry Weis to take over as Austin Energy's permanent General

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Manager effective 9/27/2010. Mr. Lazarus, who signed the ALO certification as discussed above, oversaw the ARR department and the Public Works department, while the City staff's RFP response moved through the procurement process.

- Feb. 25, 2010 City staff proposed and recommended to Council a **\$1,209,014** professional services agreement with [HDR Engineering, Inc.](#) (HDR) to provide planning services for Austin Resource Recovery's 30-year Master Plan. As HDR began to finalize its draft of the Master Plan and the estimated costs for the City's Zero Waste programs, it became known that City staff was not comfortable with HDR's recommendations, and ultimately Bob Gedert reportedly took over the process of drafting a Master Plan himself. Mr. Gedert was credited with rewriting his own version of the department's Master Plan, which was published in December 2011. To our knowledge, the original HDR Master Plan draft has never been made public, nor has the City produced it in response to our Open Records Request, or provided a basis to be critical of HDR's work product, and it is unknown what the City ultimately paid for professional services rejected by City staff.
- June 10, 2010 After learning that City staff secretly [submitted](#) and [favorably scored](#) their own RFP proposal to build and operate a City-owned **\$45.7 million** MRF, including Howard Lazarus signing their own [Anti-Lobby Ordinance compliance certification](#), committing that City staff would not speak to City staff or to Council about their RFP response, the City Council voted as noted above to reject all RFP proposals and cancelled the City's RFP No. RDR0005.
- June 24, 2010 City Council passed [Resolution No. 20100624-081](#) directing the City Manager to negotiate with both TDS and Balcones Resources for a long-term agreement for recyclables processing services; and with TDS, Balcones Resources and Greenstar for a short-term agreement for recyclables processing services. TDS was awarded the short term (2 years) contract and negotiations continued for the long-term, 20-year contract. The \$17 million TDS MRF opened to serve the City on 10/1/2010. During the first six months of the short-term contract with TDS, the [City received approximately \\$360,000](#) in net revenues (profit) for its single-stream recyclables.
- March – April 2011 Following months of contract negotiations with TDS and Balcones for the long term MRF contract, City staff, under direction of Assistant City Manager Goode and Howard Lazarus, recommended that the City direct 100% of its residential single-stream recyclables to Balcones Resources, despite the fact that TDS submitted the most favorable pricing offer for 100% of the City's volume and even for [lower percentages](#) of the City's volume of curbside collected recyclables. The staff's recommendation was based on several factors, including: Balcones' wholesale agreement to several controversial contract terms that staff knew TDS would logically strongly object to; staff's reliance on absurdly unrealistic projections of future commodity prices to simulate the financial performance of Balcones' pricing offer; and the use of a bogus transportation study based on an irregular costing methodology to justify the City's use of the Balcones facility and which is not used by the industry. We believe City staff deliberately orchestrated these factors in order to arrange their predetermined recommendation of Balcones, which, to our knowledge, at the time did not have a single stream MRF or experience with processing and marketing residential single-stream recyclables. City staff under the direction of Mr. Goode plainly revealed their willingness to favor other contractors over TDS, even when the net costs to the City and its ratepayers are higher. City Council ultimately decided to split the City's volume 40/60 between TDS and Balcones, with both companies receiving 20-year contracts with guaranteed minimum volumes of 2,000 tons per month for the first eight years. Once again, as noted above, TDS offered the City the most favorable pricing for 100% of the City's volume; acceptance of TDS' offer would have resulted

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in approximately \$5,800,000 in cost savings to Austin ratepayers for the period October 2012 – September 2017.

Sept. – Oct. 2011 City staff ignored protections granted to TDS and its customers under Texas Local Government Code section 43.056(n) by misinforming approximately 1,600 TDS customers located in the Springwoods Municipal Utility District that they would be required to begin using and paying for services provided by Austin Resource Recovery on 10/1/2011, pursuant to the City's recent annexation of the area, even if they wished to keep their service with TDS for two years, as the law allowed, not having to also pay the City's rate. The City's misinformation and heavy-handed tactics created significant customer confusion and resulted in hundreds of TDS' paying customers unnecessarily cancelling their services with TDS, even though state law provided a two-year period following an annexation for private service providers to continue servicing accounts/customers without interruption from the annexing municipality.

June 2012 City staff proposed and recommended revisions to City Code Chapter 15-6 following over a year of ZWAC stakeholder meetings regarding the Hauler's Ordinance. Of greatest concern, was the proposal to remove the right for haulers to appeal a denial or revocation of a license to the City Council. Ignoring pleas from haulers, Assistant City Manager Goode and City staff insisted on limiting appeals to either the department director or the City Manager. Fortunately, City Council not only sided with the haulers and maintained the long-standing appeal rights to City Council but also required all future revisions to the Administrative Rules for Chapter 15-6 to be presented to ZWAC for consideration and recommendation and to City Council for final approval.

Aug. – Nov. 2012 City staff attempted to conceal a \$1,200,000 purchase of multi-purpose commercial rolloff trucks, rolloff pup trailers and steel rolloff dumpsters as replacement equipment for non-rolloff trucks owned and operated by Austin Resource Recovery. City Council and ZWAC reluctantly approved the equipment purchase, but did so contingent upon the equipment never being used for serving commercial customer purposes or to provide services to property types not served by ARR. We believe, City staff, under the direction of Mr. Goode, would use the versatile rolloff waste handling equipment to compete with licensed private haulers to service commercial accounts had the Council not imposed the restriction on staff's use of the equipment.

Nov. 2012 – April 2013

City staff deemed TDS' bid for collection, management, recycling and disposal of Austin Energy's Class 2 Non-Hazardous Industrial and Special Wastes as non-responsive due to a correctable administrative error caused by TDS inadvertently leaving out two signature pages of its submitted bid response. After refusing to consider TDS' "non-responsive" bid or allow TDS to correct the administrative oversight, the Purchasing Office then rejected TDS' offer to extend the current contract between TDS and Austin Energy for an additional four years at the then existing rates charged by TDS, an option clearly allowed for in the supplemental purchasing provisions of the existing contract. Instead, City staff chose to recommend Council approval of the sole other bidder, Republic Services, at rates 26% higher than TDS' and with Republic Services providing no recycling or repurposing of the waste materials generated by Austin Energy, including a small portion of the AE which the solicitation required to be recycled. Despite Bob Gedert's and the office of sustainability determination that none of Austin Energy's materials were suitable for recycling, composting or beneficial reuse, it should be noted that TDS recycled and repurposed nearly 50% of Austin Energy's waste materials during the previous 4-year period. Ultimately, City Council approved an abbreviated 2-year contract and directed staff to seek Council approval of all contract extension options, primarily due to Republic's inability to fulfill the landfill disposal capacity requirement for the full contract

period, but we believe also to prevent Republic and staff from using the contract requirement as a basis to seek TCEQ approval to keep open or to reopen their landfill after the agreed upon closure date on or before 11/1/2015.

June 2013

City staff issued two separate biosolids sludge management solicitations at roughly the same time, both contemplating management of the same biosolids material. TDS and Synagro both responded to the City's bid for Beneficial Reuse of Fire Damaged Materials at Hornsby Bend. TDS offered to compost and beneficially reuse 100% of the biosolids sludge and commingled mulch and wood waste, while Synagro proposed to either landfill or direct land apply the biosolids sludge. Around the same timeframe, the City conducted another separate biosolids solicitation for Biosolids Hauling and Land Application Services, which Synagro and Terra Renewal Services both responded to. Both companies proposed to direct land apply over 90% of the biosolids material and compost the remaining amount. Staff realized that between the two solicitations, TDS offered the City the most favorable proposal at a [lower rate](#) to compost and beneficially reuse 100% of the biosolids, as compared to the other proposed rates for hauling and direct land application and only a small amount of composting. Rather than award TDS a contract to compost and beneficially reuse all of the biosolids and wood waste, staff chose to cancel the bid for Beneficial Reuse of Fire Damaged Materials with the [stated intent to reissue](#) the solicitation at a future date. By doing this, staff knew TDS would remain silenced under the Anti-Lobby Ordinance until a new solicitation was reissued, which staff apparently never intended to do. Staff then pursued City Council approval to award and execute a contract with Synagro (again, at higher prices than the TDS composting proposal) for Biosolids Hauling and Land Application Services. TDS could not provide comment to Council because it remained an ALO-restricted respondent under the other biosolids solicitation. The day after City Council authorized award and execution of a contract with Synagro, TDS was informed that staff would not reissue the solicitation for Beneficial Reuse of Fire Damaged Materials - the same biosolids sludge materials.

April 2014

City staff misused the City Auditor's Integrity Unit to conduct a terribly improper investigation of ZWAC Commissioner Daniela Ochoa Gonzales and produced an erroneous report that we believe was intended to malign Mrs. Ochoa Gonzales' reputation and create the illusion of unethical conduct by both Mrs. Ochoa Gonzales and Texas Disposal Systems in her business affiliation with the company. City staff released the report to the Austin American Statesman before providing it to Mrs. Ochoa Gonzales. A seriously damaging news [article](#) was published in the Austin-American Statesman on 4/29/2014, based on an unprecedented City Auditor staff investigation report - which was done in a manner without a basis in City Code. Mrs. Ochoa Gonzales was immediately asked to resign from the Zero Waste Advisory Commission based upon the false allegations concocted by City staff and was terminated from her job at the University of Texas, we believe because of the newspaper coverage and the false and damaging report. Ultimately, the City Council passed [Resolution No. 20141016-024](#), formally rejecting the report and publicly apologizing to Mrs. Ochoa Gonzales, members of ZWAC and the community. The Council also required City staff to permanently and conspicuously present a disclaimer on the first page of the report in bold type that reads, "Notice: This Report has not been accepted by the Austin City Council and is subject to Resolution No. 20141016-024, passed on October 16, 2014." Nevertheless, Assistant City Manager Goode and City staff appeared to strongly object to any apology from staff or Council to TDS even though TDS' name was smeared by the same report and newspaper article. TDS believes Mr. Goode and City staff defamed Mrs. Ochoa Gonzales in an effort to maliciously damage the reputation of TDS and its owners. See www.texasdisposal.com/cityauditorreport for more details.

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August 2014 City staff decided to not pursue back-billing of Clean Community Fees and Cart fees for thousands of identified ARR customers. Staff [estimated](#) the amount of unbilled fees could potentially be as much \$847,000. Assistant City Manager Goode informed City Council in his 8-25-14 [memo](#) that the anticipated staffing costs needed to pursue customer back-billings would exceed the estimated revenue recovered and therefore determined customer back-billings would not be pursued, even though City Code allows for such practices.

Feb 2015 – May 2016

City staff initiated and conducted the first of four designated reset negotiations included in the City's 20 year Master Recycling, Processing and Marketing Services Agreements with TDS and Balcones. The reset negotiations, scheduled for the third anniversary and every fifth anniversary thereafter, are intended to be good-faith discussions regarding potential changes in volumes, services and financial terms of the long-term agreements. A key item included in the first reset negotiations involved the City's commitment to guarantee each vendor a minimum of 2,000 tons of recyclables per month during the first eight years of the agreements. TDS and Balcones would be entitled to maintain their 2,000 ton monthly guarantee of recyclables delivered by the City for the next five year period, provided their proposed pricing was "equal to or better than" the pricing charged to the City during the first three years of the agreement. Once reset negotiations were concluded and each vendor's pricing was made public, TDS was shocked to learn that Assistant City Manager Goode and Mr. Gedert agreed to accept pricing from Balcones that was not "equal to or better than" their existing pricing. In fact, Mr. Goode and Mr. Gedert allowed Balcones to significantly increase the prices charged to the City, while maintaining all of their designated 60% volume of recyclables from the City, including the 2,000-ton monthly guarantee for the next five year period. The net effect of Mr. Goode and Mr. Gedert's agreement to accept Balcones' higher pricing is expected to unnecessarily cost the City and its ratepayers an additional \$2,000,000 over the next five years. See attached City staff email regarding the [financial impact of the reset terms](#) negotiated with TDS and Balcones.

Sept. – Dec. 2015 City staff proposed and recommended a \$264,820 1-year contract extension with Republic Services for management and disposal of Austin Energy's industrial Class 2 non-hazardous and special waste materials. After questions about the proposed contract extension were raised, City staff under Assistant City Manager Goode were forced to reveal their willingness to allow Republic Services to utilize the Waste Management, Inc. Austin Community Landfill (WM-ACL) for disposal of Austin Energy's waste materials, despite City Council's 2013 opposition to using the WM-ACL for disposal of waste materials generated by Austin Energy and despite Council's directive to staff to bring contract extensions back to Council for approval. Council rejected City staff's proposed contract extension with Republic Services and allowed the contract to expire. Since then, staff has been managing this waste stream under an existing contract with another vendor at higher prices than those offered in the TDS 2013 bid response, which City staff deemed "non-responsive", and the contract extension offer.

Oct. 2015 – Aug. 2017

City staff proposed to finance, construct and operate the Austin ReManufacturing Hub, an industrial park development with ground leases available to recycling and reuse businesses recruited by the City. Specifically, the City proposed to develop approximately 100 acres of unused property at the City's closed to the public FM812 landfill, which is adjacent to the active Travis County Landfill owned and operated by IESI (now controlled by Waste Connections). The staff-produced [business plan](#) for the ReManufacturing HUB stated that funding for the development's infrastructure items (utilities, facility entrance, interior roads, etc.) would be generated through a variety of sources, including a federal grant, a [20-year loan](#) from Austin

Water, a long-term lease of [condemned property](#) formerly owned and utilized by Republic Services for its recycling operations, and the sale of three parcels of City-owned land managed by Austin Resource Recovery. However, once City staff actually began the process of selling City-owned land, numerous questions from City Council and other stakeholders began to surface about the ReManufacturing HUB, including whether the development was financially viable and whether it was appropriate to use the proceeds generated from sales of City-owned land to subsidize the development of an industrial park for privately-owned tenants that would directly compete with existing recycling and reuse businesses. Questions were also raised about the potential for Austin Resource Recovery to assume future ownership of the various operations at the ReManufacturing HUB, and more importantly, about the likelihood of IESI (now Waste Connections) or any other entity purchasing the [25-acre parcel](#) of City-owned land located along their property line and located within the TCEQ permit boundary of the City's FM812 landfill. IESI or Waste Connections' ownership of this particular parcel of City-owned land, a [critical infrastructure](#) detention pond component of the City's landfill, could be used now as a basis for Waste Connections to reassert the [2004-2005 proposal](#) to seek TCEQ approval to combine their active Travis County Landfill with the City's still technically "Active" TCEQ permitted landfill but closed to the public landfill, and to seek a major expansion of the combined landfills as IESI proposed at the time. It can easily be argued that under no circumstance should the City sell its largest detention pond needed to gain its landfill closure authorization and to maintain the landfill throughout the required 30 year TCEQ closure and post-closure care period. Ultimately, the City Council appropriately rejected City staff's proposed land sales and directed staff to examine a public-private partnership approach to the ReManufacturing HUB project. Subsequently, in May 2017, City staff's private consultant published a feasibility analysis of the Austin ReManufacturing HUB - which concluded that no profit-oriented private developer would be attracted to the opportunity without major subsidies. Accordingly, City staff informed City Council that they no longer recommend constructing the ReManufacturing HUB.

March – Oct. 2016 City staff proposed and recommended a **\$387,000** potential 6-year contract for the sale and removal of up to 450,000 cubic yards of unscreened biosolids and yard trimmings compost at an irregularly low price of \$0.86 per cubic yard ([previous City sales](#) of this material ranged from \$4.50 - \$6.00 per cubic yard). Approval of this item would have been detrimental to the local market for finished compost as it would have resulted in hundreds of thousands of cubic yards of below cost compost material being dumped on the local market. As an alternative to participating in the solicitation and subjecting ourselves to the Anti-Lobbying Ordinance restriction and potential abuse by City staff, TDS made an unsolicited offer to purchase the material at a reasonable market price of \$4.50 per cubic yard, which would have yielded an additional \$1.6 million in revenue to the City. However, City staff, under Assistant City Manager Goode, refused to even consider TDS' more favorable offer, despite its obvious benefit to the City and its ratepayers.

April – Dec. 2016 City staff proposed and recommended a potential 10 year **\$20,351,000** contract with Synagro for beneficial reuse of 100,000+ cubic yards of biosolids sludge per year produced at the City's Hornsby Bend facility. Under Assistant City Manager Goode, City staff sought to effectively terminate the City's award-winning Dillo Dirt biosolids compost program by contracting with Synagro to produce a biosolids sludge product dubbed "agricultural compost." Elected and appointed officials, environmental stakeholders and others raised questions about the secretive plan to privatize the City's biosolids sludge management operation with Synagro and its unidentified "partners." Scrutiny and questions about the proposed plan revealed that Synagro proposed to treat the City's biosolids to the minimum standards required and to produce a still immature and unstable material by compost standards Class A biosolids sludge

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for a pretended unregulated application on pasture land in Travis County and other surrounding counties. Serious questions were also raised about Synagro's environmental and ethical record in [Detroit and Philadelphia](#) and City staff's refusal to enforce the alleged violations of the Anti-Lobbying Ordinance against Synagro for [noted violations](#) of the ordinance. Due to the aggressive Anti-Lobbying Ordinance restrictions associated with this solicitation, the unconventional use of the term "agricultural compost" to more appropriately describe a Class A biosolids sludge, not yet a mature or stable compost, which we believe should not be direct land applied without a biosolids sludge direct land application permit and is subject to the Travis County solid waste facility Siting Ordinance, and the necessity for TDS to maintain its ability to speak freely to Council, City commissions and staff about a variety of solid waste, recycling and composting policies and issues, TDS was forced to offer the City its biosolids sludge composting services through provisions in its 30-year Waste Disposal and Yard Trimmings Processing Contract. Mr. Goode and City staff were unwilling to even entertain negotiating with TDS for the provision of biosolids sludge composting services, despite the fact that TDS has significant experience with providing similar services to the City of Victoria, the San Antonio Water System, and the San Antonio River Authority, and our 30 year contract with the City allows for the addition of this service.

April – Dec. 5, 2016

City staff solicited proposals for the development and implementation of curbside textile recycling services - and subsequently executed a potential 6-year contract with Simple Recycling without the knowledge or consent of ZWAC or City Council. Under the contract, Simple Recycling agreed to pay the City \$20.00 per ton for all materials collected from Austin residents. City staff under Assistant City Manager Goode [notified City Council](#) of the new curbside service less than 30 days before services began. Public outcry [erupted](#) from area nonprofit organizations soon after the new services were announced, with calls from Goodwill, The Salvation Army and others for the City to immediately cancel the contract under the basis that it directly competed against area nonprofit organizations. See www.texasdisposal.com/COAsimplerecycling for more details.

June 2016 – Feb. 2017

City staff solicited proposals for an organics pilot program for the Central Business District (CBD), City Hall and other downtown businesses. The solicitation's scope of work contemplated expansion of the program to include other businesses in the greater downtown area and specified that the program would assist City staff in determining effective methods to establish business-wide organics collections services within the CBD and other areas. Ultimately, Mr. Goode and City staff decided to not recommend award of a contract and subsequently cancelled the solicitation approximately eight months after it was issued.

June 2016 – Feb. 16, 2017

City staff proposed and recommended a potential 6-year **\$16,995,000** contract with Republic Services for [Citywide Dumpster Collection Services](#) to specifically provide "non-residential collection services for refuse, recycling, brush, compostable materials, special events, Class 2 special non-hazardous waste and emergency collection services." If approved, the proposed contract would have granted City staff the ability to use a toll contractor – Republic Services – to completely transform Austin's commercial waste collection marketplace into a City-controlled and City-billed public utility in direct conflict with long established policy as being indirect competition with the many licensed haulers within the City, and would have allowed the collected waste materials to be disposed at the Waste Management, Inc. Austin Community Landfill, a controversial disposal facility long opposed by the Austin City Council, Travis County and residents of northeast Austin. In addition, approval of this contract would have

memorialized and perpetuated City staff's practice of providing event organizers with [free](#) services in [direct competition](#) with licensed private haulers. For reasons already stated regarding the Anti-Lobbying Ordinance restriction, and numerous objectionable requirements within the solicitation's scope of work, TDS was unable to participate in this solicitation. See www.texasdisposal.com/citywide-dumpster for more details.

- Feb. 17, 2017 City staff had to [correct a false representation](#) made to the Mayor, City Council and City Management that TDS refuses to allow competing haulers to utilize its landfill. The TDS Landfill has always been and remains open to the public and to all haulers who choose to deliver authorized materials to the facility. TDS believes this false misrepresentation about access to the TDS permitted facilities was done knowingly to bolster an argument by Assistant City Manager Goode and City staff that the City and area haulers must have access to permitted facilities other than those owned and operated by TDS - yet another of many attempts by Mr. Goode, we believe, to favor Waste Management, Republic Services and Waste Connections, and harm TDS.
- May 25, 2017 City staff misused the Office of Sustainability to present [misleading information](#) to the City Council Waste Management Policy Working Group to suggest that the number of methane gas collection wells at the TDS Landfill is insufficient, that TDS is not responsibly capturing and controlling methane gas generated within the TDS landfill, and that the TDS landfill generates and releases into the atmosphere excessively large quantities of landfill gas. This [presentation](#) was intended to create a false impression about the environmental integrity of the TDS Landfill and the commitment of its owners to environmental compliance, as compared to landfill gas emissions from much older landfills located in the region, one of which received the largest environmental fine against a landfill in state history at the time for landfill odor emissions. The erroneous data used by City staff to falsely discredit the TDS Landfill and its owners during the Policy Working Group proceedings failed to take into account numerous [factors](#), including the innovative facility design and operating practices at the TDS Landfill, and TDS' programs for diverting thousands of tons of organic materials and liquids from landfill disposal each year. The TDS compliance record over the past 27 years speaks for itself.
- May – Aug. 2017 City staff issued an Invitation for Bid, which excluded the Anti-Lobby Ordinance restriction, for the purchase, removal and screening of approximately 8,000 cubic yards of unscreened biosolids and yard trimmings compost that was made by AWU staff in 2016 and had been curing in its current pile for approximately one year. At the pre-bid meeting staff represented that this material was not classified as Dillo Dirt only due to the fact that it had not yet been screened. Indeed, an examination of the surface of these piles appeared to show a stable and mature screenable compost product. TDS then responded to this IFB and was awarded the contract. However, once TDS brought equipment onsite and attempted to process the material, it became apparent that the vast majority of the 8,000 cubic yards that had not been exposed to the sun and air for a year was in fact [unstable and immature biosolids sludge, of wet fudge like consistency, entirely unscreenable, emitting noxious odors and entirely inconsistent with any accepted definition of compost](#). TDS informed the AWU staff that their characterization of the subject material was incorrect, and that we could not fulfil the requirements of the contract as the material could not be screened, and that the material could not be used or sold as compost. AWU then spent several weeks mixing older unscreened compost with the dried crust material of several curing piles in order to fulfil the City's contractual commitments. Through this process it became apparent to TDS that very little, if any, of the supposed unscreened Dillo Dirt currently located at Hornsby Bend has been composted sufficiently to be a marketable beneficial material, without costly additional processing.

June 22 – Oct. 30, 2017

City staff proposed and recommended a potential 6-year **\$4,360,000** contract with Organics By Gosh for organics processing services of up to an estimated 72,000 tons per year of yard trimmings mixed with residential food waste at a small and likely unauthorized composting facility given its location in the 100-year flood plain and in close proximity to residences, neighborhoods, schools and churches. Assistant City Manager Goode and City staff pursued Council approval of this contract with no apparent concern for legitimate questions raised about the contractor's facility operations authorization as a waste transfer station and a food waste composting facility, both regulated by TCEQ and Travis County solid waste facility Siting Ordinance and operations regulations. Even more troubling, Mr. Goode and City staff decided to reject a more **affordable** and fully authorized option offered by TDS available in the City's existing 30-year Waste Disposal and Yard Trimmings Processing Contract. Ultimately, at its 6/22/2017 meeting, City Council authorized staff to negotiate and execute a contract with Organics By Gosh to provide organics processing services of yard trimmings mixed with food waste collected eventually from approximately 210,000 residential customers by Austin Resource Recovery. Over 4 months later and after multiple public information requests, on 10/30/17 City staff produced a copy of the [fully executed contract](#) it negotiated with Organics By Gosh. A cursory review of this contract revealed that City staff agreed to utilize 2 known OBG facilities, and potentially a third undisclosed facility to be determined at a later date. Furthermore, the contract creates a clever financial incentive for OBG to maintain City access to its small 7.32-acre facility, which both City staff and Organics By Gosh publically acknowledged was insufficient to support the volumes generated under a citywide residential organics collection program. The effect of this clever contractual arrangement provides a financial incentive for Organics By Gosh to make available for City use an unauthorized 7.32 acre solid waste transfer station facility. See www.texasdisposal.com/OrganicsProcessing for more details.

July 21, 2017

City staff rejected without explanation or justification TDS' proposed contract amendments intended to reasonably address the longstanding issue of downtown commercial establishments improperly using TDS' dumpsters for disposal of bulk liquid waste, including greases and oils. On August 3, 2017, City staff unilaterally initiated the final 120-day contract holdover period, and signaled their intent to allow the Central Business District (CBD) contract for solid waste and recycling services to expire on November 29, 2017 without addressing TDS' repeated requests to compensate TDS fairly for its required but unanticipated cost of approximately \$250,000 up to then to manage the excess bulk liquids on behalf of the City over the previous three year initial contract term, and to implement meaningful measures to resolve the serious public health and safety risks that have resulted from the City staff's ongoing allowance for COA customers to discard bulk liquid waste in City-contracted dumpsters provided by TDS. In response to staff's decision to let the contract expire without resolution of the bulk liquids issue, TDS representatives met with the Legal Department in October to formally notify them of TDS' intent to file a lawsuit against the City for breach of contract. Soon thereafter, representatives of ARR and City Legal met with TDS representatives in a follow up meeting to discuss their agreement to exercise the first extension option of the contract extending the contract until May 2018, to fully reimburse TDS for the expenses incurred to properly manage and dispose of the bulk liquids on the City's behalf over the last 3+ years, and to work with TDS to implement meaningful measures to address management of the bulk liquid going forward. Apparently City staff realized that doing nothing and expecting TDS to fully absorb all of the risk and costs associated with properly managing bulk liquids produced and improperly discarded by the City's CBD customers was a position they could no longer defensibly maintain. TDS believes City staff would have been willing to promptly resolve this

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type of issue with its favored contractors well in advance of it reaching a cost to the City of more than \$250,000 and/or potential litigation. See www.texasdisposal.com/CBD for more details. TDS is pleased to settle this issue without lengthy and expensive litigation.

August 23, 2017

Austin Energy staff disconnected and locked out TDS owned electrical breakers downstream (e.g. flowing into the TDS equipment and building) from the Austin Energy meter. Austin Energy staff intentionally locked out the TDS-owned electrical breakers so TDS could not use its generator to supply temporary power to the TDS facility. This disconnected and locked out power to the mainframe computer systems and main telephone systems at the TDS primary business centralized operations and maintenance facility located at 12205 "A" Carl Road. The utility disconnection and lockout was done approximately 22 hours after an Austin Energy representative appeared at a TDS reception desk to notify TDS of a \$6,000 account balance that had to be paid within 24 hours on one of TDS' 23 Austin Energy accounts. The utility disconnection was done 22 hours after TDS paid within less than an hour from being notified and confirmed the electronic payment of the \$6,000 balance due and which was 20 days past due. On August 23, an Austin Energy field technician, followed an authorized TDS employee through TDS' gates and then proceeded to padlock three TDS owned breaker boxes in an "off" position, so that TDS was unable to utilize its permanently installed backup generator to provide emergency power to its operations and maintenance facility in the case of a power outage. For more than two hours, numerous TDS departments, including its customer service call center, operations management, dispatching, maintenance operations and its central computer systems, were effectively debilitated while the facility was improperly left without power until the same Austin Energy representative, who refused to disclose his name or display his employee badge or identify who had instructed him to carry out the service disconnection of TDS' utilities, restored the power by removing the City's padlocks from TDS power switches downstream from the City's switches. A TDS officer contacted Austin Energy immediately after the power was restored and was told that the account balance was shown to have been paid and that the records showed "payment pending." TDS personnel believes this act by Austin Energy staff was directed with the intent of punishing and intimidating TDS personnel for challenging the City Manager's office in the WMPWG meetings. Electrical contractors consulted about the event have reported that they have never heard of Austin Energy doing anything like this before.

ORDINANCE NO.

AN ORDINANCE AMENDING ORDINANCE NO. 20170406-023, WHICH WAIVED CHAPTER 2-7, ARTICLE 6 (ANTI-LOBBYING AND PROCUREMENT) OF THE CITY CODE REGARDING SOLICITATIONS FOR THE COLLECTION, PROCESSING, RESALE, REUSE, AND/OR DISPOSAL OF MUNICIPAL SOLID WASTE, REFUSE, BIOSOLIDS, COMPOST, ORGANICS, SPECIAL WASTE AND RECYCLABLES.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:

PART 1. FINDINGS. The city council readopts the findings set forth in Ordinance No. 20170406-023, Part 1. Findings, in their entirety and further adopts the following findings:

1. The city council formed a Waste Management Policy Working Group (“Working Group”) pursuant to Resolution No. 20170323-055 in order to examine and provide recommendations on “issues related to solid waste policy and contracts”; and
2. In order to allow all interested stakeholders to fully engage in, participate in, and provide input into the work of the Working Group, the city council temporarily waived the application of Chapter 2-7, Article 6 (Anti-Lobbying and Procurement) (“Anti-Lobbying Ordinance”) to all City solicitations for “municipal solid waste and waste related services” pursuant to Ordinance No. 20170406-0023; and
- 1 3. The Working Group has completed its work, and City staff has proposed recommended revisions to the Anti-Lobbying Ordinance; and
4. At its regularly called meeting on September 28, 2017, the city council deferred any action on the proposed revisions to the Anti-Lobbying Ordinance until such time as the Ethics Review Commission had reviewed the proposed recommendations and made its own recommendations to the city council; and
5. At its regularly called meeting on October 11, 2017, the Ethics Review Commission voted to refer review of the proposed revisions to the Anti-Lobbying Ordinance to its working group for further evaluation, and the Ethics Review Commission does not have a set time frame in which it will have final

recommendations regarding the proposed revisions to the Anti-Lobbying Ordinance; and

6. Any revisions to the Anti-Lobbying Ordinance that the city council chooses to make will instigate an administrative rulemaking process that will take at least 31 days to complete, and therefore no rules implementing adopted revisions to the Anti-Lobbying Ordinance will be in place until after that process is complete; and

7. The City had delayed the issuance of any further solicitations covered by Resolution No. 20170406-023 since that resolution had gone into effect, but due to operational needs has recently issued Request for Proposals No. CDL2003REBID soliciting proposals for beneficial reuse of biosolids ("Biosolids Solicitation"); and

8. The due date for responses to the Biosolids Solicitation was originally set for November 7, 2017 at 3:00 PM, and has or will subsequently be extended to November 19, 2017; and

2 9. The nature of the City's need for ongoing services to be provided under the Biosolids Solicitation, without interruption, places a special time sensitivity on the process for the contract resulting from the Biosolids Solicitation; and

3 10. The fairness and integrity of the City's solicitation processes necessitate the reinstatement of the Anti-Lobbying Ordinance [with regard to the Biosolids Solicitation], in a modified form as set out in this Ordinance; and

11. Any revisions to the Anti-Lobbying Ordinance and the subsequent promulgation of rules implementing those changes will not be finalized and effective until after the extended due date of the Biosolids Solicitation; and

4 12. This action will not prevent any respondents or potential respondents to the Biosolids Solicitation from communicating with any City employee or official regarding any matter that is not related to that party's response to the Biosolids Solicitation.

PART 2. AMENDMENT OF ORDINANCE NO. 20170406-023.

Ordinance No. 20170406-023, Part 2 is amended to add the following:

Notwithstanding the fact that it would otherwise be exempt from Chapter 2-7, Article 6 (Anti-Lobbying and Procurement) in its entirety, Chapter 2-7, Article 6 (Anti-Lobbying and Procurement) is only waived with respect to Request for Proposals No. CDL2003REBID to the following extent:

1. The No-Contact Period set out in section 2-7-101(6) shall not apply from the time Request for Proposals No. CDL2003REBID was issued through and to the date and time responses to Request for Proposals No. CDL2003REBID are finally due; and
2. Section 2-7-109 shall not apply to Request for Proposals No. CDL2003REBID.

PART 3. ORDINANCE NO. 20170406-023 REMAINS IN FULL FORCE.

As amended by this ordinance, Ordinance No. 20170406-023 will remain in full force and effect until further modified, amended, or repealed by the City Council.

PART 4. This ordinance takes effect on _____, 2017.

PASSED AND APPROVED

_____, 2017 §
§
§
_____, 2017 §
Steve Alder
Mayor

APPROVED: _____
Anne L. Morgan
City Attorney

ATTEST: _____
Jannette Goodall
City Clerk

TDS COMMENTS TO ITEM 50 DRAFT ORDINANCE

- 1 While the Working Group has finished its initial set of meetings and made recommendations, none of those recommendations have been discussed or adopted by Council and only a few by ZWAC. Further, the City staff has withdrawn its recommended ALO revisions. The policy development process has not been completed. Staff has delayed the process for six months. The ALO should remain suspended until the ordinance language and rules are complete.
- 2 There has never been any recommendation or directive for this process to be delayed. This solicitation should move forward without the extremely problematic existing ALO, since the staff has delayed the process for six months.
- 3 This statement implies that every contract awarded without an ALO is necessarily unfair and without integrity. That would include every contract awarded by COA prior to 2007, the recently awarded OBG contract, and every contract ever awarded by cities without some form of ALO. Most cities do not restrict this speech. Such an assertion is ridiculous.
- 4 This clever but ineffective statement is meant to allay fears of staff abuse of the ALO. However, its location in the "Findings" section creates no binding limitation on staff's interpretation of the ALO which has been demonstrated to be in conflict with this statement.
- 5 These two minor changes do not address the constitutional deficiencies of the ALO and provide no binding limitation on staff to prevent them from abusing the ALO as they have in the past, nor do they include the finding #12.

Recommendation #8 of the Waste Management Policy Working Group

8. Should the City waive the anti-lobbying ordinance (ALO)? No, but revisions are required per recommendations below.

Justification: During working group discussions, both city staff and stakeholders identified a number of ways in which we could clarify and improve the ALO to strengthen working relationships with waste management vendors and the City. Since the ALO applies to all vendors regardless of industry, any changes to the ALO would apply to the City's interactions with all vendors. In order to reach a healthier and more transparent working climate with all City vendors, the working group recommends the following.

Recommendations to Staff:

Recommendations on the application of the ordinance, duration and allowable communications:

- Apply the anti-lobbying ordinance only to the solicitation. Vendors may communicate on all other matters without violating the ALO.
- Apply the ALO from the time a Request for Proposals (RFP) is released through Council's vote on executing the contract. Should an RFP be pulled down, then the ordinance does not apply during the timeframe the RFP is pulled down
- Narrow the definition of "Representations" to target lobbying. For instance, if staff tells a vendor that the ALO does not apply and a communication is allowable - then the vendor cannot later be disqualified as violating the ordinance by the communication.
- Add communications regarding existing contracts to "Permitted Communications."

Recommendations on enforcement, appeals and complaints:

- Develop a body of rules in a companion regulatory document to the ALO that defines enforcement, appeal, complaint and debarment procedures.
- The companion document should:
 1. Clarify the current definition of "Representation" and what triggers debarment
 2. Clarify procedures for determining violations, judgment, and penalty enforcement and incorporate an option to engage a third-party reviewer such as the Ethics Review Commission to determine violations, judgment, and penalty enforcement.
 3. Clarify the process for submitting and facilitating complaints.
 4. City Purchasing and City Legal should develop this companion document for approval by Council and prepare any language updates to the ALO that might be required to allow for adopted rules in the companion document.

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Other recommendations:

- The existing ALO should remain suspended until Council approves proposed revisions. Staff from Law and Purchasing are working on draft language to address issues identified in discussions with stakeholders. Estimated date for Council approval is the end of September.
- Revisions to the ALO may require continued participation from stakeholders. The Purchasing Office should receive and compile further stakeholder input for Council and will work with adopted input as determined by Council.



ZERO WASTE ADVISORY COMMISSION RECOMMENDATION
20171011-003b

Date: October 11, 2017

Subject: **Recommendation from ZWAC Regarding City Code Chapter 2-7, Article 6 relating to anti-lobbying and procurement.**

Motioned By: Commissioner Blaine

Seconded By: Commissioner Bones

Recommendation

At the October 11, 2017 meeting of the Zero Waste Advisory Commission, the Commission made the following recommendation regarding the Anti-Lobbying Ordinance (ALO).

Description of Recommendation to Council

The Zero Waste Advisory Commission registers a serious concern that the recommendations of the Waste Management Policy Working Group are not well reflected in the drafted changes to the Anti-Lobbying Ordinance (ALO) and recommends adoption of the changes to the ALO detailed below:


- A guarantee that rulemaking will have an element of ongoing public participation, with rules ultimately brought back to the Ethics Review Commission (ERC) and Council for final review and approval.
- Specific mention in the ordinance of a right to appeal all disqualifications and other penalties or determinations to the ERC and ultimately Council.
- Clarification that only Council may void a contract for violation for the ALO.
- Striking all sections which empower staff to require recusal of elected or appointed City officials.
- Assurance that the ordinance will not consider public communications to be in any way a violation.
- Assurance that independent advocacy from non-respondents will not be used to disqualify respondents.
- Definition of the term "response."
- Clarification of subjective terms such as "influences," "persuades," "advances the interests," or "discredits." At minimum we recommend that you direct staff to provide objective standards for these terms as part of their rulemaking.
- Eliminate or delineate the power of purchasing officers to determine "mitigating factors" in violations.
- Replace disqualification for "similar" projects with a disqualification for the SAME project."
- **Continue to keep the Anti-lobby Ordinance in a suspended state until such time that both the final ALO and subsequent governing Rules are drafted and adopted by Council.**

Vote: 8-0-0-2

For: Commissioners Acuna, Blaine, Bones, de Orive, Hoffman, Masino, Rojo, White,

Against: 0 Abstain: 0 Absent: Joyce, Gattuso

Attest:



Michael Sullivan, ZWAC staff liaison

Draft Landfill Criteria – Add % Scoring Criteria

1.CARBON FOOTPRINT history over life of facilities
1.A Landfill gas emissions estimates
1.B Landfill gas beneficial use current and long term plans
2. ENVIRONMENTAL, ZERO WASTE, AND SUSTAINABILITY
2. ENVIRONMENTAL, ZERO WASTE, AND SUSTAINABILITY
2.A Permit compliance, complaints and violation history life-to-date
2.B On-site use of alternative fuels
2.C Zero Waste and waste diversion activities
2.D Other environmentally sustainable practices
2.E Existing Levels-of-Industrial Hazardous Materials waste units
2.F Hazardous waste screening
2.G Removal of known toxic materials
2.H Cooperation with City/County in groundwater and gas migration monitoring
2.I Cooperation with City/County to maintain waste boundary and buffer zone
2.J Presence and history of recycling
2.K Presence and history organics diversion and composting
3. OPERATIONAL CONSIDERATIONS at this location
3.A Experience / Qualifications/ Controlling entity characteristics
3.B General contingency plans
3.C Safety procedures/training
3.D Emergency procedures
3.E Financial capability and risk assurance for closure/post-closure costs
3.F Hours and days of operation available to serve City
3.G Efforts to reduce exposure to toxics and other hazards on and off site subsurface migration
3.H On-site fatalities or catastrophes when landfill operator at fault
3.I Ground Water Protection System for Waste Units
3.J Ground Water Monitoring history of contaminante migration
3.K Surface Water Protection
3.L Landfill Gas Migration
3.M Landfill Gas Management System Design
3.N Odor Control
3.O Dust Control
3.P Windblown Debris Control
3.Q Vector Control
3.R Litter and Mud Control on roadway
3.S Remaining Waste Capacity and ability to expand
3.T Waste Diversion Amounts Historically
4. COMMUNITY IMPACT AND SOCIAL EQUITY
4.A Diversity of workforce
4.B Living Wage
4.C Commitment to community relations
4. D Facility landscaping
4.E Reputation in neighboring communities
4.F Presence and history of Citizen dropoff and Resale of items diverted disposal
4.G Public site access, involvement and recreation
4.H Regulatory compliance history over life of facility
4.I Complaint and penalty history-life of site



February 15, 2017

Mr. Bob Gregory
Texas Disposal Systems

Re: Texas Disposal System's Greenhouse Gas Emissions Estimates

Dear Mr. Gregory:

The purpose of this letter is to provide clarification as to why the greenhouse gas (GHG) emissions reported to the Environmental Protection Agency (EPA) by Texas Disposal Systems (TDS) have been higher than what would actually be generated.

The standard calculation methodologies approved by EPA overestimate the actual GHG emissions for TDS due to assumptions and constants that are built into the formula and do not accurately consider some of the operational measures TDS takes to reduce the generation and release of methane emissions.

For example, default values for degradable organic carbon and decay rate constant are used based on the type of waste that is typically collected and the amount of rainfall that is typically expected. Actual types of waste collected and site specific decay rate are not used, therefore the formula assumes an excessive amount of rainfall infiltration into the waste in place resulting in a conservatively high estimate of landfill gas generated and emitted. Rainfall on the TDS landfill does not infiltrate the waste as would be expected at a typical landfill because of the method TDS utilizes to apply a six-inch thick clay daily cover, keep a small exposed working face, keep the bottom slope away from the fill area, and maintain berms that prevent storm water run-on to the working face or back into the waste. Additionally, TDS strives for dry entombment of the waste by diverting wastes with high moisture content, such as yard waste, liquid, and sludge, from the landfill. Therefore, TDS does not generate the amount of landfill gas as indicated by the EPA formulas. The landfill at TDS generates very low amounts of odor and leachate which serve as a real indicator of the amount of moisture entering the landfill, and in turn the amount of gas being generated.

Another significant element in the EPA calculation methods which lead to an overestimate of emissions is the assumption regarding the landfill gas (LFG) collection system. TDS' landfill gas collection system today covers about 15% of the area with waste in place. The formula assumes that landfill gas from the remaining 85% of the area with waste in place is vented directly to the atmosphere as fugitive emissions. In reality, due to the procedure of maintaining the minimum six-inch thick clay daily cover and much thicker than industry standard intermediate clay soil cover utilized by TDS, much more gas is pulled and captured from areas not directly around the 15% of the area which have gas collection wells.

The other area landfills benefit from the assumption in the EPA formula that LFG emissions are significantly captured and reduced if they have LFG collection systems that covers most of the landfill and then utilize the collected LFG in an electrical generator or flare them. This creates a false impression that TDS is not capturing and controlling a significant amount of the landfill gas being generated by the landfill since the EPA

Providence Engineering and Environmental Group LLC
WWW.PROVIDENCEENG.COM

formula does not take into account TDS' design and operating conditions that limit emissions to a small fraction of the amount calculated by the formula. TDS has reached the regulatory threshold for installing a blanket landfill gas collection system so this discrimination in the EPA formula will be eliminated for TDS in the coming years as a full system will be designed and put into operation.

If you have any questions, please contact me at (512) 596-7929.

Sincerely,
Providence



Rajiv Y. Patel, PE
Senior Managing Engineer, Air Quality
Providence
11149 Research Blvd, STE 260B
Austin, TX 78759



Carter : Burgess

February 16, 1999

Project No. 98-3268-010

Ms. Sherry Jones
City of Austin
Department of Public Works and Transportation
Architectural and Engineering Services
One Texas Center, 505 Barton Springs Road
Austin, Texas 78704

City of Austin
Private Landfill Environmental Assessment
CIP Project No. 5040-150-3210
Travis County, Texas

Dear Ms. Jones:

We have completed our assessment of the Austin Community Landfill (ACL), Texas Disposal Systems Landfill (TDS), and Browning-Ferris Industries Sunset Farms Landfill (BFI) sites located in Travis County being considered by the City of Austin for disposal of Municipal Solid Waste (MSW) collected by its residential and commercial solid waste collection programs, as well as MSW generated by other City departments. The scope of work, findings, and conclusions of our assessment are described in the attached report.

This work was authorized by the Professional Services Agreement entered into between the City of Austin and Carter & Burgess dated January 11, 1999. Subconsultants utilized by Carter & Burgess in the performance of this assessment include Baer Engineering and Environmental Consulting, Inc., ECO Southwest Environmental Corporation, and Pardue & Associates, Attorneys at Law.

Please note that six copies of the report contain a second binder which is an expanded Appendix B containing tables of the groundwater analytical data for the three landfills.

Carter & Burgess appreciates this opportunity to be of service to the City of Austin. Should you have any questions or comments regarding this report, please do not hesitate to call me (512-314-3165) or Clyde Bays (713-803-2149).

Sincerely,

CARTER & BURGESS, INC.

Craig M. Carter, P.G.
Project Manager

Clyde V. Bays, Ph.D., P.E.
Manager of Environmental Services
and Associate

Attachments: City of Austin Private Landfill
Assessment Report (35 Copies)

**CITY OF AUSTIN
PRIVATE LANDFILL ENVIRONMENTAL ASSESSMENT
CIP PROJECT NO. 5040-150-3210
TRAVIS COUNTY, TEXAS**

Prepared by:

**CARTER & BURGESS, INC.
ENVIRONMENTAL SERVICES DIVISION
Barton Oaks Plaza V, Suite 200
901 South MoPac Expressway
Austin, Texas**

Prepared for:

**The City of Austin
Department of Public Works and Transportation
Architectural and Engineering Services
One Texas Center
505 Barton Springs Road
Austin, Texas 78704**

**CLYDE V. BAYS, Ph.D., P.E.
MANAGER OF ENVIRONMENTAL SERVICES
AND ASSOCIATE**

**CRAIG M. CARTER, P.G.
PROJECT MANAGER**

Clyde V. Bays
Craig M. Carter 2/16/99

C&B PROJECT NO. 98-3268-010

February, 1999

EXECUTIVE SUMMARY

The City of Austin, Architectural and Engineering Services Division, Department of Public Works and Transportation, contracted with Carter & Burgess to perform an assessment of the environmental safety of the Austin Community Landfill (ACL), Texas Disposal Systems Landfill (TDS), and Browning-Ferris Industries Sunset Farms Landfill (BFI) sites located in Travis County. Carter & Burgess' team, which includes ECO-Southwest Environmental Corporation, Baer Engineering and Environmental Consulting, Inc., and Pardue & Associates, Attorneys at Law collected and performed technical review of all data available from TNRCC files, landfill records, and third party sources for these sites. Visual inspections of the landfill sites were also performed.

For this assessment, Carter & Burgess' team reviewed available information pertaining to permitting and siting of the various landfills, landfill design and construction, operating and regulatory compliance history, and the results of groundwater and methane gas monitoring programs. Meetings were also held with current and former landfill personnel, TNRCC representatives, and neighborhood associations in order to gather information needed to evaluate the environmental safety of the various sites. The Environmental Protection Agency (EPA) Region VI Office in Dallas was contacted concerning the status of the Petition for NPL Listing filed by concerned citizens for the ACL. Present environmental impacts, possible future impacts, potential migration pathways, overall environmental risks to groundwater and surface water, and other potential liabilities were evaluated for each landfill based on the information collected during our assessment. This information as well as the findings, conclusions, and recommendations arising from our assessment are discussed in various sections of the attached report.

As part of this assessment, we also reviewed changes in federal and state regulations in effect at different intervals throughout the past 35 years pertaining to Municipal Solid Waste (MSW) disposal facilities. A number of significant regulatory changes have occurred in the area of solid waste management, although the basic concepts as to proper siting, design and construction, and operation of landfills has remained essentially the same over the years.

A summary of the significant findings and observations made for each landfill is presented below.

Austin Community Landfill

Early in the life of the ACL site, the regulatory requirements for landfilling of MSW were in their early stages. Permission was requested and granted by the Texas Department of Health (TDH) to dispose of industrial waste at the Industrial Waste Materials Management (IWMM) site located within the boundaries of the landfill with few requirements stipulated except for cover thickness and clay keyways to control lateral seepage. After the IWMM site was closed and the ACL site continued to operate as a MSW landfill, formal regulations were written to manage the disposal of MSW.

The former IWMM site was operated during times when there were minimal technical requirements for liners and no prohibitions on landfilling drummed industrial or bulk industrial liquids. The portion of the site where these activities took place was not adequately protective of the environment and as a result there is a high probability that some environmental impacts may have resulted from the operations. Since the promulgation of the earliest landfill regulations and requirements, the MSW portion of the ACL site has been operated in general compliance with the regulations in existence at the time. Even when operated during times when there were no liner requirements, the MSW landfilling operations at the ACL site likely had minimal impact on the environment because of the low permeability typically associated with the Taylor Formation

Clays.

Potential groundwater impacts were historically reported in two monitoring wells located adjacent to the former IWMM site. These monitoring wells have not been sampled in recent times. There was no quantitative groundwater discovered in our assessment data that indicates the former IWMM site is currently causing environmental impacts. Groundwater on the MSW portion of the ACL site has been impacted by organic compounds. However, the recently detected organic compounds appear restricted to the western portion of the property at low concentrations and are likely associated with landfill gas as is typical of MSW landfills.

Data reviewed as part of this assessment showed no indication of impacts to surface water. However, based on the apparent leachate seeps observed adjacent to the unnamed tributary to Walnut Creek in the Phase 1 MSW area, surface water could potentially be impacted. Leachate management to reduce the hydraulic head in the adjacent closed Travis County Landfill and Phase 1 area should be performed before plans for additional cover are implemented.

Possible future impacts to the ACL site include lateral migration of leachate from the Phase 1 area into the unnamed tributary to Walnut Creek, and vertical and lateral migration of leachate from the former IWMM site. The existing Subtitle D monitoring program should be sufficient to detect and monitor groundwater impacts in the Weathered Taylor before they migrate offsite. However, no monitoring system has been put in place which could detect current or future vertical (downward) migration of solvents from the IWMM site. Although the possibility for vertical migration of contaminants from this site to the underlying groundwater is considered to be relatively low, the potential for impacts still exists. Given the above, the unknown contents and condition of the 21,000 buried drums at the former IWMM site presents a potential environmental risk. As long as the industrial waste remains buried at its current location it will be a source of environmental risk. Operations on the remainder of the ACL facility appear to be protective of groundwater and surface water.

Methane will continue to be generated at the ACL site and should be managed throughout the life of the landfill. The Landfill Gas Recovery System appears to be effective at controlling the gas generated by the landfilled waste at this time.

A Petition for National Priority Listing (NPL) has been filed with the EPA Region VI Office for property now owned by Waste Management of Texas but not included in the TNRCC Permit currently in effect for the ACL. This property is the approximate site of the former IWMM facility, and was excluded from the currently active MSW landfill by virtue of a permit amendment approved in 1981. A Preliminary Assessment of this site has been completed, but the results of the assessment and any subsequent actions which may be taken by the EPA or other state agencies is unknown at this time.

BFI Sunset Farms Landfill

The Sunset Farms site is currently and historically has operated in substantial accordance with applicable state and federal MSW regulations established for Type I landfills. A limited area of organic impacts to groundwater is present near the southwest corner of the site. This area of impacts appears related to the landfill activities on the adjacent ACL site. Data reviewed as part of this assessment showed no indication of impacts to surface water. The Landfill Gas Recovery System and electric generating facility which has been in operation for two years are apparently effective at controlling gas buildup within the landfill.



BFI appears to be operating the Sunset Farms Landfill in a responsible manner protective of groundwater and surface water. The potential for future impacts to groundwater or surface water at the Sunset Farms Landfill is considered to be relatively low. Although the organic impacts detected in groundwater on the southwest portion of the property appear related to the ACL site, the Sunset Farms Landfill might be considered a potential source of contamination and be required to defend itself, if groundwater on surrounding properties was found to be impacted.

TDS Landfill

The TDS Landfill has been in operation for about 8 years. The original design specified in-situ soil liners for the landfill bottom and unweathered clay sidewalls. Weathered sidewall areas were to be lined with a minimum of 3 feet of compacted clay. The original final cover design consisted of 1.5 feet of compacted clay overlain by 1 foot of topsoil. A leachate collection system was not included in the original design. In 1994, the final cover design was changed to 4 feet of topsoil over 1.5 feet of compacted clay. Leachate collection systems were also installed in the post-Subtitle D sectors of the landfill.

Based on documents reviewed during this assessment, the TDS was constructed and has been operated in accordance with applicable regulatory requirements. No present groundwater impacts were observed or indicated by this assessment. Further, no evidence of surface water impacts was found. In addition, there is no evidence of landfill gas reaching the property boundary. TDS appears to be a very responsible operator and has implemented measures which appear to be protective of groundwater and surface water at the site.

Recommendations

It is the Carter & Burgess team's opinion that the former IWMM site at the ACL poses a substantial environmental risk and potential future liability to the owners and users of the site. Specific recommendations are made in **Section 8** of our report concerning further monitoring and investigations needed at the site in order to detect potential past and future releases to the environment.

Recommendations are also made to sample leachate seeps at the Phase 1 site on the ACL property as well as seeps on the Travis County Landfill to determine potential impacts to surface water in the tributary to Walnut Creek.

Carter & Burgess' team recommends removal and proper disposal of the waste at the former IWMM site in order to eliminate or substantially reduce the environmental risk associated with the site.

A recommendation is also made that the ACL work with Travis County to reduce leachate buildup in the Phase 1 area by operating the leachate recovery system in the Travis County Landfill in order to lower leachate levels in both areas.

*SUMMARY OF ENVIRONMENTAL CONDITIONS AT THE
WASTE MANAGEMENT, INC., AUSTIN COMMUNITY
LANDFILL*

*AUSTIN'S "LOVE CANAL"****

April 3, 2003

Prepared by

Robert S. Kier Consulting

- Around 1970, with a letter of authorization from the Texas Department of Health, the landfill owned and operated by Universal Disposal and now known as Austin Community Landfill (ACL), began receiving municipal solid waste. No actual permit was necessary then. Waste Management Holdings, Inc., currently owns and operates the ACL through its wholly-owned subsidiary, Waste Management of Texas, Inc. (WMI).
- From the mid 1960s to 1982, Travis County operated an adjacent landfill to the south along U.S. 290. There is no discernable hydraulic barrier (no effective separation) between much or all of the waste deposited in the closed Travis County landfill east of the creek traversing the closed Travis County landfill and waste deposited at the ACL. Solid waste deposited by Travis County, by Universal Disposal and successor operators is commingled at the property boundary. Without regulatory approval, WMI may also have deposited waste in the portion of the ACL in which the wastes are commingled.
- Leachate (liquid that has passed through or emerged from solid waste) leakage through the final cover on the closed Travis County landfill is being addressed through installation and operation of a leachate extraction system that since 1998 discharges to one of the City of Austin's publicly owned treatment works (POTWs).

** The term, "Austin's 'Love Canal'" was coined by Tom Clark with the U. S. Environmental Protection Agency in an "Informal Memo," dated June 17, 1982, in reference to the IWMM site at the Austin Community Landfill.

- Most of the surface water from ACL drains through the closed Travis County landfill into tributaries to Walnut Creek. Some of the surface water from ACL drains into Harris Branch and into Lake Walter E. Long. Natural ground water flow directions generally follow surface topography.
- From 1971 into 1972, under emergency authorization from the Texas Water Quality Board (TWQB), Industrial Waste Materials Management (IWMM), an entity related to Universal Disposal by common ownership, was allowed to take bulk liquid and drummed waste characterized as spent acids, solvents, and industrial process wash water for disposal within the permit boundary of ACL. Exactly what was disposed at the IWMM site is not clear, but it is known from public records that many of the materials received would today be considered hazardous waste. At the time, though, hazardous waste had not been regulatorily defined and all such wastes in Texas were simply considered as industrial waste, which was regulatorily defined by statute.
- The exact quantity of industrial/hazardous waste received at the IWMM site also is not known, but it is known that more than 21,000 drums containing liquid and semi-solid waste are buried in unlined trenches at the site and that the aggregate capacity of the unlined pits into which bulk quantities of spent acids, paints, solvents, and industrial process water were placed was in excess of 1.8 million gallons. Assuming the average weight of wastes received at the IWMM site was 13.4 pounds per gallon, which is based on documents filed by IWMM with the TWQB, and assuming that the volume of bulk liquid waste received was no more than the capacity of the unlined pits, more than 19,000 tons of industrial/hazardous waste was disposed by IWMM, on the same order of magnitude as the amount disposed at Love Canal. Based on other information gleaned from the same documents in the public record, and using the same assumptions with respect to the weight of the waste, it is possible that approximately 80,000 tons of industrial/hazardous waste were disposed at the IWMM site, approximately four times the amount of waste disposed at Love Canal.
- Analysis of historical aerial photographs shows that as of February 4, 1973, four out of the five pits that received bulk liquid wastes were still open and contained fluids. In addition, another excavation, which was labeled "Acid Pit 4" on a TWC map and which was even larger than the pits at the IWMM site, had been constructed west of the IWMM site. This excavation was subsequently removed by WMI and the contents dispersed.
- At least in 1976, public records show that ACL received additional industrial-type waste from businesses in Austin and elsewhere in the state for burial in the landfill; the locations in which this waste was buried are not known; both Phase I

(adjacent to and interconnected with the closed Travis County landfill) and Phase II (Old Wet Weather Area), neither of which were lined, were active at the time.

- WMI bought the company that owned the landfill, including the IWMM site in August 1981. There is no public record that liners had been installed in any of the waste disposal cells used to that point. Prior to buying the site, in 1980 and 1981, WMI conducted an investigation of the site. Memos written by Ms. Jane LaPorte, an employee of WMI who investigated the site on behalf of WMI, recognized that "There is a fairly well-documented history of hazardous waste disposal on site" and installation of a cut-off wall may be necessary (7/15/80); recommended that "a barrier wall be constructed" between the ACL and the closed Travis County landfill to the south (8/17/81); and stated that the closed Travis County landfill "had a history of leachate problems due primarily to poor surface water controls and inadequate cover" (8/19/81). As of March 26, 2003, WMI was advertising the ACL as a hazardous waste landfill on its web site.
- In late 1997 and early 1998, WMI stated they would relocate much or all of the industrial/hazardous waste buried in the IWMM site because it was "the responsible thing to do." Coincidentally, moving the industrial/hazardous waste from the IWMM site would potentially allow using the ACL to its maximum possible capacity for municipal solid waste disposal. Regulatory agency approval designating a portion of the municipal solid waste landfill for disposal of non-hazardous industrial waste was received and the work plan to investigate the nature of the industrial/hazardous waste was approved. The investigation, carried out by OHM, a company partly owned by WMI, was flawed and was incapable of properly characterizing the waste, especially if the waste were characteristically hazardous and, thus, ineligible for re-interment at ACL. The plan to relocate the industrial/hazardous waste was challenged by local neighborhood groups. As of this date, the industrial/hazardous waste at the IWMM has not been relocated.
- On May 5, 1998, a coalition of environmental groups -- Clean Water Action (CWA), People Organized in Defense of the Earth and her Resources (PODER), the Save Our Springs Alliance (SOS), and the Sierra Club -- filed a petition with the U. S. Environmental Protection Agency (EPA) to have the ACL assessed and added to the NPL (National Priorities List, a.k.a., Superfund list); supplements were submitted in June 1998 that added a local neighborhood association, the Walnut Place Association, and the management arm of a nearby industrial park, the Walnut Creek Improvement Association, to the petition. In addition to placement of the ACL on the Superfund list, the environmental groups requested EPA's immediate assistance in evaluating the wastes disposed at ACL and the health and environmental risks associated with the ACL and EPA's immediate action to stop further activities at ACL that could result in the release of hazardous materials to the air and the water. The petition was also filed to request EPA's immediate investigation of the management of hazardous materials at ACL.

pursuant EPA's oversight authority under the Clean Water Act and the Resource Conservation and Recovery Act.

- Following a series of newspaper articles and recommendations from the City of Austin's Solid Waste Advisory Commission, in November 1998 Austin retained a third-party consulting engineering firm, Carter & Burgess, to evaluate all three privately owned landfills in Travis County prior to awarding a thirty-year contract to dispose of the city's residential waste. Carter & Burgess's report, dated February 16, 1999, and titled the City of Austin Private Landfill Assessment states "It is the Carter & Burgess team's opinion that the former IWMM site at the ACL poses a substantial environmental risk and potential future liability to the owners and users of the site." Consequently, the City of Austin disqualified WMI from consideration for its thirty-year contract for disposal of residential solid waste collected by the City.
- In an attempt to counter the Carter & Burgess report, in 1999 WMI contracted with ThermoRetec, an environmental consulting firm, to perform another investigation of the IWMM site. Boreholes were advanced within and around the IWMM site and materials sampled for analysis. Several drums are known to have been penetrated in the process. Potential industrial/hazardous waste sites outside the presumed area of the IWMM site were not examined, including what appears to have been the largest pit for receiving bulk shipments of acid (Acid Pit No. 4), which according to a former WMI landfill manager had been excavated and used for waste cover. Despite its flaws, the 1999 investigation revealed the following:

[All regulatory citations noted below pertain to alleged potential violations by WMI at the ACL of the regulations applicable to municipal solid waste facilities.]

- Industrial/hazardous and municipal solid waste within the designated IWMM site were exposed at the ground surface. *[Potential violations: 30 TAC §§305.125(1), (4), (5), (9), & (20); §§305.145(a)(1) & (2); §330.4(b); §330.5(a)(1) through (3), §330.5(b); and §330.133(f)]*
- Industrial/hazardous-type waste encountered ranged from soil with yellow or black discoloration and/or a chemical odor to a viscous dark red brown fluid, resinous material, white to brown crystals exhibiting a chemical odor, and an oily brown fluid or tar with a hydrocarbon odor. *[Potential violations: 30 TAC §§305.145(a)(1) & (2); and §330.4(b)]*
- Contaminants detected in samples from the IWMM site included chlorinated and non-chlorinated organic compounds, pesticides, polychlorinated biphenyls (PCBs), dioxins/furans, cyanide, and heavy metals. The total of undifferentiated hydrocarbons was in the percent range for some samples, meaning over ten million parts per billion.

[Potential violations: 30 TAC §§305.125(1), (4), & (9); §330.4(b); and §§330.5(a)(1) & (b)]

- Chlorinated and non-chlorinated organic compounds were detected in samples from the bottom of borings drilled thirty feet into unweathered Taylor Clay that underlies the entire ACL at depth; compounds detected include 1,1-dichloroethane, acetone, benzene, carbon disulfide, ethylbenzene, methylene chloride, xylene, toluene, and trichloroethene. *[Potential violations: 30 TAC §§305.125(1), (4) & (9); §330.4(b); and §§330.5(a)(1) & (b)]*
- Municipal solid waste was intermixed with, placed over, and deposited around the IWMM site and in the creek/drainage course to the south. At least on the south side of the IWMM site, there is no discernable barrier to waste, leachate, or gas migration from the industrial/hazardous waste buried at the IWMM site, through the municipal solid waste disposed to the south, and to the stream course that passes from the closed Travis County landfill through ACL and back to the Travis County landfill. Examination of the first occurrence of fluid or moisture in the borings at and around the IWMM site indicates moist, wet, or saturated conditions within a few feet of the ground surface and a hydraulic gradient from the IWMM site toward drainage courses to the south and to the west. Subsurface drainage to the east is likely, too, but further study is needed to confirm this and to determine the nature and extent of any contamination. *[Potential violations: 30 TAC §§305.125(1), (7), (8), & (9); §330.4(a) & (b); and §330.5(b)]*
- Fluid, leachate, was encountered in nearly every borehole at the IWMM site. Fluid pressure was so great in at least one borehole advanced into waste beneath the drainage course south of the IWMM site that the investigators had to quickly pack bentonite into the hole to keep the fluid from emerging at the ground surface. The only fluid sampled, though, was from the few monitoring wells ostensibly installed outside the IWMM site during the investigation; benzene, 1,4-dioxane, 1,1-dichloroethane, and tetrachloroethene were detected. Existing monitoring wells near the IWMM site, including two monitoring wells installed in 1982 and two piezometers installed to monitoring well quality, were not sampled. *[Potential violations: 30 TAC §§305.125(1), (4), (9), & (20)(A); §§305.145(a)(1) & (2); and §§330.5(a)(1) & (b)]*
- The creek/drainage course between the IWMM site and the Phase I area that is underlain by municipal solid waste (discovered by ThermoRetec in 1998) provides a conduit for downstream and offsite fluid migration onto the closed Travis County landfill and beyond; WMI has refused to install

monitoring wells along the creek/drainage course, where contaminant migration is most likely to be detected, because the wells would have to be installed through waste. WMI also has not installed monitoring wells along the boundary between the Phase I area and the closed Travis County landfill where there is not real separation between waste deposited in the two landfills. *[Potential violations: 30 TAC §§305.125(1), (4), (7), (9) & (20); §§305.145(a)(1) & (2); §§330.4(a) & (b); §§330.5(a) & (b); and §330.8(b)]*

- Ground water monitoring wells were not installed at the ACL until 1982, approximately ten years after the IWMM site was reportedly closed.
- Analyses of samples from the original six wells installed, two of which were installed to monitor the IWMM site, and additional and replacement wells used since 1996, none of which monitor the IWMM site, have shown repeated occurrences of volatile organic compounds, including vinyl chloride, and indicator parameters such as total phenolic compounds, total halogenated (chlorinated/fluorinated) hydrocarbons (TOX), and chemical oxygen demand (COD). *[Potential violations: 30 TAC §§330.5(a)(1) through (4); and §330.5(b)]*
- Samples from the two monitoring wells installed in 1982 nearest the IWMM site, but abandoned in 1996, also have shown elevated concentrations of iron and manganese and unreasonably low pHs. *[Potential violations: 30 TAC §§330.5(a)(1) through (4); and §330.5(b)]*
- Samples from monitoring wells on the east side of the landfill show elevated concentrations of total dissolved solids with respect to samples from other wells. *[Potential violations 30 TAC §§330.5(a)(1) through (4); and §330.5(b)]*
- Water levels in almost all wells have risen through time; water levels in the two former monitoring wells nearest the IWMM site have risen to a level higher than the ground surface at the time the wells were originally installed; the wells had to be extended upward, a fact not known to have been reported to the regulatory agencies. *[Potential violations: 30 TAC §§305.125(7) & (8)]*
- Inspection of analytical results for samples from monitoring wells installed at Applied Materials, which is located to the east of the ACL across Giles Road, indicates elevated total dissolved solids concentrations and the occurrence of TOX compounds, which Applied Materials indicates they do not manage. *[Potential violations: 30 TAC §§330.5(a)(1) through (3); and §330.5(b)]*

- No monitoring wells have ever been installed by WMI or Travis County where waste was deposited in a continuum across the joint property boundary.
- I am unaware that any notices of violation have been issued based on reported ground water monitoring results for the ACL.
- Landfill gas migration has long been a problem at ACL.
 - Sampling of gas monitoring probes since 1989 has indicated numerous exceedances of the lower explosive limit (LEL) for methane in air, despite the installation of a landfill gas collection system. *[Potential violation: 30 TAC §330.56(n)(1)(B)]*
 - Landfill gas migration may be more extensive than reported because ground water levels commonly have risen above the screened intervals in many of the gas monitoring probes, preventing landfill gas from entering the monitoring probes and potentially yielding false negative results when the gas monitoring probes are sampled. A review of the public record for ACL indicates that the ongoing inability of the landfill gas monitoring probes to perform as designed and installed has never been directly reported to the TCEQ or its predecessor agencies nor has WMI provided any explanation or demonstration that functioning gas monitoring probes cannot be installed around the entire perimeter of the landfill. *[Potential violation: 30 TAC §330.56(n)(2)]*
 - In 1995, field workers installing ground water monitoring wells at the ACL were sickened by emissions from one of the boreholes. *[Potential violation: 30 TAC §330.8(b)]*
 - Over approximately the last one and one-half years, or more, neighboring residents and others who are not so near ACL have complained about a nauseating stench emanating from the ACL. Although the landfill operator admits ACL is a source of the odors and ACL has received a notice of violation from the Texas Commission on Environmental Quality (TCEQ), nearly a year later, neighbors continue to complain about the occurrence of the odors. *[Potential violations: 30 TAC §§330.5(a)(2) & (3)]*
- Through sworn testimony of current and former WMI employees and from documents on file at the TCEQ, it is evident that WMI has allowed numerous conditions to develop that appear contrary to the municipal solid waste management regulations, and WMI has not been forthcoming in reporting the

occurrence of those potential violations nor timely correcting them. These potential violations include:

- Allowing landfill leachate to migrate from pre-Subtitle D municipal solid waste landfill units into Subtitle D municipal solid waste landfill units, be collected, and commingling the leachate potentially recirculated in the landfill. *[Potential violations: 30 TAC §330.5(e)(6)(A)(ii)]*
- Extraction of landfill leachate from one municipal solid waste landfill unit, commingling it with leachate extracted from other municipal solid waste landfill units, and recirculating the leachate into municipal solid waste landfill units from which it did not originate. Presumptively, the transfer of landfill gas condensate from one municipal solid waste landfill unit to another is also occurring. *[Potential violations: 30 TAC §305.5(e)(6)(A)(ii)]*
- Commingling contaminated ground water (ground water in which organic constituents had been detected) purged from ground water monitoring wells with landfill leachate and potentially recirculating the commingled fluid in a municipal solid waste landfill unit. *[Potential violations: 30 TAC §330.5(e)(6)(A)(ii); §330.56(o)(2)]*
- Recirculation of leachate over landfill liner systems represented to be "composite liner systems," which are defined in 30 TAC 330.200(b), but which are actually performance-based liner systems, which are defined in 30 TAC 330.200(a), over which recirculation of leachate is not permitted. *[Potential violations: 30 TAC §330.5(e)(6)(A)(ii); and §330.56(o)(2)]*
- Allowing leachate to pond to depths of tens of feet for extended periods over post Subtitle D liners; one foot is the maximum allowable depth at the ACL. *[Potential violations: 30 TAC §305.125(9); 330.5(b); and §330.200(a)(2)]*
- Failing to correct erosion of the cover system such that solid waste was exposed and contacted surface water runoff that was released directly offsite without testing or treatment. *[Potential violations: 30 TAC §§305.125(1), (5), & (9); §330.5(a)(1); §330.5(b); §330.5(e)(6)(A)(ii); §330.55(b)(1); and §330.133(f)]*
- Disposing of leachate from the leachate-holding pond into a "hole" at the top of the "hill," which is inferred to be the "west hill" of the landfill in the TCEQ's inspection report and which is almost entirely underlain by pre-Subtitle D insitu liners, approximately half for which there is no public record that the liner systems were certified by an independent professional

engineer. *[Potential violations: 30 TAC §330.5(e)(6)(A)(ii)§330.56(o)(2); and §330.125(9)]*

- Allowing numerous leachate outbreaks from the vicinity of the IWMM site, from the Phase I area connected to the closed Travis County landfill, and from the west hill at ACL to occur for protracted periods of time, and failing to report these occurrences to the TCEQ. Leachate outbreaks are where leachate emerges through the landfill cover system. Public records indicate that leachate outbreaks occurred before WMI purchased the landfill in 1981, and testimony by a WMI employee indicates that leachate outbreaks have also occurred over the past few years. At least some of these leachate outbreaks reached the drainage courses on the ACL. *[Potential violations: 30 TAC §§305.125(1), (4), (9) & (20)(A); and §305.145(a)]*
- During 2002, TCEQ and its predecessor agency TNRCC has issued notices of violations for:
 1. Allowing leachate to accumulate to depths greater than the regulatory limit; 2/4/02.
 2. Failure to achieve emission and operating standards required under the Clean Air Act; 2/21/02.
 3. Failure to secure the flange on a leachate collection riser pipe; 2/21/02.
 4. Failure to determine the effectiveness of erosion control measures at a surface water discharge point; 3/28/02.
 5. Unauthorized discharge of waste and debris from a surface water discharge point; 3/28/02.
 6. Failure to prevent discharge of air contaminants in such concentration and of such duration as to interfere with the normal use and enjoyment of property; 4/4/02.

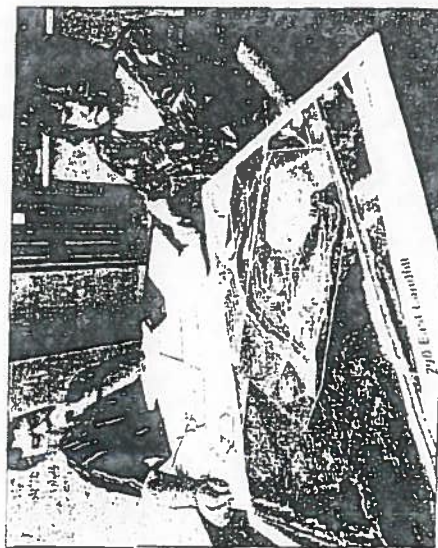
To my knowledge, no enforcement action has been issued against WMI related to notices of violation received by ACL during 2002.

Austin American-Statesman

FROM PAGE ONE

Sunday, February 14, 1999 A11

Barrels of buried gunk worry neighbors



Neighborhood association presidents Charles Croft and Amy Kersten, examining aerial maps of the landfill, want more testing done on industrial waste buried adjacent to their subdivisions.

By RALPH K.M. HAURWITZ
American Statesman Staff

Any Kersten had never been active on environmental issues. That changed last year when she learned about 21,000 drums of industrial waste buried less than a mile from her brick-and-siding house in a tidy subdivision along U.S. 290 just east of Austin.

Now she spends many hours studying state environmental records, meeting with neighbors and demanding accountability from government officials.

"We're not a bunch of crazy environmentalists," said Kersten, 41, an office manager for a real estate company and president of the Chimney Hills North Neighborhood Association. "We're just plain Jane neighbors that will not rest comfortably until proper scientific testing is done on that waste by an independent third party or a government agency." The drums were buried in 1971 and 1972 in clay-lined trenches. In addition, acids were poured into a series of pits. The 9-acre disposal field is covered with soil and surrounded by what is now a municipal waste landfill operated by Waste Management Inc.

State regulatory files copied by Texas Disposal Systems, which is competing with Waste Management for a contract to receive trash

from Austin, show that numerous companies sent a hodgepodge of industrial chemicals to the site. These range from solvents mixed with printer's ink from the American Statesman to lubricating oil from IBM in Austin.

Few residents knew about the waste until they read newspaper articles last year describing Waste Management's plan to test, excavate and rebury the material in another part of its landfill. Company officials said the \$11 million project would provide two benefits: It would shift the industrial waste to an area lined with a synthetic material to protect against leaks, and it would enable the landfill to accommodate more municipal trash.

"The plan is on hold. It's subject to review and modification," said Ric Green, district manager for Waste Management.

A 12-acre pit for the industrial waste is empty. The company will not proceed until the city decides where to send its trash and until the company meets with neighbors and obtains regulatory approvals from the state, Green said.

He said new management has a policy of working closely with residents to address concerns. USA Waste Services of Houston acquired Waste Management last year in a deal that retained the Waste Management name but put USA Waste executives in charge.

Preliminary testing of the waste was done last year by CH2M Corp., a company partly owned at the time by Waste Management. But Waste Management has divested itself of that holding and will use independent companies in the future, said Green and Al Torres, landfill project manager for Waste Management.

Meanwhile, neighborhood and environmental groups have petitioned the U.S. Environmental Protection Agency to list the site under the federal Superfund toxic waste cleanup program. The Walnut Creek Improvement Association, which manages a nearby business park, joined in the petition.

A 1982 EPA memorandum ordered the site as "Austin's Love Canal," a reference to a neighborhood in Buffalo, N.Y., that was built atop toxic waste and later had to be vacated. But the memo went on to say that Texas residents had found no evidence of leakage.

The EPA has deferred to the state on the question of a Superfund listing. The state has not requested it because there is more alonged waste migration, according to the Texas Natural Resource Conservation Commission.

Occasional readings of vinyl chloride, a cancer-causing substance, and other compounds in groundwater monitoring wells have been inconsistent and do not constitute evidence of a leak, the agency said.

naked city,

from p 20

voting to opt into the district. Aleshire and his fellow commissioners agreed to delay a vote on the matter for another week. That didn't mean, though, that Aleshire was going to hold his fire for his to-guess-when-it-calls-time-to-discuss-the-project. He found reasons to criticize the proposal on almost every front, including the collection of sales tax on the district's trains. When Richard Hamner, the legislative aide to Austin's State Sen. Gonzalo Barrientos, later explained to Aleshire that the district would keep any sales taxes collected on the trains because it would be too hard to keep track of which sales occurred in which taxing jurisdiction, Aleshire snapped: "I've already figured that out."

So it went for more than an hour as Hamner, who played a key role in writing the legislation that permits the creation of the rail district, tried to allay Aleshire's fears about the district. After long discussions about eminent domain, financing, legislative intent, and several other topics, an exasperated Hamner told Aleshire, "We can look at this thing for hobgoblins, but I don't think they are there." But Aleshire, as usual, has hobgoblins on the brain. Look for him to kill the proposal next Tuesday. —A.B.

Have Gun, Will Graduate

Following last week's fatal shooting spree by an Oregon high school student, Austin Independent School District officials told the *Austin American-Statesman* that the incidence of weapons in Austin schools is "dramatically low," and that the district enforces a "zero tolerance" policy of expelling any student who brings a gun to school.

But just days before that article ran on Saturday, May 23, an Austin high school graduating senior had shot a hall monitor in the leg with a pellet gun from a car in the school parking lot. After the victim identified the shooter from yearbook photos, AISD principal Dr. Tina Juarez recommended that the student be suspended, and also prohibited from crossing the stage during graduation ceremonies. But that punishment was rescinded by AISD administrator Dr. Kay Psencik.

Computer science teacher Guy Davis said teachers were struck by the irony of Psencik's decision as they discussed the *Statesman* article on Saturday. "We were saying that here it is in plain black-and-white and they aren't enforcing it. We were concerned about that," says Davis. Austin high teacher Wayne Packwood was so incensed when he learned of the shooting and subsequent district action that he organized an impromptu meeting of 70 AISD staff on Friday where they heard the student's story and drafted a letter protesting the overturning of Juarez's recommendation.

To "revise" Dr. Juarez's decision is unacceptable, the letter states. It contradicts the district's stated policy of "Zero Tolerance" and it sends the message that there will be no consequences for bringing weapons onto campus. Packwood added later, "It doesn't seem to make any sense, does it? On the same day that the shooting was taking place in Oregon, it is absolutely incomprehensible that this decision could have been made." A teacher who spoke with Dr. Juarez after her decision was countermanded says the administration is pressuring the principal to keep the event hushed up and not contest the ruling. "My belief is that they told her not to talk about it with the staff or the punishment for disobeying superiors is just and severe," said the teacher, who declined to be named.

Robin Matthews, of the Austin Association of Texas Professors and Educators, says the group is consulting with attorneys about filing a grievance against Dr. Psencik for violating AISD policy and failing to enforce a federal law which prohibits firearms on school campuses. —A.B.

WMI's Landfill Woes

Four environmental groups have petitioned the U.S. Environmental Protection Agency to

halt the cleanup of a toxic waste dump at Austin Community Landfill, a site on Giles Road that is owned by trash giant, Waste Management Inc. Some 27,000 barrels of industrial hazardous waste, including toluene, acetone, and sulfuric acid, were buried at the site in the early 1970s, before WMI bought the landfill. Earlier this year, WMI unveiled plans to dig up the hazardous waste and dispose of it at a cost of some \$10 million. But on May 5, in a letter to EPA chief Carol Browner, the environmental groups asked that the cleanup be halted.

The letter, written by Austin attorney Richard Lowerre, says reports generated by WMI "suggest that hazardous materials have already been released." The groups contend that testing the site with probes "could release toxic gases and/or cause explosions as the wastes mix. Public records suggest that WMI does not even know where the drums are located and thus how to avoid puncturing them." In addition to asking that the cleanup be halted, the environmental groups — the Save Our Springs Alliance, People Organized in Defense of the Earth and Her Resources, Clean Water Action, and the Sierra Club — have asked the EPA to add the site to the National Priorities List (Superfund) and to prevent WMI from doing any further examination of the site until the EPA is available to assist in evaluating the site. WMI spokesman Loren Alexander told this *Civille* in March that the company is remediating the site "even though we aren't required to because it's the best thing to do environmentally." Asked for a comment last week about the groups' request to the EPA, company spokesman Al Erwin offered, "One of the reasons we are doing this industrial cleanup is that our insurance company has agreed to pay for it. And so we are pretty interested in getting it cleaned up from that perspective."

The toxic waste was buried in lined pits at the landfill beginning in 1971. The following year, the state ordered the site closed due to possible groundwater contamination. Since then, the site, which covers about nine acres near the center of the 106-acre WMI landfill, has been covered with dirt. WMI bought the landfill in 1981. They are currently in negotiations with the city of Austin on a 30-year contract for waste disposal and materials recycling.

Lowerre says the four groups want to see the toxic waste site cleaned up. But, he says, the state "hasn't notified anybody and hasn't required Waste Management to notify anybody. If this were a Superfund site, as it should be, there'd be all kinds of public notification. That's the minimum we expect to open this process up to allow citizens to have more input." —A.B.

Money Cuts Sink Gardens

A 23-year-old Austin institution suffered a serious setback Friday when Austin Community Gardens, whose most prominent project is its six-acre Sunshine Garden near Lenar and 45th, announced drastic cuts in its staff and services due to major funding shortfalls. ACG, whose projects include school wildlife gardens, a food pantry donation program, and community gardens in low-income areas, fired its only two full-time staff members and eliminated all staff support for its 17 satellite community gardens in neighborhoods homes for the elderly, and schools. Executive Director Frank Fuller, one of the two employees whose jobs were eliminated, said he had expected such a drastic restructuring for some time. "Something had to change," he said.

Funding from the city and county — always hard to come by for an organization whose principal focus is on community building — not nurseries alleviation — had dried up long ago and local foundations and business community members were unable to permanently fill the gap. The problem, Fuller suggested, was in the organization's mission. The county came to us and said, 'Why should we give you \$30,000 to help people grow food when we can give the same amount of money to a food bank to buy out and buy \$30,000 worth of food from themselves?' The value of the gardens, Fuller sug-

politics

gested, is in their ability to provide recreation, beauty, and community rather than in their ability to provide food for Austin's hungry or educate its community about gardening techniques. The funding cuts affect virtually all of ACG's programs, including its small community gardens like the Mosby Community Garden in East Austin, its Wildscapes gardens in local elementary schools, its urban educational programs, and its Food Pantry Garden, which produced over two tons of vegetables for two local food banks in 1996. —E.C.B.

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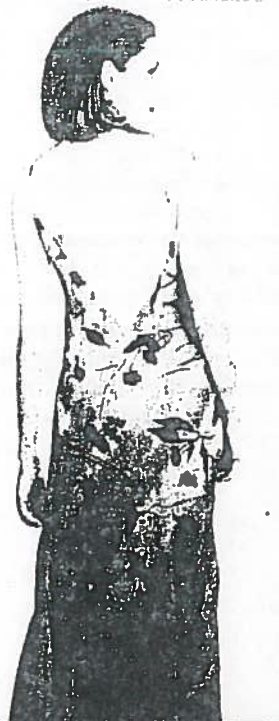
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METRO & STATE

★ ★ 5 Friday, May 8, 1998 B11

Austin American-Statesman

EPA asked to halt landfill cleanup

■ Environmental groups say process could backfire, releasing toxins northeast of Austin

By MIKE KELLEY
American-Statesman Staff

Four environmental groups have asked the U.S. Environmental Protection Agency for immediate action to stop a landfill cleanup just northeast of Austin, which they say could release harmful elements into the air and water.

But the company that owns the landfill says it is going beyond what is required and that its plans have been approved by the Texas agency responsible.

An issue is cleanup of about 21,000 barrels of waste, buried nearly 30 years ago in a landfill just north of U.S. 290 and east of Giles Road. The owner of the property, Waste Management Inc., has earmarked \$10 million to put the barrels in a new, lined trench on the site. The current disposal area is unlined.

The company says it will take bore samples to determine how dangerous the old waste materials are. Al Erwin, a company spokesman, says he doubts that any of the material will prove so hazardous that it will have to

be moved from the landfill.

But some environmentalists say the testing itself could be dangerous. Boring into the site for samples could puncture drums and release hazardous materials, they fear.

Requesting EPA intervention in assessing dangers at the site are the Sierra Club, Save Our Springs Coalition, People Organized in Defense of the Earth and Her Resources, and Clean Water Action.

Rick Lowerre, the attorney who filed the petition, said that while the company's plans have been approved by the Texas Natural Resource Conservation Commission, if the EPA puts the landfill on its list of so-called Superfund sites, greater public participation would be allowed in deciding how the cleanup proceeds.

How quickly the federal agency might respond, Lowerre said, "is kind of hard to predict. I would hope, if something is going to be done (in beginning the cleanup) in the next week or two, they would have somebody here for that."

Company officials say that the cleanup is not expected to begin until June or July.

Erwin said Thursday: "We don't have to do anything with this waste. We could just leave it where it is. But we want to clean it up. It's the most responsible thing to do."

Monday,
April 6,
1998

Company cleaning up its toxic-waste legacy

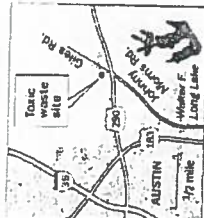
By Ralph K.M. Hunsperger
Austin American-Statesman Staff

Nearly 30 years ago, 21,000 barrels of toxic waste were buried in trenches cut into the clay-lined hills northeast of Austin. In addition, acidic wastes were poured into the site, which is just north of U.S. 280 and west of Giles Road.

Now the owner of the property, Waste Management Inc., is preparing to excavate the industrial residues and dispose of them in a safer manner. Waste Management has earmarked up to \$10 million for the work, which could involve hauling hazardous waste to a suitable incinerator or landfill and burying less potent material in the company's municipal waste landfill, which surrounds the 9.2-acre industrial waste site.

"It's better to find a problem now and fix it than it is to bury your head in the sand," said Robert Barber, president of Waste Management. "We want to be very careful here."

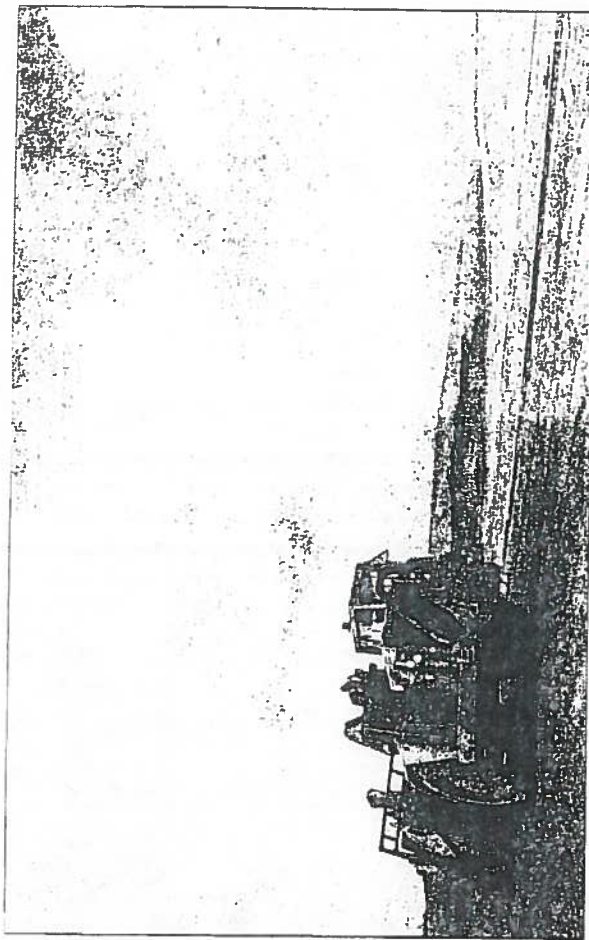
But some environmental activists say the company is not being careful enough. They con-



tend that the Texas Natural Resource Conservation Commission, which regulates landfills, has sanctioned a work plan with dangerous waste sampling procedures, loose oversight and too little testing of samples.

The site contains a hodgepodge of materials, including solvents such as acetone and xylene, polyurethane, paint, cleaning agents, grease, transmission fluid, sulfuric acid, neutralizing oil, rainwater and lubricating oil tainted with benzene and other compounds. Exposure to some of the substances, de-

See Company, B3



Earth-moving machinery scrapes its way into the soil that covers more than 21,000 steel drums containing toxic waste at a land fill owned by Waste Management Inc. Buried almost 30 years ago, the drums contain waste that today would be illegal to store in this manner.

Company cleaning up its toxic legacy

Continued from B1

pending on their concentration and the length of exposure, skin can cause respiratory irritation, skin rash, and even death.

Rick Lawrence, an attorney with the law firm of Jones, Law, and Krueger in Austin, said the use of a probing device to extract samples of waste could rupture drums and cause leakage, fumes or a fire. They also complained that residents who live along Springdale Branch subdivide and in the Harris Branch subdivide have been notified before the project began. The site is less than a mile from the nearest houses.

"I was surprised to learn that there was an industrial waste site of this magnitude in the heart of Austin," Krueger said.

The company and the conservation commission defended the cleaning and cleanup plan. Officials said the use of a truck-mounted

hydraulics driven device to plunge sampling tubes deep into the ground is much safer than the alternative of bulldozing or digging by hand.

The initial round of sampling was completed in January with out incident, said Rusty Postler, an environmental engineer for Waste Management, which also operates under the name Longhorn Disposal and Austin Community Landfill. He said more sampling and testing would be done later.

Waste Management officials said it was not aware of the site and not been notified. No law required notification for such a cleanup, which is being undertaken voluntarily by the company and not in response to an order or request from the conservation commission, said Susan Janek, manager of the agency's municipal waste regulatory section.

Company officials said they intended to inform residents once

the waste in its current state — buried beneath thick layers of clay — poses no threat to the public, workers or the environment. Ground-water monitoring wells ringing the site show no evidence of contamination. However, none of the wells was drilled on the site itself, so officials cannot say with certainty that no ground water has been contaminated.

Barber said a cleanup would allow disposal under current environmental standards. The waste was buried in the early 1970s without a plastic liner, a practice that would be illegal today. Waste Management acquired the site along with the adjacent landfill in 1981.

Another reason to excavate the buried wastes is that the site is a concern for the city and the county, which Waste Management is to operate for an additional six years. Dump trucks and earth-moving equipment must move over asphalt. It is the city's



Staff Photo by Tom Lankes

Len and Phyllis Whitenight want to make sure people know about the danger of the chemical waste dump.

Waste site scares Austin's refugees from Love Canal

By MAX WOODFIN

American-Statesman Staff

Forced out of their Love Canal home by poisonous chemicals, Len and Phyllis Whitenight decided to move to Austin because of its reputation as a clean, healthy city.

Today they're fighting against another chemical waste dump that they fear may be as dangerous as Love Canal. This one is near their new home in Austin.

"We just left it all and now, here it is again," said Mrs. Whitenight.

The Whitenights moved from Niagara Falls, N.Y., in February 1981, ready for a new life and ready to forget they had been on the losing side of the most famous and tragic environmental battle fought in America.

Their son, stationed at Bergstrom Air Force Base, told them Austin was a clean city that discouraged heavy industry and seemed to move quickly to clean up potential sources of pollution.

"We're not sorry about the move, don't get that impression," Mrs. Whitenight said. "We love Austin already, which makes us want to fight this situation even more."

The Austin problem is a set of dumps on several sites near the intersection of East U.S. 290 and Gilles Road in northeastern Travis County. Below the disposal sites is a decade-old, 10-acre earthen vault that is filled with tens of thousands of 55-gallon drums of toxic chemical wastes.

The citizens groups fighting expansion of the dump have documents showing at least 21,102 fifty-five-gallon drums were buried. They say that the number may be twice that many. Their records show that waste solvents, oil, phosgene, laboratory chemicals and possibly benzene were either stored in drums or poured out of tanker-trucks into the site.

Some leaking of the chemicals has been found. Trace amounts have reached a branch of Walnut Creek, which flows across the site on its way to the Colorado River.

Two companies, Austin Community Disposal Co. and Tiger Waste Systems, have state waste-disposal permits that allow them to expand the dumps. When the permits were issued, state health officials said the sites were appropriate for waste disposal and expansion of the sites wouldn't endanger the chemical dumps.

A group of citizens from 14 North-east Austin neighborhoods have filed suit in state district court to have the permits revoked. The suits are expected to be heard this summer.

The Whitenights live in one of the neighborhoods, along Walnut Creek about three miles from the waste site.

"They had lived in Austin about a month when they read a story about the dump. 'We felt sorry for those people,' Mrs. Whitenight said. 'We knew what was going to happen. We knew all of the double talk they would get, all the do-nothing people they would run into.'"

Not familiar with "Austin, they didn't realize that some of their neighbors were among those fighting expansion of the dump.

"When we found out it was our area, we were just sick," Whitenight said.

"I'll tell you, I just didn't want to get involved. We had been through hell and I didn't want to go through it again," he said. It's been almost two years since I've talked to a reporter, and I hoped I wouldn't have to do it ever again."

Somewhat reluctantly, they decided they had to help their neighbors. "Really all we can do is tell people

what we went through, warn them that it can happen again and maybe tell them a few shortcuts that we didn't discover until we'd wasted a lot of time," Mrs. Whitenight said.

Whitenight, 51, is a printer at the *American-Statesman*. Mrs. Whitenight, also 51, works in a pet shop. Two of their daughters live in New York, while three other children, including the son who urged them to move here, live in Austin.

As they flipped through newspaper files of pictures taken during the Love Canal crisis, they saw several familiar sights. "That's our car outside the Homeowners' Association," Mrs. Whitenight said. "And here, our house was right here." She pointed to a spot just off an aerial photo of the dump site in Niagara Falls, N.Y. Their home was within a tenth of a mile of Love Canal.

The Whitenights moved to Love Canal in 1955. They made the final payment on their home in March 1978. The leaking, toxic chemicals that would force them out of their home were discovered 6 months later.

"People had been complaining about funny black gunk since 1976," Whitenight said. "We didn't have any problems until after a blizzard in 1977. When the snow started melting and we had some rain, our cellar floor cracked and it filled with water, some foamy stuff and then a black brackish something.

"Then we noticed that it was smelling."

Most of what next happened to the Whitenights and their neighbors is a part of the most famous man-made environmental disaster in the United States. Chemical wastes disposed of years earlier by the Houston-based Hooker Chemical Co., began to leak. First, a school built over the dump was closed, and eventually hundreds of homes, including the Whitenights', were condemned.

They were among the most active in fighting to have something done about the situation. Whitenight was a regular picket at the city hall and in front of the disposal site. Mrs. Whitenight typed letters and raised money for the homeowners group.

Most of their memories are about the slowly increasing terror that filled their lives as more and more problems were discovered.

"We both have been found to have chromosome damage," Whitenight said. They were the only two members of the same family to be diagnosed with that medical and hereditary problem, he said.

Mrs. Whitenight had breast cancer and a miscarriage. She was one of nine people from the 15 homes on their street to have cancer. There have been three deaths from cancer among those nine.

Once their son Jeff's foot looked so bad they thought gangrene had set in. It turned out to be chemicals that had leaked into a ditch where he and his friends played.

"As soon as we moved away from Love Canal, all of the physical problems stopped," Mrs. Whitenight said.

Although the federal government bought their home, they said they had to take \$10,000 to \$15,000 less than the market value. They are ready to buy a home in Austin now, but it won't be close to a dump site, Mrs. Whitenight said.

"I love Austin," Whitenight said. "It's a beautiful city and I don't want to see anything mess it up."

"It could be a Love Canal all over," Mrs. Whitenight said. "That's why we're involved. In a few years we're going to need the vacant property that's between us and that dump. What are they going to do? Build a park there? Build a school over the dump site?"

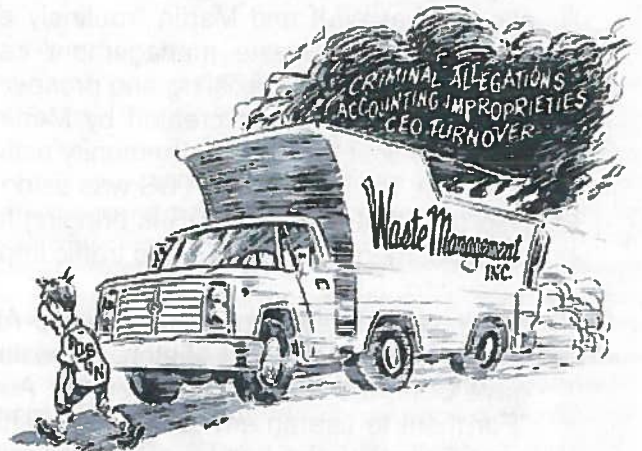
Wasting Away

Could a Trash Giant's Stumbles Hurt Austin?

By Robert Bryce, Fri., March 13, 1998

Waste Management Incorporated is in the midst of what can only be called a stinking mess.

Normally, Austinites would have no reason to care about the ongoing turmoil within the world's largest waste disposal company. But as the City of Austin prepares to enter into a 30-year contract with WMI for recycling and disposal services, the trash giant's problems could become the city's problems.



Later this month, the city's Solid Waste Advisory Commission is expected to get the first look at a 30-year recycling contract between the city and WMI, a deal that could be worth an estimated \$50 million. In addition, the city is negotiating a 30-year waste disposal contract, part of which will be awarded to WMI, that may be worth \$100 million.

Those contracts would be welcome at WMI, which has had plenty of bad news lately. Four chief executive officers have come and gone at WMI over the past year, and the company is desperately trying to find another one. Last month, the company reported a \$1.4 billion loss in the fourth quarter of 1997. It also announced that it would restate its earnings retroactive to 1992 - a move which reduces the company's earnings for that period by \$3.5 billion in pre-tax dollars. Several shareholders have filed class action lawsuits against the company, alleging that it improperly inflated its earnings through questionable accounting practices. Meanwhile, the San Bernadino County Sheriff's Dept. is continuing a year-long criminal investigation into WMI's efforts to permit a landfill in the southern California desert.

Closer to home, WMI is beginning a cleanup project at its Giles Road landfill off of Highway 290 East, in order to deal with 21,000 barrels of industrial hazardous waste - including toluene, acetone, sulfuric acid, and possibly the nerve agent phosgene. The barrels were dumped at the site in the early 1970s, before WMI bought the landfill in 1981. But as the current owner, WMI will have to deal with the problem, and it is planning to dig up the hazardous waste and dispose of it at a cost of some \$10 million. "We have the option of just disposing additional waste over the top" of the industrial waste, says WMI's Loren Alexander. "We are remediating it even though we aren't required to, because it's the best thing to do environmentally." As for the company's financial problems, Alexander says, WMI is "a strong company financially. We have the best assets in the industry, and the greatest number of customers, and strong, reliable cash flow. We are excited about the future" of WMI.

That's what Alexander said on Monday. On Wednesday, The Wall Street Journal reported that WMI was planning to merge with USA Waste in a \$13 billion deal.

The problems at WMI certainly don't hurt Bob Gregory's feelings. The president and principle owner of Texas Disposal Systems (TDS), the largest private trash hauler and landfill operation in the region, Gregory has been warring with WMI for years. Last October, TDS filed a business disparagement lawsuit against WMI and their local PR representative, Don Martin. The suit alleges that WMI and Martin "routinely and secretly attempted to disparage the reputation of Plaintiff and its waste management capabilities in an effort to eliminate competition and undermine Plaintiff's existing and prospective business relationships." Much of the suit revolves around a fax message created by Martin that was later sent out by environmentalist George Cofer to about five dozen community activists, journalists, and government officials in the Austin area. The fax implied that TDS was using inferior liner materials in its landfill near Creedmoor. It also said that because TDS is bringing trash from San Antonio to its landfill, Austinites should be concerned about the air and traffic impacts of TDS' operations.

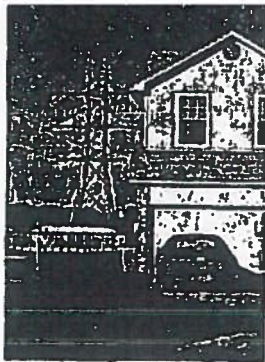
Martin, who heads Don Martin Public Affairs, is being represented in the lawsuit by Austin's lawyer to the stars, Roy Minton. Depositions in the case have not yet begun. Martin claims he gave Cofer the fax out of concern for Austin's environment, a statement that enrages Gregory. "For them to use an environmental position and say ours is bad and theirs is good, is bogus," says Gregory, who has launched his own investigation into WMI. Gregory calls the hazardous waste problems at the WMI landfill a "time bomb. And yet, they are throwing rocks at us."

Controversy certainly seems to follow WMI. In 1992, after a lengthy investigation, San Diego District Attorney Edwin L. Miller, Jr., released a report excoriating WMI's business practices. "The history of the company presents a combination of environmental and anti-trust violations and public corruption cases which must be viewed with considerable concern," says the report. "The company's history requires extreme caution by the San Diego County Board of Supervisors or any other governmental entity contemplating any contractual or business relationship with Waste Management."

Investigators in San Bernardino County, a few miles north of San Diego, are investigating WMI's efforts to permit a massive landfill near the desert town of Amboy. One WMI employee, Franklin Odell, was arrested on March 7 of last year under suspicion of conspiracy, wire-tapping, and unauthorized copying of computer data. A WMI consultant, Joseph Lauricella, was arrested on identical charges. Both men were allegedly involved in efforts to tap the phones of the Cadiz Land Company, which had been leading the fight against WMI's proposed landfill. The men were released on bail shortly after their arrests and have not been indicted. The case against them has stalled because attorneys from the San Bernardino County District Attorney's office cannot yet access 100 boxes of WMI files that were seized by county investigators after the arrest of Odell and Lauricella.

Despite the turmoil within WMI and the problems at the Giles Road landfill, Joe Word, assistant director for administration at the city's Solid Waste Services office, says the city has no reason not to trust WMI. "All I can look at," says Word, "is, are they qualified to do the work? What's their history locally? Is there any reason to disqualify them? The answer to all of them is no." Word believes the Solid Waste Advisory Commission should be able to view the recycling contract with WMI sometime in the next two or three weeks. But members of the advisory commission continue to be less than pleased with the city staff's approach to the contract talks.

J.D. Porter, a longtime proponent of recycling in Austin and the current owner of Computer Reuse and Recycling and the chair of the commission, advises Austin officials to proceed with caution when it comes to making a deal with WMI. "Citizens should be concerned about anything involving a 30-year contract," said Porter.



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PAGE TWO

by Louis Black

The movies are over, the bands have left the stage, the computers have been moved out of the Convention Center. SXSW '98 is over. The vans are driving home. Everything has changed. The horse is back to being a pumpkin.

Nothing has changed. Movies are showing, bands are plugging in, computers humming, the conversation level going. SXSW is just Austin, maybe Austin times 10, but still Austin. It works so well because it is so organic. It couldn't have happened anywhere else. It is here.

It starts slowly, then falls into motion, then is over. We are in the car; we are needed here. On the way we are asked a question on the walkie-talkie. We answer the question. We find Roland, ask our own question. Go where we are needed, do what we are needed to do. Everywhere there are people. Most of them seem happy. Everywhere there is music. Sometimes it is morning; sometimes it is night. Sometimes we are in our hotel rooms, or at the Convention Center but mostly I remember being in cars, in motion,

talking, arriving, working, getting back in cars. There were old friends, new friends, co-workers, familiar faces, lots of people, everywhere we went and we went everywhere.

So another one came and went. It was wild; it was calm. It is hard to critique our own show. Three huge issues of the *Chronicle*, the Austin Music Awards show, the Film Conference, the Film Festival, the Interactive Festival, the Music Conference and Festival... a hell of a few weeks. It is over now but, again, things don't change. Every topic we covered in the last three weeks is one of ongoing concern. As SXSW is Austin, expect the *Chronicle's* coverage to just be more of the same.

There are too many people, places, businesses, institutions, and spiritual inspirations to thank by name; I thank them all.

Working SXSW '98, I

watched new dad Roland Swenson brave the SXSW torrent, all the time wishing he was at home with wife Roseana Auten and their new daughter Christiane Helene Swenson. ("The Future of SXSW" read the infant's badge.) It occurred to me that her birthday will be February 27. From now on, she will always think that SXSW is a giant birthday party that her daddy throws just for her. In many ways, I suspect she will be right. ■

ENDORSEMENTS

by the editorial board

The March 10 primaries

whittled several multiple-contender races down to two candidates who meet up again in an April 14 run-off to decide who heads for the big showdown in November. Early voting runs April 4-10. We stand behind the same candidates we endorsed in the primaries, but for the record, there are several GOP races which Republican voters should consider carefully: Barry Williamson and John Cornyn in the Attorney General's race; Hank Gonzalez and Dwayne Naumann for Travis County Judge, Todd Baxter and Rick Schafer for County Commissioner Pct. 3; Mary Hughes-Bass and Lee Bergeron for Justice of the Peace Pct. 3; and Fred Ebner and Roger Settler for State Rep.

District 51. Other voting info can be obtained at the County Elections Division, 473-9553, or at the county's website, <http://www.co.travis.tx.us>.

Democrats:

County Commissioner Pct. 1:

Ron Davis

Davis and run-off opponent Stacy Dukes-Rhone both have strong community and family ties to the East Austin area. But Davis is unmatched in his longtime commitment to his community through years of volunteer work to bring equity and an overall improvement of living standards to the people of East Austin. As a leader of the East Austin Strategy Team (EAST), Davis successfully fought alongside other neighborhood activists in 1992 to shut down the gasoline tank farms in East Austin. He worked to establish a new Austin Community College campus in East Austin that

continued on p.4

POSTMARKS

Do the Right Thing

Editor:

Your recent article by Robert Bryce about the old Industrial Waste site at Austin Community Landfill ("Enviros," Vol. 17, No. 27) seemed to miss the main point about our plan to clean the site. Even though it is expensive, we feel that voluntary cleanup of the site is the right thing to do. Quite frankly, we would ask the *Chronicle* to join in supporting those efforts.

Because the Industrial Site is a properly closed and monitored disposal area under TNRCC guidelines, the company is not required to spend the estimated \$10 million necessary to excavate the wastes and re-dispose of them in a more environmentally protective manner. Would most companies in the industry be willing to do what is right environmentally even though it is not required by law? Probably not. However, Waste Management and Austin Community Landfill will do just that.

OOPS! OOPS! OOPS!

An item in last week's "Naked City" ("Pease for Eeyore") incorrectly stated that Councilmember Willie Lewis voted against holding the annual Eeyore's birthday celebration in Pease Park. Lewis voted in favor of the measure. The *Chronicle* regrets the error.

Furthermore, Waste Management and Austin Community Landfill have gone the extra mile in environmental protection. In 1993 we made the decision to synthetically line all new waste disposal cells with High-Density Polyethylene (HDPE) in addition to recompacted clay. Austin Community Landfill sits on top of the Taylor Clay formation, a layer of very impermeable clay several hundred feet deep. This clay helps prevent the waste and leachate (water that has contacted waste materials) from migrating and possibly contaminating groundwater.

We challenge other companies in our industry to make the decision to provide extra protection to our environment, not because they have to, but because it is the right thing to do.

Sincerely,
Loren Alexander
Waste Management

Samsung Paying Its Way

Dear Mr. Editor:

While the "Out of Reach" article on your March 20th newspaper makes several valid points about the cost of living in Austin, it errors with regard to the agreement that brought Samsung to town.

The Samsung proposal contained far less tax abatements than were previously granted to other companies in Austin and less than were offered by other communities in the U.S. Additionally, to qualify for the full amount of the tax abatements granted, Samsung was required to meet certain hiring goals of disadvantaged persons far greater than required of other companies.

continued on p.4

LETTERS TO THE EDITOR must be signed with full name and include daytime phone number, full address, or e-mail address. • Letters should be no longer than 300 words. We reserve the right to edit submissions over that length. • Letters may not be edited, added to, or changed by sender once we receive them.

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RE: Do the Right Thing

Mr. Loren Alexander's letter to the editor on March 27, 1998, contained several mis- or incomplete statements:

- Although Mr. Alexander of Waste Management, Inc.(WMI) may believe "that voluntary cleanup" of the old Industrial Site at its Austin Community Landfill (ACL) "is the right thing to do," WMI's investigation Work Plan presents a different motive. "In the development of approaches, emphasis will be placed upon those options which maximize direct disposal on site." "Once the industrial waste has been removed, the area may be reclaimed for use as part of the existing municipal solid waste landfill." Apparently, the "right thing" is really engendered by the need for additional landfill space. WMI is seeking the 30-year waste disposal contract with the City of Austin, but ACL does not have sufficient landfill capacity.
- Mr. Alexander states that WMI "is not required to spend the estimated \$10 million necessary to excavate the wastes and re-dispose of them in a more environmentally protective manner." What he doesn't mention is the liability to the City of Austin from having its municipal solid waste buried, and possibly mixed, with industrial and potentially hazardous wastes relocated from the three acid pits and trenches containing an estimated 21,000 fifty-five gallon drums. WMI's municipal solid waste permit precludes placement of municipal solid waste on top of the old Industrial Site.
- Mr. Alexander asked the *Chronicle* to support WMI's efforts to cleanup the Industrial Site. While this seems laudable, what Mr. Alexander fails to say is that WMI proposed to sample the buried drums using invasive techniques that could puncture and release their contents. A listing of wastes disposed in the drums includes several that are incompatible, which, if released and mixed together, could result in explosion, fire, excessive heat, intense reaction, and the release of toxic vapors.
- Mr. Alexander states that " the Industrial Site is a properly closed and monitored disposal area under TNRCC guidelines." Closure took place around 1972 before there were regulations or guidelines governing how it was to be done. The only closure activity performed by WMI was to pile dirt on top of the Industrial Site. At one time, WMI did monitor the Industrial Site with monitoring wells. Sampling these wells was required by the Industrial and Hazardous Waste Division of the predecessor agency to the TNRCC. With TNRCC's permission, WMI discontinued monitoring these wells, even though potential ground water contamination was indicated.
- Mr. Alexander states that "in 1993 we made the decision to synthetically line all new waste disposal cells with High-Density Polyethylene (HDPE) in addition to recompacted clay." WMI has installed only about 3 acres of such a liner system at the ACL. This 3 acres represents a small fraction of the more than 100 acres of waste at the landfill. Waste received before and after this liner was installed was placed, and will continue to be placed, over liners that do not meet current requirements. Since the 3 acres of liner described by Mr. Alexander were installed in 1994, the approximately 13 acres of newer liner systems at ACL have been a different type.

- It also should be noted that elsewhere in the state, WMI has been attempting to expand capacity by vertical height increases, even over liner systems that do not meet current standards. Any implication by WMI that its corporate commitment is to dispose of all new waste on synthetic membranes over recompacted clay is fallacious.

Mr. Alexander ends his letter with a challenge to other companies to do the right thing. It is Mr. Alexander who should do the right thing and tell the truth.

Robert S. Kier, Ph.D., CPG

To: Zero Waste Advisory Commission (ZWAC)

From: Gary Newton, General Counsel
Texas Disposal Systems, Inc.

Date: November 8, 2017

One of the recommendations of the Waste Management Policy Working Group issued on July 21, 2017 was item number 2. This recommendation says to direct materials away from certain landfills based on some criteria to be developed. Perhaps the Waste Management Policy Working Group was unaware the City of Austin had commissioned an expert to conduct an environmental study of Austin area landfills in 1999. After the study was released the City Council declined to approve a contract with the Waste Management Austin Community Landfill (ACL) due to the expert's statement "the ACL poses a substantial environmental risk and potential future liability to the owners and users of the site." This position was based on environmental conditions that existed prior to 1999 and still exist today.

The Draft Landfill Criteria attached as back-up material to Agenda item 3.C. does not include a review of the environmental issues of concern to the City's independent expert had then and that are still present today. Some of these environmental concerns include:

- A pre-RCRA industrial/hazardous waste unit with about 21,000 drums or approximately 80,000 tons of waste disposed in unlined pits and trenches.
- The boundaries of this industrial/hazardous waste unit are not accurately known.
- The groundwater monitoring plan for this industrial/hazardous waste unit is not sufficient to ensure detection of migration of contaminants.
- There is a lack of groundwater and landfill gas monitoring wells in a large area between the industrial/hazardous waste unit and the closed Travis County landfill where off-site migration of contaminants could occur without detection.

ZWAC also may be interested in what City of Austin experts and attorneys had to say about the ACL because they expressed a very definitive position against the ACL over many years. The comments below are excerpts from the 1999 Carter & Burgess Report and from filings made by the City of Austin as a protestant in the contested case seeking denial of an ACL expansion. The passage of time may have dimmed memories of these statements and people handling the matter on behalf of the City of Austin may have moved on to other endeavors. Despite the passage of time, the City of Austin statements remain valid today because nothing has changed with the conditions of concern existing back then at the landfill that were the basis of these criticisms.

February 16, 1999 Carter & Burgess ACL Environmental Assessment

Recommendations – It is Carter & Burgess team's opinion that the former IWMM site at the ACL poses a substantial environmental risk and potential future liability to the owners and users of the site.

May 17, 2007 Austin City Council Resolution

Austin City Council opposes the WMI ACL expansion and directs the City Manager to seek closure of the ACL by November 1, 2015.

May 8, 2009 City of Austin's Closing Arguments

P. 1 - The City of Austin is opposed to the issuance of a permit amendment to extend the size and life of the WMI landfill facility located in northeast Travis County.

P. 2 - The Applicant has failed to meet its burden to prove that its application complies with all requirements. Specifically, the Applicant has not demonstrated that the proposed permit is protective of human health, welfare and the environment; has not shown that the proposed permit is compatible with surrounding land uses; and has not shown that the proposed permit is in conformance with the Regional Solid Waste Management Plan.

P. 4 - The application does not include adequate protection of groundwater and surface water in relation to the effects of the IWU and Phase I areas. WMI did not adequately assess the boundaries of the phase one area or the IWU area. In addition, WMI failed to properly assess the site history, including leaks, or the municipal and industrial waste materials disposed in the units and the chemical fate and transport of associated contaminants.

P. 4 - Applicant did not properly assess this area and consequently critical characteristics were not taken into account in the groundwater monitoring system and point of compliance design.

P. 5 - The groundwater monitoring and point of compliance plans are insufficient to assess the effects of the IWU and Phase I on the groundwater.

P. 9 - The evidence therefore indicates that the design of WMI's proposed groundwater monitoring system all but ignores the IWU and Phase I areas.

P. 9 - There is baffling testimony on the part of ED witness Avakian that perhaps the IWU or Phase I areas do not need to be within the point of compliance because they were pre-Subtitle D areas.

P. 11 - In fact as Executive Director Expert Avakian testified, the IWU is not being monitored directly. Mr. Avakian explained that monitoring of the IWU was incidental to the monitoring program and not its objective, and he did not consider the contents of the IWU in his evaluation of the proposed groundwater monitoring system.

P. 13 - The evidence establishes that the IWU unit contains solvents, acids and saline water all of which may desiccate clays. Although WMI states that it is in light of these characteristics that they have monitoring wells around the IWU, in fact this is not the case. The groundwater monitoring plan proposed by the Applicant has only one well which will conceivably detect any of the potential contaminants in groundwater from the IWU. The plan does not have constituent testing for many of the materials in the IWU.

May 29, 2009 City of Austin's Reply to Closing Arguments

P. 1 - The Applicant postulates that if the permit application meets the regulatory requirements then it is automatically deemed to "safeguard the health, welfare, and physical property of the people and the environment." This argument however, is fatally flawed in that the entity charged with reviewing the permit application to determine if it meets the regulatory requirements, the ED, (A) does not consider at all whether or not the application will safeguard the health, welfare, and physical property of the people and the environment when performing its review; and (B) does not make any determination with regards to key issues such as land use compatibility or conformance with the regional solid waste management

plan, that are determinative as to whether or not a permit application safeguards the health, welfare, and physical property of the people and the environment.

P. 2 - The Applicant argues that its application is protective of groundwater and surface water because the IWU and the ACRD Facility are not unique. This is not true. There was no testimony or evidence indicating the presence of another facility in Texas or the U.S. with an operating MSW facility with the presence of a large industrial or hazardous waste facility located in the middle of it. The site characteristics clearly presents unique hazards and challenges that require that this be clearly addressed in the facilities permit to protect the environment and public health and safety as per the regulatory requirement to consider site history and site specific conditions in designing the monitoring system.

P. 2 & P. 3 - Much of the City's testimony regarding the IWU was focused on concerns regarding the possibility of migration and discharge of leachate from the IWU. This is directly a concern about the IWU leachate management system, and yet neither the IWU nor the Phase I areas has a liner or leachate collection system.

P. 3 - The Executive Director states that all parties agree that the property line must be monitored as the regulations require from the entirety of the facility. The exclusion of part of the facility from monitoring and point of compliance systems is not consistent with this requirement.

P. 4 - The Applicant claims that the proposed monitoring system and wells are sufficient because there are more wells than the prior system, and that the voluntary agreement with the City enhances their claim. This doesn't make sense.

P. 5 - The Executive Director implies that because WMI has provided copies of reports of contaminants detected under the voluntary agreement it has with the City to the TCEQ, that somehow this supports the monitoring system efficacy. This is illogical. The Executive Director acknowledges the report of dioxane detection and yet would not agree that this documented, site specific condition, warrants additional monitoring requirements. In fact, releases of dioxane are documented in the voluntary monitoring reports, as well as repeatedly detected from PZ-26, but were deleted from the reports provided to the TCEQ and the City.

P. 16 - The very purpose of this evidentiary contested case hearing is to determine whether or not the permit application provides sufficient information that the proposed expansion will not "cause, suffer, allow, or permit the collection, storage, transportation, processing, or disposal of municipal solid waste . . . in such a manner that causes . . . the creation or maintenance of a nuisance, or the endangerment of the human health and welfare or the environment." The Applicant cannot overcome its burden of proof by only providing self-serving conclusionary testimony.

P. 16 - In this case, the ED has gone out of its way to support the Applicant's burden of proof via it's prefiled testimony, questions during the hearing, and finally in its closing argument, and it's argument must be viewed in light of its skewed participation in favor of the Applicant.

August 20, 2009 City of Austin's Exceptions to the Proposal for Decision

P. 1 - The City of Austin disagrees with Administrative Law Judge ("ALJ") Roy Scudday's proposal for decision ("PFD"), in which he recommends that Permit No. MSW-249D be issued. The Applicant failed to

demonstrate that Permit No. MSW-249D meets or exceeds all applicable statutory and regulatory requirements.

P. 2 - If ever there was a case where an MSW landfill permit amendment to extend the life of the facility should be denied, this is that case. In 2004 WMI was assessed the largest fine ever levied by the TCEQ on a MSW operator in the State of Texas. One of the many reasons this application should be denied, is that the operation of this facility has and will continue to impact the surrounding neighborhoods, as evidenced by the repeated and voluminous complaints regarding odors, traffic, litter, dust, erosion and sedimentation of streams. By virtue of its record of operation, the Applicant has failed to demonstrate that the facility will not adversely impact human health or the environment, as required by 330.61 (h).

P. 2 & P. 3 - The ALJ properly considered the evidence presented concerning the voluntary groundwater monitoring agreement between the City and WMI and the placement of the wells to monitor for potential discharges from the Industrial Waste Unit ("IWU"). Accordingly he recommends inclusion of the wells in the permit. The ALJ failed to properly consider the fact that the wells in the voluntary agreement are sampled for a specific list of constituents, which were chosen by WMI as representative of potential contaminants in the groundwater that could originate from the IWU. In light of this uncontroverted evidence, and the fact that the sampling is already being done by WMI, it is unreasonable to not include the same parameters in the permit monitoring regime.

P. 5 - Finding of Fact No. 215: "Operation of the expanded landfill as requested in the Application will not result in contamination of groundwater and surface water." These Findings are not supported by the evidence. In fact, the record demonstrates that the opposite is true.

P. 12 - The record is replete with evidence that the WMI facility is currently adversely impacting human health and the environment; and since WMI is not proposing to do anything different under its proposed permit for expansion, the facility will continue to adversely impacting human health and the environment.

August 31, 2009 City of Austin's Response to Exceptions

P. 3 - The ED argues in its exceptions that the point of compliance ("POC") should not be adjusted to include the four wells that are already in existence and being monitored pursuant to a voluntary agreement between the City and WMI. What is most troubling is the ED's rationale for its exceptions to adding these four wells to the point of compliance. The ED states that the Industrial Waste Unit ("IWU") should not be monitored because there were no regulations in place back when it was accepting hazardous wastes; and therefore it does not have to be monitored for releases at all. The IWU is a part of the facility. The groundwater monitoring system proposed is a multi-unit system under §330.403(b). As such, all of the MSW management units must be a part of the groundwater monitoring system. Moreover, the TCEQ can and should require monitoring of the IWU to protect human health, welfare, and the environment.

P. 4 - Finally, the ED incorrectly claims that the TCEQ rules do not apply to the IWU because it is not a "waste management unit". Although it stopped taking materials in the 1970's the IWU is still in place and is part of the facility.

P. 5 - WMI asserts that there is no basis to tie the four voluntary wells into WMI's POC. They base this assertion on the same argument as the ED; that the IWU was closed in 1973, and therefore WMI does not have to monitor the IWU at all. There is no evidence in the record that the IWU has ever been "closed".

Additionally, given the fact that we know the IWU accepted a plethora of chemicals and industrial waste materials, many of which are considered hazardous materials under the existing regulations, the TCEQ can and should require monitoring of the IWU to protect human health, welfare, and the environment.

P. 5 - The evidence demonstrated that those three monitoring wells are not even sampled for 1, 4 dioxane, which appears to be the primary contaminant leaking from the IWU. It does little good to rely on a monitoring well to inform you of a release of hazardous waste, and then not test that well for the types of contaminants that are leaking.

November 10, 2009 City of Austin's Motion for Rehearing

P. 1 – II. ERRORS IN THE INTERIM ORDER

P. 2 - "Delete the addition of the four wells specified by the private agreement between the City of Austin and WMTX to the permit's groundwater monitoring system and reconfiguration of the Point of Compliance to include those wells in proposed Finding of Fact Nos. 125 and 127, Conclusions of Law Nos. 28, 48, and 50, and Ordering Provision No. 1."

P. 3 - Although it stopped taking materials in the 1970's the Industrial Waste unit ("IWU") is still in place and is part of the facility. Additionally, there is no evidence in the record that the IWU has ever been "closed". Therefore, under a multi-unit groundwater monitoring system, under §330.403(b), all of the MSW management units must be a part of the groundwater monitoring system. Moreover, given the fact that we know the IWU accepted a plethora of chemicals and industrial waste materials, many of which are considered hazardous materials under the existing regulations, the TCEQ can and should require monitoring of the IWU to protect human health, welfare, and the environment.

June 4, 2010 City of Austin Original Petition to Travis County District Court

P. 6 – VII. COMMISSION ERRORS

P. 6 & P. 7 – (2.) The Commission erred in instructing the ALJ to make substantive revisions to those portions of his Revised Proposed Order relating to the addition of four groundwater monitoring wells to the Point of Compliance groundwater monitoring system. The Commission's instructions to the ALJ to revise his Revised Proposed Order are contrary to Commission precedent, TCEQ rules, and the laws of the State of Texas.

P. 9 - VIII. ISSUES

p. 12 - E. The failure of Applicant, WMI, to demonstrate that the expansion of the ACL facility will be protective of groundwater and surface water. The Commission's failure to acknowledge and address the significant issues with current and future threats to groundwater and surface water quality are contrary to Commission precedent and rules.

The Commission's acceptance of the Revised Proposed Order ignores the overwhelming evidence of ongoing and potential groundwater and surface water contamination at the ACL facility. The preponderance of evidence showed: (1) that there was a history of disposal of hazardous and industrial wastes at the ACL facility; (2) that there is a continuum of waste from the IWU to the permit boundary; (3) that the continuum of waste creates a preferential pathway for contaminants to leave the ACL facility;

(4) that there is evidence of groundwater contamination both at the ACL facility and on adjacent property; (5) that there is evidence of surface water contamination; and (6) that the geological characterization in the application for permit amendment is deficient. The Commission's failure to deny the application is contrary to the evidentiary record and is legal error.

P. 12 - F. The failure of Applicant, WMI to develop an adequate groundwater monitoring system that is in compliance with TCEQ rules, particularly with regard to the location of the groundwater monitoring wells, which are not located as to detect groundwater contamination from all portions of the ACL facility. The Commission's approval of the deficient groundwater monitoring system is contrary to Commission precedent, rules, and regulatory guidance on this issue.

P. 13 - The Commission, in directing the ALJ to revise substantive findings of fact and conclusions of law regarding the placement of groundwater monitoring wells, is contrary to Commission precedent, TCEQ rules, and the laws of the State of Texas. The commission further erred by accepting the Revised Proposed Findings of Fact and Conclusions of Law regarding the placement of the groundwater monitoring wells, because the Applicant failed to prove by a preponderance of the evidence that it would protect the groundwater at the ACL facility as required by the TCEQ's MSW rules because the application for permit amendment fails to meet the standards set out in 30 TAC § 330.403(a)(2), regarding monitoring at the point of compliance. The evidence demonstrated that the point of compliance groundwater monitoring system proposed in the application and approved by the Commission will not detect groundwater contamination in the uppermost aquifer at the ACL facility.

P. 14 - X. CONCLUSION

In conclusion, Plaintiff contends the TCEQ Interim Order addressed is fatally flawed and in error for the reasons set forth herein.

WHEREFORE, PREMISES CONSIDERED, Plaintiff requests that the Commission be cited and required to answer and appear herein, that a hearing be held, and that on final hearing hereof, Plaintiff City of Austin have judgment of the Court as follows:

1. Reversing and vacating the decision of the Commission and remanding the matter back to the Commission for further proceedings; and,
2. Awarding Plaintiff costs incurred, together with all other relief to which Plaintiff may be entitled.

CITY OF AUSTIN

SOLID WASTE ADVISORY COMMISSION

Waste Management, Inc. (WMI) Contract Extension Resolution

January 13, 2010

Whereas, it is the responsibility of local government to promote the greater good by ensuring that the benefits generated by the issuance of public contracts include;

- enhancement of local policies,
- strengthening of the local economy, and
- support for other vital interests of the citizens of that governmental entity, and

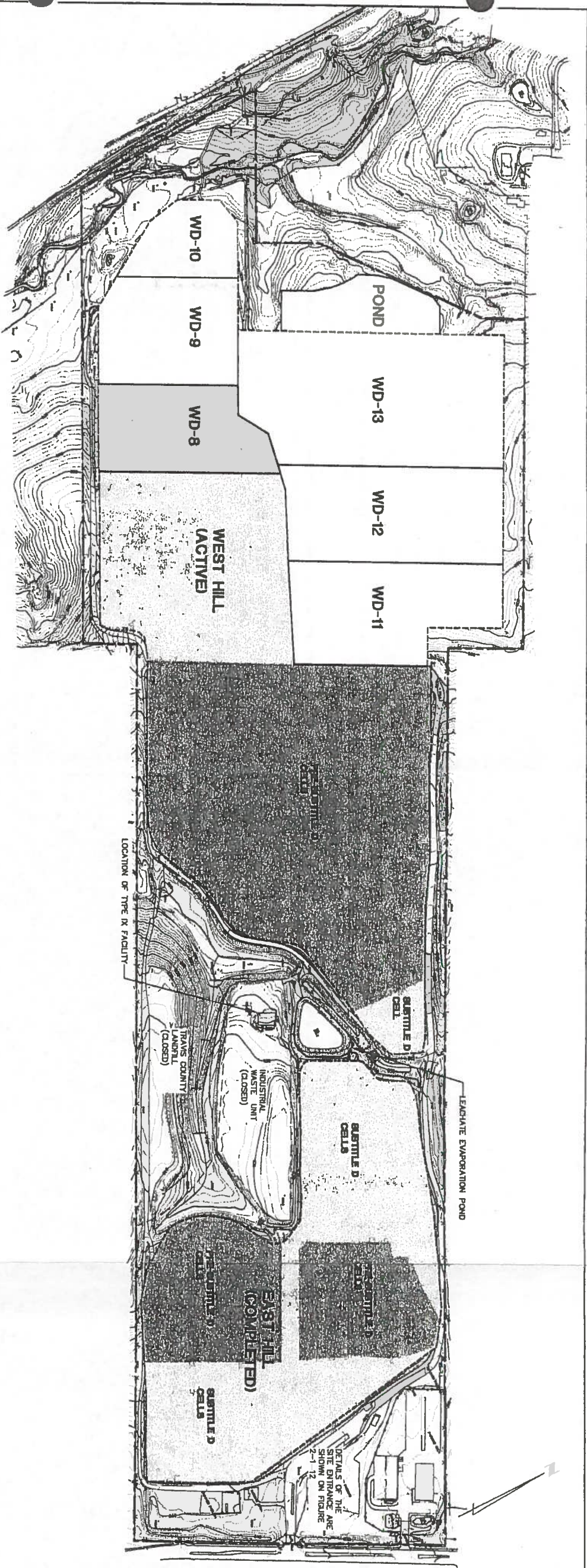
Whereas, the receipt of public contracts has been considered over time to be a right to be earned, not an obligation of the public sector to provide to the private sector, and

Whereas, rewarding entities considered "bad actors" runs contrary to the above concepts,

Be it hereby resolved, that due to WMI's;

- inability and/or refusal to comply with state regulations regarding operation of Type 1 landfills in the State of Texas resulting in the largest fine ever levied by the Texas Commission on Environmental Quality, and
- inability and/or refusal to operate their landfill in a safe and healthy manner in accord with the wishes of the citizens of Austin and Travis County as repeatedly expressed publically and through their elected officials which led to the City of Austin, Travis County, and the Capital Area Council of Governments opposing the expansion of the WMI landfill which came before the TCEQ on Oct. 7, 2009, and
- pursuance of their own interests at the expense of the public good and in opposition to public policy, thus defining themselves as an undesirable private entity,

the Solid Waste Advisory Commission recommends that the Austin City Council enter into no further contracts, contract extensions, or any other forms of contractual obligation with WMI.

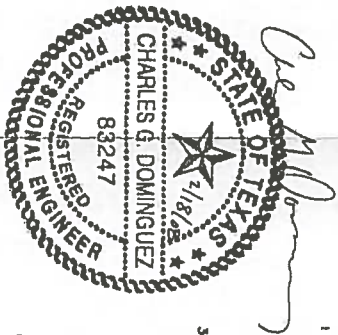


LEGEND

- PERMIT BOUNDARY
- UNIT BOUNDARY (RACM DISPOSAL AREAS)
- CLOSED UNIT BOUNDARY
- X — X — X — X FENCE
- PRE-SUBTITLE D CELLS
- SUBTITLE D CELLS

NOTES

- EXISTING TOPOGRAPHY COMPILED BY PHOTOSTEREOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED FEBRUARY 26, 2006.
- THE LIMITS OF THE INDUSTRIAL WASTE UNIT AND TRAVIS COUNTY LANDFILL ARE SHOWN AS APPROXIMATE.



Technically Complete
121

INTENDED FOR PERMITTING PURPOSES ONLY

WM
WASTE MANAGEMENT

Golden Associates
500 Conlay Plaza Drive, Suite 190
Houston, Texas 77073
Tel: (281) 821-8888
Fax: (281) 821-8870

NO.	DATE	DESCRIPTION	BY	CHKD BY
5	02/08	2008 REVISIONS	CEI	COO
4	03/07	RESPONSE TO TECHNICAL NOD DATED APRIL 3, 2007	CEI	COO
3	10/06	CHANGED 3RD GLE REVISION	CEI	LAL
2	03/06	RESPONSE TO SECOND TECHNICAL NOD	CEI	LAL
1	11/05	RESPONSE TO FIRST TECHNICAL NOD	CEI	COO

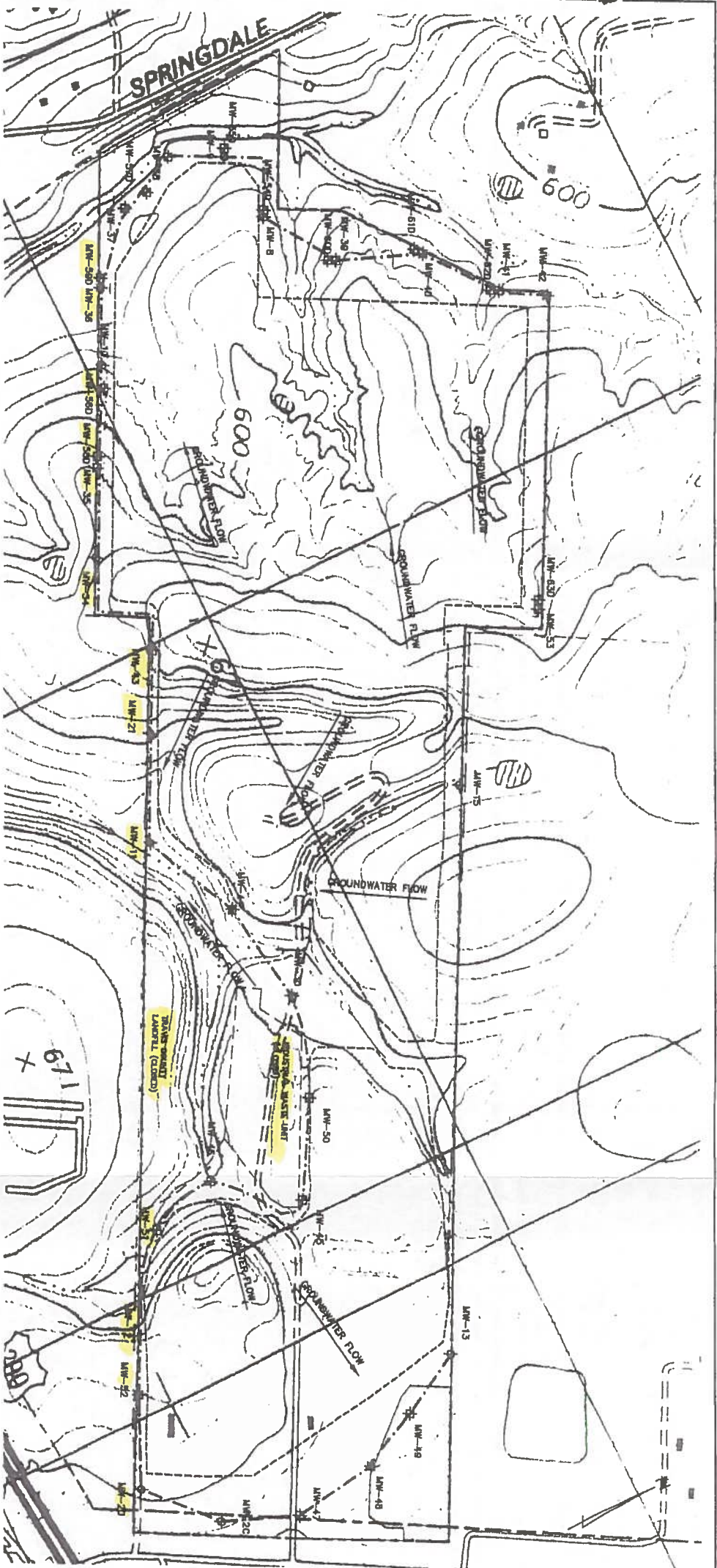
MUNICIPAL SOLID WASTE EXPANSION APPLICATION
PERMIT MSW-2490
AUSTIN COMMUNITY RECYCLING AND DISPOSAL FACILITY
TRAVIS COUNTY, TEXAS

SITE LAYOUT PLAN

2-1-1

P:\033-4651\att5.dwg, 4/9/2008 4:59:50 PM, L11
April 2008 Revision\ATT5\033-4651-ATT5-5 REV3.dwg, 4/9/2008 4:59:50 PM, L11

MAP SOURCE: UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY, MAJOR QUADRANGLE AND AUSTIN EAST QUADRANGLE, TEXAS--TRAVIS CO., 7.5 MINUTE SERIES, 1984.



LEGEND

- PERMIT BOUNDARY
- WASTE MANAGEMENT AREA
- POINT OF COMPLIANCE
- CLOSED UNIT BOUNDARY
- EXISTING MONITORING WELL
- PROPOSED MONITORING WELL

Technically Complete

3023



INTENDED FOR PERMITTING PURPOSES ONLY

ATT5-5

MUNICIPAL SOLID WASTE EXPANSION APPLICATION
PERMIT MSW-8480
AUSTIN COMMUNITY RECYCLING AND DISPOSAL FACILITY
TRAVIS COUNTY, TEXAS

PROPOSED GROUNDWATER MONITORING
SYSTEM PLAN



6	04/08	APRIL 2008 REVISION	000	000
4	05/07	2007 REVISION	000	000
3	06/07	RESPONSE TO TECHNICAL HCD DATED JULY 9, 2007	000	000
2	07/07	CONFER 2007 HAZ RISKHSH UPDATE	000	000

Texas Disposal Systems





For Immediate Release

July 15, 2008 - Texas Disposal Systems, Creedmoor, Texas
Contact: Bob Gregory (CEO), 512-421-1300, Kurt Johnson (Press), 512-905-5786

Texas Disposal Systems receives nation's most prestigious landfill management Excellence Award

Austin-area solid-waste services company, Texas Disposal Systems (TDS) has been named as the recipient of the top Landfill Management Award for 2008 by the Solid Waste Association of North America (SWANA).

The announcement was made by SWANA on July 10 and is available on its website, www.SWANA.org.

John Skinner, Executive Director and CEO of SWANA, described award recipients as "a credit to their communities and an inspiration to others in the solid waste profession."

TDS was named as the *Gold* recipient in the Landfill Management Award category. The Awards program "was created to recognize outstanding facilities, operations and programs," according to the SWANA announcement.



According to SWANA, its Excellence Awards Program "recognizes outstanding solid waste programs and facilities that advance the practice of environmentally and economically sound waste management through their commitment to utilizing effective technologies and processes in system design and operations, advancing worker and community health and safety, and implementing successful public education and outreach programs. Programs also must demonstrate that they are fiscally and environmentally responsible through their compliance with all applicable federal, state and local regulations."

Bob Gregory, CEO of TDS, said 2008 marks the first year his company has submitted an application for the award. "We're very pleased with the recognition," Gregory said. "We have worked diligently over the past 20 years to design, permit and operate a showcase landfill, recycling and composting facility, and we're very proud of the success of our unique business model. TDS has demonstrated that a large solid-waste composting, recycling and disposal facility can be a good neighbor and a major asset to the community."

Gregory said the application contained a full profile of the TDS facility, including the exotic game ranch with more than 1,200 animals and a meeting facilities complex, including a 500-seat pavilion, which is made available free of charge to qualifying, non-profit organizations. "We're pleased to be able to give back to the Central Texas community by offering these facilities," Gregory said. Since 2002, TDS has hosted more than 1,100 fundraising and recognition events which have helped raise more than \$12 million for the non-profit organizations.

In addition to running an environmentally-superior landfill with successful odor control and sight screening, the TDS facility also has recycling and composting operations which are the standard-bearer for the industry. A TDS-owned company, GardenVile, markets special blends of soils and composted materials. Recycled and re-usable materials are diverted from the solid waste stream and sold to the public or to business entities.

TDS receives solid waste and recyclables from more than 30 Central Texas cities, including Austin, Georgetown and San Marcos.

"TDS has been and intends to continue to be the region's leader in diverting waste from landfill disposal," Gregory said. "This award recognition will help us expand our mission elsewhere, as other cities and counties recognize the benefits of having well-managed landfill facilities."

According to the statement released by SWANA, "The Solid Waste Association of North America has been the leading professional association in the solid waste management field. SWANA's mission is to advance the practice of environmentally and economically sound management of municipal solid waste."

TDS will be honored officially during the SWANA national convention Awards Luncheon at WASTECON 2008 in Tampa, Florida on October 23.

For more information concerning TDS, see www.texasdisposal.com.



SOLID WASTE ASSOCIATION
of North America

TO: Bob Gregory, Texas Disposal Systems
FROM: Shannon Crawford, SWANA
DATE: July 9, 2008
SUBJECT: 2008 Excellence Award Winner

Dear Bob,

CONGRATULATIONS! I am pleased to inform you that Texas Disposal Systems has been selected to receive the **Landfill Management Gold Excellence Award!** All of the staff at Texas Disposal Systems should be very proud of these successful efforts in achieving the highest level of excellence in solid waste management. This is no small accomplishment given the excellent quality of this year's nominations and the challenges faced by many of the programs and operations in the solid waste industry.

To publicly honor you and your organization for the outstanding achievements and contributions made by your program and facility, I would like to cordially invite you to attend SWANA's Awards Luncheon to be held in conjunction with the program activities of WASTECON 2008, October 21st-23rd in Tampa, Florida. This special luncheon is scheduled for Thursday, October 23rd from 12:10 - 1:30 p.m. You can find a copy of the 2008 registration brochure online at www.WASTECON.org that outlines all the activities to be held at this event - please make plans to attend this event and accept your award on site today!

Once again - CONGRATULATIONS! I will be in contact with you again in the next few weeks to discuss the details of your award and the arrangements for the luncheon. In the meantime, if you have any questions please do not hesitate to contact me by phone at (240) 494-2241 or e-mail at scrawford@swana.org.

Sincerely,

Shannon Crawford
Excellence Awards Project Manager



Draft Landfill Criteria – Add % Scoring Criteria

1. CARBON FOOTPRINT history over life of facilities

1.A Landfill gas emissions estimates

1.B Landfill gas beneficial use current and long term plans

2. ENVIRONMENTAL, ZERO WASTE, AND SUSTAINABILITY

2. ENVIRONMENTAL, ZERO WASTE, AND SUSTAINABILITY

2.A Permit compliance, complaints and violation history life to-date

2.B On-site use of alternative fuels

2.C Zero Waste and waste diversion activities

2.D Other environmentally sustainable practices

2.E Existing Levels of Industrial Hazardous Materials waste units

2.F Hazardous waste screening

2.G Removal of known toxic materials

2.H Cooperation with City/County in groundwater and gas migration monitoring

2.I Cooperation with City/County to maintain waste boundary and buffer zone

2.J Presence and history of recycling

2.K Presence and history organics diversion and composting

3. OPERATIONAL CONSIDERATIONS at this location

3.A Experience / Qualifications/Controlling entity characteristics

3.B General contingency plans

3.C Safety procedures/training

3.D Emergency procedures

3.E Financial capability and risk assurance for closure/post-closure costs

3.F Hours and days of operation available to serve City

3.G Efforts to reduce exposure to toxics and other hazards on and off site subsurface migration

3.H On-site fatalities or catastrophes when landfill operator at fault

3.I Ground Water Protection System for Waste Units

3.J Ground Water Monitoring history of contaminant migration

3.K Surface Water Protection

3.L Landfill Gas Migration

3.M Landfill Gas Management System Design

3.N Odor Control

3.O Dust Control

3.P Windblown Debris Control

3.Q Vector Control

3.R Litter and Mud Control on roadway

3.S Remaining Waste Capacity and ability to expand

3.T Waste Diversion Amounts Historically

4. COMMUNITY IMPACT AND SOCIAL EQUITY

4.A Diversity of workforce

4.B Living Wage

4.C Commitment to community relations

4.D Facility landscaping

4.E Reputation in neighboring communities

4.F Presence and history of Citizen dropoff and Resale of items diverted disposal

4.G Public site access, involvement and recreation

4.H Regulatory compliance history over life of facility

4.I Complaint and penalty history-life of site

From: Ryan Hobbs <rhobbs@texasdisposal.com>
Sent: Tuesday, December 12, 2017 10:17 AM
To: Raine, Woody
Cc: Adam Gregory
Subject: Draft landfill criteria
Attachments: 11-8-17 Redlined by TDS Draft Landfill Criteria.pdf; 11-8-17 ZWAC Memo-GN FINAL.PDF; Carter Burgess Assessment 1999-.pdf; 2003 Kier Summary of Conditions at WMI-ACL-.pdf

Good morning Woody,
TDS presented the attached documents at the November ZWAC meeting (Agenda Item 3c - landfill evaluation criteria). I am resubmitting them to you directly in response to ARR's 11/28/17 request for comments on staff's draft landfill criteria.
Thanks,
Ryan

Draft Landfill Criteria – Add % Scoring Criteria

1. CARBON FOOTPRINT ~~history over life of facilities~~

1.A Landfill gas emissions ~~s estimates~~

1.B Landfill gas beneficial use ~~current and long term plans~~

2. ENVIRONMENTAL, ZERO WASTE, AND SUSTAINABILITY

2. ENVIRONMENTAL, ZERO WASTE, AND SUSTAINABILITY

2.A Permit compliance, ~~complaints and violation history life-to-date~~

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3.A Experience / Qualifications/~~Controlling entity characteristics~~

3.B General contingency plans

3.C Safety procedures/training

3.D Emergency procedures

3.E Financial ~~capability and risk~~ assurance for closure/post-closure costs

3.F Hours and days of operation ~~available to serve City~~

3.G Efforts to reduce exposure to toxics and other hazards ~~on and off site subsurface migration~~

3.H On-site fatalities or catastrophes ~~when landfill operator at fault~~

3.I Ground Water Protection System for Waste Units

3.J Ground Water Monitoring history of contaminant migration

3.K Surface Water Protection

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4.H Regulatory compliance history over life of facility

4.I Complaint and penalty history-life of site

To: Zero Waste Advisory Commission (ZWAC)

From: Gary Newton

Date: November 8, 2017

One of the recommendations of the Waste Management Policy Working Group issued on July 21, 2017 was item number 2. This recommendation says to direct materials away from certain landfills based on some criteria to be developed. Perhaps the Waste Management Policy Working Group was unaware the City of Austin had commissioned an expert to conduct an environmental study of Austin area landfills in 1999. After the study was released the City Council declined to approve a contract with the Waste Management Austin Community Landfill (ACL) due to the expert's statement "the ACL poses a substantial environmental risk and potential future liability to the owners and users of the site." This position was based on environmental conditions that existed prior to 1999 and still exist today.

The Draft Landfill Criteria attached as back-up material to Agenda item 3.C. does not include a review of the environmental issues of concern to the City's independent expert had then and that are still present today. Some of these environmental concerns include:

- A pre-RCRA industrial/hazardous waste unit with about 21,000 drums or approximately 80,000 tons of waste disposed in unlined pits and trenches.
- The boundaries of this industrial/hazardous waste unit are not accurately known.
- The groundwater monitoring plan for this industrial/hazardous waste unit is not sufficient to ensure detection of migration of contaminants.
- There is a lack of groundwater and landfill gas monitoring wells in a large area between the industrial/hazardous waste unit and the closed Travis County landfill where off-site migration of contaminants could occur without detection.

ZWAC also may be interested in what City of Austin experts and attorneys had to say about the ACL because they expressed a very definitive position against the ACL over many years. The comments below are excerpts from the 1999 Carter & Burgess Report and from filings made by the City of Austin as a protestant in the contested case seeking denial of an ACL expansion. The passage of time may have dimmed memories of these statements and people handling the matter on behalf of the City of Austin may have moved on to other endeavors. Despite the passage of time, the City of Austin statements remain valid today because nothing has changed with the conditions of concern existing back then at the landfill that were the basis of these criticisms.

[February 16, 1999 Carter & Burgess ACL Environmental Assessment](#)

Recommendations – It is Carter & Burgess team's opinion that the former IWMM site at the ACL poses a substantial environmental risk and potential future liability to the owners and users of the site.

[May 17, 2007 Austin City Council Resolution](#)

Austin City Council opposes the WMI ACL expansion and directs the City Manager to seek closure of the ACL by November 1, 2015.

May 8, 2009 City of Austin's Closing Arguments

P. 1 - The City of Austin is opposed to the issuance of a permit amendment to extend the size and life of the WMI landfill facility located in northeast Travis County.

P. 2 - The Applicant has failed to meet its burden to prove that its application complies with all requirements. Specifically, the Applicant has not demonstrated that the proposed permit is protective of human health, welfare and the environment; has not shown that the proposed permit is compatible with surrounding land uses; and has not shown that the proposed permit is in conformance with the Regional Solid Waste Management Plan.

P. 4 - The application does not include adequate protection of groundwater and surface water in relation to the effects of the IWU and Phase I areas. WMI did not adequately assess the boundaries of the phase one area or the IWU area. In addition, WMI failed to properly assess the site history, including leaks, or the municipal and industrial waste materials disposed in the units and the chemical fate and transport of associated contaminants.

P. 4 - Applicant did not properly assess this area and consequently critical characteristics were not taken into account in the groundwater monitoring system and point of compliance design.

P. 5 - The groundwater monitoring and point of compliance plans are insufficient to assess the effects of the IWU and Phase I on the groundwater.

P. 9 - The evidence therefore indicates that the design of WMI's proposed groundwater monitoring system all but ignores the IWU and Phase I areas.

P. 9 - There is baffling testimony on the part of ED witness Avakian that perhaps the IWU or Phase I areas do not need to be within the point of compliance because they were pre-Subtitle D areas.

P. 11 - In fact as Executive Director Expert Avakian testified, the IWU is not being monitored directly. Mr. Avakian explained that monitoring of the IWU was incidental to the monitoring program and not its objective, and he did not consider the contents of the IWU in his evaluation of the proposed groundwater monitoring system.

P. 13 - The evidence establishes that the IWU unit contains solvents, acids and saline water all of which may desiccate clays. Although WMI states that it is in light of these characteristics that they have monitoring wells around the IWU, in fact this is not the case. The groundwater monitoring plan proposed by the Applicant has only one well which will conceivably detect any of the potential contaminants in groundwater from the IWU. The plan does not have constituent testing for many of the materials in the IWU.

May 29, 2009 City of Austin's Reply to Closing Arguments

P. 1 - The Applicant postulates that if the permit application meets the regulatory requirements then it is automatically deemed to "safeguard the health, welfare, and physical property of the people and the environment." This argument however, is fatally flawed in that the entity charged with reviewing the permit application to determine if it meets the regulatory requirements, the ED, (A) does not consider at all whether or not the application will safeguard the health, welfare, and physical property of the people

and the environment when performing its review; and (B) does not make any determination with regards to key issues such as land use compatibility or conformance with the regional solid waste management plan, that are determinative as to whether or not a permit application safeguards the health, welfare, and physical property of the people and the environment.

P. 2 - The Applicant argues that its application is protective of groundwater and surface water because the IWU and the ACRD Facility are not unique. This is not true. There was no testimony or evidence indicating the presence of another facility in Texas or the U.S. with an operating MSW facility with the presence of a large industrial or hazardous waste facility located in the middle of it. The site characteristics clearly presents unique hazards and challenges that require that this be clearly addressed in the facilities permit to protect the environment and public health and safety as per the regulatory requirement to consider site history and site specific conditions in designing the monitoring system.

P. 2 & P. 3 - Much of the City's testimony regarding the IWU was focused on concerns regarding the possibility of migration and discharge of leachate from the IWU. This is directly a concern about the IWU leachate management system, and yet neither the IWU nor the Phase I areas has a liner or leachate collection system.

P. 3 - The Executive Director states that all parties agree that the property line must be monitored as the regulations require from the entirety of the facility. The exclusion of part of the facility from monitoring and point of compliance systems is not consistent with this requirement.

P. 4 - The Applicant claims that the proposed monitoring system and wells are sufficient because there are more wells than the prior system, and that the voluntary agreement with the City enhances their claim. This doesn't make sense.

P. 5 - The Executive Director implies that because WMI has provided copies of reports of contaminants detected under the voluntary agreement it has with the City to the TCEQ, that somehow this supports the monitoring system efficacy. This is illogical. The Executive Director acknowledges the report of dioxane detection and yet would not agree that this documented, site specific condition, warrants additional monitoring requirements. In fact, releases of dioxane are documented in the voluntary monitoring reports, as well as repeatedly detected from PZ-26, but were deleted from the reports provided to the TCEQ and the City.

P. 16 - The very purpose of this evidentiary contested case hearing is to determine whether or not the permit application provides sufficient information that the proposed expansion will not "cause, suffer, allow, or permit the collection, storage, transportation, processing, or disposal of municipal solid waste . . . in such a manner that causes . . . the creation or maintenance of a nuisance, or the endangerment of the human health and welfare or the environment." The Applicant cannot overcome its burden of proof by only providing self-serving conclusionary testimony.

P. 16 - In this case, the ED has gone out of its way to support the Applicant's burden of proof via it's prefiled testimony, questions during the hearing, and finally in its closing argument, and it's argument must be viewed in light of its skewed participation in favor of the Applicant.

[August 20, 2009 City of Austin's Exceptions to the Proposal for Decision](#)

P. 1 - The City of Austin disagrees with Administrative Law Judge ("ALJ") Roy Scudday's proposal for decision ("PFD"), in which he recommends that Permit No. MSW-249D be issued. The Applicant failed to demonstrate that Permit No. MSW-249D meets or exceeds all applicable statutory and regulatory requirements.

P. 2 - If ever there was a case where an MSW landfill permit amendment to extend the life of the facility should be denied, this is that case. In 2004 WMI was assessed the largest fine ever levied by the TCEQ on a MSW operator in the State of Texas. One of the many reasons this application should be denied, is that the operation of this facility has and will continue to impact the surrounding neighborhoods, as evidenced by the repeated and voluminous complaints regarding odors, traffic, litter, dust, erosion and sedimentation of streams. By virtue of its record of operation, the Applicant has failed to demonstrate that the facility will not adversely impact human health or the environment, as required by 330.61 (h).

P. 2 & P. 3 - The ALJ properly considered the evidence presented concerning the voluntary groundwater monitoring agreement between the City and WMI and the placement of the wells to monitor for potential discharges from the Industrial Waste Unit ("IWU"). Accordingly he recommends inclusion of the wells in the permit. The ALJ failed to properly consider the fact that the wells in the voluntary agreement are sampled for a specific list of constituents, which were chosen by WMI as representative of potential contaminants in the groundwater that could originate from the IWU. In light of this uncontroverted evidence, and the fact that the sampling is already being done by WMI, it is unreasonable to not include the same parameters in the permit monitoring regime.

P. 5 - Finding of Fact No. 215: "Operation of the expanded landfill as requested in the Application will not result in contamination of groundwater and surface water." These Findings are not supported by the evidence. In fact, the record demonstrates that the opposite is true.

P. 12 - The record is replete with evidence that the WMI facility is currently adversely impacting human health and the environment; and since WMI is not proposing to do anything different under its proposed permit for expansion, the facility will continue to adversely impacting human health and the environment.

August 31, 2009 City of Austin's Response to Exceptions

P. 3 - The ED argues in its exceptions that the point of compliance ("POC") should not be adjusted to include the four wells that are already in existence and being monitored pursuant to a voluntary agreement between the City and WMI. What is most troubling is the ED's rational for its exceptions to adding these four wells to the point of compliance. The ED states that the Industrial Waste Unit ("IWU") should not be monitored because there were no regulations in place back when it was accepting hazardous wastes; and therefore it does not have to be monitored for releases at all. The IWU is a part of the facility. The groundwater monitoring system proposed is a multi-unit system under §330.403(b). As such, all of the MSW management units must be a part of the groundwater monitoring system. Moreover, the TCEQ can and should require monitoring of the IWU to protect human health, welfare, and the environment.

P. 4 - Finally, the ED incorrectly claims that the TCEQ rules do not apply to the IWU because it is not a "waste management unit". Although it stopped taking materials in the 1970's the IWU is still in place and is part of the facility.

P. 5 - WMI asserts that there is no basis to tie the four voluntary wells into WMI's POC. They base this assertion on the same argument as the ED; that the IWU was closed in 1973, and therefore WMI does not have to monitor the IWU at all. There is no evidence in the record that the IWU has ever been "closed". Additionally, given the fact that we know the IWU accepted a plethora of chemicals and industrial waste materials, many of which are considered hazardous materials under the existing regulations, the TCEQ can and should require monitoring of the IWU to protect human health, welfare, and the environment.

P. 5 - The evidence demonstrated that those three monitoring wells are not even sampled for 1, 4 dioxane, which appears to be the primary contaminant leaking from the IWU. It does little good to rely on a monitoring well to inform you of a release of hazardous waste, and then not test that well for the types of contaminants that are leaking.

[November 10, 2009 City of Austin's Motion for Rehearing](#)

P. 1 – II. ERRORS IN THE INTERIM ORDER

P. 2 - "Delete the addition of the four wells specified by the private agreement between the City of Austin and WMTX to the permit's groundwater monitoring system and reconfiguration of the Point of Compliance to include those wells in proposed Finding of Fact Nos. 125 and 127, Conclusions of Law Nos. 28, 48, and 50, and Ordering Provision No. 1."

P. 3 - Although it stopped taking materials in the 1970's the Industrial Waste unit ("IWU") is still in place and is part of the facility. Additionally, there is no evidence in the record that the IWU has ever been "closed". Therefore, under a multi-unit groundwater monitoring system, under §330.403(b), all of the MSW management units must be a part of the groundwater monitoring system. Moreover, given the fact that we know the IWU accepted a plethora of chemicals and industrial waste materials, many of which are considered hazardous materials under the existing regulations, the TCEQ can and should require monitoring of the IWU to protect human health, welfare, and the environment.

[June 4, 2010 City of Austin Original Petition to Travis County District Court](#)

P. 6 – VII. COMMISSION ERRORS

P. 6 & P. 7 – (2.) The Commission erred in instructing the ALJ to make substantive revisions to those portions of his Revised Proposed Order relating to the addition of four groundwater monitoring wells to the Point of Compliance groundwater monitoring system. The Commission's instructions to the ALJ to revise his Revised Proposed Order are contrary to Commission precedent, TCEQ rules, and the laws of the State of Texas.

P. 9 - VIII. ISSUES

p. 12 - E. The failure of Applicant, WMI, to demonstrate that the expansion of the ACL facility will be protective of groundwater and surface water. The Commission's failure to acknowledge and address the significant issues with current and future threats to groundwater and surface water quality are contrary to Commission precedent and rules.

The Commission's acceptance of the Revised Proposed Order ignores the overwhelming evidence of ongoing and potential groundwater and surface water contamination at the ACL facility. The

preponderance of evidence showed: (1) that there was a history of disposal of hazardous and industrial wastes at the ACL facility; (2) that there is a continuum of waste from the IWU to the permit boundary; (3) that the continuum of waste creates a preferential pathway for contaminants to leave the ACL facility; (4) that there is evidence of groundwater contamination both at the ACL facility and on adjacent property; (5) that there is evidence of surface water contamination; and (6) that the geological characterization in the application for permit amendment is deficient. The Commission's failure to deny the application is contrary to the evidentiary record and is legal error.

P. 12 - F. The failure of Applicant, WMI to develop an adequate groundwater monitoring system that is in compliance with TCEQ rules, particularly with regard to the location of the groundwater monitoring wells, which are not located as to detect groundwater contamination from all portions of the ACL facility. The Commission's approval of the deficient groundwater monitoring system is contrary to Commission precedent, rules, and regulatory guidance on this issue.

P. 13 - The Commission, in directing the ALJ to revise substantive findings of fact and conclusions of law regarding the placement of groundwater monitoring wells, is contrary to Commission precedent, TCEQ rules, and the laws of the State of Texas. The commission further erred by accepting the Revised Proposed Findings of Fact and Conclusions of Law regarding the placement of the groundwater monitoring wells, because the Applicant failed to prove by a preponderance of the evidence that it would protect the groundwater at the ACL facility as required by the TCEQ's MSW rules because the application for permit amendment fails to meet the standards set out in 30 TAC § 330.403(a)(2), regarding monitoring at the point of compliance. The evidence demonstrated that the point of compliance groundwater monitoring system proposed in the application and approved by the Commission will not detect groundwater contamination in the uppermost aquifer at the ACL facility.

P. 14 - X. CONCLUSION

In conclusion, Plaintiff contends the TCEQ Interim Order addressed is fatally flawed and in error for the reasons set forth herein.

WHEREFORE, PREMISES CONSIDERED, Plaintiff requests that the Commission be cited and required to answer and appear herein, that a hearing be held, and that on final hearing hereof, Plaintiff City of Austin have judgment of the Court as follows:

1. Reversing and vacating the decision of the Commission and remanding the matter back to the Commission for further proceedings; and,
2. Awarding Plaintiff costs incurred, together with all other relief to which Plaintiff may be entitled.

***SUMMARY OF ENVIRONMENTAL CONDITIONS AT THE
WASTE MANAGEMENT, INC., AUSTIN COMMUNITY
LANDFILL***

AUSTIN'S "LOVE CANAL"***

April 3, 2003

Prepared by

Robert S. Kier Consulting

- Around 1970, with a letter of authorization from the Texas Department of Health, the landfill owned and operated by Universal Disposal and now known as Austin Community Landfill (ACL), began receiving municipal solid waste. No actual permit was necessary then. Waste Management Holdings, Inc., currently owns and operates the ACL through its wholly-owned subsidiary, Waste Management of Texas, Inc. (WMI).
- From the mid 1960s to 1982, Travis County operated an adjacent landfill to the south along U.S. 290. There is no discernable hydraulic barrier (no effective separation) between much or all of the waste deposited in the closed Travis County landfill east of the creek traversing the closed Travis County landfill and waste deposited at the ACL. Solid waste deposited by Travis County, by Universal Disposal and successor operators is commingled at the property boundary. Without regulatory approval, WMI may also have deposited waste in the portion of the ACL in which the wastes are commingled.
- Leachate (liquid that has passed through or emerged from solid waste) leakage through the final cover on the closed Travis County landfill is being addressed through installation and operation of a leachate extraction system that since 1998 discharges to one of the City of Austin's publicly owned treatment works (POTWs).

*** The term, "Austin's 'Love Canal'" was coined by Tom Clark with the U. S. Environmental Protection Agency in an "Informal Memo," dated June 17, 1982, in reference to the IWMM site at the Austin Community Landfill.

- Most of the surface water from ACL drains through the closed Travis County landfill into tributaries to Walnut Creek. Some of the surface water from ACL drains into Harris Branch and into Lake Walter E. Long. Natural ground water flow directions generally follow surface topography.
- From 1971 into 1972, under emergency authorization from the Texas Water Quality Board (TWQB), Industrial Waste Materials Management (IWMM), an entity related to Universal Disposal by common ownership, was allowed to take bulk liquid and drummed waste characterized as spent acids, solvents, and industrial process wash water for disposal within the permit boundary of ACL. Exactly what was disposed at the IWMM site is not clear, but it is known from public records that many of the materials received would today be considered hazardous waste. At the time, though, hazardous waste had not been regulatorily defined and all such wastes in Texas were simply considered as industrial waste, which was regulatorily defined by statute.
- The exact quantity of industrial/hazardous waste received at the IWMM site also is not known, but it is known that more than 21,000 drums containing liquid and semi-solid waste are buried in unlined trenches at the site and that the aggregate capacity of the unlined pits into which bulk quantities of spent acids, paints, solvents, and industrial process water were placed was in excess of 1.8 million gallons. Assuming the average weight of wastes received at the IWMM site was 13.4 pounds per gallon, which is based on documents filed by IWMM with the TWQB, and assuming that the volume of bulk liquid waste received was no more than the capacity of the unlined pits, more than 19,000 tons of industrial/hazardous waste was disposed by IWMM, on the same order of magnitude as the amount disposed at Love Canal. Based on other information gleaned from the same documents in the public record, and using the same assumptions with respect to the weight of the waste, it is possible that approximately 80,000 tons of industrial/hazardous waste were disposed at the IWMM site, approximately four times the amount of waste disposed at Love Canal.
- Analysis of historical aerial photographs shows that as of February 4, 1973, four out of the five pits that received bulk liquid wastes were still open and contained fluids. In addition, another excavation, which was labeled "Acid Pit 4" on a TWC map and which was even larger than the pits at the IWMM site, had been constructed west of the IWMM site. This excavation was subsequently removed by WMI and the contents dispersed.
- At least in 1976, public records show that ACL received additional industrial-type waste from businesses in Austin and elsewhere in the state for burial in the landfill; the locations in which this waste was buried are not known; both Phase I

(adjacent to and interconnected with the closed Travis County landfill) and Phase II (Old Wet Weather Area), neither of which were lined, were active at the time.

- WMI bought the company that owned the landfill, including the IWMM site in August 1981. There is no public record that liners had been installed in any of the waste disposal cells used to that point. Prior to buying the site, in 1980 and 1981, WMI conducted an investigation of the site. Memos written by Ms. Jane LaPorte, an employee of WMI who investigated the site on behalf of WMI, recognized that "There is a fairly well-documented history of hazardous waste disposal on site" and installation of a cut-off wall may be necessary (7/15/80); recommended that "a barrier wall be constructed" between the ACL and the closed Travis County landfill to the south (8/17/81); and stated that the closed Travis County landfill "had a history of leachate problems due primarily to poor surface water controls and inadequate cover" (8/19/81). As of March 26, 2003, WMI was advertising the ACL as a hazardous waste landfill on its web site.
- In late 1997 and early 1998, WMI stated they would relocate much or all of the industrial/hazardous waste buried in the IWMM site because it was "the responsible thing to do." Coincidentally, moving the industrial/hazardous waste from the IWMM site would potentially allow using the ACL to its maximum possible capacity for municipal solid waste disposal. Regulatory agency approval designating a portion of the municipal solid waste landfill for disposal of non-hazardous industrial waste was received and the work plan to investigate the nature of the industrial/hazardous waste was approved. The investigation, carried out by OHM, a company partly owned by WMI, was flawed and was incapable of properly characterizing the waste, especially if the waste were characteristically hazardous and, thus, ineligible for re-interment at ACL. The plan to relocate the industrial/hazardous waste was challenged by local neighborhood groups. As of this date, the industrial/hazardous waste at the IWMM has not been relocated.
- On May 5, 1998, a coalition of environmental groups -- Clean Water Action (CWA), People Organized in Defense of the Earth and her Resources (PODER), the Save Our Springs Alliance (SOS), and the Sierra Club -- filed a petition with the U. S. Environmental Protection Agency (EPA) to have the ACL assessed and added to the NPL (National Priorities List, a.k.a., Superfund list); supplements were submitted in June 1998 that added a local neighborhood association, the Walnut Place Association, and the management arm of a nearby industrial park, the Walnut Creek Improvement Association, to the petition. In addition to placement of the ACL on the Superfund list, the environmental groups requested EPA's immediate assistance in evaluating the wastes disposed at ACL and the health and environmental risks associated with the ACL and EPA's immediate action to stop further activities at ACL that could result in the release of hazardous materials to the air and the water. The petition was also filed to request EPA's immediate investigation of the management of hazardous materials at ACL.

pursuant EPA's oversight authority under the Clean Water Act and the Resource Conservation and Recovery Act.

- Following a series of newspaper articles and recommendations from the City of Austin's Solid Waste Advisory Commission, in November 1998 Austin retained a third-party consulting engineering firm, Carter & Burgess, to evaluate all three privately owned landfills in Travis County prior to awarding a thirty-year contract to dispose of the city's residential waste. Carter & Burgess's report, dated February 16, 1999, and titled the City of Austin Private Landfill Assessment states "It is the Carter & Burgess team's opinion that the former IWMM site at the ACL poses a substantial environmental risk and potential future liability to the owners and users of the site." Consequently, the City of Austin disqualified WMI from consideration for its thirty-year contract for disposal of residential solid waste collected by the City.
- In an attempt to counter the Carter & Burgess report, in 1999 WMI contracted with ThermoRetec, an environmental consulting firm, to perform another investigation of the IWMM site. Boreholes were advanced within and around the IWMM site and materials sampled for analysis. Several drums are known to have been penetrated in the process. Potential industrial/hazardous waste sites outside the presumed area of the IWMM site were not examined, including what appears to have been the largest pit for receiving bulk shipments of acid (Acid Pit No. 4), which according to a former WMI landfill manager had been excavated and used for waste cover. Despite its flaws, the 1999 investigation revealed the following:

[All regulatory citations noted below pertain to alleged potential violations by WMI at the ACL of the regulations applicable to municipal solid waste facilities.]

- Industrial/hazardous and municipal solid waste within the designated IWMM site were exposed at the ground surface. *[Potential violations: 30 TAC §§305.125(1), (4), (5), (9), & (20); §§305.145(a)(1) & (2); §330.4(b); §330.5(a)(1) through (3), §330.5(b); and §330.133(f)]*
- Industrial/hazardous-type waste encountered ranged from soil with yellow or black discoloration and/or a chemical odor to a viscous dark red brown fluid, resinous material, white to brown crystals exhibiting a chemical odor, and an oily brown fluid or tar with a hydrocarbon odor. *[Potential violations: 30 TAC §§305.145(a)(1) & (2); and §330.4(b)]*
- Contaminants detected in samples from the IWMM site included chlorinated and non-chlorinated organic compounds, pesticides, polychlorinated biphenyls (PCBs), dioxins/furans, cyanide, and heavy metals. The total of undifferentiated hydrocarbons was in the percent range for some samples, meaning over ten million parts per billion.

[Potential violations: 30 TAC §§305.125(1), (4), & (9); §330.4(b); and §§330.5(a)(1) & (b)]

- Chlorinated and non-chlorinated organic compounds were detected in samples from the bottom of borings drilled thirty feet into unweathered Taylor Clay that underlies the entire ACL at depth; compounds detected include 1,1-dichloroethane, acetone, benzene, carbon disulfide, ethylbenzene, methylene chloride, xylene, toluene, and trichloroethene. *[Potential violations: 30 TAC §§305.125(1), (4) & (9); §330.4(b); and §§330.5(a)(1) & (b)]*
- Municipal solid waste was intermixed with, placed over, and deposited around the IWMM site and in the creek/drainage course to the south. At least on the south side of the IWMM site, there is no discernable barrier to waste, leachate, or gas migration from the industrial/hazardous waste buried at the IWMM site, through the municipal solid waste disposed to the south, and to the stream course that passes from the closed Travis County landfill through ACL and back to the Travis County landfill. Examination of the first occurrence of fluid or moisture in the borings at and around the IWMM site indicates moist, wet, or saturated conditions within a few feet of the ground surface and a hydraulic gradient from the IWMM site toward drainage courses to the south and to the west. Subsurface drainage to the east is likely, too, but further study is needed to confirm this and to determine the nature and extent of any contamination. *[Potential violations: 30 TAC §§305.125(1), (7), (8), & (9); §330.4(a) & (b); and §330.5(b)]*
- Fluid, leachate, was encountered in nearly every borehole at the IWMM site. Fluid pressure was so great in at least one borehole advanced into waste beneath the drainage course south of the IWMM site that the investigators had to quickly pack bentonite into the hole to keep the fluid from emerging at the ground surface. The only fluid sampled, though, was from the few monitoring wells ostensibly installed outside the IWMM site during the investigation; benzene, 1,4-dioxane, 1,1-dichloroethane, and tetrachloroethene were detected. Existing monitoring wells near the IWMM site, including two monitoring wells installed in 1982 and two piezometers installed to monitoring well quality, were not sampled. *[Potential violations: 30 TAC §§305.125(1), (4), (9), & (20)(A); §§305.145(a)(1) & (2); and §§330.5(a)(1) & (b)]*
- The creek/drainage course between the IWMM site and the Phase I area that is underlain by municipal solid waste (discovered by ThermoRetec in 1998) provides a conduit for downstream and offsite fluid migration onto the closed Travis County landfill and beyond; WMI has refused to install

monitoring wells along the creek/drainage course, where contaminant migration is most likely to be detected, because the wells would have to be installed through waste. WMI also has not installed monitoring wells along the boundary between the Phase I area and the closed Travis County landfill where there is not real separation between waste deposited in the two landfills. *[Potential violations: 30 TAC §§305.125(1), (4), (7), (9) & (20); §§305.145(a)(1) & (2); §§330.4(a) & (b); §§330.5(a) & (b); and §330.8(b)]*

- Ground water monitoring wells were not installed at the ACL until 1982, approximately ten years after the IWMM site was reportedly closed.
- Analyses of samples from the original six wells installed, two of which were installed to monitor the IWMM site, and additional and replacement wells used since 1996, none of which monitor the IWMM site, have shown repeated occurrences of volatile organic compounds, including vinyl chloride, and indicator parameters such as total phenolic compounds, total halogenated (chlorinated/fluorinated) hydrocarbons (TOX), and chemical oxygen demand (COD). *[Potential violations: 30 TAC §§330.5(a)(1) through (4); and §330.5(b)]*
- Samples from the two monitoring wells installed in 1982 nearest the IWMM site, but abandoned in 1996, also have shown elevated concentrations of iron and manganese and unreasonably low pHs. *[Potential violations: 30 TAC §§330.5(a)(1) through (4); and §330.5(b)]*
- Samples from monitoring wells on the east side of the landfill show elevated concentrations of total dissolved solids with respect to samples from other wells. *[Potential violations 30 TAC §§330.5(a)(1) through (4); and §330.5(b)]*
- Water levels in almost all wells have risen through time; water levels in the two former monitoring wells nearest the IWMM site have risen to a level higher than the ground surface at the time the wells were originally installed; the wells had to be extended upward, a fact not known to have been reported to the regulatory agencies. *[Potential violations: 30 TAC §§305.125(7) & (8)]*
- Inspection of analytical results for samples from monitoring wells installed at Applied Materials, which is located to the east of the ACL across Giles Road, indicates elevated total dissolved solids concentrations and the occurrence of TOX compounds, which Applied Materials indicates they do not manage. *[Potential violations: 30 TAC §§330.5(a)(1) through (3); and §330.5(b)]*

- No monitoring wells have ever been installed by WMI or Travis County where waste was deposited in a continuum across the joint property boundary.
- I am unaware that any notices of violation have been issued based on reported ground water monitoring results for the ACL.
- Landfill gas migration has long been a problem at ACL.
 - Sampling of gas monitoring probes since 1989 has indicated numerous exceedances of the lower explosive limit (LEL) for methane in air, despite the installation of a landfill gas collection system. *[Potential violation: 30 TAC §330.56(n)(1)(B)]*
 - Landfill gas migration may be more extensive than reported because ground water levels commonly have risen above the screened intervals in many of the gas monitoring probes, preventing landfill gas from entering the monitoring probes and potentially yielding false negative results when the gas monitoring probes are sampled. A review of the public record for ACL indicates that the ongoing inability of the landfill gas monitoring probes to perform as designed and installed has never been directly reported to the TCEQ or its predecessor agencies nor has WMI provided any explanation or demonstration that functioning gas monitoring probes cannot be installed around the entire perimeter of the landfill. *[Potential violation: 30 TAC §330.56(n)(2)]*
 - In 1995, field workers installing ground water monitoring wells at the ACL were sickened by emissions from one of the boreholes. *[Potential violation: 30 TAC §330.8(b)]*
 - Over approximately the last one and one-half years, or more, neighboring residents and others who are not so near ACL have complained about a nauseating stench emanating from the ACL. Although the landfill operator admits ACL is a source of the odors and ACL has received a notice of violation from the Texas Commission on Environmental Quality (TCEQ), nearly a year later, neighbors continue to complain about the occurrence of the odors. *[Potential violations: 30 TAC §§330.5(a)(2) & (3)]*
- Through sworn testimony of current and former WMI employees and from documents on file at the TCEQ, it is evident that WMI has allowed numerous conditions to develop that appear contrary to the municipal solid waste management regulations, and WMI has not been forthcoming in reporting the

occurrence of those potential violations nor timely correcting them. These potential violations include:

- Allowing landfill leachate to migrate from pre-Subtitle D municipal solid waste landfill units into Subtitle D municipal solid waste landfill units, be collected, and commingling the leachate potentially recirculated in the landfill. [*Potential violations: 30 TAC §330.5(e)(6)(A)(ii)*]
- Extraction of landfill leachate from one municipal solid waste landfill unit, commingling it with leachate extracted from other municipal solid waste landfill units, and recirculating the leachate into municipal solid waste landfill units from which it did not originate. Presumptively, the transfer of landfill gas condensate from one municipal solid waste landfill unit to another is also occurring. [*Potential violations: 30 TAC §305.5(e)(6)(A)(ii)*]
- Commingling contaminated ground water (ground water in which organic constituents had been detected) purged from ground water monitoring wells with landfill leachate and potentially recirculating the commingled fluid in a municipal solid waste landfill unit. [*Potential violations: 30 TAC §330.5(e)(6)(A)(ii); §330.56(o)(2)*]
- Recirculation of leachate over landfill liner systems represented to be "composite liner systems," which are defined in 30 TAC 330.200(b), but which are actually performance-based liner systems, which are defined in 30 TAC 330.200(a), over which recirculation of leachate is not permitted. [*Potential violations: 30 TAC §330.5(e)(6)(A)(ii); and §330.56(o)(2)*]
- Allowing leachate to pond to depths of tens of feet for extended periods over post Subtitle D liners; one foot is the maximum allowable depth at the ACL. [*Potential violations: 30 TAC §305.125(9); 330.5(b); and §330.200(a)(2)*]
- Failing to correct erosion of the cover system such that solid waste was exposed and contacted surface water runoff that was released directly offsite without testing or treatment. [*Potential violations: 30 TAC §§305.125(1), (5), & (9); §330.5(a)(1); §330.5(b); §330.5(e)(6)(A)(ii); §330.55(b)(1); and §330.133(f)*]
- Disposing of leachate from the leachate-holding pond into a "hole" at the top of the "hill," which is inferred to be the "west hill" of the landfill in the TCEQ's inspection report and which is almost entirely underlain by pre-Subtitle D insitu liners, approximately half for which there is no public record that the liner systems were certified by an independent professional

engineer. *[Potential violations: 30 TAC §330.5(e)(6)(A)(ii)§330.56(o)(2); and §330.125(9)]*

- Allowing numerous leachate outbreaks from the vicinity of the IWMM site, from the Phase I area connected to the closed Travis County landfill, and from the west hill at ACL to occur for protracted periods of time, and failing to report these occurrences to the TCEQ. Leachate outbreaks are where leachate emerges through the landfill cover system. Public records indicate that leachate outbreaks occurred before WMI purchased the landfill in 1981, and testimony by a WMI employee indicates that leachate outbreaks have also occurred over the past few years. At least some of these leachate outbreaks reached the drainage courses on the ACL. *[Potential violations: 30 TAC §§305.125(1), (4), (9) & (20)(A); and §305.145(a)]*
- During 2002, TCEQ and its predecessor agency TNRCC has issued notices of violations for:
 1. Allowing leachate to accumulate to depths greater than the regulatory limit; 2/4/02.
 2. Failure to achieve emission and operating standards required under the Clean Air Act; 2/21/02.
 3. Failure to secure the flange on a leachate collection riser pipe; 2/21/02.
 4. Failure to determine the effectiveness of erosion control measures at a surface water discharge point; 3/28/02.
 5. Unauthorized discharge of waste and debris from a surface water discharge point; 3/28/02.
 6. Failure to prevent discharge of air contaminants in such concentration and of such duration as to interfere with the normal use and enjoyment of property; 4/4/02.

To my knowledge, no enforcement action has been issued against WMI related to notices of violation received by ACL during 2002.

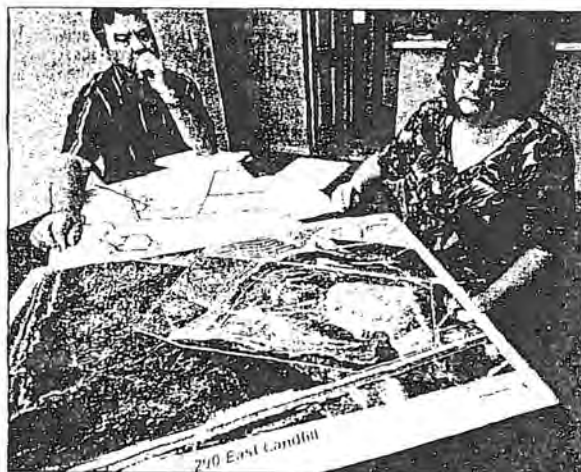
Austin American-Statesman



FROM PAGE ONE

Sunday, February 14, 1999 A11

Barrels of buried gunk worry neighbors



Neighborhood association presidents Charles Croft and Amy Kersten, examining aerial maps of the landfill, want more testing done on industrial waste buried adjacent to their subdivisions.

By RALPH K.M. HAURWITZ
American-Statesman Staff

Amy Kersten had never been active on environmental issues. That changed last year when she learned about 21,000 drums of industrial waste buried less than a mile from her brick-and-siding house in a tidy subdivision along U.S. 290 just east of Austin.

Now she spends many hours studying state environmental records, meeting with neighbors and demanding accountability from government officials.

"We're not a bunch of crazy environmentalists," said Kersten, 41, an office manager for a real estate company and president of the Chinney Hills North Neighborhood Association. "We're just plain-Jane neighbors. But I will not rest comfortably until proper scientific testing is done on that waste by an independent third party or a government agency."

The drums were buried in 1971 and 1972 in clay-lined trenches. In addition, acids were poured into a series of pits. The 9-acre disposal field is covered with soil and surrounded by what is now a municipal-waste landfill operated by Waste Management Inc.

State regulatory files copied by Texas Disposal Systems, which is competing with Waste Management for a contract to receive trash

from Austin, show that numerous companies sent a hodgepodge of industrial chemicals to the site. These range from solvents mixed with printer's ink from the American-Statesman to lubricating oil from IBM in Austin.

Few residents knew about the waste until they read newspaper articles last year describing Waste Management's plan to test, excavate and rebury the material in another part of its landfill. Company officials said the \$10 million project would provide two benefits: It would shift the industrial waste to an area lined with a synthetic material to protect against leaks, and it would enable the landfill to accommodate more municipal trash.

"The plan is on hold. It's subject to review and modification," said Ric Green, district manager for Waste Management.

A 12-acre pit for the industrial waste is empty. The company will not proceed until the city decides where to send its trash and until the company meets with neighbors and obtains regulatory approvals from the state, Green said.

He said new management has a policy of working closely with residents to address concerns. USA Waste Services of Houston acquired Waste Management last year in a deal that retained the Waste Management name but put USA Waste executives in charge.

Preliminary testing of the waste was done last year by OHM Corp., a company partly owned at the time by Waste Management. But Waste Management has divested itself of that holding and will use independent companies in the future, said Green and Marcos Elizondo, a project manager for Waste Management.

Meanwhile, neighborhood and environmental groups have petitioned the U.S. Environmental Protection Agency to list the site under the federal Superfund toxic waste cleanup program. The Walnut Creek Improvement Association, which manages a nearby business park, joined in the petition.

A 1982 EPA memorandum referred to the site as "Austin's Love Canal," a reference to a neighborhood in Buffalo, N.Y., that was built atop toxic waste and later had to be evacuated. But the memo went on to say that Texas regulators had found no evidence of leakage.

The EPA has deferred to the state on the question of a Superfund listing. The state has not requested it because there is no evidence of waste migration, according to the Texas Natural Resource Conservation Commission.

Occasional readings of vinyl chloride, a cancer-causing substance, and other compounds in ground water monitoring wells have been inconsistent and do not constitute evidence of a leak, the agency said.

naked city,

from p. 20

voting to opt into the district — Aleshire and his fellow commissioners agreed to delay a vote on the matter for another week. That didn't mean, though, that Aleshire was going to hold his fire (or his tongue) when it came time to discuss the project. He found reasons to criticize the proposal on almost every front, including the collection of sales tax on the district's trains. When **Richard Hamner**, the legislative aide to Austin's State Sen. **Gonzalo Barrientos**, later explained to Aleshire that the district would keep any sales taxes collected on the trains because it would be too hard to keep track of which sales occurred in which taxing jurisdiction, Aleshire snapped, "I've already figured that out."

So it went for more than an hour as Hamner, who played a key role in writing the legislation that permits the creation of the rail district, tried to allay Aleshire's fears about the district. After long discussions about eminent domain, financing, legislative intent, and several other topics, an exasperated Hamner told Aleshire, "We can look at this thing for hobgoblins, but I don't think they are there." But Aleshire, as usual, has hobgoblins on the brain. Look for him to kill the proposal next Tuesday. — R.B.

Have Gun, Will Graduate

Following last week's fatal shooting spree by an Oregon high school student, Austin Independent School District officials told the *Austin American-Statesman* that the incidence of weapons in Austin schools is "dramatically low," and that the district enforces a "zero tolerance" policy of expelling any student who brings a gun to school.

But just days before that article ran on Saturday, May 23, an Austin High School graduating senior had shot a hall monitor in the leg with a pellet gun from a car in the school parking lot. After the victim identified the shooter from yearbook photos, AHS principal **Dr. Tina Juarez** recommended that the student be suspended, and also prohibited from crossing the stage during graduation ceremonies. But that punishment was rescinded by AISD administrator **Dr. Kay Psencik**.

Computer science teacher **Guy Davis** said teachers were struck by the irony of Psencik's decision as they discussed the *Statesman* article on Saturday. "We were saying that here it is in plain black-and-white and they aren't enforcing it. We were concerned about that," says Davis. Austin High teacher **Wayne Packwood** was so incensed when he learned of the shooting and subsequent district action that he organized an impromptu meeting of 70 AHS staff on Friday, who heard the victim's story and drafted a letter protesting the overturning of Juarez's punishment.

"To reverse Dr. Juarez's decision is unacceptable," the letter states. "It contradicts the District's stated policy of Zero Tolerance, and it sends the message that there will be no consequences for bringing weapons onto campus." Packwood added later, "It doesn't seem to make any sense, does it? On the same day that the shooting was taking place in Oregon, it's absolutely incomprehensible that that decision could have been made." A teacher who spoke with Dr. Juarez after her decision was countermanded says the administration is pressuring the principal to keep the event hushed up and not contest the ruling. "My belief is that they told her not to talk about it with us, and the punishment for disobeying superiors is fast and severe," said the teacher, who declined to be named.

Rubin Matthews, of the Austin Association of Texas Professional Educators, says his group is consulting with an attorney about filing a grievance against Dr. Psencik for violating AISD policy and failing to enforce a federal law which prohibits firearms on school campuses. — R.F.

WMI's Landfill Woes

Four environmental groups have petitioned the U.S. Environmental Protection Agency to

halt the cleanup of a toxic waste dump at Austin Community Landfill, a site on Giles Road that is owned by trash giant **Waste Management Inc.** Some 21,000 barrels of industrial hazardous waste, including toluene, acetone, and sulfuric acid, were buried at the site in the early 1970s, before WMI bought the landfill. Earlier this year, WMI unveiled plans to dig up the hazardous waste and dispose of it at a cost of some \$10 million. But on May 5, in a letter to EPA chief **Carol Browner**, the environmental groups asked that the cleanup be halted.

The letter, written by Austin attorney **Richard Lowerre**, says reports generated by WMI "suggest that hazardous materials have already been released." The groups contend that testing the site with probes "could release toxic gases and/or cause explosions as the wastes mix. Public records suggest that WMI does not even know where the drums are located and, thus, how to avoid puncturing them." In addition to asking that the cleanup be halted, the environmental groups — the Save Our Springs Alliance, People Organized in Defense of the Earth and Her Resources, Clean Water Action, and the Sierra Club — have asked the EPA to add the site to the National Priorities List (Superfund), and to prevent WMI from doing any further examination of the site until the EPA is available to assist in evaluating the site. WMI spokesman **Loren Alexander** told the *Chronicle* in March that the company is remediating the site "even though we aren't required to because it's the best thing to do environmentally." Asked for a comment last week about the groups' request to the EPA, company spokesman **Al Erwin** offered, "One of the reasons we are doing this industrial cleanup is that our insurance company has agreed to pay for it. And so we are pretty interested in getting it cleaned up from that perspective."

The toxic waste was buried in unlined pits at the landfill beginning in 1971. The following year, the state ordered the site closed due to possible groundwater contamination. Since then, the site, which covers about nine acres near the center of the 108-acre WMI landfill, has been covered with dirt. WMI bought the landfill in 1981. They are currently in negotiations with the city of Austin on a 30-year contract for waste disposal and materials recycling.

Lowerre says the four groups want to see the toxic waste site cleaned up. But, he says, the state "hasn't notified anybody and hasn't required Waste Management to notify anybody. If this were a Superfund site, as it should be, there'd be all kinds of public notification. That's the minimum we expect, to open this process up to allow citizens to have more input." — R.B.

Money Cuts Sink Gardens

A 23-year-old Austin institution suffered a serious setback Friday when **Austin Community Gardens**, whose most prominent project is its six-acre **Sunshine Garden** near Lamar and 45th, announced drastic cuts in its staff and services due to major funding shortfalls. ACG, whose projects include school wildlife gardens, a food pantry donation program, and community gardens in low-income areas, fired its only two full-time staff members and eliminated all staff support for its 17 satellite community gardens in neighborhoods, homes for the elderly, and schools. Executive Director **Frank Fuller**, one of the two employees whose jobs were eliminated, said he had expected such a drastic restructuring for some time. "Something had to change," he said.

Funding from the city and county — always hard to come by for an organization whose principal focus is on "community-building," not hunger alleviation — had dried up long ago and local foundations and business community members were unable to permanently fill the gap. The problem, Fuller suggested, was in the organization's mission. "The county came to us and said, 'Why should we give you \$30,000 to help people grow food when we can give the same amount of money to a food pantry to go out and buy \$30,000 worth of food themselves?'" The value of the gardens, Fuller sug-

gested, is in their ability to provide recreation, beauty, and community rather than in their ability to provide food for Austin's hungry or educate its community about gardening techniques. The funding cuts affect virtually all of ACG's programs, including its small community gardens like the Mosby Community Garden in East Austin, its Wildscapes gardens in local elementary schools, its urban educational programs, and its Food Pantry Garden, which produced over two tons of vegetables for two local food banks in 1996. — E.C.B.

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METRO & STATE

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Friday, May 8, 1998 B11

Austin American-Statesman



EPA asked to halt landfill cleanup

■ Environmental groups say process could backfire, releasing toxins northeast of Austin

By MIKE KELLEY

American-Statesman Staff

Four environmental groups have asked the U.S. Environmental Protection Agency for immediate action to stop a landfill cleanup just northeast of Austin, which they say could release harmful elements into the air and water.

But the company that owns the landfill says it is going beyond what is required and that its plans have been approved by the Texas agency responsible.

At issue is cleanup of about 21,000 barrels of waste, buried nearly 30 years ago in a landfill just north of U.S. 290 and east of Giles Road. The owner of the property, Waste Management Inc., has earmarked \$10 million to put the barrels in a new, lined trench on the site. The current disposal area is unlined.

The company says it will take bore samples to determine how dangerous the old waste material is. Al Erwin, a company spokesman, says he doubts that any of the material will prove so hazardous that it will have to

be moved from the landfill.

But some environmentalists say the testing itself could be dangerous. Boring into the site for samples could puncture drums and release hazardous materials, they fear.

Requesting EPA intervention in assessing dangers at the site are the Sierra Club, Save Our Springs Coalition, People Organized in Defense of the Earth and Her Resources, and Clean Water Action.

Rick Lowerre, the attorney who filed the petition, said that while the company's plans have been approved by the Texas Natural Resource Conservation Commission, if the EPA puts the landfill on its list of so-called Superfund sites, greater public participation would be allowed in deciding how the cleanup proceeds.

How quickly the federal agency might respond, Lowerre said, "is kind of hard to predict. I would hope, if something is going to be done (in beginning the cleanup) in the next week or two, they would have somebody here for that."

Company officials say that the cleanup is not expected to begin until June or July.

Erwin said Thursday: "We don't have to do anything with this waste. We could just leave it where it is. But we want to clean it up. ... It's the most responsible thing to do."

METRO&STATE

Austin American-Statesman

Monday,
April 6,
1998

Company cleaning up its toxic-waste legacy

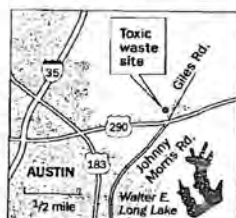
By RALPH K.M. HAURWITZ
American-Statesman Staff

Nearly 30 years ago, 21,000 barrels of toxic waste were buried in trenches cut into the clay-lined hills northeast of Austin. In addition, acidic wastes were poured into three pits at the site, which is just north of U.S. 290 and west of Giles Road.

Now the owner of the property, Waste Management Inc., is preparing to excavate the industrial residues and dispose of them in a safer manner. Waste Management has earmarked up to \$10 million for the work, which could involve hauling hazardous waste to a suitable incinerator or landfill and burying less potent material in the company's municipal-waste landfill, which surrounds the 9.2-acre industrial-waste site.

"It's better to find a problem now and fix it than it is to bury your head in the sand," said Robert Barber, regional director of operations for Waste Management. "We want to be very careful here."

But some environmental activists say the company is not being careful enough. They con-

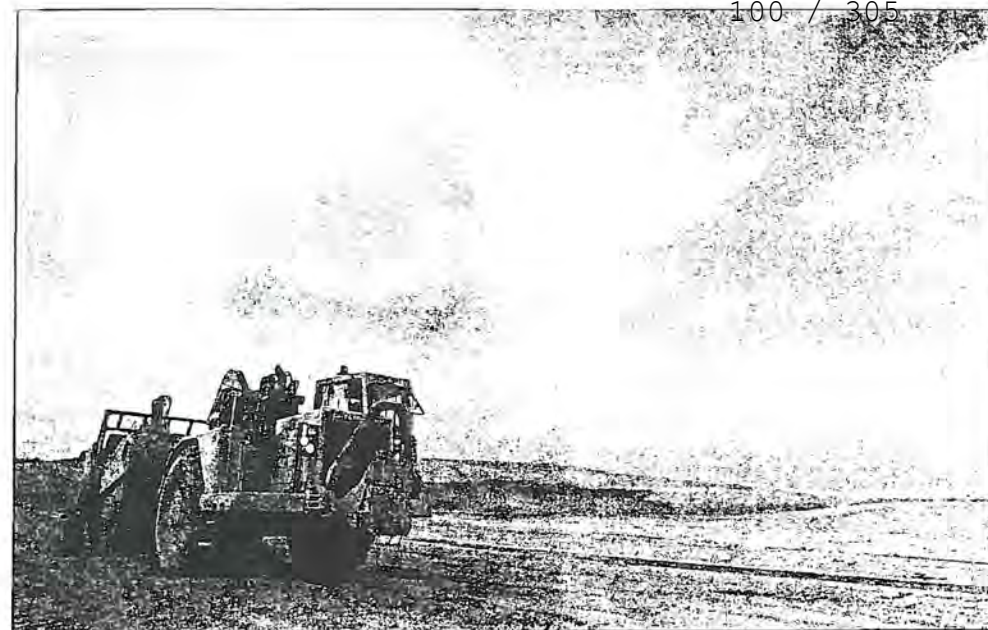


AA-S

tend that the Texas Natural Resource Conservation Commission, which regulates landfills, has sanctioned a work plan with dangerous waste sampling procedures, loose oversight and too little testing of samples.

The site contains a hodgepodge of materials, including solvents such as acetone and xylene, polyester resins, anti-foaming agents, grease trap fluids, sulfuric acid neutralized with limestone and lubricating oil tainted with phosphorus and other compounds. Exposure to some of the substances, de-

See Company, B3



Larry Kohn/AA-S

Earth-moving machinery scrapes its way layer by layer into the soil that covers more than 21,000 steel drums containing toxic waste at a land-

fill owned by Waste Management Inc. Buried almost 30 years ago, the drums contain waste that today would be illegal to store in this manner.

Company cleaning up its toxic legacy

Continued from B1

pending on their concentration and the length of exposure, could cause respiratory irritation, skin burns, dizziness and even death.

Rick Lowerre, an environmental lawyer in Austin, and Ken Kramer, director of the Lone Star Chapter of the Sierra Club, said the use of a probing device to extract samples of waste could rupture drums and cause leakage, fumes or a fire. They also complained that residents who live along Springdale Road to the west and in the Harris Branch subdivision to the northeast of the site should have been notified before the project began. The site is less than a mile from the nearest houses.

"I was surprised to learn that there was an industrial waste site of this magnitude located in the Austin area," Kramer said.

The company and the conservation commission defended the testing and cleanup plan. Officials said the use of a truck-mounted,

hydraulics-driven device to plunge sampling tubes deep into the ground is much safer than the alternative of bulldozing or digging by hand to expose waste.

The initial round of sampling was completed in January without incident, said Rusty Fusilier, an environmental engineer for Waste Management, which also operates under the names Longhorn Disposal and Austin Community Landfill. He said more sampling and testing would be done later.

State and company officials said it was true that neighbors had not been notified. No law requires public notification for such a cleanup, which is being undertaken voluntarily by the company and not in response to an order or request from the conservation commission, said Susan Janek, manager of the agency's municipal waste regulatory section.

Company officials said they intended to inform residents once

they had a better idea of how the cleanup would be done. Excavation of waste will not begin until June at the earliest, they said.

"It's always a good idea to inform the public," said Alexander Porter, a lawyer who lives in Harris Branch and serves as president of one of its municipal utility districts. "I'm not the least bit concerned in terms of health and safety. There's a huge buffer between us and any portion of that landfill."

The Austin Fire Department was unaware of the project until an inquiry by the American-Statesman. The department has no jurisdiction because Waste Management's property is just outside the city limits, but its crews nonetheless might be asked to help if an emergency should arise. After touring the site, David Piero, the Fire Department's hazardous materials chief, said he was satisfied with the company's procedures for handling wastes.

Company and state officials say

the waste in its current state—buried beneath thick layers of clay—poses no threat to the public, workers or the environment. Ground-water monitoring wells ringing the site show no evidence of contamination. However, none of the wells was drilled on the site itself, so officials cannot say with absolute certainty that no ground water has been tainted.

Barber said a cleanup would allow disposal under current environmental standards. The waste was buried in the early 1970s without a plastic liner, a practice that would be illegal today. Waste Management acquired the site along with the adjacent landfill in 1981.

Another reason to excavate the buried wastes is that the site occupies the center of the landfill, which Waste Management intends to operate for an additional 50 years. Dump trucks and earth-moving equipment must maneuver around it. "It's in the way," Barber said.



Staff Photo by Tom Lankes

Len and Phyllis Whitenight want to make sure people know about the danger of the chemical waste dump.

Waste site scares Austin's refugees from Love Canal

By MAX WOODFIN

American-Statesman Staff

Forced out of their Love Canal home by poisonous chemicals, Len and Phyllis Whitenight decided to move to Austin because of its reputation as a clean, healthy city.

Today they're fighting against another chemical waste dump that they fear may be as dangerous as Love Canal. This one is near their new home in Austin.

"We just left it all and now, here it is again," said Mrs. Whitenight.

The Whitenights moved from Niagara Falls, N.Y., in February 1981, ready for a new life and ready to forget they had been on the losing side of the most famous and tragic environmental battle fought in America.

Their son, stationed at Bergstrom Air Force Base, told them Austin was a clean city that discouraged heavy industry and seemed to move quickly to clean up potential sources of pollution.

"We're not sorry about the move, don't get that impression," Mrs. Whitenight said. "We love Austin already, which makes us want to fight this situation even more."

The Austin problem is a set of dumps on several sites near the intersection of East U.S. 290 and Gilles Road in northeastern Travis County. Below the disposal sites is a decade-old, 10-acre earthen vault that is filled with tens of thousands of 55-gallon drums of toxic chemical wastes.

The citizens groups fighting expansion of the dump have documents showing at least 21,102 fifty-five-gallon drums were buried. They say that the number may be twice that many. Their records show that waste solvents, oil, phosgene, laboratory chemicals and possibly benzene were either stored in drums or poured out of tanker-trucks into the site.

Some leaking of the chemicals has been found. Trace amounts have reached a branch of Walnut Creek, which flows across the site on its way to the Colorado River.

Two companies, Austin Community Disposal Co. and Tiger Waste Systems, have state waste-disposal permits that allow them to expand the dumps. When the permits were issued, state health officials said the sites were appropriate for waste disposal and expansion of the sites wouldn't endanger the chemical dumps.

A group of citizens from 14 Northeast Austin neighborhoods have filed suit in state district court to have the permits revoked. The suits are expected to be heard this summer.

The Whitenights live in one of the neighborhoods, along Walnut Creek about three miles from the waste site.

"They had lived in Austin about a month when they read a story about the dump. 'We felt sorry for those people,' Mrs. Whitenight said. 'We knew what was going to happen. We knew all of the double talk they would get, all the do-nothing people they would run into.'"

Not familiar with Austin, they didn't realize that some of their neighbors were among those fighting expansion of the dump.

"When we found out it was our area, we were just sick," Whitenight said.

"I'll tell you, I just didn't want to get involved. We had been through hell and I didn't want to go through it again," he said. It's been almost two years since I've talked to a reporter, and I hoped I wouldn't have to do it ever again."

Somewhat reluctantly, they decided they had to help their neighbors. "Really all we can do is tell people

what we went through, warn them that it can happen again and maybe tell them a few shortcuts that we didn't discover until we'd wasted a lot of time," Mrs. Whitenight said.

Whitenight, 51, is a printer at the *American-Statesman*. Mrs. Whitenight, also 51, works in a pet shop. Two of their daughters live in New York, while three other children, including the son who urged them to move here, live in Austin.

As they flipped through newspaper files of pictures taken during the Love Canal crisis, they saw several familiar sights. "That's our car outside the Homeowners' Association," Mrs. Whitenight said. "And here, our house was right here." She pointed to a spot just off an aerial photo of the dump site in Niagara Falls, N.Y. Their home was within a tenth of a mile of Love Canal.

The Whitenights moved to Love Canal in 1955. They made the final payment on their home in March 1978. The leaking, toxic chemicals that would force them out of their home were discovered 6 months later.

"People had been complaining about funny black gunk since 1976," Whitenight said. "We didn't have any problems until after a blizzard in 1977. When the snow started melting and we had some rain, our cellar floor cracked and it filled with water, some foamy stuff and then a black brackish something.

"Then we noticed that it was smelling."

Most of what next happened to the Whitenights and their neighbors is a part of the most famous man-made environmental disaster in the United States. Chemical wastes disposed of years earlier by the Houston-based Hooker Chemical Co., began to leak. First, a school built over the dump was closed, and eventually hundreds of homes, including the Whitenights', were condemned.

They were among the most active in fighting to have something done about the situation. Whitenight was a regular picket at the city hall and in front of the disposal site. Mrs. Whitenight typed letters and raised money for the homeowners group.

Most of their memories are about the slowly increasing terror that filled their lives as more and more problems were discovered.

"We both have been found to have chromosome damage," Whitenight said. They were the only two members of the same family to be diagnosed with that medical and hereditary problem, he said.

Mrs. Whitenight had breast cancer and a miscarriage. She was one of nine people from the 15 homes on their street to have cancer. There have been three deaths from cancer among those nine.

Once their son Jeff's foot looked so bad they thought gangrene had set in. It turned out to be chemicals that had leaked into a ditch where he and his friends played.

"As soon as we moved away from Love Canal, all of the physical problems stopped," Mrs. Whitenight said.

Although the federal government bought their home, they said they had to take \$10,000 to \$15,000 less than the market value. They are ready to buy a home in Austin now, but it won't be close to a dump site, Mrs. Whitenight said.

"I love Austin," Whitenight said. "It's a beautiful city and I don't want to see anything mess it up."

"It could be a Love Canal all over," Mrs. Whitenight said. "That's why we're involved. In a few years we're going to need the vacant property that's between us and that dump. What are they going to do? Build a park there? Build a school over the dump site?"



Carter & Burgess

Environmental Engineering Architecture
Construction Management and Related Services

February 16, 1999

Project No. 98-3268-010

Ms. Sherry Jones
City of Austin
Department of Public Works and Transportation
Architectural and Engineering Services
One Texas Center, 505 Barton Springs Road
Austin, Texas 78704

City of Austin
Private Landfill Environmental Assessment
CIP Project No. 5040-150-3210
Travis County, Texas

Dear Ms. Jones:

We have completed our assessment of the Austin Community Landfill (ACL), Texas Disposal Systems Landfill (TDS), and Browning-Ferris Industries Sunset Farms Landfill (BFI) sites located in Travis County being considered by the City of Austin for disposal of Municipal Solid Waste (MSW) collected by its residential and commercial solid waste collection programs, as well as MSW generated by other City departments. The scope of work, findings, and conclusions of our assessment are described in the attached report.

This work was authorized by the Professional Services Agreement entered into between the City of Austin and Carter & Burgess dated January 11, 1999. Subconsultants utilized by Carter & Burgess in the performance of this assessment include Baer Engineering and Environmental Consulting, Inc., ECO Southwest Environmental Corporation, and Pardue & Associates, Attorneys at Law.

Please note that six copies of the report contain a second binder which is an expanded Appendix B containing tables of the groundwater analytical data for the three landfills.

Carter & Burgess appreciates this opportunity to be of service to the City of Austin. Should you have any questions or comments regarding this report, please do not hesitate to call me (512-314-3165) or Clyde Bays (713-803-2149).

Sincerely,

CARTER & BURGESS, INC.

Craig M. Carter, P.G.
Project Manager

Clyde V. Bays, Ph.D., P.E.
Manager of Environmental Services
and Associate

Attachments: City of Austin Private Landfill
Assessment Report (35 Copies)

Texas Disposal Systems

CITY OF AUSTIN
PRIVATE LANDFILL ENVIRONMENTAL ASSESSMENT
CIP PROJECT NO. 5040-150-3210
TRAVIS COUNTY, TEXAS

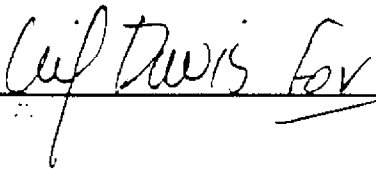
Prepared by:

CARTER & BURGESS, INC.
ENVIRONMENTAL SERVICES DIVISION
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Austin, Texas


Prepared for:

The City of Austin
Department of Public Works and Transportation
Architectural and Engineering Services
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MANAGER OF ENVIRONMENTAL SERVICES
AND ASSOCIATE



CRAIG M. CARTER, P.G.
PROJECT MANAGER



C&B PROJECT NO. 98-3268-010

February, 1999

Texas Disposal Systems

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BFI appears to be operating the Sunset Farms Landfill in a responsible manner protective of groundwater and surface water. The potential for future impacts to groundwater or surface water at the Sunset Farms Landfill is considered to be relatively low. Although the organic impacts detected in groundwater on the southwest portion of the property appear related to the ACL site, the Sunset Farms Landfill might be considered a potential source of contamination and be required to defend itself, if groundwater on surrounding properties was found to be impacted.

TDS Landfill

The TDS Landfill has been in operation for about 8 years. The original design specified in-situ soil liners for the landfill bottom and unweathered clay sidewalls. Weathered sidewall areas were to be lined with a minimum of 3 feet of compacted clay. The original final cover design consisted of 1.5 feet of compacted clay overlain by 1 foot of topsoil. A leachate collection system was not included in the original design. In 1994, the final cover design was changed to 4 feet of topsoil over 1.5 feet of compacted clay. Leachate collection systems were also installed in the post-Subtitle D sectors of the landfill.

Based on documents reviewed during this assessment, the TDS was constructed and has been operated in accordance with applicable regulatory requirements. No present groundwater impacts were observed or indicated by this assessment. Further, no evidence of surface water impacts was found. In addition, there is no evidence of landfill gas reaching the property boundary. TDS appears to be a very responsible operator and has implemented measures which appear to be protective of groundwater and surface water at the site.

Recommendations

It is the Carter & Burgess team's opinion that the former IWMM site at the ACL poses a substantial environmental risk and potential future liability to the owners and users of the site. Specific recommendations are made in **Section 8** of our report concerning further monitoring and investigations needed at the site in order to detect potential past and future releases to the environment.

Recommendations are also made to sample leachate seeps at the Phase 1 site on the ACL property as well as seeps on the Travis County Landfill to determine potential impacts to surface water in the tributary to Walnut Creek.

Carter & Burgess' team recommends removal and proper disposal of the waste at the former IWMM site in order to eliminate or substantially reduce the environmental risk associated with the site.

A recommendation is also made that the ACL work with Travis County to reduce leachate buildup in the Phase 1 area by operating the leachate recovery system in the Travis County Landfill in order to lower leachate levels in both areas.

EXECUTIVE SUMMARY

The City of Austin, Architectural and Engineering Services Division, Department of Public Works and Transportation, contracted with Carter & Burgess to perform an assessment of the environmental safety of the Austin Community Landfill (ACL), Texas Disposal Systems Landfill (TDS), and Browning-Ferris Industries Sunset Farms Landfill (BFI) sites located in Travis County. Carter & Burgess' team, which includes ECO-Southwest Environmental Corporation, Baer Engineering and Environmental Consulting, Inc., and Pardue & Associates, Attorneys at Law collected and performed technical review of all data available from TNRCC files, landfill records, and third party sources for these sites. Visual inspections of the landfill sites were also performed.

For this assessment, Carter & Burgess' team reviewed available information pertaining to permitting and siting of the various landfills, landfill design and construction, operating and regulatory compliance history, and the results of groundwater and methane gas monitoring programs. Meetings were also held with current and former landfill personnel, TNRCC representatives, and neighborhood associations in order to gather information needed to evaluate the environmental safety of the various sites. The Environmental Protection Agency (EPA) Region VI Office in Dallas was contacted concerning the status of the Petition for NPL Listing filed by concerned citizens for the ACL. Present environmental impacts, possible future impacts, potential migration pathways, overall environmental risks to groundwater and surface water, and other potential liabilities were evaluated for each landfill based on the information collected during our assessment. This information as well as the findings, conclusions, and recommendations arising from our assessment are discussed in various sections of the attached report.

As part of this assessment, we also reviewed changes in federal and state regulations in effect at different intervals throughout the past 35 years pertaining to Municipal Solid Waste (MSW) disposal facilities. A number of significant regulatory changes have occurred in the area of solid waste management, although the basic concepts as to proper siting, design and construction, and operation of landfills has remained essentially the same over the years.

A summary of the significant findings and observations made for each landfill is presented below.

Austin Community Landfill

Early in the life of the ACL site, the regulatory requirements for landfilling of MSW were in their early stages. Permission was requested and granted by the Texas Department of Health (TDH) to dispose of industrial waste at the Industrial Waste Materials Management (IWMM) site located within the boundaries of the landfill with few requirements stipulated except for cover thickness and clay keyways to control lateral seepage. After the IWMM site was closed and the ACL site continued to operate as a MSW landfill, formal regulations were written to manage the disposal of MSW.

The former IWMM site was operated during times when there were minimal technical requirements for liners and no prohibitions on landfilling drummed industrial or bulk industrial liquids. The portion of the site where these activities took place was not adequately protective of the environment and as a result there is a high probability that some environmental impacts may have resulted from the operations. Since the promulgation of the earliest landfill regulations and requirements, the MSW portion of the ACL site has been operated in general compliance with the regulations in existence at the time. Even when operated during times when there were no liner requirements, the MSW landfilling operations at the ACL site likely had minimal impact on the environment because of the low permeability typically associated with the Taylor Formation

Clays.

Potential groundwater impacts were historically reported in two monitoring wells located adjacent to the former IWMM site. These monitoring wells have not been sampled in recent times. There was no quantitative groundwater discovered in our assessment data that indicates the former IWMM site is currently causing environmental impacts. Groundwater on the MSW portion of the ACL site has been impacted by organic compounds. However, the recently detected organic compounds appear restricted to the western portion of the property at low concentrations and are likely associated with landfill gas as is typical of MSW landfills.

Data reviewed as part of this assessment showed no indication of impacts to surface water. However, based on the apparent leachate seeps observed adjacent to the unnamed tributary to Walnut Creek in the Phase 1 MSW area, surface water could potentially be impacted. Leachate management to reduce the hydraulic head in the adjacent closed Travis County Landfill and Phase 1 area should be performed before plans for additional cover are implemented.

Possible future impacts to the ACL site include lateral migration of leachate from the Phase 1 area into the unnamed tributary to Walnut Creek, and vertical and lateral migration of leachate from the former IWMM site. The existing Subtitle D monitoring program should be sufficient to detect and monitor groundwater impacts in the Weathered Taylor before they migrate offsite. However, no monitoring system has been put in place which could detect current or future vertical (downward) migration of solvents from the IWMM site. Although the possibility for vertical migration of contaminants from this site to the underlying groundwater is considered to be relatively low, the potential for impacts still exists. Given the above, the unknown contents and condition of the 21,000 buried drums at the former IWMM site presents a potential environmental risk. As long as the industrial waste remains buried at its current location it will be a source of environmental risk. Operations on the remainder of the ACL facility appear to be protective of groundwater and surface water.

Methane will continue to be generated at the ACL site and should be managed throughout the life of the landfill. The Landfill Gas Recovery System appears to be effective at controlling the gas generated by the landfilled waste at this time.

A Petition for National Priority Listing (NPL) has been filed with the EPA Region VI Office for property now owned by Waste Management of Texas but not included in the TNRCC Permit currently in effect for the ACL. This property is the approximate site of the former IWMM facility, and was excluded from the currently active MSW landfill by virtue of a permit amendment approved in 1981. A Preliminary Assessment of this site has been completed, but the results of the assessment and any subsequent actions which may be taken by the EPA or other state agencies is unknown at this time.

BFI Sunset Farms Landfill

The Sunset Farms site is currently and historically has operated in substantial accordance with applicable state and federal MSW regulations established for Type I landfills. A limited area of organic impacts to groundwater is present near the southwest corner of the site. This area of impacts appears related to the landfill activities on the adjacent ACL site. Data reviewed as part of this assessment showed no indication of impacts to surface water. The Landfill Gas Recovery System and electric generating facility which has been in operation for two years are apparently effective at controlling gas buildup within the landfill.

CITY OF AUSTIN
PRIVATE LANDFILL ENVIRONMENTAL ASSESSMENT
CIP PROJECT NO. 5040-150-3210
TRAVIS COUNTY, TEXAS

1. INTRODUCTION

The City of Austin Solid Waste Services Department (SWS) will stop accepting putrescible waste at its F.M. 812 Landfill in early 1999 in order to comply with Federal Aviation Administration (FAA) and Texas Natural Resource Conservation Commission (TNRCC) regulations prohibiting the operation of landfills near airports. In order to provide for the disposal of Municipal Solid Waste (MSW) collected by its residential and commercial solid waste collection programs, as well as MSW generated by other City departments, the City of Austin is proposing to contract for disposal with one or more existing private landfills in Travis County. The City issued a Request for Proposals for landfill services, and in response to those proposals has negotiated separate 30-year contracts with the Austin Community Landfill (ACL) owned by Waste Management of Texas, Inc. located in northeast Austin (Giles Road north of U.S. 290) and the Texas Disposal Systems Landfill (TDS) located south of Austin on F.M. 1327 near Creedmore. Contracting for landfill services with these two geographically separated locations was judged by City staff to give a significant economic advantage to the City over a single contract. This is due to a significant saving in operating costs as a result of having disposal sites relatively close to the areas being served, thereby reducing distances traveled from collection areas to the disposal location.

Significant questions were raised during public review of these contracts before the Solid Waste Advisory Commission (SWAC) by interested parties regarding the environmental safety of a closed industrial waste disposal facility associated with the ACL site, the effect that site has on the overall environmental safety of the ACL facility, and the adequacy of existing operating and design standards at the site. Information reportedly obtained from TNRCC records and other sources has been presented by individuals regarding groundwater monitoring data and studies, with those individuals asserting that the information proves groundwater, surface water, and landfill gas contamination and migration. A Petition for Assessment and NPL Listing has been filed by interested parties with the United States Environmental Protection Agency (U.S. EPA) to designate the ACL facility a CERCLA (Superfund) site. Although indemnification clauses protecting the City of Austin from financial consequences are contained within both proposed contracts, SWAC recommended that the City hire an independent consultant to assess all available data and provide an opinion to the City regarding the extent (if any) of contamination and migration from the ACL site and the probability and consequences to the City of the site being listed under CERCLA. In order to assure that all alternatives receive equal scrutiny, it was recommended that the TDS and BFI sites also be examined.

On January 11, 1999, the City of Austin entered into a Professional Services Agreement with Carter & Burgess to assess all available data and provide an expert opinion regarding the environmental safety of the ACL, TDS, and BFI sites. The scope of work, findings, and conclusions of our assessment are described in various sections of this report.

2. SCOPE OF WORK AND TECHNICAL APPROACH

A. Scope of Work

The objective of this assessment was to review and evaluate all available data and provide an expert opinion to the City of Austin regarding the environmental safety of the Austin Community Landfill (ACL), Texas Disposal Systems Landfill (TDS), and Browning-Ferris Industries' Sunset Farms Landfill (BFI) sites. General information pertaining to the three landfills is presented in **Section 3** of this report.

The scope of work performed for this assessment included the collection and technical review of available data to determine if evidence exists that groundwater, surface water, air quality, or any other measure of environmental safety has been (or is likely to be) impacted beyond the boundaries of the various landfill sites and the significance of any impacts (if found) on surrounding properties. The scope of work included an evaluation of the adequacy of liner design and area geology to project future liner integrity and the probability of migration of contaminants from each landfill site. Past monitoring protocols and data for migration pathways were also evaluated to determine if they were appropriate and adequate.

All data available from regulatory agencies and data presented by other interested parties, including neighborhoods, was evaluated as part of the assessment. In addition, past sampling protocols and the results of such were evaluated to determine if the applied regulatory standards were appropriate. Any vital information which is currently unavailable and should be obtained to assess the adequacy of environmental protection measures at the landfill sites was identified. The financial risks to the City associated with a Superfund designation for the ACL site, the likelihood of a Superfund designation based on available data, the characteristics of the ACL which would indicate a Superfund designation, and any additional monitoring which would reduce the exposure of the City in the event of a CERCLA listing were also researched and evaluated.

The history of the ACL site is considerably longer and more complex than the BFI and TDS sites. As a result, an extensive discussion of the various aspects of the site history was prepared in order to present the information used by Carter & Burgess' team to evaluate the environmental safety of the landfill. This discussion included detailed information regarding the construction and regulatory compliance histories of the ACL site. Although the volume of information presented in this report is considerably less, the BFI and TDS landfills were given the same level of scrutiny as the ACL site in order that uniform conclusions and recommendations were reached regarding their environmental safety.

B. Technical Approach

The Carter & Burgess team's technical approach to evaluating the design, construction, and operating histories of the three landfills as related to regulatory compliance and environmental safety issues consisted of the following tasks:

1. An initial cursory review of all landfill design and construction information available from the Texas Natural Resource Conservation Commission (TNRCC), the landfill site management offices, and other relevant sources such as concerned citizen groups.
2. Sorting and classification of the available landfill design and construction information for detailed review of pertinent information.
3. Review of past and present Municipal Solid Waste (MSW) regulations to correlate applicable rules and regulations in effect at various times during construction and operation of each landfill.

4. Interviews with persons knowledgeable about construction of waste cells that pre-date the promulgation of MSW regulations or for which documentation of cell construction could not be found.
5. Detailed review of construction-related data contained in all available Soil and Liner Evaluation Reports (SLERs) and Flexible Membrane Liner Evaluation Reports (FMLERs) for waste cells constructed at each landfill.
6. Detailed review of the compliance of cell construction with previously established and current Soil and Liner Quality Control Plans (SLQCPs).
7. Detailed review of the Final Cover Quality Control Plans (FCQCP) for each landfill.
8. Review of historic topographic maps and aerial photographs to correlate landfill cell siting with respect to site geography.
9. Prepare a waste cell site plan layout by sector for each landfill based upon information contained in various liner evaluation reports.
10. Review and selection of representative cross-sections of the landfills for inclusion in this report.
11. Evaluation of the performance of constructed cells at each landfill based upon available surface water, groundwater, methane gas, and leachate collection system data.

A licensed professional engineer performed tasks 1 through 10. A professional geologist in conjunction with a licensed professional engineer performed task 11.

For all three landfills, on-site records were reviewed and past and/or present employees of each facility were interviewed. Each of the landfill facilities provided Carter & Burgess office space, use of their copier and facsimile machine, permission to interview employees and engineers-of-record, and open perusal of their records. With the exception of several engineering studies, work plans, and reports unrelated to permit reporting requirements, most information pertinent to this assessment was available and obtained from the records at the TNRCC.

To determine potential impacts to groundwater and surface water, Carter & Burgess' team relied on experience and knowledge of the hydrogeologic setting of the various landfill sites (as well as similar sites), information contained in published geologic and hydrogeologic studies, technical data contained in the various landfills permit applications and modifications, and the results of site-specific hydrogeologic investigations.

Groundwater sampling histories and analytical data were reviewed for each facility. This involved a review of groundwater sampling reports obtained from the TNRCC and/or facility files. Data summary tables were provided for the TDS and ACL sites. Data summary tables were constructed by Carter & Burgess' team for the BFI site. Data summary tables provided for the TDS and ACL sites were "spot" checked for accuracy and used to facilitate review of groundwater analytical and monitoring results. The ACL summary tables did not provide data prior to 1985. Therefore, sampling reports were reviewed for all sampling events not included in the data summaries. The groundwater and surface water data reviewed as part of this assessment may not represent a complete record of each facility's monitoring history. However, all data available from the files at the TNRCC and the various landfill facilities were reviewed and evaluated.

3. DESCRIPTION OF LANDFILLS

The Austin Community Landfill and BFI Sunset Farms Landfill are located east of Austin in Travis County. The Texas Disposal Systems Landfill is located southeast of Austin in Travis County. All are Type I Municipal Solid Waste (MSW) landfills which accept household waste, construction/demolition waste, and some nonhazardous and industrial waste with special approval from the TNRCC. *Figure 1* shows the relative locations of the three landfills. General information pertaining to each of the landfills is presented below.

A. Austin Community Landfill (ACL)

The ACL site is located near the intersection of Giles Road and U.S. 290 in Travis County. The facility consists of approximately 290 acres of land. Components of the site include a closed MSW landfill area (Phase I) located adjacent to the Travis County Landfill and a former 86-acre Industrial Waste Materials Management (IWMM) site which was used for the disposal of approximately 21,000 drums of industrial waste. The former IWMM site reportedly contained acid and solvent pits. The remainder of the ACL site consists of an active MSW landfill. A site layout is shown in *Figure 2*.

B. Sunset Farms Landfill (BFI)

The BFI site is located at 9912 Giles Road approximately 5.3 miles from the intersection of I.H. 35 and U.S. 290 in Travis County. The landfill consists of an approximate 352.4-acre landfill which primarily serves residences and businesses located in Travis County. Major components of the landfill include a capped pre-Subtitle D MSW landfill area (Phase I), currently active MSW landfill area, public disposal/drop box area, gatehouse and office, maintenance/wash facility (shop building), and a landfill gas collection system. A site layout is shown on *Figure 3*.

C. Texas Disposal Systems Landfill (TDS)

The TDS site is located at 7500 F.M. 1327 approximately 2.7 miles east of I.H. 35 and 3.8 miles west of U.S. 183 in southeast Travis County. The facility consists of a 341-acre regional MSW landfill on a 927-acre site. Components of the landfill include a citizen's drop-off center, a crusher for large recyclable items, a shear for processing scrap metal and tires, and shredders for recyclables and brush; a drop-off center for source separated recyclable materials, used motor oil, and reusable items; a large-scale compost center for leaves, grass, wood products, and other organic materials; a permitted recycling center for removal and processing of reusable items from the waste stream; and corporate and administrative offices and maintenance facilities. Ranching operations are conducted on portions of the site not used for landfilling. A site layout is shown in *Figure 4*.

4. DOCUMENT EXCHANGE AND REVIEW PROCESS

A. Agency File and Records Review

Carter & Burgess' team retrieved the entire contents of the TNRCC Central Records Files for the ACL, BFI, and TDS sites. Contents of the files include records on microfiche, bound reports, correspondence, and other documents submitted to the TNRCC. The contents of the files were observed and indexes were made of all the records present in the files (*Appendix A*). Copies were made of key reports and correspondence which were critical to assessing the environmental safety of the three landfills. In many instances, the reports and correspondence on file in the TNRCC's Central Records were incomplete. The landfills were able to provide most of the additional information needed to fill in gaps in the data. Additional information was obtained from files in the Groundwater Section of the TNRCC's Municipal Solid Waste Division and from files at the TNRCC's Region 11 Office in Austin.

B. Review of Landfill Records and Files

Meetings were arranged with representatives of the three landfills in order to allow them to

present Carter & Burgess' team with relevant information and data related to environmental monitoring and the history of each landfill. Key information obtained from landfill representatives included groundwater monitoring data, Soil and Liner Evaluation Reports (SLERs), and other information pertaining to the history of environmental monitoring of the sites. Several meetings were required to review all of the reports kept at each site (particularly the ACL site):

C. Review of Third Party Files

A meeting was held on January 23, 1999 at the home of Joyce Best in Harris Branch in order to give concerned citizens the opportunity to present information to Carter & Burgess' team which might pertain to the environmental safety of the three landfills. Representatives of Carter & Burgess' team were presented with a video tape and several documents to aid our evaluation of the landfills.

D. Meetings and Communications With Regulatory Agencies

Members of Carter & Burgess' team also conducted interviews with several members of the TNRCC involved in monitoring environmental conditions at the three landfills. Carter & Burgess' team met with a Ben Milford, an inspector with the Region 11 Office of the TNRCC and Jeff Davis, a geologist with the Municipal Solid Waste Division, Groundwater Protection Section of the TNRCC. Thomas Collins of TNRCC was also contacted by telephone and provided information about the landfill gas collection systems at the ACL and BFI sites, and Ada Lichaa in the Groundwater Protection Section at the TNRCC was contacted by phone to discuss groundwater monitoring at the BFI site.

Carter & Burgess filed a request with the Environmental Protection Agency (EPA) under the Freedom of Information Act regarding the petition that the EPA has received for National Priority Listing (NPL) of the ACL site. This information is discussed in **Section 7.A.5**.

5. LANDFILL SITE VISITS AND MEETINGS WITH THIRD PARTIES

A. Landfill Site Visits

Site visits were conducted at the three landfills in order to observe the site locations and to meet with the people most familiar with the landfill histories and operations. Visits were made to the BFI and TDS sites on December 30, 1998. The ACL site was visited on January 6, 1999. Several follow-up meetings have taken place at the ACL site in order to review the large volume of reports documenting the construction of various phases of the landfill. As part of the site visits conducted by Carter & Burgess' team, current landfilling operations and the locations of prominent features referred to in reports such as monitoring wells and landfill gas collection equipment were observed.

During one meeting at the ACL site, representatives from Carter & Burgess' team, Marcos Elizondo of Waste Management, and Rusty Fusilier (former WMI Landfill Manager) of SCS Engineering walked the drainageway between the closed Phase I MSW disposal area and the former IWMM site. The general condition of the landfill cover in this area was inspected and photographs were taken to document observations (**Appendix D**). During the same site visit, permission was obtained from Travis County to visit the Travis County Landfill site to the southwest. Team members drove and walked the western portion of the landfill near an unnamed tributary to Walnut Creek, and observed and photographed the general condition of the landfill cover in this area.

B. Meetings With Third Parties

During the January 23, 1999 meeting in Harris Branch, concerned citizens discussed their opinions regarding the environmental safety of the landfills as well as their observations of the sites. The neighbors who attended the meeting expressed concern about potential impacts to the environment caused by the Travis County Landfill, ACL, and BFI sites. Operations at the

landfills that negatively impact the area residents include items such as tracking mud onto Giles Road during wet weather, blowing trash, odors, and runoff of sediment in the area drainages. There are also concerns about the environmental safety of the Travis County Landfill and the former IWMM site and the potential impacts from buried waste at those sites.

6. REGULATORY AND TECHNICAL REVIEW

This section begins with an overview of federal and state regulations in effect at different intervals throughout the past 35 years pertaining to MSW disposal facilities. For each landfill considered in this assessment, information is next presented regarding siting and permitting of the facility, details of the facility design and construction, the operating history and regulatory compliance of the facility, and waste containment as well as potential migration pathways. Regional and area geology, the methodology for waste containment (liner type and final cover), monitoring systems to protect the environment, and other features of each landfill (i.e., systems for leachate collection) are also described. These factors were considered in arriving at the opinions regarding the "environmental safety" of each landfill presented in **Section 7**.

A. Overview of Changes in Landfill Regulations

Changes over the past 35 years in the following topics pertaining to MSW disposal facilities were researched as part of this assessment: regulatory agency(s) and authority, type of regulation required (permit, registration, etc.), liner requirements, leachate collection, groundwater monitoring, landfill gas monitoring, closure requirements, and post-closure requirements. These changes have been summarized in **Table 1**. The regulations have not changed substantially since the final date listed in each category.

As is evident from **Table 1**, a number of significant regulatory changes have occurred in the area of solid waste management, although the basic concepts as to proper siting, design and construction, and operation of landfills has remained essentially the same over the years. Beginning in 1964, the Texas Department of Health (TDH) promulgated rules and standards regulating waste disposal which required site development and operation plans and adequate investigation of geologic characteristics at proposed landfill sites. These regulations also specified the need for a final cover (cap) and a post-closure monitoring and repair program for completed landfills.

In 1970, the TDH and Texas Water Quality Board (TWQB) jointly began sharing responsibility for overseeing regulations established in the Solid Waste Disposal Act (SWDA). The TWQB only became involved when water quality matters arose. The TDH was also directed to consult with the Texas Air Control Board (TACB) on issues relating to air pollution or ambient air quality. A Letter of Application for Approval was required from the TDH to conduct MSW activities. The use of a naturally occurring or artificially placed impervious barrier (liner) to minimize the possibility of leachate percolation into groundwater was required. Provisions for monitoring groundwater quality on a site specific basis were established. The final cover for landfills was extended to specify 2 feet of compacted clay (or other suitable earthen material) and revegetation to prevent erosion.

In 1974, the TDH began requiring a site permit and public hearing for landfills. A 1 year post-closure care period was established for closed landfills. Later in 1977, the TDH began requiring consultation with other state and federal agencies regarding siting of landfills. Formal procedures for estimating percolation of water into landfills (water balance method) were implemented. Landfill gas monitoring and a formal site closure plan were required by the TDH. The site closure plan had to be submitted at least 60 days prior to closure.

In 1980, the TWCB became the Texas Department of Water Resources (TDWR). A Soil and Liner Quality Control Plan (SLQCP) became a part of the Permit Application. Alternate liner

technologies (other than clay) could be approved by the TDH on a site specific basis. Handling and temporary storage of contaminated surface water must now be considered in landfill design. The need for groundwater monitoring wells and/or earth electrical resistivity surveys must also be evaluated, as well as the need for landfill gas controls. The post-closure care period was also extended beyond 1 year, if problems persist at a closed site.

In 1983, groundwater monitoring at landfills became mandatory (at least one upgradient and two downgradient wells). These requirements could be waived if a demonstration was made that groundwater would be protected. A site closure plan must now be provided in the Permit Application. This plan must be updated 1 year prior to site closure. The post-closure care period was extended to 5 years (longer if problems exist).

In 1990, provisions for diversion of surface water runoff from active disposal areas must be considered in the landfill design. Approval of discharges of contaminated water (water coming in contact with waste) was required by the TDWR. Structures built on landfills required provisions for venting of landfill gases. Methane concentrations less than 25% of the LEL (Lower Explosive Limit) in on-site structures and less than the LEL at the property boundary were required. Any monitoring programs in effect during operation of the landfill must now be continued during the post-closure care period.

On October 9, 1991, as a result of new requirements in Subtitle D of the Resource Conservation Recovery Act (RCRA) as amended by the Hazardous and Solid Waste Amendments (HSWA), the U.S. EPA excluded MSW landfills from Part 257 and established revised and more stringent MSW landfill criteria in Part 258 (commonly referred to as the Subtitle D criteria). On March 1, 1992, the MSW program was transferred from the TDH to the Texas Water Commission (TWC). On September 1, 1993, the TNRCC was created incorporating the TDH and TACB. On October 9, 1993, Subtitle D MSW landfill regulations went into effect (30 TAC Section 330). These regulations resulted in the incorporation of more stringent measures for groundwater protection, including the use of composite liner and final cover systems, leachate collection, and a Landfill Gas Management Plan (LGMP). The post-closure maintenance period was also extended to 30 years, and new financial assurances were required of landfill operators.

The current technical requirements for liners and other major landfill design components are largely the same since the enactment of Subtitle D regulations.

B. Austin Community Landfill

1. Permitting and Siting

Permits

The ACL site is currently owned and operated by Waste Management of Texas (Permit No. 249 A, B and C). A tremendous amount of information concerning this site dating back to 1970 was reviewed by Carter & Burgess' team for this assessment. Since that time, ownership of the property has changed a number of times and its development as a MSW Landfill facility has been scrutinized by various regulatory agencies. The ownership and permitting history of the ACL site are discussed in details in **Section 6.B.2.**

Siting

The ACL site is located between the closed Travis County Landfill to the south-southwest and BFI Sunset Farms Landfill to the north. When landfill operations began at the site, it was generally flat farm land and pasture land. Over the life of the landfill, a subdivision has been built to the northeast (Harris Branch) and Applied Materials has built an electronics manufacturing facility across Giles Road to the east.

Physiography

The ACL site is located in the Blackland Prairie physiographic province, approximately 1.5 miles from the eastern limit of the Balcones Fault Zone. This fault zone separates the Blackland Prairie to the east from the uplifted Edwards Plateau to the west. The Blackland Prairie is a rolling prairie generally less than 800 feet above mean sea level (msl), with slightly to moderately dissected slopes (generally less than 5 percent). Natural vegetation consist of grasses with scattered oak and mesquite trees.

At the ACL site, the pre-landfill ground surface consisted of a series of gently rolling hills dissected by erosional valleys. Topographic relief ranged from 570 to 710 feet msl. Surface runoff over the western three fourths of the site is towards the southwest into an unnamed tributary which drains to Walnut Creek. A drainage divide is present on the eastern side of the property, which causes the eastern third of the site to drain to the east toward Gilleland Creek which flows into Lake Walter E. Long.

Geology

The ACL site lies within the outcrop area of the Taylor Group of the Cretaceous System. The Taylor consists of approximately 700 feet of blueish-gray to brown, calcareous, montmorillonitic clay and marly clay (Garner and Young 1976). The Taylor has inherently low permeability, low potential for groundwater development, and a high ion exchange capacity. At the ACL site, the Taylor is approximately 200 to 400 feet thick. Near the surface (typically within the upper 20 to 40 feet below ground surface (bgs)), the Taylor is tan to brown, with abundant fractures, iron staining, selenite (gypsum) and pyritic fracture fill. This upper portion of the Taylor is typically referred to as the "Weathered Zone".

Beneath the Weathered Zone, the Taylor is a blue-gray, very plastic clay and marly clay with very low permeability. Although this portion of the Taylor may well exhibit microfractures and is documented to be saturated, the horizontal and vertical permeability of the unweathered clay is very low. Hydraulic conductivity data included in the ACL Permit Application indicates that the permeability of the unweathered clay is on the order of 1.0×10^{-7} cm/sec or less. The Taylor exposed in the drainages at the ACL consists of a tan, fossiliferous, marly clay with abundant dessication fractures. Beneath the Taylor lies the Austin Chalk consisting of 350 to 500 feet of chalk, limestone, marly limestone and marl (Garner and Young 1976).

Major faulting is not known to occur at the site, although intraformation faulting with relatively small displacement along fault planes may occur. The outcrop area of the Taylor is generally considered to be a good siting location for a MSW landfill.

Hydrogeology

The Taylor Group is typically divided into two zones. The upper or "Weathered Zone" typically occurs within the upper 20 to 40 feet, and is a tan to brown "heavily weathered" clay and marly clay. Groundwater occurs in fractures of the weathered clay, and in some areas is of sufficient volume and quality for domestic use. This is typically considered a "perched" water table aquifer, which generally mimics the original surface topography. The source of recharge to the weathered clay is primarily from precipitation via surface infiltration. The tendency of the groundwater in the weathered Taylor to follow topography often results in groundwater discharge to creeks via seeps. The weathered portion of the Taylor provides base flow to creeks following wet periods. The Weathered Taylor Clay is subject to the formation of deep (potentially 30 to 40 foot) desiccation fractures during prolonged dry periods, which typically results in wide variations in water quality as well as rapid recharge during storm events.

Water wells in the area of the ACL site are generally large in diameter and shallow in nature.

These wells are completed in the weathered portion of the Taylor and in alluvium along Walnut Creek. However, published assessments of the Taylor Group indicate that water availability is limited and generally unfavorable for groundwater development. A search of domestic water wells was performed as part of the response to comments received on the "Comprehensive Hydrogeologic Assessment" performed for the ACL site (RUST, 1993). During this search twelve wells were found in the site vicinity. All but one were completed in the weathered Taylor or alluvium. The deeper well was completed in the Edwards at 1178 feet, and is located on the northern edge of BFI Sunset Farms property approximately 2800 feet north of the ACL's north property boundary and 4200 feet north of the IWMM site. Groundwater does exist in the unweathered clay beneath the weathered zone. However, the unweathered clay has extremely low permeability (in the range of 1×10^{-7} cm/sec). Groundwater in the unweathered portion of the Taylor exists in microfractures and other localized fractures which have little interconnection.

The Austin Chalk, which lies beneath the Taylor, is known to sustain groundwater locally. However, this is primarily the case on and near the outcrop area of the Austin Chalk, where secondary porosity from fracturing and solutioning of the limestone sustains saturation. The documents reviewed as part of this assessment found no water wells completed in the Austin Chalk in the vicinity of ACL. The site is very near the "bad water line" of the Edwards Aquifer, where groundwater east of this line becomes increasingly mineralized. The one water well completed in the Edwards at a total depth of 1178 feet is reportedly used for irrigation. The lower Trinity Aquifer, which is approximately 3100 feet below the landfill, is not likely potable.

2. Landfill Design and Construction

The ACL site has a long and complex history dating back almost 30 years. Jack Arsenault, owner of Universal Disposal, Inc., applied for approval of a 108.34-acre sanitary landfill at this site on December 4, 1970. The subsurface investigation prepared by Trinity Engineering Testing Corporation (TETCO) for this application included a total of four soil borings, each drilled to a depth of 20 feet below existing ground surface. TETCO collected undisturbed soil samples for laboratory testing to determine Atterberg Limits and gradation. The locations of the borings appear to coincide with the areas now known as the closed Phase I cell, the old wet weather cell, and the industrial waste cell. No shallow groundwater was encountered. The soil was classified as inorganic clays of high plasticity (CH). Permeability was not measured, but the soils were considered practically impervious (permeability coefficients ranging from 1×10^{-6} cm/sec to 1×10^{-9} cm/sec) based on the type of subsurface materials at the site. The rules in force at the time did not specify Atterberg Limits, gradation, or permeability requirements. The generally accepted limits for these parameters, however, were liquid limit ≥ 50 , plasticity index ≥ 25 , gradation $\geq 50\%$ (-200 mesh), and permeability $\leq 1 \times 10^{-7}$ cm/sec. The soils and engineer's proposed plan for constructing the landfill at this site were considered adequate at the time of construction.

After reviews by the Austin-Travis County Health Department, the City of Austin, Travis County, and the Texas State Department of Health (TDH), Universal Disposal, Inc.'s application for approval of a sanitary landfill was approved on December 22, 1970. This was not a permit to operate the landfill, since the state had not yet established a permit process and there were no regulations for landfills at the time. The approval was granted contingent on the construction of dikes reinforced with riprap to address drainage. The TDH found the application was compliant with respect to equipment and operational vehicles, location, land use, zoning, access, sanitary design, water pollution, storage of solid waste, fire protection, ventilation, windblown material, noise pollution, employee sanitation facilities, and operational standards. Landfilling in the old Phase 1 cell and wet weather cell commenced about this time.

In early 1971, Jack Arsenault of Industrial Waste Materials Management, Inc. (IWMM), a separate corporate entity from Universal Disposal, Inc., applied for approval to dispose various chemical wastes on a surveyed portion (approximately 26 acres) of the original 108.34-acre tract. The chemical wastes were reported to be "spent acids, caustics, spent solvents, waste hydrocarbons, contaminated industrial process water." From the application, the proposed site

construction consisted of lagoons or storage facilities "constructed in the naturally-occurring soils of the site" for chemical, biological, and physical treatment of waste materials along with segregation and recovery of certain materials. Excerpted proposed treatment descriptions are as follows:

- Chemical treatment included 1) neutralization of acids with lime to produce insoluble salts that could be landfilled; 2) oxidation to reduce certain organic compounds to produce stable, non-toxic compounds; and 3) chemical flocculation and sedimentation of dissolved or colloidal materials from waste liquids.
- Biological treatment included aeration and evaporation of slightly contaminated wash waters.
- Physical treatment and disposal included 1) landfilling 5 to 7 foot thick compacted lifts of dry wastes in trenches, with 6 inches of compacted soil cover for each lift and 2 feet of compacted soil for final cover; 2) placement of drummed waste in trenches covered with 4 feet of compacted clay and permanent markers upon closure; 3) placement of bulk solvents in 18-inch wide trenches subject to evaporation followed by cover; and 4) plowing in or landfilling of diatomaceous earth.
- Segregation and recovery included 1) unsophisticated physical segregation of paper, metals, battery cases, glass, etc., and 2) skimming of waste oils from waste oil water lagoons.

After reviews by the TDH and the Texas Water Quality Board (TWQB), IWMM's application for operation of a commercial industrial solid waste facility was approved by the TWQB under Emergency Waste Control Order #71-9E. This order was dated May 3, 1971, although industrial waste disposal reportedly began in April 1971. The soils and the engineer's proposed plan for constructing the landfill at this site were in compliance with applicable regulations at the time. This emergency order expired on August 20, 1971, necessitating IWMM filing an application for continuation of the existing facility on February 11, 1972. This application was for a "larger facility with greater disposal capabilities, including incineration and physical/chemical treatment." The application reported that, at the time, bulk liquids were disposed in 10 feet deep, diked, in-situ clay pits, as follows:

- Pit #1 contained spent solvents and paint residues and had a capacity of 206,000 gallons.
- Pit #2 contained spent acids (primarily H_2SO_4 and HCl) and had a capacity of 270,000 gallons.
- Pit #3 contained industrial process washwater and had a capacity of 472,000 gallons.
- Pit #4 contained spent solvents and had a capacity of 840,000 gallons. Solvents and washwater was allowed to evaporate. The acid was neutralized periodically with waste caustic or lime.

Drummed wastes were stored on site until a large number of drums accumulated. Once accumulated, stacked drums were buried in trenches and covered with 3 feet of dirt. It is estimated that more than 21,000 drums of waste were buried at the IWMM site.

The TWQB conducted an investigation of the IWMM site on April 12 and 13, 1972 to collect

additional data. The results of the investigation (dated May 15, 1972) reported "Industrial waste acids are currently placed in three unlined pits. Most of the other industrial wastes are placed in 55-gallon drums and then landfilled. The excavation where 55-gallon drums currently are placed is near the crest of a small hill on the company's tract of land. The bottom of the excavation is approximately 15 to 20 feet below the original land surface and coincides with the base of the weathered zone in the Pecan Gap Formation. The four sides of the pit consequently are formed by weathered clay. Three pits in which industrial waste acid is disposed of were observed during the investigation April 12 and 13, 1972. The dimensions of these pits were approximately 30 feet wide by 40 feet long. The depths of the pits are approximately 5 to 10 feet."

The report concluded "the occurrence of groundwater in the zones of weathered clay in the area indicates that liquids can seep or migrate within the shallow clay. Wastes that are buried in the zone of weathered, uncompacted clay may eventually seep onto the land surface downslope. After periods of rainfall, water that flows in the small tributary to Walnut Creek could then become contaminated. Groundwater in the terrace and alluvial deposits along Walnut Creek consequently could become contaminated. In order to prevent subsurface seepage from the pits, the wastes should be buried in the unweathered, lithified gray clay or shale that occurs below the base of the weathered, tan to gray clay. Field permeability tests, such as shallow-well permeameter tests, should be conducted within the unweathered gray clay or shale to confirm no seepage will occur. These tests should be conducted throughout the applicant's tract at sites selected for burial of wastes. The clay that is used to cover the wastes should be compacted so that the buried wastes, particularly volatile hydrocarbons, cannot escape upward. In addition, although the above recommendation should prevent subsurface seepage, surface erosion may eventually expose the buried wastes and allow surfacewater contamination to occur. Surfacewater flow erodes the clays at the site relatively easily not only because of the steep slope of the land but also because of the physical character of the clay. If erosion occurs and the buried wastes are exposed, contaminants would flow into Walnut Creek. The groundwater in the alluvium consequently could become contaminated."

In April 1972, TETCO prepared a subsurface investigation report for the chemical storage pits. TETCO drilled two borings were drilled to depths ranging from 36.5 to 37.5 feet below the bottom of the chemical storage pit. Groundwater was not encountered. The report concluded "the clays are impervious and are satisfactory for compacted impervious fill." A TWQD investigation report dated August 22, 1972, states that "Due to numerous complaints concerning the operation, and concern over possible groundwater contamination, a cease and desist order (TWQB Order 72-3E) was issued to IWMM on May 4, 1972 to terminate operation until further orders from the Board. A Hearing Commission report, dated May 17, 1972 recommended the Board deny the application for a permit. On May 22, 1972, the company withdrew its request for a permit and by letter dated June 19, 1972, the Board directed IWMM on proper close-out procedures for the industrial portion of the landfill."

On February 12, 1973, individuals from IWMM, the TWQB, the Austin-Travis County Health Department, the TWDB, and the TDH met to evaluate the history of the operation and the results of a backhoe investigation of a source of seepage. In the meeting, it was determined (from the previous backhoe investigation of the IWMM cell) "the seepage at the site would be stopped by removing the black dirt and replacing it with a clay key. In addition, the facility should be covered with at least 15 feet of clay. The trenches (clay key) should be on two sides of the disposal site and should extend below the level of the barrels." During the meeting, it was noted "that the disposal of municipal solid waste and industrial solid waste has occurred on the same land and in effect, is a double decked operation."

As a result of this meeting, Mr. Yantis of the TWQB directed IWMM to take remedial action consisting of the following:

- Remove the black dirt around the barrel disposal area as close as possible to the

barrels.

- Replace the black dirt with compacted key clay.
- Both industrial solid waste sites should be mounded over to about 15 feet above ground level.
- As promptly as possible with no foot dragging, provisions should be made to prevent the washout of the clay, including the grass sodding of both sites.
- The municipal solid waste areas should be marked.
- Prepare plans for the permanent markers for the industrial areas.
- Neutralize and cover the existing acid and solvent ponds.

Mr. Yantis noted that the company would retain responsibility for any future seepage or leakage from the site.

On July 23, 1973, Jack Arsenault sold the 108.34 acres of land from Universal Disposal, Inc. along with other assets to Ira D. Moore of Longhorn Disposal Service, Inc. The Austin-Travis County Health Department determined from an inspection on August 28, 1973 that not only that the site had changed ownership, but also that "the site was being operated in apparent violation of this Department's regulations in that large areas of exposed garbage and numerous flies were observed." On January 11, 1974, the TDH advised Mr. Moore and Mr. Prock of Longhorn Disposal, Inc. "of the necessity for their meeting the requirements of the TWQB regarding the previously approved and subsequently closed industrial site at this location."

On January 17, 1974, Mr. Moore wrote the Texas Air Control Board (in response to an accidental fire at the facility) that "[Any regulatory error [it] was due to ignorance since we have just purchased the landfill and have no experience from which to draw. Please note that we are learning very fast and we will comply with all regulations concerning solid waste disposal." On January 18, 1974, Mr. Prock transmitted "a copy of the survey outlining the industrial waste dumping at the Universal landfill ..." After satisfactory reports from several inspections by the TDH and approval by Universal Disposal, Inc., the TDH transferred the approval granted to Universal Disposal, Inc. on December 22, 1970 to Longhorn Disposal, Inc. The effective date of this transfer was October 10, 1974. However, they were also made aware that on October 16, 1974, new regulations would provide for issuance of "permits" instead of "approvals". Landfilling in the old Phase I cell and wet weather cell had continued uninterrupted from July 23, 1973 through the date of approval of the transfer. In the interim, an engineering firm hired by Austin Community Disposal, Co. in June 1974 studied the soil characteristics of an adjacent 108-acre site proposed for expansion of the landfill. The engineer's report presents general soil characteristics taken from the Soil Survey of Travis County and one boring log. The firm classified soils as CH and CL. They encountered groundwater at 48.7 feet below surface.

On July 17, 1974, Mr. Yantis of the TWQB called for an investigation of the closed industrial site "to see if there is any indication of seepage by various chemicals and oily materials." This investigation did not occur until February 23, 1977. On this day, the TWQB continuously cored three test holes at the abandoned IWMM cell (also known as drum disposal site No. 1). This is an approximate area measuring 200 feet by 400 feet. The borings were advanced to a depth 13 to 19 feet. One soil sample collected from each of these borings was analyzed for arsenic, barium, cadmium, copper, chromium, lead, manganese, mercury, nickel, selenium, silver, and zinc. The study concluded "subsurface or surface leakage from drum disposal site No. 1 was not detected during the investigation. No subsurface migration of waste is expected to occur at this site as engineering tests on selected samples of the Taylor clay indicate horizontal and vertical

permeabilities of less than 1×10^{-7} cm/sec. It appears that the keyway which was constructed in 1973 has been effective in preventing horizontal migration of waste."

On March 31, 1975, Longhorn Disposal filed for a Type I MSW Landfill Permit for the existing landfill. This permit (Permit No. 249) is finally granted on September 26, 1977. On April 9, 1976, Longhorn Disposal, Inc. requested the TDH to approve the company's authority to receive, handle, and dispose of "a broader type of waste material than it is presently handling." These wastes included acetone, polyester resin, methylene chloride, used printer's ink in drums, styrene, pigmented resin and liquid resin, foam process, foam soap, polyethylene film, lube oil, freon waste with water, and ring oil. Longhorn Disposal, Inc. submitted an engineer's report on "how to properly dispose of the subject waste items in its landfill." Longhorn Disposal Inc.'s request further stated, "The subject items herein above set out will all be catalogued and their exact location horizontally and vertically will be maintained in a permanent log for immediate reference at any time by any agency entitled to inspect the records and the landfill of the company."

On April 9, 1976, the TDH stated Longhorn Disposal, Inc. could accept nonhazardous industrial wastes which are incidental to the municipal type waste already being accepted, but that hazardous materials incidental to the municipal type waste already being accepted would require permission from the Department. Specifically, acetone should not be accepted. On May 3, 1976, the Texas Department of Health Resources (TDHR) approved Longhorn Disposal, Inc.'s request to accept and dispose of all of the wastes included in their April 9, 1976 letter with the stipulation that "a separate pit or trench shall be provided for the disposal of the methylene chloride and all resin drums which contain acetone in order to segregate these materials from the remaining municipal solid waste where unintentional fires are not uncommon. When sufficient number of drums are accumulated, they should be deposited in the bottom of the pit or trench and promptly covered with sufficient earth to eliminate fire and explosion hazards."

In an internal office memorandum dated May 7, 1976, the TWQB agreed that the TDHR had jurisdiction, but stated "that there is a good possibility for a problem area to develop at the Longhorn Disposal site." On August 13, 1976, the TDHR granted approval to Longhorn Disposal, Inc. to accept and dispose additional non-hazardous wastes from Jefferson Chemical Co. These reported non-hazardous wastes consisted of diatomaceous earth solids, polyol, pigments, methanol, phenyl mercuric propionate (<0.5%), dibutylparacresol (<0.3%), long-chain fatty alcohols, high molecular weight ethylene oxide adducts, and samples of laboratory chemicals.

These wastes were to be received in sealed metal drums. It is not clear from the information available if these drums would be placed "in cells of approximately ten barrels lots," "handled along with your regular municipal waste" or "best to scatter the drums and not put them in bunches" or "worked into the active disposal area without removing the waste from the drums to accomplish direct mixing." The TDHR did stipulate, however, that disposal excavations were to be "in a clay soil having a permeability of not more than 1×10^{-7} cm/sec, a Liquid Limit of not less than 30, and a Plasticity Index of not less than 15". The soils and the engineer's proposed plan for constructing the landfill at this site were considered adequate at the time of construction. However, Carter & Burgess' team was unable to locate any type of catalog or permanent log with the exact nature or location horizontally and vertically of this waste. In the August 22, 1977 investigation of drum disposal site No. 1, it was reported that "none has been disposed of near drum disposal site No. 1."

In 1978, Austin Community Disposal Company, Inc. bought Longhorn Disposal and formed Longhorn Community Disposal. In 1979, Longhorn submitted an application and permit amendment to expand the site by an additional 108 acres (total of 216 acres). On May 2, 1979, TETCO presented their findings of a subsurface investigation and soil testing in the old wet weather area. TETCO drilled one boring to a depth of 40 feet below ground surface.

Groundwater was not encountered. Atterberg limits, gradation, and permeability tests indicated the soil was suitable for landfilling. The engineer certified the suitability of the soils. On May 15, 1980, an engineering report presented the results of a geotechnical investigation and laboratory analysis of soil samples from 17 borings to depths ranging from 40 to 65 feet in the proposed 108-acre expansion area. Atterberg limits, gradation, and permeability tests indicated the soil was suitable for landfilling. The engineer certified the soils suitable for landfilling.

On June 24, 1980, the TDWR collected soil and groundwater samples from the abandoned IWMM cell (drum disposal site No. 1). The Department collected groundwater samples from monitoring wells #1 and #2 located at the disposal site designated as Site #1. Carter & Burgess' team found no record of these wells having been drilled. Chemical analyses from monitoring well #1 "indicate the presence of xylene, benzene, naphthalene, decahydronaphthalene and hydrocarbons." Analyses indicated "no significant concentration of heavy metals."

On November 26, 1980, the TDWR wrote the TDH to notify them of lateral migration of waste from the IWMM cells and to suggest they may want to assume jurisdiction and take corrective action. The TDWR offered to provide technical assistance. On December 17, 1980, the TDH responded to the TDWR stating they believed the TDWR was the "logical agency to provide surveillance over the industrial portions of the site." The TDH believed "joint surveillance and enforcement with clearly understood areas of primary interest will be in the State's best interest, but if this appears too cumbersome to the TDWR, we can initiate permit amendment proceedings to carve out the areas containing industrial waste".

From November 26, 1980 until March 5, 1981, dialogue between the two agencies about which agency should have jurisdiction continued. As a result of conversations between the TDH and the TDWR, it was decided that the TDWR would assume responsibility for that portion of the Longhorn Community Disposal Company which was initially authorized by TWQB Order No. 71-9E issued on May 3, 1970 (that is, the IWMM cells). The TDH would assume responsibility for the remainder of the landfill operations. In the interim, Austin Community Disposal Company, Inc. (also known as Longhorn Community Trash Disposal) submitted a formal request to the TDH to exclude the IWMM cells from its application for an amended permit. The TDH agreed to this request. The TDWR requested postponement of TDH's processing the application.

On March 5, 1981, the TDWR directed Longhorn Community Disposal Co. to submit plans and specifications for recapping, slope stabilization, establishment of a vegetative cover, and site monitoring within 30 days. On March 12, 1981, Austin Community Disposal Co., Inc. responded to the TDWR's request by providing an engineering report entitled "Austin Community Disposal Company, Inc.—Maintenance Improvements in Old Industrial Waste Area." This report describes improvements the company proposed to implement to close the old industrial area. The proposed improvements included the following activities:

- Additional cover was needed to eliminate ponding and minimize infiltration in the area of Drum Disposal Site #2 and the surrounding municipal waste.
- Disposal Site # 2 and the surrounding area should be graded to drain and leveled to allow mowing.
- Additional cover is needed on the sides of Drum Disposal Site #1 to reduce side slopes and allow mowing.
- All areas which are disturbed by the above operations (1-3) should be re-topsoiled and revegetated.
- Drainage channels surrounding the industrial area should be graded to drain. The flow lines should be raised where possible to allow flattening side slopes on

adjoining municipal waste disposal areas which surround the industrial area."

Additional improvements included the following:

- Adding additional compacted clay cover, re-sloping, top-soiling, and revegetation of Drum Disposal Site #1 after purchase of adjacent property.
- Completing final grading and adding additional compacted clay cover, re-sloping, topsoiling, and revegetation to Drum Disposal Site #2.
- Reworking drainage channels surrounding the IWMM cells to improve and shift drainage away from the site, after purchase of adjacent property.

The proposed plan also included quarterly monitoring of surface water quality flowing into and out of the site. The monitoring would include upgradient and downgradient points to be analyzed for pH, conductivity, COD, TOC, and total dissolved solids. These proposed improvements were accompanied by engineering plans and specifications.

The TDWR responded on April 3, 1981 to both the TDH and Austin Community Disposal Co. that it was their opinion "that if this work is carried out as directed, existing problems at the IWMM site should be alleviated." The TDWR added copper and chromium to the list of parameters to be monitored, and directed that a "construction certification" certifying that all facility components have been constructed in accordance with specifications set forth in the proposal presented to TDWR on March 13, 1981. On July 31, 1981, the TDH granted Longhorn Disposal Service, Inc. a permit amendment to expand the landfill by an additional 108 acres (Permit No. 249A). In September 1981, Waste Management of North America purchased the Austin Community Landfill from Ira Moore (Longhorn Community Disposal Service, Inc.) and called their operation Longhorn Disposal Corporation.

On October 5, 1981, TDWR inspected the progress of the remedial work in the Old Industrial Waste Area. The inspector noted the "back side of Site #1 has not been reshaped since the TDH Permit for extending the municipal landfill has not been issued. Also, final work on the headwaters of the drainage between the industrial site and the Travis County Landfill has not been completed because the county anticipates some changes at its facility which would affect Austin Community Disposal. It did appear, however, that all work accomplished to this point has been done so to comply with the intent of the agreement. With the exception of the needed work on the back side of Site 1 it is my opinion that the site is secure at this time." Additionally, the TDWR gave permission to plug and abandon the three monitoring wells adjacent to Site #1.

In October 1981, Waste Management of North America began constructing cells in the area now referred to as the West hill. Carter & Burgess' team tabulated detailed information regarding design and construction of these cells from individual Soil Liner Evaluation Reports (SLERs) and Flexible Membrane Liner Evaluation Reports (FLMERs). The details can be found in *Table 2*. *Figure 5* is a map of the different areas of the landfill showing the arrangement of the liners used in each cell. *Figure 6* shows the type of liner construction used in the different parts of the landfill. The cells which were constructed included: D-II-1, D-II-2, D-II-3, W-I-3, W-I-4, D-III-1, D-III-2, and D-III-3. These cells have constructed exterior sidewall liners and in-situ bottom liners.

On March 24, 1982, Austin Community Landfill's engineer notified the TDWR that drum site #1 and #2 had been topsoiled and seeded in September 1981. The report outlined a proposal for further maintenance in the area contingent on the county's completion of their adjacent areas in May or June and the result of legal proceedings against the TDH by other parties regarding the issuance of the permit for the expanded landfill. On April 20, 1982, the TDWR deleted surface water and soil sampling requirements at point A-2, but continued surface water sampling at

points A-1, A-3, and B. On October 7, 1982, the TDWR modified monitoring to include cover inspections quarterly, installation of, and quarterly monitoring from, a shallow groundwater monitoring well downslope of the IWMM cells, surface water monitoring until the groundwater well is installed.

On June 16, 1983, Austin Community Disposal Co., Inc.'s engineer prepared a Soil and Liner Evaluation Report (SLER) for a portion of cell W-I-1. This cell has in-situ sidewall and bottom liners. Atterberg limits, gradation, and permeability tests indicated the soil was suitable for landfilling. The engineer certified the soils suitable for landfilling. This report also references previous engineer's certifications for cells W-I-1, W-I-2, W-I-3, and W-I-4, but Carter & Burgess' team was unable to locate these certifications or the SLERs. During this period July 1983 to November 1984, Waste Management of North America constructed the following cells: D-II-3, D-II-4, D-II-5, D-III-2, and D-III-3. These cells had in-situ sidewall and bottom liners.

During the period November 1984 to December 1986, Waste Management of North America constructed the following cells: W-II-4, W-II-5, D-II-5, D-II-6, D-III-3, and D-III-4. These cells had constructed exterior sidewall liners and in-situ bottom liners.

On July 11, 1986, Waste Management of North America, Inc. contracted the services of an engineering firm to prepare an evaluation of the geotechnical character of the closed disposal areas to determine if the IWMM area could be used for stockpiling soil. The engineering study evaluated the stability of the earthen cap and underlying waste bodies, surface settlement, and migration of fluids from the waste. The study concluded "... these areas may be utilized for stockpiles providing that the stockpiles are constructed according to recommendations contained herein, and the stockpile construction is monitored relative to settlement and slope stability." The TDH and the TWC approved the stockpiling plan.

During the period December 1986 to August 1990, Waste Management of North America constructed the following cells: W-II-4, W-II-5, W-II-6, W-II-7, D-II-6, D-III-5, and D-IV-1. The cells bearing a W-designation had constructed exterior sidewall and bottom liners. The cells bearing a D-designation had constructed exterior sidewall liners and in-situ bottom liners. During a 1987 internal compliance review, Waste Management of North America noted that the "construction certification" of maintenance improvements required of the Austin Community Disposal Company, Inc. had never been provided. On December 11, 1987, Waste Management of North America provided the "construction certification". On July 15, 1988, WMI was granted a permit amendment from the TDH to install a methane gas collection system (Permit No. 249B).

In August 1990, Waste Management of North America conducted a fact-finding mission to obtain as much written and anecdotal evidence about the IWMM cells as possible. This mission included contacting residents in surrounding neighborhoods, chemical manufacturers, the TWC and other related agencies, the EPA and the Texas Attorney General's Office. Reportedly, records about the IWMM site's operation from 1971 through 1972 "were picked up at the EPA and the Attorney General's Office for their work in prosecuting Arsenault and never returned." Waste Management of North America was told that Arsenault had left the country, but was still being pursued by the State.

During the period August 1990 to October 1993 (effective date of Subtitle D), Waste Management of North America constructed the following cells: D-IV-1, D-IV-2, D-IV-3, W-II-4, W-II-5, W-II-6, and W-II-7. The cells bearing a W-designation have constructed exterior sidewall liners and constructed bottom liners. The cells bearing a D-designation have constructed exterior sidewall liners and in-situ bottom liners. On July 22, 1991, WMI was granted a permit amendment to expand their landfill by and additional 74 acres (Permit No. 249C).

During the period October 1993 to present, Waste Management of North America constructed the following cells: IV-3-D, WD-1, and WD-2. These cells are constructed with Subtitle D-type

composite liners. Cell IV-3-D has a 2-foot thick compacted clay liner, a 60-mil HDPE membrane, a leachate collection system, and 24 inches of protective cover which also serves as leachate filter media. Cell WD-1 has a prepared subgrade, a geosynthetic clay liner, a 60-mil HDPE textured (both sides) liner, a layer of geonet, a layer of geotextile, 2 feet of protective cover, and a leachate collection system. WD-2 has a prepared subgrade, a geosynthetic clay liner, a 60-mil HDPE smooth floor liner and a 60-mil textured slope liner, a layer of geonet, a layer of geotextile, a 2 feet of protective cover, and a leachate collection system. Cell WD-3 has a 3-foot recompacted cohesive soil liner, a 60-mil HDPE smooth floor liner and a 60-mil textured slope liner, a layer of geonet, a layer of geotextile, a 2 feet of protective cover, and a leachate collection system. This cell is not being used at this time. Waste Management of Texas reports this cell is being reserved for proper disposition of the IWM cell's nonhazardous wastes proposed for exhumation, characterization, and management.

On May 1, 1995, WMI submitted a groundwater monitoring system design report recommending replacement of the existing 6 monitoring well network with one consisting of 11 new wells. Ten of the new monitoring wells, including two adjacent to the industrial/hazardous waste disposal area, would be conversions of piezometers that had been installed earlier. In June 1995, Waste Management of North America contracted the services of an engineering firm to prepare a work plan for evaluation of subsurface conditions in the Austin Community Landfill Phase I area. In August 1995, the engineering firm conducted a subsurface evaluation of the Phase I area. The investigation assessed the extent and possible mechanisms of generation and storage of landfill liquids in and around the Phase I and old wet weather areas, and proposed alternatives for addressing potential problems associated with these liquids. The investigation included 30 borings, five of which were converted to temporary piezometers.

The report included cross-sections of the areas that showed clay cap thickness, waste body volumes, liquid head levels, and topography. The report concluded that reduction of the hydrostatic head by placement of extraction wells could possibly prevent breakthrough of the cover material by liquids. Waste Management of Texas plans to provide additional cover to the old Phase I area, but has been unable to implement these plans because the adjacent Travis County Landfill plans for leachate removal have never been implemented by the county. Historic co-mingling of waste by Universal Disposal, Inc., Longhorn Disposal Service, Inc., and the county in the old Phase I area and the Travis County Landfill may cause the two areas to behave as a single cell. The county's portion comprises approximately 70% of the waste volume. Austin Community Landfill's portion comprises approximately 30% of the waste volume.

In 1996, the county constructed a leachate removal system at the Travis County Landfill but has never operated it for any extended period of time. Until the county reduces the hydrostatic head in the county-owned portion of this area, leachate reduction and placement of additional cover in the old Phase I area will not be effective. Representatives of Waste Management of Texas reportedly have been meeting with the county to determine what the county has planned, but have been unable to obtain a firm plan from the county.

On December 20, 1995, the TNRCC disapproved a proposed revision to the groundwater monitoring systems design report, expressing concern that groundwater flow at the industrial/hazardous waste disposal area had not been adequately characterized and recommended expansion of the groundwater monitoring system by 6 wells (total of 16). On March 15, 1996, WMI submitted a revised groundwater monitoring system design report proposing a groundwater monitoring system consisting of 10 wells and deleting the two monitor wells located adjacent to the industrial waste disposal area.

On April 10, 1996, the TNRCC approved WMI's Groundwater Monitoring System Design (GWMSD). On April 23, 1996, WMI requested a Class I Modification of the GWMSD to replace the six existing monitor wells with 10 new ones (none of the new ones are directly by the industrial waste disposal site). On July 24, 1996, The TNRCC approved the April 23rd Texas Disposal Systems

modification request after it is established that five of the six existing wells would not be plugged, but also will not be monitored (this includes the wells immediately adjacent to the industrial waste disposal site).

In October 1997, Waste Management of Texas met with the Texas Natural Resource Conservation Commission (TNRCC) to discuss a Waste Management of North America-sponsored remediation of the IWMM cells. On December 4, 1997, Waste Management of Texas provided the TNRCC with a work plan to characterize materials disposed in the IWMM cells. The plan described a Phase 1 study to characterize the wastes and to establish appropriate options for treatment and disposal of these wastes. On December 16, 1997, the TNRCC approved Waste Management of Texas' work plan. Waste Management of Texas coordinated their work effort with the TNRCC's Pollution Cleanup Division.

On May 4, 1998, Waste Management of Texas provided the TNRCC with a comprehensive report of the results of the evaluation. The report contained analytical results of samples collected and tested from 20 borings. The samples were tested for anions, metals, nonhalogenated organics, volatile organics, cyanide, and pH. The study did not define the vertical and lateral extent of the waste and based upon the results of this study, Waste Management of Texas contracted the services of an engineering firm to prepare a sampling and analysis plan and a work plan for removal of the closed IWMM cell. These plans were prepared in May and June of 1998.

The May 1998 plan presents a comprehensive and detailed sampling and analysis program to characterize the waste as it is exhumed to determine which wastes are hazardous and which wastes are non-hazardous in accordance with the Resource Conservation and Recovery Act (RCRA). The June 1998 plan presents a comprehensive and detailed program for excavation, treatment, transportation, and disposal of wastes from the acid pits and the two buried drum sites. The plan includes site safety and health monitoring (including air) by a certified industrial hygienist, project organization, and project schedule. The project budget was estimated to be in excess of \$20 million. Conceptually, the plan proposes to dispose Class I non-hazardous wastes in a Subtitle D industrial waste cell constructed adjacent to the IWMM cells in 1998, and to transport all hazardous wastes to a licensed hazardous waste facility for incineration or landfill.

In September 1998, Waste Management of Texas contracted the services of an engineering firm to perform a geophysical survey of the IWMM cells. The geophysical method selected for this survey was a measurement of low-frequency electromagnetic induction. The goal of the survey was to more accurately delineate the buried drum disposal areas. The survey was conducted on an approximate 9.2-acre area. The report includes a three-dimensional view of the results. To date, Waste Management of Texas has not implemented the remediation plans prepared in May and June 1998.

The currently available disposal capacity and corresponding remaining useful life of the ACL based on projected waste disposal rates and reports made to the TNRCC are shown in Table 5.

3. Operating and Compliance History

Based on our review of this data, it appears that waste cells at the Austin Community Landfill have been generally constructed in accordance with applicable rules and regulations in force at the time of their construction. It is evident from the data that as the rules became more thoroughly developed, the numbers of tests for soil characteristics increased. The geotechnical properties of the soils has remained fairly consistent with expansion of the landfill over time, indicating a relatively uniform subsurface stratigraphy.

As with any engineered system, sound operation and maintenance programs are critical to the successful performance of landfills. From our review of historic regulatory inspection reports and other documents, it is clear that the IWMM cell was not operated by Industrial Waste Materials

Management, Inc. in accordance with the plans that had been designed by their consulting engineer. With the exception of the brief period of time just after Longhorn Disposal Services, Inc. purchased the landfill from Universal Disposal, Inc., the old Phase 1 area and old wet weather area appear to have been operated by Longhorn Disposal Services, Inc. In accordance with the plans that have been designed by their consulting engineer. The current owner, Waste Management of Texas, has kept better operation and maintenance records for the landfill than either of the previous two owners.

There have been several violations cited by environmental regulators during the history of the ACL site. **Table 3** is a summary of inspections at the ACL during the last seven years showing the inspection results and action taken, if any. During this time period, 17 inspections were conducted. Violations were noted during nine of the inspections. Violations included the presence of upgradient ponded water, inadequate daily cover, erosion of intermediate cover, problems with windblown litter, sediment runoff, and insufficient personnel on site. In 1996 Waste Management was fined in excess of \$6,000 for failing to maintain adequate cover on portions of the landfill. In cases of the remaining violations, letters were sent to ACL by the TNRCC describing the nature of the violation(s) and corrective actions which needed to be taken. **Table 4** lists complaints filed with the Region II Office of the TNRCC against the ACL site in the last five years. Other complaints may have been filed more than five years ago, or with different divisions of the TNRCC not contacted during this assessment. Both complaints listed on **Table 4** were responded to by the TNRCC and satisfactorily addressed by ACL representatives.

Our findings and conclusions regarding the ACL fill site are discussed in greater detail in **Section 7**. Our recommendations developed by Carter & Burgess' team for the ACL site are discussed in **Section 8**.

4. Environmental Monitoring History and Potential Migration Pathways

Groundwater

Groundwater monitoring was initiated at the ACL site in 1982 as a result of concerns associated primarily with the old IWMM site. Some monitoring of groundwater was apparently conducted at the site in the 1970's, but no data were found on the earlier monitoring during this assessment. As discussed in **Section 6.B.1**, the Texas Department of Water Resources reportedly sampled two wells at the IWMM site in 1980 and found hydrocarbons in Well #1.

The site groundwater monitoring system was upgraded in 1996 with the installation of new monitoring wells in accordance with Subtitle D monitoring requirements. Beginning in 1997, groundwater monitoring has included the collection of groundwater samples on a quarterly basis for establishing "background" concentrations at the site. The facility is now ready to begin detection monitoring pending approval of statistical analysis of the background monitoring events. It was noted during this assessment that the TNRCC had rejected ACL's initial statistical submittal. A revised analysis of the data has not yet been submitted. Pre-Subtitle D data, as well as the Subtitle D background monitoring events, were reviewed as part of this assessment.

The groundwater monitoring system at the ACL currently includes eight groundwater monitoring wells installed in the weathered portion of the Taylor. Two wells are located upgradient (MW-5A and MW-15) and six wells are located downgradient (MW-2B, MW-11, MW-12, MW-13, MW-20, and MW-21) of past and current landfilling operations. Two additional wells (MW-1B and MW-19) will be included as part of the monitoring system as landfill operations expand to the eastern part of the site. The final monitoring system will include ten groundwater monitoring wells. Water table contours with the locations of pre-Subtitle D and post-Subtitle D monitoring wells are shown on **Figure 7**. **Figures 8 and 9** are cross sections of the ACL site showing groundwater levels from monitoring well data.

A summary of groundwater monitoring data is provided in **Appendix B**. In order to evaluate possible changes in groundwater quality over time, certain groundwater quality parameters (chloride, sulfate, nitrate, and total organic carbon) were graphed. These graphs represent a direct data comparison over time and are also presented in **Appendix B**. The pre-Subtitle D wells provide the longest monitoring history at the site. However, many of these wells were not constructed to current standards and as such are only good for comparison of data over time. As seen on the graphical presentations and analytical tables of the groundwater quality parameters, the general trends observed in groundwater quality data show relatively consistent quality over time. Some reductions were observed in the concentration of certain inorganic parameters over time.

Some of the variation in results between sampling events are typical for the Weathered Taylor clay, in that organic compounds become concentrated (concentrations increase) during periods corresponding to low water levels in the Taylor and become diluted (concentrations decrease) during wet periods corresponding to high water levels in the Taylor. However, the long-term trend for water quality parameters has been an overall reduction in the concentrations of inorganic compounds. This may be due to an increased amount of recharge by percolation of rainwater from the surface as a result of the retention of stormwater during operation in the landfill.

Organic Compounds and TOC

Groundwater samples were collected at the ACL facility in order to detect potential releases of organic compounds from the IWMM site and/or pre-Subtitle D area of the landfill. A review of the analytical data tables and graph of the TOC data shows frequent changes from one sampling event to the next, with an overall trend showing a general reduction in TOC concentrations over time in all of the monitoring wells except MW-6 and MW-3. The frequent variation in TOC concentrations in most of the wells is likely associated with drought/storm events (discussed in **Section 6.B.1**).

Exceptions to the general trends observed in TOC concentrations were monitoring wells MW-6 (located near the west end of the IWMM site) and MW-3 (located near the east end of the IWMM site). MW-6 is directly downgradient of the IWMM site and MW-3 is crossgradient to upgradient from the IWMM site. TOC concentrations in these wells have historically been higher than the other monitoring wells at the ACL site. However, TOC concentrations prior to 1988 were apparently still influenced by storm events as is typical in the Weathered Taylor. Beginning in 1988 at MW-6 and in late 1989 at MW-3, TOC concentrations in these two wells began to show little variation from one sampling event to the next and have shown a general increase in TOC concentrations over time (especially in MW-6). This type of trend in TOC concentrations could indicate impacts from organic compounds, such as the type reportedly disposed of at the IWMM site.

Analysis for specific volatile organic compounds (VOCs) was performed on samples collected from MW-6 and MW-3 during 1988. This sampling event was apparently focused on concerns at the IWMM site. Samples were analyzed for priority pollutant VOCs in those two wells only. No VOCs were detected in the samples collected in 1988. No other data was found documenting the analysis of specific VOCs prior to 1988. Analysis for an expanded VOC list began on all site monitoring wells in 1991. Total organic halogens were detected once in MW-6 (1ug/l) and vinyl-chloride was detected once in July 1994 (1ug/l). Since these are extremely low concentrations and isolated detections, they are not considered significant. MW-6 and MW-3 have apparently not been sampled since installation of the Subtitle D monitoring wells in 1995. Vinyl chloride (at 5 µg/l) was detected at a concentration above its MCL (2 µg/l) in July 1997 in MW-2 located southwest of the IWMM site but has not been detected since. Cis-1,2-DCE has also been detected in MW-21 at concentrations below its MCL of 70 micrograms per

liter.

Organic compounds consisting of dissolved chlorinated hydrocarbons have also been detected in MW-5, which is located immediately upgradient from a pre-Subtitle D fill area on the northwest portion of the site. Concentrations of organic compounds have been below MCLs, except for trichloroethane at 6 $\mu\text{g/l}$ (MCL=5 $\mu\text{g/l}$) in three sampling events in the mid 1990's. Although located upgradient from landfill operations, this well is likely detecting organic compounds associated with diffusion and dispersion from the landfill. The presence of VOCs such as those detected in MW-5 are typically associated with landfill gas (personal communication with Jeff Davis, TNRCC Groundwater Protection). It should also be noted that MW-5 was replaced and renamed MW-5A as part of the Subtitle D upgrade. Organics have not been detected since that upgrade in 1995.

A review of metals concentrations over time in the pre-Subtitle D wells indicates little change in the concentrations of metals since groundwater monitoring was initiated. However, some metals have been detected above their respective MCLs although detections have been sporadic in distribution and not consistently detected. Sediments of the type observed in the Taylor typically contain highly mineralized water. As with other inorganic groundwater quality parameters, this could simply reflect a temporary concentrating of metals when water levels in the weathered clay are low due to dry climate conditions or dewatering associated with landfill activities. The statistical analysis of metals to be performed as part of the Subtitle D monitoring should establish background concentrations for metals in the weathered Taylor at the site. An expanded study of background metals in the Weathered Taylor could also be performed to include off-site wells.

Potential Migration Pathway

The weathered portion of the Taylor is the primary potential migration pathway for contaminants in groundwater at the ACL site. Although low transmissivity should prevent widespread off-site migration in the weathered zone, discharge of groundwater from this zone to surface water in adjacent streams could result in migration of contaminants via surface water.

An additional potential migration pathway is downward through the Taylor Clay to the underlying groundwater. Chlorinated solvents which were apparently included in the industrial waste material disposed of at the IWMM site are known to migrate readily downward through clay in some environments. It is unlikely that activities at the IWMM site have impacted deep groundwater beneath the site. However, numerous cases have been documented where chlorinated solvents have migrated through thick clays to underlying aquifers.

Surface Water

Releases to surface water are the most likely potential migration pathway to potential receptors at the ACL site. No surface water monitoring data was not found in our review of the TNRCC files. The ACL site engineer indicated that the site outfalls are sampled semiannually. However, data from these sampling events were not available for review.

Following the initial site visit to the ACL, Carter & Burgess' team (Tim Jennings and Craig Carter) were able to gain access to the City of Austin property which lies immediately south of the ACL and immediately east of the old Travis County Landfill. The purpose of this field inspection was to determine conditions along a small drainage (unnamed tributary to Walnut Creek) which flows onto the City property from the south under U.S. 290, then along the west side of the City property just inside the fence between the City property and the Travis County Landfill property. The toe of the old Travis County Landfill comes right up to the fence. The drainage then flows south onto the ACL site.

During this field inspection, water in the creek was clear with no visible signs of leachate.

However, two areas of standing liquid were observed west of the fence on the Travis County Landfill property. The water in these areas was "milky" in appearance, with iron staining and an "organic looking" sheen typical of landfill leachate seeps. Cattails growing in this area indicates it is likely wet all of time. During a second site visit at the ACL on January 11, 1999, an inspection was conducted along the drainage which flows onto the ACL property from the south (described above during initial site visit) and borders the north side of the Phase 1 area. The site inspection was conducted by Tim Jennings, Craig Carter, and Paul Schuman. Marcos Elizondo and Rusty Fusilier accompanied the Carter & Burgess team members while on the WML property.

The entire reach of the unnamed drainage described above was inspected, where present on ACL property. Minor iron staining was observed in the streambed near the north fence line (east end of the Phase 1 area). Groundwater seeps began to appear at approximately the mid-point between the east and west ends of the drainage reach on the ACL property. These seeps did not exhibit iron staining or other indication of leachate, but were more or less continuous to the west side of the Phase 1 area. On the west end of the Phase 1 area water from the seeps had a "milky" appearance and iron staining became common likely indicating leachate seeps. The approximate location of seeps on the Phase 1 area are shown on *Figure 2*. No indications of leachate seeps were observed in the vicinity of the IWMM site.

In order to make a determination as to the primary of source of alleged "leachate" seeps into the unnamed tributary to Walnut Creek, a drive through inspection was also made of the old Travis County Landfill located immediately adjacent to the southern boundary of the ACL. Although not part of the scope of this assessment, this was considered a critical issue for neighbors living in the area of the ACL site. The old Travis County Landfill and the ACL Phase 1 area are known to have contiguous wastes.

During the drive through at the Travis County Landfill, numerous seeps of what appeared to be landfill leachate were observed starting on the southwest flank of the landfill and continuing along the west side all the way to the common fence with the ACL. Associated with the leachate seeps was widespread erosion and localized slumping of the landfill cover. A locally strong hydrogen sulfide odor was also noted, indicating that the landfill is apparently degassing. The approximate location of seeps observed at the old Travis County Landfill are shown on *Figure 2* and are displayed in the photographs in *Appendix C*.

Samples were collected by the TNRCC inspector from seeps at the ACL and Travis County Landfill in December 1998. Although the exact sample locations are unknown, these data do provide a "snap shot" of the quality of water seeping from the ACL Phase 1 area and the Travis County Landfill, which are contiguous. No organic compounds were detected in either sample collected. However, nitrogen levels (74.84 mg/l and 53.16 mg/l) were elevated above recommended safe drinking water levels (50 mg/l). Total organic carbon levels (89.5 mg/l and 95.5 mg/l) and chemical oxygen demand levels (240 mg/l and 234 mg/l) were also relatively high.

Landfill Gas

The ACL site has a landfill gas collection System (*Figure 10*) which is tied into a similar system at BFI's Sunset Farms Landfill on the adjacent property to the northeast. The Landfill Gas Management Plan for the ACL (dated April 1994) calls for a contingency plan to be implemented if methane readings at any location exceed the allowable maximum percent LEL (5% methane). The plan calls for the immediate notification of the Executive Director of the TNRCC, the Section Manager of the Compliance and Enforcement Section of the TNRCC MSW Division, neighboring residents within approximately 1,000 feet of the location of the reading, and owners of underground utilities which cross the facility within approximately 1,000 feet of the location of the reading. The plan further calls for action to be taken within 60 days to determine the extent of the gas migration problem, and to prepare a remediation plan which may include passive

perimeter interceptor trenches or gas extraction systems.

In approximately July 1993, the ACL activated a gas recovery system consisting of gas extraction wells, collection piping, a blower system, and a flare station. Waste Management has since requested (and was granted in March 1998) a Class I Modification to MSW Permit No. 249-C to add a section of pipe to connect the ACL system to the adjacent BFI gas collection system. This connection allows the ACL to sell landfill gas to BFI for use in operating their recovery plant and for generation of electricity.

Methane concentrations measured in perimeter gas monitoring probes at the ACL site commonly exceed the LEL. The exceedences most commonly occur in the probes located along the property boundary with the adjacent BFI Landfill. Methane levels have frequently exceeded the LEL in gas probes P-6A, P-7, P-14, and P-16 (*Figure 10*). In July, 1997 a gas control trench was installed in the vicinity of Probe P-6A in an attempt to lower the methane concentrations in the area. Exceedences of the LEL in the perimeter gas monitoring probes are greatly reduced or eliminated when the landfill gas recovery system operates.

C. BFI Sunset Farms Landfill

1. Permitting and Siting

Permits

The Sunset Farms site is currently owned and operated by Browning-Ferris Industries, Inc. (BFI). The TDH issued a permit (Permit No. 1447) for the landfill on October 20, 1981, with Sunset Farms (a Joint Venture of BFI and Tiger Corporation) as the permittee and Tiger Corporation as the site owner. On November 19, 1982, the TDH approved the transfer of Permit No. 1447 to BFI. A Class I Permit Modification was submitted to the TNRCC for this site in April 1994 outlining procedures for bringing the facility into compliance with new TNRCC and Subtitle D requirements promulgated by the EPA.

Siting

The Sunset Farms site is located in an area absent of topographic features which would restrict its development as a solid waste disposal facility. Land use in this area is varied. Harris Branch Subdivision is located approximately one-half mile northeast of the landfill, but had not been built at the time of permitting of the landfill. Applied Materials, a manufacturer of electronic computer components, has a facility to the east directly across Giles Road from the landfill. Robert F. Mueller Airport is located approximately 5 miles southwest of the site, and the TIMS and Bird Nest Airports are located more than 4 miles from the site. The development and operation of the site has not resulted in the destruction or adverse modification of the critical habitat of any endangered or threatened species.

The Sunset Farms site is located immediately adjacent and to the north of the Austin Community Landfill (ACL). The physiographic province of the area is the same as described for the ACL in **Section 6.B.1**. The pre-landfill ground surface at the Sunset Farms site consisted of a series of gently rolling hills dissected by erosional valleys. Topographic relief ranged from 618 feet to 700 feet msl. Surface runoff from the southwestern portion of the site is towards the south across the ACL into an unnamed tributary which drains to Walnut Creek. A drainage divide is present on the western side of the property, which causes the eastern and northern portions of the site to drain to the east toward Gilleland Creek which flows into Lake Walter E. Long. A 100-year floodplain is designated in the northeastern portion of the site. This area has been given back to the original land owner and is used for feed crop agriculture.

Geology/Hydrogeology

The Sunset Farms Landfill is also located within the outcrop area of the Taylor Group. The site geology and hydrogeology is identical to that described for the ACL in **Section 6.B.1**.

2. Landfill Design and Construction

Design

As conceived in the original Permit Application, the landfill was to be developed in four phases. Phase 1 was to consist of a 101-acre section on the southeast portion of the site. Upon completion of Phase 1, disposal operations were to progress to Phases II, III and IV. Disposal activities were not to begin in a new phase until operations were completed in the existing phase. The Permit Application projected an estimated life for Phase 1 of 15 years and a total site life (276.9 acres) of approximately 50 years. These estimates were based on an assumed average disposal rate of 600 tons per day. Recent conversations with landfill management personnel indicate that the current plan calls for development of the site in two phases.

The Site Development Plan (SDP) outlined in the original Permit Application called for excavation to an average depth of 10 to 15 feet below grade and filling to an average height of 50 feet. Compacted clay sidewalls and bottom areas would be used to protect the underlying groundwater table (reported to be perched). Landfilling was to be accomplished by the area method. The facility design included a special area for wet weather disposal. A leachate collection system was not specified for any of the landfill disposal areas at the facility.

Although a program for periodic monitoring of methane gas was specified for the landfill, the SDP did not call for a permanent methane venting system until Phase 1 was completely filled. The methane gas monitoring program consisted of gas monitoring probes which were placed around the landfill perimeter and interior. Probes were generally placed in the ground between landfill areas and off-site structures located within 1,000 feet of a waste unit footprint, in backfilled utility trenches, in areas with localized soils having a relatively high permeability, and other high risk zones. Approximately 19 probes were installed at the facility in the early 1980's and monitored quarterly.

On April 8, 1994, BFI submitted a Class I Permit Modification to the TNRCC MSW Division for the landfill pursuant to 30 TAC Section 305.20. The purpose of this modification was to upgrade the facility to satisfy Subtitle D requirements which went into effect on October 9, 1993. The modified Permit Application documents indicated that at the time the Subtitle D regulations went into effect approximately 100% of the total permitted landfill area remained open and that approximately 71% was listed as being unused. The document further indicated that approximately 14% of the total permitted area had final cover in place. The modified Permit Application projected a remaining landfill life of 22.6 years based on an average waste disposal rate of 1,300 tons per day. The disposal rate is twice that cited in the original Permit Application. The total permitted volume of the landfill assuming disposal to a depth of 15 feet below grade was approximately 29.5 million cubic yards. At the time of the Permit Modification, approximately 7.75 million cubic yards had been filled leaving about 21.75 million cubic yards in remaining capacity. According to the Annual report filed with TNRCC the BFI landfill receives approximately 1,777 tons of waste per day. The landfill has used a total volume of 5,784,268 c.y. and has a remaining volume of 12,910,339 c.y. (7,100,686 tons) which translates into a remaining useful life of about 13.30 remaining years. **Table 5** compares the estimated capacities of the three landfills.

The post-Subtitle D Site Development Plan (SDP) prepared for the Sunset Farms site calls for a composite liner (clay and FML) with a leachate collection system. The FML used at this site

consisted of a 60-mil thick high density polyethylene (HDPE) geomembrane placed directly over the clay liner of the cell bottom and side slopes. The liner for the bottom and sides of fill areas was to consist of 2 feet of compacted clay having a laboratory permeability not exceeding 1.0×10^{-7} cm/sec. An updated SLDQCP was included in the Permit Modification which addressed installation of the upgraded liner system. The leachate collection system constructed over the geomembrane consisted of a granular drainage layer (wash sand), two collector drains, and a 12-inch thick protective cover (shredded tires). The collector drains consist of 6-inch diameter welded perforated HDPE pipe surrounded by gravel and a nonwoven geotextile filter fabric installed directly on top of the geomembrane liner. Twin 18-inch diameter HDPE upslope risers extend down into the leachate collection sump where a submersible pump is located for removal of leachate from the cell.

As part of the modified Permit Application, the facility design was revised to show a final cap consisting of an 18-inch thick infiltration layer with a maximum permeability of 1×10^{-7} cm/sec, a 6 to 12-inch thick drainage layer with minimum permeability of 1×10^{-7} cm/sec and a minimum 6-inch thick erosion layer consisting of earthen material capable of sustaining plant growth. This final cover system was expected to reduce the volume of leachate generated due to infiltration through the improved landfill cap. Other Subtitle D upgrade provisions include a Site Operating Plan, Landfill Gas Management Plan, Leachate and Contaminated Water Plan, and a Post-Closure Care Plan. The post-closure care period was extended to 30 years after closure. The site is currently being monitored by 16 newly installed groundwater monitoring wells which are sampled and analyzed in accordance with TNRCC regulations and the Groundwater Sampling and Analysis Plan for the site. An Annual Earth Electrical Resistivity Survey (EERS) is currently required for this site for the determination of the presence of groundwater. The stormwater controls for the landfill have been designed consistent with the current TNRCC MSWMR for Type I landfills.

Construction

Carter & Burgess' team reviewed the Soils and Liner Evaluation Reports (SLERs) retrieved from the TNRCC files for the Sunset Farms site. The purpose of the SLERs is to assure that soils encountered at the Sunset Farms site meet agency permeability requirements. In addition to the verification of general soil permeability, the evaluation includes a visual inspection by a registered professional engineer or professional geologist of trenches and other areas to receive solid waste for features such as cracks, fissures, sand lenses, or other problems that could not be anticipated or known from the data provided in the original soils information (Permit Application). The type and frequency of tests required to verify soil and liner suitability at the Sunset Farms site was originally specified in the Quality Control Plan (SLQCP) approved by the TDH in 1981 as part of the permitting process.

The initial SLERs prepared for the Sunset Farms site primarily involved visual inspection of excavations and documentation of overexcavation and recompaction activities in areas where secondary features were observed. Data included in the reports consisted of field density test results and compaction curves for the materials used as liners. The SLERs addressed the construction of bottom, sidewall, and periphery liners and perimeter berms. A listing of the various reports reviewed by Carter & Burgess' team is summarized below:

Date of Report	Reviewing Agency	Approval Letter Received
4/2/82	TDH	No
8/6/82	TDH	No
1/3/83	TDH	No
4/12/83	TDH	No

7/25/83	TDH	Yes
11/7/83	TDH	No
1/20/84	TDH	No
5/10/84	TDH	No
7/25/84	TDH	Yes
11/26/84	TDH	Yes
2/26/85	TDH	Yes
3/25/85	TDH	Yes
6/11/85	TDH	Yes
11/12/85	TDH	No
1/8/86	TDH	No
3/10/86	TDH	Yes
3/9/87	TDH	Yes
10/4/90	TDH	Yes
12/1/91	TDH	Yes
6/29/92	TWC	No
8/31/92	TWC	Yes
4/27/93	TWC	Yes
6/28/93	TWC	Yes
9/20/93	TNRCC	Yes

The approval letter received from the TDH in response to the SLER submitted on March 10, 1986 requested updating of the SLQCP to meet new testing requirements established by the Department. The new requirements expanded the types and frequency of testing performed on clay liner materials. Additional changes in testing required for SLERs became necessary when revisions to the TNRCC Technical Guidance document (TG-3) became effective (October 1, 1992).

A majority of the SLERs reviewed for the period 1982-1993 addressed over-excavation of the Stratum II soils present in the base of proposed land disposal areas to a depth of approximately 2.5 feet below the planned depth of disposal (top of liner elevation). These soils consisted of low permeability clay characterized by shrinkage cracks, fissures, and joints. The remaining 6 inches of soil was then scarified and recompact in-place to an acceptable density which would produce a permeability of 1×10^{-7} cm/sec or lower. The 2.5 feet of over-excavated soil was replaced in individual lifts and compacted to acceptable density as required. Compacted liner material which did not meet density requirements as determined by field testing was reworked and retested until acceptable.

Carter & Burgess' team also reviewed all Flexible Membrane Liner Evaluation Reports (FMLERs) retrieved from the TNRCC files for sections of the landfill constructed after the promulgation of Subtitle D regulations (October 1993). The FMLERs summarize Quality Assurance monitoring during installation of the geomembrane and leachate collection system for various sectors of the landfill. Each report contains a certification that the installation of the geomembrane, leachate collection system, and protective cover was in substantial compliance with the project plans and

specifications.

Only one FMLER was retrieved from the TNRCC files and reviewed by Carter & Burgess' team. This FMLER (dated August 22, 1996) was for Phase 1 - Sections 5 and 6. An approval letter for this FMLER was issued by the TNRCC. The SLER for these landfill sectors could not be located. Documentation indicating TNRCC approval of the SLERs and FMLERs for the other post Subtitle D landfill areas was located, although the reports could not be found. According to the documentation we found, the SLER and FMLER for Phase 1 - Sectors 1 and 2 were approved by the TNRCC in January, 1995 and March, 1995, respectively. The SLER and FMLER for Phase 1 - Sectors 3 and 4 were approved by the TNRCC in December, 1995 and January, 1996, respectively. The SLER and FMLER for Phase 1 - Sectors 7 and 8 were both approved by the TNRCC in June, 1998.

3. Operating and Compliance History

In August 1991, BFI submitted a proposal to the TDH for stabilization of nonhazardous bulk liquids at their landfill. The documents submitted included a Quality Control and Operational Plan for the Stabilization Process (QCOPSP). Upon review of these documents, the TDH granted approval to install and operate the proposed facility. The stabilization area consisted of an approximate 50-foot square area covered with a 2-foot thick compacted clay pad surrounded by 3-foot high earthen berms.

Carter & Burgess' team also discovered and reviewed a Management Plan for the Acceptance and Treatment of Liquid Wastes at the Sunset Farms site submitted to the TNRCC on August 19, 1994. This plan outlined specific operational and technical procedures to be utilized for the stabilization of bulk, nonhazardous liquid wastes prior to landfill disposal at their facility. Liquid waste means any material that is determined to contain "free liquids" as determined by the Paint Filter Liquids Test, which are prohibited from disposal by federal Subtitle D landfill regulations. The wastes to be accepted under this plan include grease trap wastes, automobile sand (grit) trap wastes, and other selected bulk liquid wastes including nonindustrial bulk liquids and/or Class 2 or Class 3 industrial solid wastes which contain free liquids, but will not include septic tank wastes or other TNRCC prohibited or permit restricted wastes. The plan specified stabilization of the waste by the addition of a bulking agent such as flyash, kiln dust, wood chips, saw dust, hay, soil, and/or other suitable materials that have been approved by the TNRCC for use in liquid stabilization.

Correspondence retrieved from the TNRCC files dated July 29, 1992, from the TWC MSW Division, Special Waste Evaluation Team (Dr. L.E. Mohrmann) to BFI indicated approval was granted for disposal of approximately 50 cubic yards of contaminated soil generated during the removal of diesel and fuel USTs at the City of Austin Old Seaholm Power Plant on Barton Springs Road in Austin. Documents retrieved from the TNRCC files indicated other requests for disposal of special waste at the Sunset Farms site had been made. Correspondence dated October and June 1996 indicated that the Department of the Air Force petitioned the TNRCC to approve disposal of Class 2 non-hazardous waste (concrete and metal debris) and rinsate from the closure of a number of oil/water separators at Bergstrom AFB. Additional correspondence reviewed by Carter & Burgess' team revealed that in early June 1982 a small quantity (several bottles) of combustible chemicals was inadvertently picked up from a dumpster at the Medical Arts Complex by one of BFI's trucks and taken to their landfill for disposal. Following reporting and a review of the incident by TDH, it was decided to leave the material at the landfill since the quantities were too small to pose an environmental threat.

From November 1992 to the present, only one violation was noted at the Sunset Farms site during routine inspections performed by the TNRCC or other state agency inspectors. On July 10, 1997, a violation of MSW regulation 30 TAC 330.130 (Landfill Gas Control - methane readings exceeded the regulatory limit) was recorded. A letter was sent to BFI describing corrective action to be taken. During all other inspections on record, the Sunset Farms site was

found to be in compliance. A review of complaints filed with the TNRCC over the last five years found four complaints for activities associated with the Sunset Farms site. The subjects of the complaints included truck washing activities, uncovered trucks, a truck leaking hydraulic fluid, and discharges from an aboveground storage tank flowing towards a storm drain. In each case, the complaint resulted in visits by the TNRCC and resolution of the matter except for the complaint concerning the uncovered truck which was handled with a phone call to BFI and resolution of the matter without a visit from the TNRCC. *Table 6* lists landfill inspections at the Sunset Farms site and *Table 7* is a summary of the complaints filed against the site during the last 5 years.

4. Environmental Monitoring History and Potential Migration Pathways

Groundwater

Groundwater monitoring was initiated at the Sunset Farms site in 1981. The site groundwater monitoring system has recently been upgraded with the installation of new monitoring wells as shown on *Figure 11* in accordance with Subtitle D monitoring requirements. No data was available for the new groundwater monitoring system as of the date of this report. Pre-Subtitle D monitoring wells have been monitored semi-annually since 1982. This data was used to evaluate groundwater quality at the Sunset Farms site. A summary of available groundwater monitoring data is provided in *Appendix B* of this report.

In order to evaluate changes in groundwater quality over time, certain groundwater quality parameters (chloride, sulfate, nitrate, and total organic carbon) were graphed. These graphs are also presented in *Appendix B*. Most groundwater quality parameters have shown a great deal of variability with time, as seen in the graphical presentation of the groundwater quality parameters. This trend appears to be typical of the Weathered Taylor Clay in that inorganic compounds become concentrated (concentrations increase) during dry periods corresponding to low water levels and become diluted (concentrations decrease) during wet periods corresponding to high water levels in the Taylor.

A review of metals concentrations over time in the pre-Subtitle D wells indicates little change in the concentrations since groundwater monitoring was commenced. However, some metals have been detected above their respective Maximum Contaminant Levels (MCLs). Most notable is selenium, which has consistently been measured at concentrations above its MCL in some wells. Other metals have been detected above their MCL periodically, but typically for one sampling event only. Metals have been detected in upgradient as well as downgradient monitoring wells. Sediments of the type observed in the Taylor typically contain highly mineralized water. As with other inorganic groundwater quality parameters, this could simply reflect temporary concentrating of metals when water levels in the weathered clay are low due to dry climate conditions or dewatering associated with landfill activities. The statistical analysis of metals concentrations required as part of Subtitle D groundwater monitoring should establish background concentrations for metals in the weathered Taylor at the Sunset Farms site.

Organic Compounds and TOC

Total Organic Carbon (TOC) concentrations have also been consistently variable at the site, as is expected in the Weathered Taylor soils. An exception was a period of elevated TOC concentrations in 1989 and 1990. This occurred in all monitoring wells and is likely the result of influences on groundwater conditions (possibly climatic) other than landfill operations.

Volatile Organic Compounds (VOCs) have been detected in monitoring well MW-9 since 1993. It is unclear from historic records as to why the facility began to monitor this well for VOCs, since

no other data for organic compounds were found for wells during the data search conducted for this assessment. Speculation is that VOCs were detected on the adjacent portion of the ACL facility, so Sunset Farms began monitoring for VOCs. Detected VOCs have consisted of chlorinated hydrocarbons typically at concentrations below their respective MCLs (1,1-dichloroethane MCL=3650 ug/l, cis-1,2-dichloroethene MCL=70 ug/l, trichloroethene MCL=5 ug/l, and tetrachloroethene MCL=5 ug/l). The exception is trichloroethene (TCE), which has been detected slightly above its MCL (6 ug/l to 9.4 ug/l). The "old" monitoring wells at the Sunset Farms site (including MW-9) have all been plugged. New wells in this area of the facility include MW-16, MW-29, and MW-30. No data were available for the new wells at the time of this assessment.

Potential Migration Pathway

The weathered portion of the Taylor is the primary potential migration pathway for contaminants in groundwater at the Sunset Farms site. Although low transmissivity should prevent widespread migration in the weathered zone, discharge of groundwater from this zone to surface water in adjacent streams could result in migration of contaminants via surface water. During this assessment there was no evidence found that potentially impacted groundwater is migrating off-site or that it has (or will) discharge to the surface via seeps at the Sunset Farms site.

Surface Water

Releases to surface water are the most likely migration pathway to potential receptors. However, no evidence of leachate seeps at the surface was observed during this assessment, nor were any noted in the information we received.

Landfill Gas

The Sunset Farms site has a network of 22 landfill boundary gas monitoring probes that were installed between 1981 and 1991. A landfill gas collection system (**Figure 12**) is used to gather landfill gas generated at the facility. This gas is converted to electricity and used to operate the on-site maintenance facility or is sold to the City of Austin. The only exceedence recorded in any of the monitoring probes since the installation of the gas collection system at the site was during an inspection on July 10, 1997. A reading of 42% methane was recorded in GMP 9, while the probes on either side (GMP 8A and GMP 9A) showed 0% methane. GMP 9 is located along the boundary between the BFI and ACL sites.

D. Texas Disposal Systems Landfill

1. Permitting and Siting

Permits

The Texas Disposal Systems Landfill is owned and operated by Texas Disposal Systems Landfill, Inc. (TDS) of Austin, Texas. TDS submitted an application for a Type I Municipal Solid Waste (MSW) Disposal Facility to the Texas Department of Health (TDH) by letter dated September 26, 1988. The TDS Landfill was granted an operating permit (Permit No. 2123) by the TDH on September 4, 1990. The landfill actually opened on February 1, 1991.

Siting

The facility encompasses 341.46 acres of land in southeast Travis County near the City of Creedmoor. The TDS Landfill is accessed by F.M. 1327 from either I.H. 35 or U.S. 183. At the time of the permit application submittal, there were 27 residences living within 1/4 mile of the TDS site. There were no active commercial enterprises within one mile of the TDS site. The

Creedmoor-Maha Water Supply Corporation has a water storage and distribution facilities located approximately 400 feet south and 0.6 miles northwest of the TDS site.

The TDS site is also located in the Blackland Prairie physiographic province, approximately 10 miles from the eastern limit of the Balcones Fault Zone. Characteristics of this physiographic province are described in *Section 6.B.1*. At the TDS site, the pre-landfill topographic relief ranged from approximately 670 feet to 752 feet msl. Surface runoff over the western portion of the site is towards the south to a tributary of Maha Creek. A drainage divide is present through the center of the property, which causes the eastern portion of the site to drain to the east toward Marble Creek. A small portion of the site along Marble Creek is within the 100-year floodplain. All waste disposal operations are outside this flood prone area.

Geology/Hydrogeology

The TDS site is also located within the outcrop area of the Taylor Group. At the TDS site, the Taylor is approximately 300 to 400 feet thick. The geology/hydrogeology at the TDS site is basically identical to that described for the ACL and BFI sites in *Section 6.B.1*. Similar to the area of the ACL and BFI sites, water wells in the area of the TDS site are generally large diameter and shallow in nature. These wells are completed in the weathered portion of the Taylor. Present-day use of this water source is restricted to lawn watering and light irrigation. The TDS site is east of the "bad water line" of the Edwards Aquifer, where groundwater is highly mineralized. Therefore, the shallowest potable water aquifer beneath the Taylor at the TDS site is likely the Lower Trinity Aquifer. This aquifer is approximately 2000 feet below the site.

2. Design and Construction

Design

The TDS Site Development Plan indicates that the landfill will be developed in four phases on 305.15 acres of the 341.46 acre permitted area. Phase 1 encompasses 105.85 acres and is expected to be filled in about the year 2020. Phase II, III, and IV contain 98.78 acres, 84.99 acres, and 15.53 acres, respectively (*Figure 4*). TDS site facilities include an all-weather hot-mix asphaltic concrete pavement interior service road leading from the public access roadway (F.M. 1327) to the area of active operations. Crushed stone/gravel surface access roads will be maintained from the end of the asphaltic concrete service road to the sectorized fill locations. The crushed stone/gravel access roads will be utilized by conventional waste hauling trucks. Buildings include an administrative office and maintenance shop, a gatehouse, recycling station, and a citizen's collection station.

According to annual reports filed by landfills and compiled in TNRCC's Annual Reporting Program for Permitted MSW Facilities (1997), the TDS site receives approximately 1,492 tons of waste per day. The landfill has used a total volume of approximately 3,405,409 c.y. and has a remaining volume of approximately 40,262,591 c.y. (26,430,122 tons), which translates into a remaining useful life of 58.4 years (see Table 5). *Table 5* compares the estimated capacities of the three landfills.

The TDS site is designed as an area fill-type landfill with a planned maximum excavation depth of 55 feet below natural grade and an ultimate maximum height of 75 feet above natural grade. Individual cells have bottom liners of in-situ shale material. Any secondary structures present in the shale are removed and the excavated areas filled and compacted. Where the weathered Stratum I and II form portions of the sidewalls, these areas will be lined. Sidewall liners must be keyed a minimum of 5 feet below the weathered/unweathered contact.

The design and evaluation criteria established for liners at the TDS site include:

Texas Disposal Systems

- Minimum thickness of 3 feet of compacted clay measured perpendicular to the area being lined
- Permeability of 1×10^{-7} cm/sec by the falling head method
- Liquid limit of not less than 30
- Plasticity index of not less than 15
- No less than 30% of fines passing a No. 200 mesh sieve

In addition, the liner thickness must be increased by one foot for every two feet of groundwater hydrostatic head measured above the weathered/unweathered contact.

Construction

In-situ soil liners are evaluated for sieve analysis and Atterberg Limits by selecting one sample for each 50,000 square feet and every 12 inches of liner depth. Evaluations of the coefficient of permeability for in-situ liners is one representative sample for each 50,000 square feet and 12 inches of liner depth. Permeability testing of in-situ liners may be waived based on the approval of historical data by the TNRCC. Liner thickness must be verified by one test for each 5,000 square feet of liner placed.

Constructed liners at the TDS site must be placed in lifts parallel to the surface being lined where the surface slope is less than or equal to three horizontal to one vertical (3H:1V). Liners on steeper slopes must be placed in horizontal lifts in a plane not parallel to the surface being lined. Field moisture-density testing must be performed for every 1,000 cubic feet (horizontal lifts), and every 4,000 cubic feet (parallel lifts), with a minimum of one test for each lined area constructed. Atterberg Limits and sieve analyses must be conducted every 10,000 cubic feet (horizontal lifts) and every 50,000 cubic feet (parallel lifts), with a minimum of four tests for each lined area constructed. Coefficient of permeability testing must be performed every 10,000 cubic feet (horizontal lifts) and every 50,000 cubic feet (parallel lifts), with a minimum of four tests for each area of liner constructed. Thicknesses for horizontal lifts must be verified by tape measurements from the slope face to the edge of the clay liner. Cross-sections must be developed on 50-foot stations to illustrate the liner thickness. Thicknesses for parallel lifts must be verified by surveying techniques on 50-foot stations. For bottom in-situ soil liner patches, thicknesses must be verified by surveying (one point per 5,000 square feet of patch surface area) or by taping if the patch area is less than 5,000 square feet. Liner protective cover is not necessary where the bottom liner exceeds 4 feet in thickness or the sidewall liner exceeds 3.5 feet in thickness.

All liners must be tested after construction but before any waste is placed in that area. The testing is documented in Soil and Liner Evaluation Reports (SLERs) that are submitted to the regulatory agency for acceptance before any waste is placed on the liner. The TDS site has prepared and submitted a number of SLERs during the course of its operation. SLERs have been submitted thus far for Sectors 1, 2, and 3 of Phase 1 of the landfill. A summary of SLER submittal and approval dates is given below. It was a policy of the TDS landfill to allow 14 days after SLER submittal for agency review. If no comments from the agency were received, the SLER was assumed to be acceptable.

SLER No	Area Evaluated	Date Submitted	Reviewing Agency	Date Accepted
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91-01	Phase 1, Sector 1 R+00 to V+00, 3+00 to 6+00 Bottom, West and North Sidewall	01/29/91	TDH	01/30/91
91-02	Phase 1, Sector 1 R+00 to V+00, 3+00 to 6+00 West and North Sidewall Extensions from 662 to 674 MSL	02/25/91	TDH	03/04/91
91-03	Phase 1, Sector 1 T+00 to W+00, 2+00 to 6+00 West and North Sidewall Extensions from 674 to 715 MSL	03/21/91	TDH	
91-04	Phase 1, Sector 1 S+75 to U+75, 5+35 to 6+60 Bottom only	05/08/91	TDH	
91-05	Phase 1, Sector 1 U+75 to V+25, 5+35 to 7+30 Bottom, North Sidewall	07/09/91	TDH	
91-06	Phase 1, Sector 1 R+20 to S+75, 2+75 to 6+20 Bottom, West Sidewall, North Sidewall Repair	08/14/91	TDH	
92-01	Phase 1, Sector 1 P+05 to R+20 Bottom, West Sidewall	01/21/92	TDH	01/24/92
92-02	Phase 1, Sector 1 P+05 to V+76 West Sidewall Extension	01/01/92	TWC	08/04/92
92-03	Phase 1, Sector 1 P+05 to V+50 West Sidewall Extension	09/15/92	TWC	09/25/92
92-04	Phase 1, Sector 1 L+80 to O+85, 3+13 to 5+75 Bottom only	11/20/92	TWC	
93-01	Phase 1, Sector 1 L+80 to S+50 West Sidewall	03/04/93	TWC	
93-02	Phase 1 Sector 1 M+80 to R+50 West Sidewall Extension	05/04/93	TWC	05/18/93
93-03	Phase 1 Sector 1 M to Q West Sidewall Extension	07/27/93	TWC	08/06/93
93-04	Phase 1 Sector 1 and 2 Bottom only	08/19/93	TWC	08/30/93
93-05	Phase 1 Sector 2 Bottom only	09/15/93	TNRCC	09/20/93
93-06	Phase 1 Sector 2 Bottom only	09/29/93	TNRCC	10/28/93
94-01	Phase 1 Sector 1 M+00 to P+00 West Sidewall Extension	07/18/94	TNRCC	
94-02	Phase 1 Sector 2 Bottom only	11/04/94	TNRCC	11/16/94

94-02 Supp. 1	Phase 1 Sector 2 Leachate collection system	12/05/94	TNRCC	12/07/94
95-01	Phase 1 Sector 1 and 2 5+20 to 8+35 North Sidewall	02/10/95	TNRCC	02/14/95
95-02	Phase 1 Sector 2 5+80 to 12+38 Bottom and North Sidewall	05/11/95	TNRCC	
95-02 Supp. 1	Phase 1 Sector 2 Leachate collection system	06/12/95		
95-03	Phase 1 Sector 2 5+80 to 12+38 North Sidewall	09/22/95	TNRCC	09/28/95
95-04	Phase 1 Sector 2 7+50 to 12+38 North Sidewall	11/22/95	TNRCC	12/01/95
95-05	Phase 1 Sector 3 Bottom, West Sidewall	12/19/95	TNRCC	01/11/96
96-01	Phase 1 Sector 3 J+40 to N+90 West Sidewall	03/05/96	TNRCC	03/07/96
96-02	Phase 1 Sector 3 Bottom, West Sidewall	06/17/96	TNRCC	
96-03	Phase 1 Sector 1 and 3 I+05 to N+80 West Sidewall	08/26/96	TNRCC	
96-04	Phase 1 Sector 3 Bottom, West Sidewall	01/09/97	TNRCC	
97-01	Phase 1 Sector 3 Bottom only	08/07/97	TNRCC	08/19/97
97-02	Phase 1 Sector 3 Bottom, South and West Sidewall	12/31/97	TNRCC	01/08/98
97-02 Add. 1	Phase 1 Sector 3 Leachate Collection System	03/27/98	TNRCC	04/09/98
98-01	Phase 1 Sector 3 South and West Sidewall	03/31/98	TNRCC	04/09/98
98-02	Phase 1 Sector 3 South and West Sidewall	06/05/98	TNRCC	

As noted from the preceding table, an acceptance letter from the appropriate regulatory agency could not be located for every SLER. Based on the acceptance letters reviewed, every SLER was accepted by the appropriate regulatory agency as complete or with certain conditions. Conditions of acceptance were typically addressed in a SLER supplement. It was noted that significant expansions of the landfill bottom area increased markedly in 1993 and 1994. This increase was due to an increased waste volume from the Austin metropolitan area and waste being transported from San Antonio. The larger bottom areas submitted for acceptance appeared to have a sufficient frequency of testing.

Leachate collection was not part of the original Operating Plan contained in the Permit Application. Due to Subtitle D requirements, leachate collection systems were designed and installed at the site beginning in 1994. The leachate collection systems consisted of a 15-foot wide by 1-foot deep lateral trenches excavated by a tractor-mounted backhoe or dozer and

sloped toward a central collector drain. The lateral drains were spaced about 250 feet apart and were surveyed to grades ranging from about 1 to 4 percent. The drains were lined with a non-woven geotextile filter fabric and filled with a washed coarse river gravel. The coarse gravel is overlain with a protective layer of pea gravel. The gravel-filled drain slopes toward a sump where accumulated leachate would be pumped to the surface by a submersible pump. In late 1995, the filter media in the drains was changed from gravel to chipped tires in order to preclude calcium carbonate deposition in the drains which might impede flow.

In addition to leachate collection systems, leachate modeling pursuant to Subtitle D requirements revealed that leachate could be minimized by thickened topsoil cover on closed portions of the landfill. The final cover design was then modified from 1 foot of topsoil overlying 1.5 feet of compacted clay to 4 feet of topsoil overlying 1.5 feet of compacted clay. The thicker topsoil layer reduces leachate by providing more soil material for the adsorption and evapotranspiration of rainfall infiltration. An additional benefit is that the thicker topsoil cover will reduce the possibility that roots or vegetation will cause degradation of the final cover. The final cover plan states that the landfill final cover will be restored with native vegetation. This plan should be modified with a maintenance plan to prevent the establishment of deep-rooted native species such as cedar or mesquite, which may tend to degrade the final cover. A modified final cover maintenance plan for improved pastureland use might be more appropriate.

Once disposal areas are constructed, waste must be placed in 2-foot thick lifts and compacted by the dozer/landfill compactor. Successive lifts will be deposited and compacted until a 10-foot thick zone of waste is achieved. The 10-foot thick zone of waste will be shaped and overlain by a 6-inch thick layer of daily soil cover.

3. Operating and Compliance History

Since the TDS site opened in February 1991, there have been only two violations noted during routine inspections by the TNRCC. One violation was recorded during an inspection on June 11, 1992, when it was noted that intermediate cover had not been properly placed. The second violation was recorded during an inspection on December 22, 1992. This violation involved MSW regulation TAC 330.145 (a) and was a result of mud being tracked onto F.M. 1327 from the site access roads. In both cases, enforcement letters were sent to TDS requiring immediate action to bring the site into compliance. During the TNRCC inspections following each of the above-mentioned violations, the site was found to be in compliance. No other violations have been recorded to date during routine inspections by the TNRCC. **Table 8** is a summary of inspections conducted at the TDS site. Several complaints have been filed against the TDS site. **Table 9** is a summary of complaints filed for the TDS site with the Region 11 Office of the TNRCC. Complaints received prior to five years ago are not listed in the table.

4. Environmental Monitoring History and Potential Migration Pathways

Groundwater

Groundwater monitoring was initiated at the TDS site in 1990. The site groundwater monitoring system was upgraded in 1997 in accordance with Subtitle D monitoring requirements, which included the collection of groundwater samples on a quarterly basis for establishing "background" concentrations at the site. The pre-Subtitle D and post-Subtitle D background monitoring events were reviewed as part of this assessment. The groundwater monitoring system at the TDS site currently includes three groundwater monitoring wells installed in the weathered portion of the Taylor, upgradient (OB-1 and OB-9) and downgradient (OB-8) of the Phase 1 operations. Additional wells will be included in the monitoring system as landfill operations expand. The final monitoring system will include ten groundwater monitoring wells. Water table contours and the locations of monitoring wells are shown on **Figure 13**.

A summary of groundwater monitoring data is provided in **Appendix B**. In order to evaluate changes in groundwater quality over time, certain groundwater quality parameters (chloride, sulfate, nitrate, and total organic carbon) were graphed. These graphs represent a direct data comparison over time and are presented in **Appendix B**. As seen on the graphical presentation and analytical tables of the groundwater quality parameters, general trends observed in groundwater quality data indicate relatively consistent quality from well to well. Variation in analytical results between sampling events is generally typical for the Weathered Taylor since inorganic compounds tend to become concentrated (concentrations increase) during dry periods corresponding to low water levels in the Taylor and become diluted (concentrations decrease) during wet periods corresponding to high water levels in the Taylor.

Organic Compounds and TOC

Groundwater samples collected at the TDS site have not been analyzed for specific organic compounds. However, Total Organic Carbon (TOC) has been included in all sampling events conducted at the site. A general increase in TOC concentrations has been observed in all three monitoring wells sampled at the TDS site. Some of the high data "outliers" (specifically the sampling event on June 23, 1995) may be associated with storm events, which provided rapid recharge to the weathered clay resulting in a increase in TOC concentrations and a coincidental decrease in concentrations of chloride and other inorganics. As discussed in **Section 6.B.1**, the tendency of the Weathered Taylor Clay to form deep (potentially 30 to 40 foot) desiccation fractures during prolonged dry periods may result in wide variations in water quality as well as rapid recharge during storm events.

The general increase in TOC concentrations that began in 1995 could potentially be related to landfill operations. However, this seems unlikely since TOC results from monitoring well OB-9 (located upgradient from all site operations) are almost identical to those measured in OB-1 (crossgradient) and OB-8 (downgradient). The concentration of metals detected in groundwater samples has also remained relatively consistent. This further supports a case that groundwater is not likely being impacted by landfill operations at the TDS facility.

Potential Migration Pathway

The weathered portion of the Taylor is the primary potential migration pathway for any contaminants released to groundwater at the TDS site. Although low transmissivity should prevent widespread migration in the weathered zone, discharge of groundwater from this zone to surface water in adjacent streams could result in migration of contaminants.

Surface Water

Releases to surface water are the most likely migration pathway to potential receptors. No evidence of leachate seeps at the surface were observed during this assessment, nor were any noted in the information we reviewed.

Landfill Gas

Two landfill gas monitoring wells were installed along the western property line at the TDS site on January 3, 1994. Methane has not been detected in either well in any of the quarterly monitoring events since installation of the wells.

7. RESULTS AND CONCLUSIONS

Based on our review of available regulatory agency records and files, information provided by third parties, data obtained from the various landfill operators, and observations made during site

visits at each facility, the following findings and conclusions are made regarding the environmental safety of the ACL, BFI, and TDS sites:

A. Austin Community Landfill

1. Regulatory Compliance

Early in the life of the ACL site the regulatory requirements for landfilling of MSW were in their early stages. Permission was requested and granted by TDH to dispose of industrial waste at the IWMM site with few requirements stipulated except for cover thickness and clay key ways to control surface water runoff. After the IWMM site was closed and the site continued to operate as a MSW landfill, formal regulations were written to manage the disposal of MSW.

Since promulgation of the earliest MSW landfill regulatory requirements ACL has been in general compliance with the regulations in existence at the time. All of the SLERs submitted for ACL been evaluated and were found to be in general compliance with the requirements for MSW landfills at the time of construction. However, there are environmental risks associated with the early history of the site that should be considered. These potential risks are discussed in **Sections 7.3 and 7.4.**

The Phase 1 and IWMM sites were operated during times when there were minimal technical requirements for liners and no prohibitions on landfilling drummed industrial or bulk industrial liquids. The portion of the site where these activities took place was not adequately protective of the environment and as a result, there is a high probability that environmental impacts resulted from the operations. The MSW landfilling operations, even when operated during times when there were no liner requirements, likely had minimal impact on the environment because of the ability of the Taylor Formation clays to prevent migration of liquids. In-situ clay liners based in the Taylor Formation clays have been approved for current MSW landfills when they are proven to meet the performance based standards required by TNRCC.

In addition ACL has remained in general regulatory compliance with respect to surface water, groundwater, and landfill gas monitoring. No enforcement actions have resulted from exceedences recorded by the groundwater monitoring system or the gas monitoring probes at ACL. When exceedences have occurred in gas probes, the ACL has been able to come into compliance within 60 days. (as required in the Landfill Gas Management Plan) by operating the landfill gas recovery system. The TNRCC's position is that the landfill gas recovery system is effective at reducing the methane concentrations at the monitoring probes along the property boundary with the BFI landfill to the northeast. There is no perceived immediate threat to public health due to landfill gas and no further action has been recommended by TNRCC.

2. Present Environmental Impacts

Groundwater

Groundwater at the ACL site has been impacted by organic compounds. However, as discussed in **Section 6.B.4** recently detected organic compounds have been restricted to the western portion of the property at low concentrations, and are likely associated with landfill gas.

Potential groundwater impacts were also observed as elevated TOC concentrations in the two monitoring wells adjacent the IWMM site where historic reports indicate impacts had occurred. However, specific VOCs analysis from these wells have not detected any VOC above its MCL. These wells were not sampled for SVOCs and have not been sampled at all since 1995 as part of the current Subtitle D monitoring program. Downgradient migration of potential impacts from the IWMM site should be detected by the current monitoring system. There is no quantitative data that indicates the IWMM site is currently causing environmental impacts.

Sedimentary environments such as the Taylor Clay are typically highly mineralized geologic formations. When groundwater is present in such formations, it is common for the groundwater to contain elevated levels of metals and other inorganic compounds. This likely explains the inconsistent and variable analytical results for metals and other inorganic compounds in the weathered Taylor Clay at the site as discussed in **Section 6.B.4**. Unless the compounds (especially metals) are detected as statistically significant changes (SSCs) from background on a consistent basis, they are not likely of environmental concern.

Under the Subtitle D monitoring program, if concentrations of organic compounds do exceed MCLs in the future, or if there are two events with SSC, then the TNRCC will likely require some corrective action. For the organic compounds, increased collection of landfill gas typically reduces organic concentrations; however, the TNRCC typically deals with this type of problem on a case-by-case basis. Based on interviews with TNRCC personnel, no action is expected at the present time with respect to groundwater at ACL.

Surface Water

Data reviewed as part of this assessment showed no indication of impacts to surface water; however, based on the apparent leachate seeps observed adjacent to the unnamed tributary to Walnut Creek, on the Phase 1 area, surface water could potentially be impacted. In addition, possible organic impacts observed as elevated TOC in the groundwater monitoring data from MW-6 and MW-3, could potentially migrate downgradient far enough to discharge to the surface. This is of particular concern since there is no program in place for monitoring leachate seeps, other than outfall monitoring.

Landfill Gas

Gas monitoring probes along the property boundary between the ACL and BFI Landfill commonly measure methane at concentrations greater than the LEL. Since there are no residences or other neighbors within 1,000 feet of the probes recording the exceedences, there does not appear to be an immediate threat to public health. The methane concentrations at the gas probes are significantly reduced or reduced to zero when the gas recovery system is operated regularly.

Other

WMI has an ongoing maintenance plan for the Phase 1 area. The plan generally consists of making repairs to the cover as the need arises to stop lateral migration of leachate.

WMI has sponsored intensive studies of the old Phase 1 area. Reportedly, it is their desire implement further post-closure care in this area. However, since the adjacent Travis County Landfill operates in unison with this area, WMI will be unable implement their plans for additional cover until Travis County makes necessary corrections the southern portion of this waste cell. Specifically, leachate management to reduce the hydraulic head on the Travis County portion of the waste cell must be accomplished before the construction of a final cover infiltration layer on the old Phase 1 area will be effective.

The Carter & Burgess team's review of the ACL "Soil and Liner Quality Control Plan" and "Final Cover Quality Control Plan" found these plans be compliant with current rules and regulations. If properly implemented, these plans should provide adequate control for liners and final covers.

3. Possible Future Impacts

Possible future impacts include lateral migration of leachate from the old Phase 1 area into Walnut Creek and its tributaries, and vertical migration of leachate from the IWMM cell.

The ACL ongoing maintenance plan of making necessary repairs to the sidewall liners of the old Phase 1 area appears to have this possible impact in check. However, the Carter & Burgess team believes this method of controlling lateral migration of leachate does not use best management practices. Reduction of the hydraulic head and proper leachate management by treatment provides a more desirable and long-term alternative to "as needed repairs". Unless some action is taken to remove leachate from the Travis County Landfill, the seeps on the west end of Phase 1 will continue to require maintenance. Saturated conditions in the soil of the cap have the potential to cause failure by slumping, as can be seen along the west end of the Travis County landfill and on the west end of Phase 1.

Groundwater

Based on personnel interviews, site inspections, and review of available documentation, the potential for future impacts to groundwater and surface water does exist at the ACL site as discussed in **Section 6.B.4**. These potential impacts are however, associated with historic not current operations. The current owners of the ACL appear to be responsible operators interested in maintaining compliance with TNRCC Regulations.

The existing Subtitle D monitoring program should be sufficient to detect and monitor groundwater impacts in the weathered Taylor before they migrate offsite. However, no system has been put in place which could detect current or possible future vertical (downward) migration of solvents from the IWMM site. The migration of contaminants from this site to underlying groundwater is considered a relatively low risk.

Surface Water

Potential future impacts to surface water could come from two areas. One is the Phase 1 area, which is contiguous with the Travis County Landfill and may be impacting surface water now. Although recent samples collected from the leachate seeping from the Travis County Landfill showed no contaminants which should cause immediate concern, the sampling was apparently limited to only two locations on the site. In addition, the potential exists that contaminants may appear at some point in the future, if leachate is allowed to continue to seep into the adjacent tributary.

The second potential cause of future surface water impacts is a release from the IWMM site. Although no evidence of groundwater seeps from the area of the IWMM site was observed during the site visits conducted as part of this assessment, there is future potential (or risk) that dissolved contaminants could migrate via groundwater in the weathered Taylor to surface discharge points along the unnamed tributary of Walnut Creek. This is also considered to be a relatively low risk.

Operations on the remainder of the ACL facility appear to be protective of surface water.

Landfill Gas

Methane will continue to be generated by the landfill and should be managed throughout the life of the landfill. The Landfill Gas Recovery System appears to be effective at controlling the gas generated by the landfilled waste at this time.

4. Environmental Risks

IWMM Site