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February 25, 2014

VIA HAND DELIVERY

Chairperson Karen Mitchoff and Members of
the Board of Supervisors of Contra Costa
County
651 Pine Street, First Floor
Martinez, CA 94553-1293

Re: Board Meeting of February 25, 2014; Discussion Item D-2: Concerns
Regarding Operation of Keller Canyon Landfill

Honorable Chairperson Mitchoff and Members of the Board:

Our office represents Contra Costa Waste Services, Inc. and Mt. Diablo Recology, LLC (collectively "MDR"). We have submitted correspondence to you previously regarding Allied Waste Services, Inc., dba Republic Services ("Republic") relating to their anti-competitive and illegal practices in quoting to our clients an exorbitant disposal fee at Keller Canyon in order to adversely affect their competitive position and alleged violations of the Keller Canyon Landfill entitlements in Republic's practice of utilizing untreated and adulterated green waste as alternative daily cover ("ADC") and the many reporting requirements contained in the Keller Canyon entitlements which Republic may or may not have complied with.

My letter of February 18, 2014 pointed out additional areas of concern related to these two issues and demonstrated that if this application of untreated and adulterated green waste is not permitted under the Keller Canyon entitlements, then the County may have failed to collect millions of dollars of appropriate mitigation surcharges, because appropriately treated green waste is categorized differently than solid waste in determining appropriate fees and surcharges. The staff report from the County Administrator on today's item is disappointing, incomplete and fails to adequately address a number of very serious issues. The recommendations provided by staff on this item are, first, to accept the report from the County Administrator and, second, to acknowledge that there was not time to prepare an in-depth and adequate response to my letter of February 18; and, consequently, all of these items and particularly those contained in my February 18 letter will be subject to further review. We support those actions with the request that when that review is complete, this entire matter be set for public hearing before the Board at a meeting sixty to ninety days after this date. We are not asking that the Board attempt to delay the CCCSWA from taking action at their scheduled hearing on

February 27; but these issues affect vital aspects of public policy and should be reviewed no matter to whom the collection franchise may be awarded.

A. Response to County Administrator Staff Report: As stated above, we are disappointed in the staff report but understand the constraints imposed by the very short timeframe. The issues are relatively complex and further analysis of both the Board's ability to affect the outrageously high solid waste disposal fee asserted by Republic and the issue of improper use of green waste and construction and demolition materials ("C&D") and resulting loss of public funds should both be further analyzed and the subject of a more extensive staff report when this matter is calendared for further Board action. Our response to many points of the staff report is as follows:

1. Alleged Unfair Competition and Violation of Antitrust Laws: My letter of February 11 was explicit in setting forth what we feel is an egregious example of a company with the only solid waste disposal facility in the County refusing to cooperate with the requests of the CCCSWA and allow a "mixing and matching" of proposals in the franchise applications now under consideration by the Central Contra Costa Solid Waste Authority ("CCCSWA") by charging almost \$70 a ton for disposal for MDR while charging less than half that to other municipal jurisdictions.

In section D of the staff report, staff discusses my contention that the Land Use Permit No. 2020-89 for Keller Canyon requires the operator to accept all solid waste generated within the County at an "appropriate" rate. We feel strongly that the \$70 per ton rate quoted by Republic is not "appropriate" and is a thinly veiled attempt to prevent competition by disallowing the use of the County's only land-fill. Staff indicates that should the Board wish to pursue further inquiry into the appropriateness of this fee, additional staff review requiring a significant amount of time would be necessary. We have requested above that this review take place and that the matter be brought back at a public hearing not later than sixty to ninety days from this date.

2. Violation of Operational Requirements: Staff analysis is incomplete and fails to address a number of issues:

(a) Untreated and Adulterated Green Waste Used as ADC: The staff report, basically, completely avoids the crucial analysis of whether untreated and adulterated green waste can be used as ADC and states that the operation does not have chronic violations or operational issues. The second paragraph of section C is extremely troubling:

"The February 11 letter asserts that Keller is required to process green waste prior to using it as 'alternative daily cover' (ADC). This is not correct. The operational permit requires that green waste be of a

certain size, and includes the allowance that 5% of the green waste may exceed the size limitation.”

This statement is not only incorrect but fails to examine or analyze the requirements of Title 27, California Code of Administrative Procedure, which reads as follows: Section 3.1 of the Land Use Permit 2020-89 conditions of approval require compliance with all requirements of law including the following:

“Regulations: Title 27, Environmental Protection—
Division 2, Solid Waste
Chapter 3. Criteria for All Waste Management Units,
Facilities, and Disposal Sites

Subchapter 4. Criteria for Landfills and Disposal Sites
Article 1. CIWMB – Operating Criteria

20690. CIWMB – Alternative Daily Cover.
(T14:Section 17682, 17258.21(b))

(3) Processed Green Material

(A) For the purposes of this section, processed green material means any plant material that is either separated at the points of generation, or separated at a centralized facility that employs methods to minimize contamination. Green material includes, but is not limited to, yard trimmings, untreated wood wastes, paper products, and natural fiber products. Green material does not include treated wood waste, mixed demolition or mixed construction debris, manure and plant waste from the food processing industry, alone or blended with soil. Processed green material may include varying proportions of wood waste from urban and other sources and shall be ground, shredded, screened, source separated for grain size, or otherwise processed.

(b) Green material used for alternative daily cover shall be processed prior to being applied to the working face unless the green material to be used as alternative daily cover already meets the grain size specifications. Prior to spreading and compacting on the working face, processed green material shall comply with a grain size specification by volume of 95 percent less than 6 inches. Alternative processing and grain size specification requirements may be

approved by the EA if the EA determines that the alternative meets the performance requirements of ¶(a)(2) and (a)(3) of this section and the CIWMB concurs. (Emphasis added)"

Initially, green waste from Lamorinda and Walnut Creek is allowed to contain food waste. As quoted, Title 27 does not allow deposit of green waste and food waste unless (1) the two are separated at the points of generation (the depository cans); or (2) at a centralized facility that employs methods to minimize contamination. There is no process at the Martinez transfer station to "minimize contamination" hence no green waste from Lamorinda or Walnut Creek may be deposited at Keller Canyon.

The same issues regarding improper use of untreated and adulterated ADC were raised with the CCCSWA staff. The Executive Director's response was to note that these issues were serious and needed an independent analysis (even though, he stated he thought there was "nothing to them") and a "Green Waste Performance Audit" was commissioned from Intelliwaste, Inc., a "disinterested" third party consultant. The audit focuses erroneously primarily on the requirements set out in the Franchise Agreement and neglects any analysis of the legal requirements imposed on use of green waste by state law. However, one paragraph of the audit illustrates the fallacy of Republic's position, as contained in Finding No. 3 and reads as follows:

"Mr. Fung attested that he had not observed any food waste within the green waste used as ADC during 2011 and 2012 and that processing the green waste through track walking by heavy equipment breaks up the material which meets the Cal recycle specification that 95% of the green waste be six inches or less in order to be used as ADC."

This "finding" completely ignores the provisions of Title 27 and also ignores the fact that unprocessed green waste was never envisioned for use as ADC under the CCCSWA Franchise Agreement. Section 4.4(f) of that Franchise Agreement deals with designated green waste and food waste processing facilities and makes clear that any green waste to be used as ADC must be processed either at Newby Island or Republic's Martinez transfer station (there are no processing facilities at the Martinez location). There is an inconsistency between the Franchise Agreement and the Solid Waste Facility's Permit in that the former designates the Keller Canyon Landfill as a processing facility for no more than 50% of green waste and food waste from Danville, portions of Walnut Creek and unincorporated Central Contra Costa County, implying that the other 50% would be processed at Martinez. However, neither Keller Canyon nor Martinez have requisite processing facilities or permits. Therefore, all of the green waste which Republic admits is being direct hauled to the landfill is in violation of the Franchise

Agreement, the Solid Waste Facility Permit, the Land Use Permit and Title 27. Additionally, since Walnut Creek allows the mixture of food waste with green waste and all of the green waste from unincorporated portions of the County and, perhaps, Danville, is mixed with Walnut Creek green waste/food waste, it is all adulterated and cannot be used pursuant to Title 27 as ADC because it must be assumed to be adulterated by food waste.

(b) Direct Haul of Green Waste and C&D: Section 17i of the Solid Waste Facilities Permit limits deliveries of solid waste to Keller Canyon to "transfer vehicles from transfer stations where waste reduction and resource recovery activities have taken place". Republic has admitted to the Authority that direct hauling of green waste and C&D to the facility not only occurs but was the subject of their requested 2008 Amendment to the Land Use Permit.

(c) Failure to Provide Reports: By our February 11 letter we pointed out a number of reports required from Republic. We will follow up with a Public Records Act request for copies of these required reporting documents. Staff neglects to discuss which, if any, of these reports have been provided.

(d) Notice of Violation: We have pointed out to staff a number of EPA, methane gas and other violations, noticed to Republic by Cal Recycle and others. However, no mention of most of these violations or the fact Republic was deemed a "high priority violator" is made in the staff report.

These are not "distinctions without a difference". As we have pointed out treatment of green waste and C&D as something other than solid waste requiring the payment of the appropriate surcharges results in a substantial shortfall of public funds. The Solid Waste Facilities Permit for Keller Canyon appears to provide that green waste, used as ADC, is not counted against Keller's 3,500 tons per day limit, primarily because it furthers the applicable diversion goals. However, this can only be the case if the green waste is subjected to reprocessing. Unprocessed and adulterated green waste, applied as ADC in violation of Title 27 and mashed up by a tractor does not and should not qualify as reprocessed, diverted material.

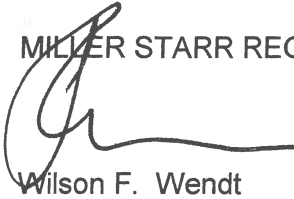
Conclusion: We urge the Board to acknowledge the extreme seriousness of these issues which we first brought to your attention on February 11 and to instruct staff to prepare the requisite further review of not only the "appropriate" disposal fee but also all of the issues that we have brought to your attention. We will assist staff with

Chairperson Karen Mitchoff and Members of the Board of Supervisors of Contra
Costa County
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the information we have already compiled and the material we will obtain through
our ongoing investigation.

Very truly yours,

MILLER STARR REGALIA

A handwritten signature in black ink, appearing to be 'Wilson F. Wendt', written over the printed name.

Wilson F. Wendt

WFW:jj

cc: Clients



D.2
2-25-14

TECHNICAL MEMORANDUM

DATE: February 24, 2014

TO: Contra Costa County Board of Supervisors
Central Contra Costa Solid Waste Authority
IntelliWaste

FROM: Evan Edgar, Principal Civil Engineer

REGARDING: Processed Green Waste Alternative Daily Cover (ADC) Specifications
Compliance with State Minimum Standards
Notice of Violation at the Keller Canyon Landfill

SUMMARY:

- ✓ Manual separation of green waste and further compaction at the working face of the landfill – as is reportedly conducted at Keller Canyon Landfill – does not comply with state minimum standards for ADC.
- ✓ The Keller Canyon Landfill Joint Technical Document for landfill and green waste operations do not describe current practices of manual processing and spreading and compacting ADC on the landfill working face.
- ✓ Manual processing of green waste does not meet the state Title 27 ADC specifications of being shredded, screened, or source separated for grain size. Alternative processing and grain size specification requirements, such as manual processing, may be approved by the LEA if the LEA determines that the alternative meets the performance requirements and CalRecycle concurs. There is no record in the CalRecycle files where the LEA asked for approval, or where the state oversight agency, CalRecycle, concurs with this practice.
- ✓ When developing the state regulation in 1998, as explained during the state workshops from 2001 to 2003, the 6 inch figure for the green waste reflects the standard for ground green waste materials that can be achieved with most grinding machines and would not impose major new costs to operations wishing to comply.

- ✓ When developing the state regulation in 1998, as explained during the state workshops from 2001 to 2003, CIWMB regulations was to require pre-processing of green waste prior to placement. *“Waste-derived ADC shall be processed prior to spreading and compacting on the working face and applied and compacted to ensure no open voids within the material or in contact within the underlying waste”*
- ✓ Raw green waste not meeting ADC specifications would not be considered beneficial reuse, but instead would be consider municipal solid waste (MSW). MSW is not allowed to be directly hauled into the Keller Canyon Landfill, but needs to be transferred in transfer trailers from transfer stations where waste reduction and resources recovery activities have taken place. Direct haul of unprocessed green waste, or MSW, to Keller Canyon is not allowed in the Solid Waste Facility Permit LEA condition 17.i.
- ✓ Raw green waste should be classified as MSW and would need to pay all state and local fees.

Exhibit “A” - LEA Advisory No. 19, issued by the state oversight agency at the time, California Integrated Waste Management Board (CIWMB) - currently CalRecycle) in October 1994, initially required that green waste be shredded using equipment to an average particle size of three inches or smaller

Exhibit “B” - ASTM D6523-00 – **Standard Guide for Evaluation and Selection of Alternative Daily Covers (ADCs) for Sanitary Landfills**, evaluated that “shredded green waste” is an accepted ADC material.

Exhibit “C” - Los Angeles County Sanitation District and Orange County Sanitation District require 3 inch minus green waste ADC.

Exhibit “D” - California Integrated Waste Management Board PowerPoint slides on ADC regulations

Exhibit “E” - The Keller Canyon Joint Technical Document, or Report of Facility Information, for operating the landfill does not describe the manual processing of green waste

Exhibit “F” - California Integrated Waste Management Board’s 18-month inspection and issued a Notice of Violation regarding green waste ADC. The green waste was not being processed prior to being applied to a working face as ADC.

Exhibit “G” - Keller Canyon Landfill is Solid Waste Facility Permit No. 07-AA-0032

TECHNICAL MEMORANDUM

The purpose of this Technical Memorandum is to supply historical policies, specifications, and current regulations on the processing of green waste for use as alternative daily cover (ADC) at a landfill in California. The Technical Memorandum will review state minimum standards of using green waste ADC at California landfills, and will review and compare green waste ADC practices at the Keller Canyon Landfill.

Based upon the review of what constitutes green waste processing to comply with state minimum standards, manual separation of green waste to remove 5% of the larger material with particle sizes greater than 6 inches, and further compaction at the active face of the landfill – as is reportedly conducted at Keller Canyon Landfill – does not comply with either state minimum standards or industry standards.

The Contra Costa County Board of Supervisors Agenda Item D.2 for February 25, 2014 indicates that the County LEA allows the green waste to be of a certain size, and includes the allowance that 5% of the green waste may exceed that limit. Bruce Murphy, an independent consultant for the Central Contra County Solid Waste Authority (CCCSWA), in a conversation on February 18, 2014 with myself, elaborated that manual separation of about 5% of the green waste which was greater than 6 inches in size, and then the pushing of the remaining green waste to the landfill active face where landfill equipment further compacts the green waste with landfill equipment is the typical practice at the Keller Canyon Landfill. It was acknowledged that there is no mechanical processing equipment at Keller Canyon Landfill as verified in the BAAQMD Permit to Operate.

This Technical Memorandum concludes that the Keller Canyon Landfill is not meeting state minimum standards for green waste ADC based upon a review of the public record, the staff report and phone conversation with Bruce Murphy of IntelliWaste.

Green waste not meeting ADC specifications would not be considered beneficial reuse, but instead would be considered municipal solid waste (MSW). MSW is not allowed to be directly hauled into the Keller Canyon Landfill, but needs to be transferred in transfer trailers from transfer stations where waste reduction and resources recovery activities have taken place. Direct haul of unprocessed green waste, or MSW, to Keller Canyon is not allowed in the Solid Waste Facility Permit LEA condition 17.i.

To comply with state minimum standards and the Solid Waste Facility Permit, the green waste would have to be mechanically processed into ADC at an off-site transfer station where waste reduction and resources recovery activities occur, and be hauled by a transfer trailer into the Keller Canyon Landfill.

LEA Advisory and Industry Standards – Shredded Green Waste

LEA Advisory No. 19, issued by the state oversight agency at the time, California Integrated Waste Management Board (CIWMB) - currently CalRecycle) in October 1994, initially required that green waste be shredded using equipment to an average particle size of three inches or smaller (Exhibit “A”)

ASTM International, formerly known as the American Society for Testing and Materials (ASTM), is a globally recognized leader in the development and delivery of international voluntary consensus standards. Today, some 12,000 ASTM standards are used around the world to improve product quality, enhance safety, facilitate market access and trade, and build consumer confidence. ASTM D6523-00 – **Standard Guide for Evaluation and Selection of Alternative Daily Covers (ADCs) for Sanitary Landfills**, evaluated that “shredded green waste” is an accepted ADC material. (Exhibit “B”)

Many public sector operators, Los Angeles County Sanitation District, Orange County Sanitation District and Yolo County Public Works all still require 3 inch minus green waste ADC. (Exhibit “C”). Basically, the green waste ADC specifications can be met with one pass through a grinder. The pictures below are from the Los Angeles County Sanitation District document showing the unprocessed green waste being ground, and a scraper laying ground green waste ADC over a compacted refuse cell.



From Exhibit C – Figure 3. Unprocessed green waste (on left) is ground and stockpiled (on right)



From Exhibit C – Figure 4. A scraper lays processed green waste ADC over a compacted refuse cell

State Minimum Standards –

Processed Green Waste Prior to being applied to the Working Face

In 1998, the regulations were adopted by the California Integrated Waste Management Board (CIWMB) that required processing and that 95% of the material be less than 6 inches. This regulation, Title 27, is copied below:

Regulations: Title 27, Environmental Protection--Division 2, Solid Waste
Chapter 3. Criteria for All Waste Management Units, Facilities, and Disposal Sites

Subchapter 4. Criteria for Landfills and Disposal Sites

Article 1. CIWMB - Operating Criteria

20690. CIWMB - Alternative Daily Cover. (T14: Section 17682, 17258.21(b))

(3) Processed Green Material

(A) For the purposes of this section, processed green material means any plant material that is either separated at the point of generation, or separated at a centralized facility that employs methods to minimize contamination. Green material includes, but is not limited to, yard trimmings, untreated wood wastes, paper products, and natural fiber products. Green material does not include treated wood waste, mixed demolition or mixed construction debris, manure and plant waste from the food processing industry, alone or blended with soil. Processed green material may include varying proportions of wood waste from urban and other sources and shall be ground, shredded, screened, source separated for grain size, or otherwise processed.

(B) Green material used for alternative daily cover shall be processed prior to being applied to the working face unless the green material to be used as alternative daily cover already meets the grain size specifications. Prior to spreading and compacting on the working face, processed green material shall comply with a grain size specification by volume of 95 percent less than 6 inches. Alternative processing and grain size specification requirements may be approved by the EA if the EA determines that the alternative meets the performance requirements of ¶(a)(2) and (a)(3) of this section and the CIWMB concurs.

As noted above in Title 27, processed green material may include varying proportions of wood waste from urban and other sources and shall be ground, shredded, screened, source separated for grain size, or otherwise processed. Green material used for alternative daily cover shall be processed prior to being applied to the working face unless the green material to be used as alternative daily cover already meets the grain size specifications. Prior to spreading and compacting on the working face, processed green material shall comply with a grain size specification by volume of 95 percent less than 6 inches. Alternative processing and grain size specification requirements may be approved by the LEA if the LEA determines that the alternative meets the performance requirements and CalRecycle concurs.

CIWMB held a series of hearings and workshops present to the LEAs and the landfill operators from 2001 to 2003 to clarify the ADC regulations that were adopted in 1998. In the CIWMB's PowerPoint slides (Exhibit "D"), with select slides in adjacent figures, clearly states that CIWMB regulations was to require pre-processing of green waste prior to placement. "Waste-derived ADC shall be

processed prior to spreading and compacting on the working face and applied and compacted to ensure no open voids within the material or in contact within the underlying waste"



Pre-processing Now Better Specified

**§ 20690. CIWMB - Alternative Daily Cover.
[T14: §17682, §17258.21(b)]**

(2) Waste-derived alternative daily cover shall be processed prior to spreading and compacting on the working face and applied and compacted to ensure no open voids within the material or in contact within the underlying wastes.

The CIWMB PowerPoint presentation can be found on-line at:

<https://www.google.com/search?q=Green+Waste+ADC+CIWMB+PowerPoint+2002&ie=utf-8&oe=utf-8&aq=t&rls=org.mozilla:en-US:official&client=firefox-a&channel=sb>

When developing the state regulations in 1998, as explained during the state workshops from 2001 to 2003, the 6 inch grain specification figure for the green waste reflects the standard for ground green waste materials that can be achieved with most grinding machines and would not impose major new costs to operations wishing to comply. This would also apply to C&D debris used as ADC as noted on the slide.

Why 6 inches and 12 inches as the required specifications?

- The 6 inch figure for the green waste reflects the standard for ground GWM that can be achieved with most existing grinding machines and would not impose major new costs to operators wishing to comply.
- The 12 inch figure for C/D waste also reflects a reasonable number provided by operators who were successful in grinding C/D waste for use as ADC. Most particles are under 6 inches but there are often going to be pieces in the 12 inch range or longer.

The state made it clear to LEAs and landfill operators from 2001 to 2003 that green waste needs to be pre-processed by a grinder or mechanical equipment prior to spreading and compacting on the working face of a landfill as ADC.

Manual Processing of Green Waste

It has been acknowledged that there is no mechanical processing equipment at Keller Canyon Landfill as verified in the BAAQMD Permit to Operate. Green waste is directly hauled into the Keller Canyon Landfill, or transferred in from the Contra Costa Transfer Station, or other sources. The Contra Costa Transfer Station transfers green waste to Keller Canyon Landfill without mechanical processing. Keller Canyon Landfill has been receiving 75,000 tons to 90,000 tons of green waste ADC over the last few years which can be verified in the link below from the CalRecycle website.

<http://www.calrecycle.ca.gov/LGCentral/Reports/Viewer.aspx?P=CountyID%3d7%26ReportYear%3d2012%26ReportName%3dReportEdrsCountyADCAIC>

Republic's Contra Costa County Customer Guide allows yard waste with branches 6 inches or less in diameter and up to 3 feet in length. The City of Danville allows seasonal yard waste up to 3 inches or less in diameter and up to 4 feet in length. This green waste material is not being source-separated by grain size. What happens to this material at the active face of the landfill?

Keller Canyon claims to have "manual processing" operations of green waste to achieve the particle size of 95% less than 6 inches. Prior to spreading or compacting, the green waste must be processed to comply with the aforementioned specifications for particle size. However, the use of landfill equipment for further compacting and processing at the landfill's working face does not qualify as meeting the green waste ADC specifications in Title 27.

Manual processing of green waste does not meet the Title 27 ADC specifications of being shredded, screened, or source separated for grain size. Alternative processing and grain size specification requirements, such as manual processing, may be approved by the LEA if the LEA determines that the alternative meets the performance requirements and CalRecycle concurs. There is no record in the CalRecycle files where the LEA asked for approval, or where CalRecycle concurs with this practice.

Manual processing of green waste prior to use as ADC to reduce grain size is not an industry standard and does not conform to state minimum standards. The Keller Canyon Joint Technical Document, or Report of Facility Information, for operating the landfill does not describe the manual processing of green waste (Exhibit "E"), but instead copies that state minimum standards regulations language without providing an operations plan. Joint Technical Documents are prepared by landfill operation describing the landfill operations plan, where the processing of green waste of ADC should be included. If alternative processing of green waste to ADC is proposed, the Joint Technical Document should provide the operations plan, and needs to be concurred with by CalRecycle.

Raw Green Waste Grain Size

Republic's Contra Costa County Customer Guide allows yard waste with branches 6 inches or less in diameter and up to 3 feet in length. The City of Danville allows seasonal yard waste up to 3 inches or less in diameter and up to 4 feet in length. Raw green waste has at least 15% over 6 inches grain size according to two studies.

Raw green waste has the following characteristics based upon the referenced study linked below from the Federal EPA document – Life Cycle Inventory and Cost Model for Mixed Municipal and Yard Waste Composting:

- ✓ 79% of Yard Waste passes the 4.72 inch screen (120 mm screen from chart below)

Table 6. Moisture Contents, Bulk Densities, and Screening Efficiencies at Several Stages of Composting

Component	Moisture contents (% wet weight) *	Bulk densities (lb / yd ³) *	Screening efficiencies **
Mixed paper	10.2	95	58%
Yard waste ^a	60.0	122	79%
Food waste ^a	70.0	594	79%
Plastic / leather / textiles	5.0	68	58%
Glass	2.0	460	95%
Tin / aluminum	5.0	122	55%
Other inorganic components	2.0	68	95%
In windrows	50.0 **	500 ^b	
Cured compost	40.0 ^d	700 ^c	100% ^d , 85% ^a , 95% ^f

* From Tchobanoglous et al., 1993 (pp.79).

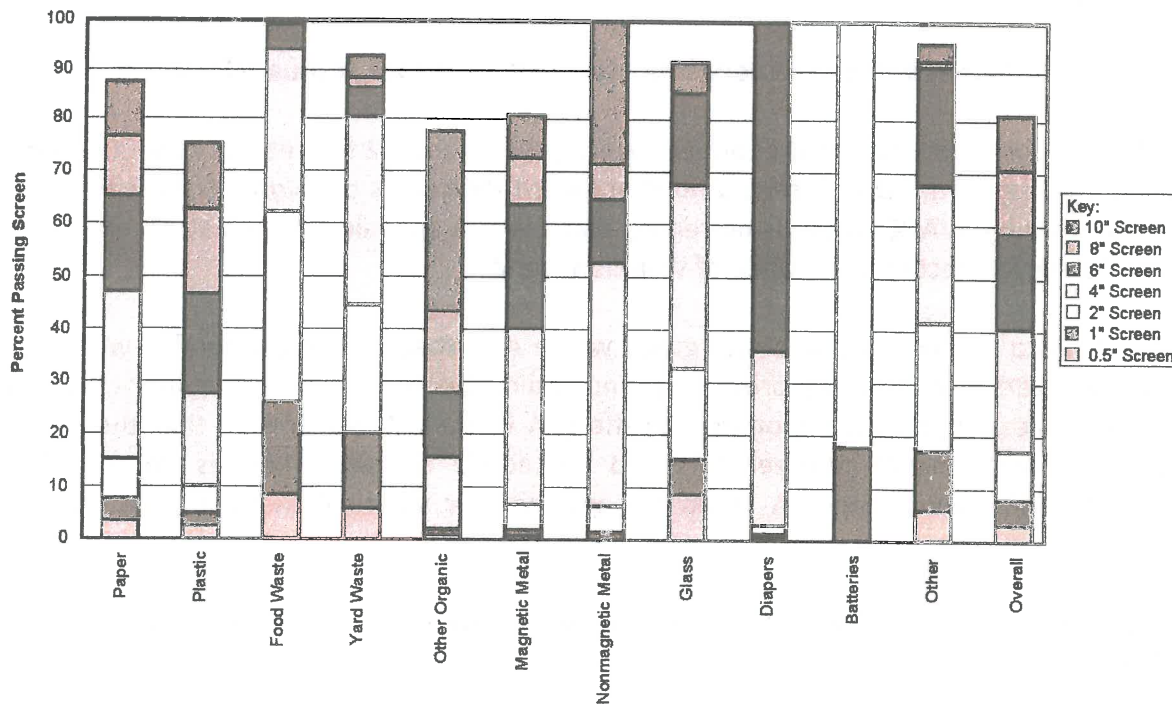
** After water addition to windrows.

^a Based on data from Diaz et al. (1993) for loose MSW components at tipping floor, unless specified otherwise.

^{ff} % of feed passing through the trommel assuming a trommel screen with a 120-mm mesh size screen and a 50 tph feed rate (based on experimental data from Alter, 1983). Used in the LQCF only.

Raw green waste has the following characteristics based upon the referenced study linked below from the CRC Press, Environmental Engineer Handbook- 2nd Edition.

- ✓ 86% of Yard Waste passes the 6 inch screen (from chart below)



<http://www.passeidireto.com/arquivo/1003044/crcpressenvironmentalengineershndbook2ndedebook-een/2>

Allowing for a 5% overage, 90% of raw yard waste may have a grain size of less than 6 inches. The other 10% of the yard waste would be considered overs. Using raw yard waste with 5% over 6 inches and some manual processing does not meet state minimum standards.

Keller Canyon Landfill has been receiving 75,000 tons to 90,000 tons of green waste ADC over the last few years which means that 7,000 to 9,000 tons of green waste per year must be manually separated. The Keller Canyon Landfill Joint Technical Document for operating the landfill does not describe the manual processing of green waste or describe the disposition of the green waste that should be rejected, and would need to be concurred with by CalRecycle.

Keller Canyon Landfill – Green Waste ADC Notice of Violation by the State

On January 23, 2007, the state conducted an 18-month inspection of the site in conjunction with the LEA and issued a Notice of Violation regarding green waste ADC. The green waste was not being processed prior to being applied to a working face as ADC (Exhibit "F"). As stated in

the Inspection Report, *“According to the operator, green waste is not processed prior to placement on the working face as ADC. The regulations require that the green waste used as ADC be processed prior to being applied to the working face unless the green material to used already meets the grain size specifications.”*

The only apparent change from the 2007 violation is the attempt to use manual processing to meet grain size specification, which was never concurred with by CalRecycle as alternative processing.

Contra Costa County Board of Supervisors Agenda Item D.2 for February 25, 2014

The Contra Costa County Board of Supervisors Agenda Item D.2 for February 25, 2014 indicates that *“according to the LEA, it should have not been treated as a violation”* since that material was not used by as ADC. There is no record that the LEA appealed the violation, and according to the CalRecycle record, the Notice of Violation stands.

The LEA has a certain opinion about green waste ADC that is in direct conflict with the state oversight agency. Alternative processing and grain size specification requirements, such as manual processing, may be approved by the LEA if the LEA determines that the alternative meets the performance requirements and CalRecycle concurs. There is no record in the CalRecycle files where the LEA asked for approval, or where CalRecycle concurs with this practice.

The Contra Costa County Board of Supervisors Agenda Item D.2 for February 25, 2014 states the following:

“The February 11th letter asserts that Keller is required to process green waste prior to using it as ‘alternative daily cover’ (ADC). This is not correct. The operational permit requires that green waste be a certain size, and includes the allowance that 5% of the green waste may exceed the size limit”

Green waste must be processed prior to using it as ADC according to state regulations referenced herein. County staff that prepared the Agenda Item has misrepresented state regulations. The assumption by County staff is that raw green waste with an allowance of 5% material greater than 6 inches can be applied as ADC without processing. The grain size of raw green waste contains more than 5% material greater than 6 inches, where studies show that 15% of the material has a grain size greater than 6 inches.

Keller Canyon Landfill – Solid Waste Facility Permit No. 07-AA-0032

The operation permit for the Keller Canyon Landfill is Solid Waste Facility Permit No. 07-AA-0032, where the operations are described in the Report of Facility Information, or the Joint Technical Document (Exhibit “G”).

The Contra Costa County Board of Supervisors Agenda Item D.2 for February 25, 2014 states the following:

"The February 11th letter asserts that Keller is required to process green waste prior to using it as 'alternative daily cover' (ADC). This is not correct. The operational permit requires that green waste be a certain size, and includes the allowance that 5% of the green waste may exceed the size limit"

The operation permit does not require that green waste be a certain size, but does require that the landfill operate according to state minimum standards and follow the operations plan in their Report of Facility Information, or the Joint Technical Document. The Report of Facility Information does not describe manual green waste processing to any size specification (Exhibit F)

Raw green waste not meeting ADC specifications would not be considered beneficial reuse, but instead would be considered municipal solid waste (MSW). MSW is not allowed to be directly hauled into the Keller Canyon Landfill, but needs to be transferred in transfer trailers from transfer stations where waste reduction and resources recovery activities have taken place. Direct haul of unprocessed green waste, or MSW, to Keller Canyon is not allowed in the Solid Waste Facility Permit LEA condition 17.i (copied below). Raw green waste should be classified as MSW and would need to pay all state and local fees.

- i. **Waste Reduction and Resource Recovery.** Municipal solid waste received at this facility shall arrive by transfer vehicles from transfer stations where waste reduction and resource recovery activities have taken place.



GREEN CART



Biweekly Yard Waste Service

Place cart out by
5 a.m. Leave at least
4 feet between carts
and any other
object.

OK FOR RECYCLING

Brush
Cactus
Flower cuttings
Flowers
Garden trimmings
Grass
Hay

House plants
Lawn clippings
Leaves
Plant waste
Prunings
Shrubbery

Straw
Tree twigs and branches 6
inches or less in diameter
and 3 feet or less in length
Weeds
Wood chips

6" DIAMETER
3 FEET IN LENGTH

Yard Waste Recycling Guidelines

Residents can recycle lawn clippings and other yard waste with their 96-gallon yard waste cart.

If you are a new resident and do not have a yard waste cart, please call a customer service representative at (925) 685-4711 or visit our website at <http://awsccc.com> to request one online.

What to Do

- Place yard waste — grass clippings, brush, weeds, leaves, etc. — directly into the cart.
- Do not bag or place yard waste in any container before placing in cart.
- Place the cart on the street in front of the curb for streetside pickup.
- Face the cart's front out to the street.

Not Acceptable for Yard Waste Recycling

- Plastic bags
- Rocks and concrete
- Sod and dirt
- Fruits and vegetables
- Tree trunks and stumps greater than 6 inches in diameter
- Tree trunks and stumps greater than 3 feet in length
- Palm fronds
- Pet waste
- Hazardous waste
- Garbage and inorganic materials including recyclables like plastics, glass, metal and paper

REMINDERS

- Collection is **BIWEEKLY** on the same day as garbage service.
- Place only plant debris in the green yard waste cart.
- Be sure all materials fit inside the cart with lid closed.
- For a missed pickup, please call within 24 hours to report which cart was not serviced.
- Before discarding, consider composting. To find out about **FREE home composting workshops** in your area, call the County Recycling Hotline at 1-800-750-4096 or visit www.ccrecycle.org. To learn how to compost yard waste at home, come to a free workshop.



City of Danville
Solid Waste Division
Rules and Regulations

During the **Toter Only Collection** period, yard waste is collected the same day as your regular household pickup. Each day is divided into 2 zones, A and B, which are collected on alternate weeks. It should be set out following the same guidelines as household waste. Maps showing your zone are available at the Robert E. Jones Municipal Building, the Public Works Facility or on our website at (www.danvillepublicworks.org).

From April 28th until September 26th all yard waste will only be picked up in City approved toters with a current yard waste sticker attached. Toters may also be used during the Spring and Fall Collection periods.

During the Toter Only Collection period from April 28th to September 26th yard waste will be collected as follows:

ZONE A will be picked up beginning the week of April 28th and ZONE B the week of May 5th. ZONE A and B will then alternate weeks until the end of the Toter Only Collection period on September 26th.

Bags may only be used during the Spring and Fall Collection periods, which fall outside of the Toter Only Collection period. The Spring Collection will be approximately 4 weeks starting in April and the Fall will be 6 weeks starting in October (weather permitting). Toters may be used during all three collection periods.

Yard waste stickers are \$35 each and are sold at the Danville Public Works Facility, 1155 E. Voorhees St. and at the Robert E. Jones Municipal Building, 17 W. Main St. during normal business hours. Stickers are good for one calendar year.

All yard waste must be contained in one of the following ways:

City approved toter (up to 100 gallon capacity), with current yard waste sticker and no more than 200lbs. of yard waste material.

During the Spring and Fall Collection periods, residents may use any approved paper yard waste bags. Yard Waste bags are available at various retail outlets, pricing set by stores. **NO** tape or adhesive permitted on Yard waste bags, just fold and /or roll down the top of the bags.

Please note: bags are not allowed between April 28th and September 26th.

Yard waste contained in plastic bags or boxes **WILL NOT be collected.**

THE FOLLOWING ITEMS ARE CONSIDERED YARD WASTE:

Grass, Leaves, Shrubbery Trimmings, Garden Waste (no food products), Brush.

All items (including brush) must be placed in the toter between April 28th and September 26th.

Brush placed by the toter during the Spring and Fall Cleanup periods should be bundled, tied with cotton twine or string, no larger than 3 inches in diameter and less than 4 feet long.

THE FOLLOWING ITEMS WILL NOT BE COLLECTED WITH YARD WASTE:

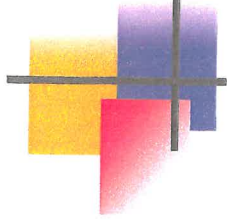
Stumps, Landscape Timbers, Railroad Ties, Dirt, Gravel, Rock, Straw, Hay Bales, Pumpkins, and Christmas Trees that are contaminated with flocking, tinsel, etc.

(Straw, Hay, Pumpkins, and Contaminated Christmas Trees may be placed with household waste).

3" DIAMETER
4 FEET LONG

Why 6 inches and 12 inches as the required specifications?

- The 6 inch figure for the green waste reflects the standard for ground GWM that can be achieved with most existing grinding machines and would not impose major new costs to operators wishing to comply.
- The 12 inch figure for C/D waste also reflects a reasonable number provided by operators who were successful in grinding C/D waste for use as ADC. Most particles are under 6 inches but there are often going to be pieces in the 12 inch range or longer.



Pre-processing Now Better Specified

**§ 20690. CIWMB - Alternative Daily Cover.
[T14: §17682, §17258.21(b)]**

(2) Waste-derived alternative daily cover shall be processed prior to spreading and compacting on the working face and applied and compacted to ensure no open voids within the material or in contact within the underlying wastes.



LEA ADVISORY

No. 19 October 18, 1994

STREAMLINING THE APPROVAL OF ALTERNATIVE DAILY COVER DEMONSTRATION PROJECTS USING GREEN MATERIAL

To All Local Enforcement Agencies

Authority and Purpose

The California Integrated Waste Management Board (Board) has authority to consider application for alternative daily cover (ADC) under Title 14, California Code of Regulations (14 CCR), Division 7, Sections 17258.21(b) and 17682. Board staff are currently establishing performance criteria for ADC materials and will develop regulations specifying acceptable conditions for their use. Regulations are expected to be finalized in October 1995. In the interim, Board staff are reviewing proposed ADC use on a case-by-case basis pursuant to the Board's "Procedural Guidance for the Evaluation of Alternative Cover," adopted May 17, 1990 (see attachment). Based on past experience, a proposed ADC demonstration project that meets the guidelines set out below will be approved by Board staff. Therefore, if an ADC demonstration project complies with these guidelines, an LEA may approve this demonstration use without the need for further Board staff approval. If the guidelines are not followed, Board staff will still need to review the project on a case-by-case basis.

The purpose of this Local Enforcement Agency (LEA) Advisory is to establish a procedural change in approving projects for ADC using shredded green material. The procedural change gives the LEA the authority to approve or deny a proposed green material ADC demonstration project if the LEA implements the generic guidelines developed by Board staff in this advisory. This gives the LEA more control and flexibility over the handling of ADC projects. It eliminates unnecessary duplication of effort between LEA and Board staff. This procedure is not a change in the Board's "Procedural Guidance for the Evaluation of Alternative Cover" since the conditions were developed consistent with requirements specified in the guidance policy.

This LEA Advisory establishes the second streamlined approval procedure for ADC. LEA Advisory No. 10, dated March 7, 1994, established streamlined approval procedures for demonstration projects testing geosynthetic blankets.

Applicability

This LEA Advisory applies to **shredded green material** only. As defined in 14 CCR, Division 7, Chapter 3.1, Section 17853(a)(12), "green material" or "green" means any wastes separated at their source of generation which are derived from plant material, including but not limited to, leaves, grass clippings, weeds, tree trimmings, untreated wood waste, or shrubbery cuttings. Green material is also referred to as green waste. Shredded green

material refers to green material that has been ground using equipment such as a tub or hammermill grinder to an average particle size of three inches and smaller.

Use of shredded green material as daily cover in accordance with this LEA Advisory would not be subject to the composting requirements of 14 CCR, Division 7, Chapter 3.1.

Green material has been successfully demonstrated as suitable ADC for ongoing use at five landfills, four in Los Angeles County and one in Yolo County. Streamlined approval conditions have been established in this LEA Advisory based primarily on these approved demonstrations.

Approval Conditions

For proposed shredded green material ADC demonstration projects, the following generic conditions must be satisfied *[brackets with italics indicate further clarification and conditions that are recommended but not required]*:

- (a) The Local Enforcement Agency (LEA), or its agent must monitor the demonstration project for compliance with the performance standards criteria at the frequencies specified in Title 14, Division 7, California Code of Regulations (14 CCR), Section 17683.
- (b) A schedule for conducting the demonstration project must be submitted to the LEA prior to commencement of the study. The schedule should include study initiation and completion dates, a description of the test areas, a list of parameters to be monitored, and approximate measurement time frames.
- (c) A document verifying compliance with the California Environmental Quality Act (CEQA) from the lead public agency (e.g. local planning department) must be submitted prior to commencement of the study. Under Public Resources Code (PRC) Section 21084, demonstration projects may be categorically exempt. In those cases, a copy of the Notice of Exemption filed with the County Clerk is sufficient. *[LEAs should note that CEQA compliance must be established for both the demonstration project and for ongoing use. LEAs should ensure consistency of ADC use with the CEQA document and any CEQA mitigation, monitoring, and implementation schedules. For further information on CEQA, please contact Mark DeBie at (916) 255-2367]*
- (d) The landfill operator must obtain written clearances for the demonstration project (and final ongoing use) from the Regional Water Quality Control Board (RWQCB), the local fire department, and any other agencies with authority over the operation of the landfill.
- (e) The operator must demonstrate that an adequate load-checking program is in place to ensure that hazardous or unauthorized wastes are excluded from the green material.
- (f) The LEA shall inspect all on-site green material ADC staging and processing areas to ensure that solid waste landfill operational standards are not violated. *[To prevent decomposition with attendant odor and vector problems, a recommended condition is that shredded green material be used within ten (10) days of receipt and three (3) days of processing unless the demonstration project shows that a longer or shorter storage period is appropriate.]*
- (g) Should the use of shredded green material become impracticable or contribute to conditions hazardous to public health and safety and the environment, the operator must temporarily or completely terminate the project by their own initiative, or at the direction of the LEA. A stockpile of cover soil and earth-moving equipment must be available at all times to ensure immediate response to this requirement. The operator must notify the LEA within seven (7) days if the project is terminated. Reactivation of the project after temporary termination shall occur only after approval by the LEA.

- (h) Operators must maintain fire control measures deemed adequate by the LEA and local fire authority. *[Measures other than item i to be considered should include properly trained fire crews with fire fighting equipment available on-site or within an approved distance from the site. Fire control contingency measures should be included in the demonstration project proposal.]*
- (i) The operator must not allow applied shredded green material cover to remain exposed longer than seven (7) days unless the material is wetted by a water truck to prevent excessive dryness. A wetting agent, as recommended by the local fire department, must be available at the site for addition to a water truck in case of fire. Shredded green material cover must not remain exposed longer than 21 days under any conditions.
- (j) If shredded green material is to be tested in the wet season, the operator must comply with RWQCB's requirements for wet weather use. In the absence of a RWQCB wet weather restriction, the LEA should restrict the testing and use of green material ADC during wet weather periods if there are public health and safety related concerns regarding wet weather use. *[The five approved green material ADC demonstration projects did not require wet weather restrictions and have performed well during wet weather. These sites receive less than 20 inches mean annual precipitation. If a wet weather restriction is deemed necessary, it is recommended that application of green material ADC not occur when there is precipitation, or when there is a forecast of > 40% chance of precipitation within 12 hours of application time in the vicinity of the landfill. This recommendation is based on industry standards for foam ADC.]*
- (k) The operator must apply shredded green material to a minimum compacted depth of six (6) inches. Insufficient compaction or coverage is considered a performance failure and a violation of the cover standards under 14 CCR 17682. Sufficient compaction effort shall be determined during the demonstration and should be based on the ability of compacted cover to meet the functional criteria for odor, litter, dust, or vector control. The operator must avoid applying excessive depths of shredded green material cover, generally above 18 inches. *[Excessively thick cover would be difficult to work by heavy equipment and may cause problems with fire, odors, vectors, litter, or dust control.]*
- (l) The operator must place a minimum of 6 inches of compacted soil over the entire working face on any day preceding closed days if unattended.
- (m) If violations of performance standard thresholds occur during the demonstration project, the operator should revert to soil cover as specified in 14 CCR 18311.
- (n) The LEA must prepare brief bimonthly reports (one report every two months) which summarize the data collected (14 CCR 17683) and any other relevant observations. All bimonthly reports must be compiled in the final report at the end the study.
- (o) The final report should address all issues that have arisen during the demonstration project. In addition to a tabulation and analysis of the data, the final report must include conclusions as to the suitability of shredded green material for ongoing use as ADC. If shredded green material is determined to be an acceptable ADC and is proposed for ongoing use by the operator, the approved final report with operational conditions must be compiled as an amended Report of Disposal Site Information (RDSI).

New Approval Procedure

Effective this date and until the Board has established revised or new policy for approving ADC demonstration projects, it is no longer necessary for Board staff to issue approval letters for testing ADC materials under the following conditions:

- The operator proposes to test shredded green material.
- The Board's Closure and Remediation Branch receives copies of the LEA approval letter and project proposal prior to the start of the demonstration. The LEA approval letter must confirm that the above generic conditions will be satisfied. Proposed alternatives to the above conditions must receive a separate approval letter issued by Board staff prior to the start of the demonstration.
- At the conclusion of the project, the LEA shall submit to the Board's Closure and Remediation Branch the final report/amended RDSI, the LEA final approval letter, and if applicable, draft and final copies of any Notice and Stipulated Order of Compliance for interim non-experimental use.

Upon approval of the final report/amended RDSI, the LEA should consider the following options for authorization of shredded green material ADC on a non-experimental basis:

- If the SWFP has been revised to incorporate provisions for ADC use prior to initiation or completion of a demonstration project, the LEA should consider modifying the SWFP. The modified SWFP would incorporate specified conditions on the use of ADC as developed from the above conditions and demonstration project.
- If permit modification is not possible, a revised SWFP permit must be submitted to the Board for concurrence. The LEA must require the operator to cease using the ADC until revision of the SWFP, or issue a Stipulated Order of Compliance (Notice and Stipulated Order of Compliance 14 CCR Section 18304) signed by the operator, with operational conditions and a compliance schedule for revision of the SWFP.

Additional Issues and Information

Project Monitoring and Project Duration

Many LEAs have inquired as to flexibility in monitoring and application of the performance standards of 14 CCR 17683. These performance standards provide an enforceable and objective basis to establish that performance requirements for daily cover are met. They were originally intended for landfills operating in lieu of daily cover; and therefore, interpretation and professional judgement may be required in application to ADC demonstration projects.

It is not necessary to use the monitoring frequency specified in 14 CCR 17683 continuously throughout the demonstration if there are no known persistent or suspected threshold violations and as long as monitoring is conducted at the specified frequencies during a range of representative site conditions. For example, an LEA may choose to monitor performance standards at the full frequencies during one month periods in a given season. Less intensive monitoring frequencies and alternative methods of evaluation may be used at intervening times if there are no known persistent or suspected violations of thresholds.

The duration of the demonstration project need not be one year. Six months has been typically sufficient for demonstrating successful use of green material ADC and other time frames may be considered. The operator may also be allowed, on a case-by-case basis, a specified one time extension of the demonstration for technically supportable reasons, as approved by the LEA.

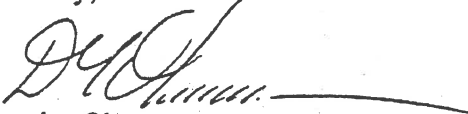
AB 939 Diversion Credits and ADC

ADC can be counted towards the mandated 25% AB 939 waste disposal reduction goal, provided that the conditions of the Board's ADC diversion credit policy adopted on December 15, 1993 are met (see attachment). For further information regarding the ADC diversion credit policy, please contact Traci Perry of the Board's Local Assistance Branch at (916) 255-2311.

The approval conditions described above are not intended to limit the LEA from exercising its authority under State or local law to impose additional or more stringent requirements on landfills that use shredded green material as daily cover.

If you have any questions or need additional information, please call Scott Walker at (916) 255-2343.

Sincerely,



Douglas Okumura

Deputy Director

Permitting and Enforcement Division

Attachment: Procedural Guidance for the Evaluation of Alternative Daily Cover
CIWMB Alternative Daily Cover Diversion Credit Policy Adopted December 15, 1993.

For back copies of the LEA Advisory call (916) 255-2287

- (LEA Advisory # 1, Oct. 6, 1992, Asbestos Containing Waste Disposal)
- (LEA Advisory # 2, Feb. 17, 1993, 1992 Legislation Impacts Existing Waste Programs)
- (LEA Advisory # 3, June 10, 1993, Site investigation Process for Investigating Closed, Illegal, and Abandoned Disposal Site's)
- (LEA Advisory # 4, Sept. 23, 1993, Permitting of Fuel Contaminated Soils Treatment/Processing Facilities)
- (LEA Advisory # 5, Dec. 15, 1993, Use of Non Hazardous Contaminated Soil as Daily Cover)
- (LEA Advisory # 6, Dec. 16, 1993, Aspergillus, Aspergillosis, and Composting Operations in California)
- (LEA Advisory # 7, Dec. 30, 1993, Subtitle D Questions and Answers)
- (LEA Advisory # 8, June 24, 1994, General Guidance for Implementing AB 1220 in the Regulation of Solid Waste Disposal Sites, REVISED)
- (LEA Advisory # 9, Feb. 10, 1994, Solid Waste Ranking System User Guide: Site Investigation Process (SIP) Part II)
- (LEA Advisory #10, Mar. 17, 1994, Procedural Change in Approving Alternative Cover Demonstration Projects Using Geosynthetic Blankets)
- (LEA Advisory #11, Mar. 24, 1994, Metallic Discards Management)
- (LEA Advisory #12, Mar. 29, 1994, Permitting of Non-Traditional Facilities)
- (LEA Advisory #13, May 17, 1994, Wood Waste Landfills)
- (LEA Advisory #14, May 25, 1994, Revised Policy and Procedures for Maintaining the Inventory of Solid Waste Facilities Which Violate State Minimum Standards)
- (LEA Advisory # 15, June 8, 1994, Completion of Solid Waste Information System Inspection Reports for Disposal Sites and Transfer Stations)
- (LEA Advisory #16, September 26, 1994, Clean Closure)
- (LEA Advisory #17, September 26, 1994, Nuisance Dumping)
- (LEA Advisory #18, October 13, 1994, Permitting and Enforcement at Composting Facilities)



Standard Guide for Evaluation and Selection of Alternative Daily Covers (ADCs) for Sanitary Landfills¹

This standard is issued under the fixed designation D 6523; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This guide is intended to assist specifiers and end users in assessing the different options available for sanitary landfill daily cover materials described as alternative (non-soil) daily covers (ADCs). Traditional daily cover consists of at least 6 in. of soil spread over the working faces of sanitary landfills. Alternative systems are attractive to landfill operations in order to conserve landfill disposal space, among other reasons.

1.2 This guide assists in understanding different performance features of broad classifications of ADCs, and determining the extent and degree to which different ADCs are able to "control disease vectors, fires, odors, blowing litter, and scavenging, without presenting a threat to human health and the environment," as intended by United States Environmental Protection Agency (USEPA) regulations.

1.3 This guide is not intended to provide cost information regarding the various ADCs as a standard guide, it does not dictate a protocol for the practice and testing of ADCs, but rather provides valuable information, guidance, and recommendations to interested parties concerning the many options available.

2. Referenced Documents

2.1 ASTM Standards:

D 4982 Test Methods for Flammability Potential Screening Analysis of Waste²

E 96 Test Methods for Water Vapor Transmission of Materials³

2.2 Other Standards⁴

Solid Waste Disposal Facility Criteria, USEPA, Technical Manual EPA 530-R-93-017, Cover Material Requirements, 40 CFR 258.21, Nov 1993

"The Use of Alternative Materials for Daily Cover at Municipal Solid Waste Landfills" EPA 600/R-93/172 PB 92-227197 July 1993

Alternative Daily Cover Regulations, California Environ-

mental Protection Agency, Title 27, Division 2, Subdivision 1, Chapter 3, Subchapter 4, Article 2, Section 20680 CIWMB Daily Cover and Section 20690 CIWMB Alternative Daily Cover

3. Terminology

3.1 *alternative daily cover, n*—an alternative to the traditional 6-in. (15-cm) soil cover required by the USEPA for landfill working faces to "control disease vectors, fires, odors, blowing litter, and scavenging, without presenting a threat to human health and the environment."

3.2 *foam, n*—a synthetic material sprayed and combined with air to form closed-cell air pockets.

3.3 *geosynthetic, n*—a planar product manufactured from polymeric material used with soil, rock, earth, or other geotechnical engineering related material as an integral part of a man-made project, structure, or system.

3.4 *indigenous, adj*—native to a particular region.

3.5 *leachate, n*—contaminated water resulting from the combination of waste with precipitation.

3.6 *nonreusable, adj*—in geosynthetics, a fabric or film intended to be placed once and then disposed of, discarded, or left in place.

3.7 *reusable, adj*—in geosynthetics, a fabric or membrane material intended to be retrieved and installed more than once to perform the cover function.

3.8 *sanitary landfill, n*—a regulated disposal site for the deposition of commercial and household wastes.

3.9 *working face, n*—the area of a landfill in which waste is actively being deposited.

4. Significance and Use

4.1 This guide provides information which the regulator/permit officials, engineers, waste disposal operators, and others will find helpful to (1) understand and distinguish between the many choices available; (2) understand the performance feature considerations for living up to EPA regulations for landfill daily covers, and (3) understand the various requirements and differences for putting these covers into practice at landfills.

5. Classifications of ADCs

5.1 *Foams*—Foam ADCs are applied to the working face of sanitary landfills using foam generation and application equipment specifically designed for that particular foam. Both

¹ This guide is under the jurisdiction of ASTM Committee D-35 on Geosynthetics and is the direct responsibility of Subcommittee D35.03 on Permeability and Filtration.

Current edition approved Feb. 10, 2000. Published April 2000.

² Annual Book of ASTM Standards, Vol 11.04.

³ Annual Book of ASTM Standards, Vol 04.06.

⁴ Available from the Superintendent of Documents, US Government Printing Office, Washington, DC 20402.

hardening and non-hardening foams are currently available. These foam layers are effectively broken-up by the placement of additional wastes on the next operating day, and therefore does not interfere with fluid movement.

5.2 Spray-On Slurries—Most slurries are paper-based. The paper-based slurry ADCs are applied to the working face of sanitary landfills using standard hydro-seeding equipment. Certain types of slurries may require some modification of the hydro-seeding equipment. The slurries are allowed to harden to form a crust or shell over the working face. This covering is also broken-up by the placement of additional wastes on the next operating day.

5.3 Geosynthetics:

5.3.1 Reusable—Reusable geosynthetic ADCs consist of various types of fabric or plastic membranes that have either been developed or adapted for use as a daily cover material. Panels fabricated from these materials are placed over the working face at the end of the day, and retrieved prior to the start of the next operating day. Some landfills use special mechanized equipment to facilitate the placement and retrieval of panels.

5.3.2 Nonreusable—Nonreusable geosynthetic ADCs consist of less durable disposable films or fabrics, intended to be left in place without retrieval. Special equipment also exists to facilitate the placement and anchoring of these materials to cover the working face of landfills. The cover may contain pro-degradant additives to accelerate degradation within the

waste to cease the interception of fluids.

5.4 Indigenous Materials—Indigenous ADCs consist of various types of locally available waste products for disposal (for example, sludges, ash, shredded tires, shredded green waste, pulverized construction and demolition debris, automobile recycling fluff, foundry sand, and so forth) placed onto the working face of landfills in a manner similar to soil cover. They often require physical or chemical modification for consistency and workability, and evaluation for the presence of potentially hazardous constituents. Processed indigenous materials such as treated sludges and asphalt-stabilized soils are available from manufacturers who are able to provide such products with consistent properties. Manufacturers should have the necessary supporting data available for review. Unprocessed ADCs can vary significantly with respect to physical and chemical characteristics and composition, depending on the particular source. In addition, suitability and acceptability are dependent on site-specific climatic and operational conditions and regulatory requirements. Because of the wide variety of processed and unprocessed indigenous materials, only key factors and considerations related to the use and performance of these materials can hereby be presented.

6. Features and Considerations

6.1 Summary—See discussion for clarification.

TABLE Continued

Feature/Consideration	Foams	Spray-on Slurries	Reusable Geosynthetics	Nonreusable Geosynthetics	Indigenous Materials
Methods of Application	Self propelled or towed equipment with manifold distribution, or truck mounted with handheld hose	Truck mounted or trailer mounted hydro-seeding equipment w/spray tower and nozzle.	Manually, towed with compactors, or spread w/specially wide panel deployment equipment	Manually, or spread w/specially unwinder attached to dozer/compactor and placing ballast soil to anchor	Most often spread with dozers as with traditionally daily cover. Varied.
Post-Application Requirements					
a) Equipment Clean-up/Maintenance	High	Low	Low if placed w/equipment	Low if placed w/equipment	Low
b) Remove Cover?	No	No	Yes	No	No
Application in Different Climates					
a) Rain	Some not recommended for use during rain. Others can withstand drizzle/light rainfall or light to moderate rainfall.	Can apply in light rain. Once cured, can withstand moderate to heavy rainfall.	Some have no constraints while others can absorb water, increasing panel weight	Rain tends to help anchor cover	Generally OK, but sludge and mulch are unsuitably applied in rain due to excessive run-off
b) Wind	Can apply in 20-40 mph winds. Adheres to working face.	Can generally apply in winds up to 45 mph	Depends on ballast mechanism. High winds can pick and destroy.	Increase ballast material. Small panels, disposable nature reduce impact of wind damage	Most forms OK but yard waste and auto fluff are excessively effected
c) Freezing Temp/Snow	Can apply under freezing conditions, but equipment must be protected. Some equipment has freeze protection system.	Can apply in freezing temperatures or snow	Some have no constraints. In others, if moisture has been absorbed, panels can freeze, making their placement and retrieval more difficult.	Shift to different ballast material w/no moisture content (eg crushed glass instead of sand)	Generally no Constraints. Sludge and mulch have some difficulty in snow
d) Hot Weather	No constraints	No constraints	No constraints	No constraints	Dust generation in many cases (i.e. unprocessed materials)

TABLE Continued

Feature/Consideration	Foams	Spray-on Slurries	Reusable Geosynthetics	Nonreusable Geosynthetics	Indigenous Materials
Disease Vector Control? (Access by insects, vermin, pathogen contact.)	Discourages insects and birds from landing; rodents from digging	If proper thickness, discourages insects and birds from landing; rodents from digging	Can completely cover waste so as not to attract; Careful for pathogens in human rehandling	Can completely cover waste so as not to attract	Must be applied at sufficient thickness
Fire Control a) Combustible?	a) Most no, some yes	a) Some no, some yes. Materials should be tested per ASTM D 4582.	a) Yes	a) Yes	a) Some yes, others no
b) Barrier to air/gas movement?	Low	Medium	High	High	Low to High
Odor and Air Emission Control?	Uniform coverage is key.	Uniform coverage of sufficient thickness is key. Material can be tested by ASTM E 96 permeation	Trap odors and other emissions while in place; release odors and other emissions when removed; can be tested by ASTM E 96 permeation	Trap odors and other emissions; can be tested by ASTM E 96 permeation	Dependent on thickness of application and compaction. Dredged materials can themselves be odorous.
Dust Control?	Yes	Yes	Yes	Yes	Many unprocessed materials generate dust
Blowing Litter Control?	Yes	Yes	Yes	Yes	Auto sluff among others unprocessed materials can generate litter
Water Infiltration Control (sheds rainwater)	Certain foams can shed water during moderate rains, once cured.	Hardening slurries shed water.	Shed rainwater very effectively when in place; allows infiltration when removed	Shed rainwater effectively for several layers of cover	Many processed materials can shed water once compacted. Others are too permeable to shed much water.
Landfill leachate and gas migration interference?	No interference.	No interference.	No interference, unless left or buried in place.	No interference with degradable material (containing a prodegradant); will interfere if non-degradable film	Ash-based wastes, dredged soils, clayey soils and cementitious foundry products can all create intervening layers
Life expectancy	Varies according to type of foam. Some last 15-20 Hrs. while others are from 3-7 days.	Some last up to 14 days	Some are 20-30 days, while others are 10-12 months	Varies from days to months depending on additives and conditions	Varies. Many processed materials will last indefinitely.

6.2 Discussion:

6.2.1 Methods of Application:

6.2.1.1 Manifold-equipped units apply foam as equipment traverses the working face. Self-propelled units with manifold applicator applies foam as the unit backs down the working face. Handheld hose-equipped units apply foam as the crew walks next to or across the working face, or both.

6.2.1.2 Most slurries use truck-mounted or trailer-mounted standard hydro-seeding equipment with little or no modification. It is applied through the spray tower located on the platform of the hydro-seeding equipment using appropriate nozzles. The use of a hand-held hose may be suitable for certain applications. In at least one case, a specially designed storage unit and mobile applicator is required by the manufacturer. Care must be taken to avoid skimping on the thickness of application.

6.2.1.3 At some sites, ancillary equipment (for example, tow bar, lifting bar, reel, or rollers) are used to facilitate placement of geosynthetic panels (both reusable and nonreusable) and reduce wear and tear. Tires, sandbags, or ballast soil are placed along the edges to anchor the panels.

6.2.1.4 The preparation of the working face prior to placement of a geosynthetic panel and the care taken in placement of the panel can have a significant impact on the effective life of a panel. Consequently, operators should ensure that the working face is properly compacted to provide a smooth surface, and that protruding objects which could damage panels are eliminated. In addition, during placement of panels, measures should be taken to prevent unnecessary stress on the material and minimize snagging while dragging the panel across the working face.

6.2.1.5 Most indigenous materials may be spread and compacted in the same manner as traditional sands and gravels. Dozers and front-end loaders are usually used to spread the material. Compaction can be accomplished with single-drum rollers, dozer tracks, or loader tires, or combination thereof.

6.2.2 Post-Application Requirements:

6.2.2.1 When equipment is used to apply ADCs there is clean-up and maintenance. Cleanup often takes place by hosing with water or compressed air, or both.

6.2.2.2 Many ADCs have no other post-application requirements but are simply broken up by the placement of wastes on subsequent days.

6.2.2.3 Reusable geosynthetic panels are normally removed

from the working face prior to the start of the next operating day. Hence, the necessary personnel and equipment have to be available, and sufficient time allowed, for this activity to be performed prior to the arrival and disposal of waste at the working face. This may require modification of the work schedule for site personnel. Furthermore, depending on the season of the year and operating hours at the site, panel retrieval may have to be performed while it is still dark, requiring extra precaution against accidents or injury.

6.2.2.4 Retrieval of geosynthetic panels is accomplished by reversal of the procedures used to place them. Anchoring materials are first removed and stockpiled near the working face. If soil was used to secure the edges, particular care must be taken not to tear the panel upon retrieval. Panels are then removed, either manually or using landfill equipment, by pulling them back over themselves to minimize snagging. They are then stored near the working face for subsequent use. If skid-mounted rollers were used, the panel is rolled back to the skid which is then dragged to an area adjacent to the working face.

6.2.3 *Average Duration of ADC*—Duration of the cover is dependent upon cover type and climatic conditions, particularly rain, and should be taken into consideration if cover is expected to last indefinitely. Some shrinkage or hardening of foam can occur after several days.

6.2.4 *Rain:*

6.2.4.1 If moderate to heavy rain is anticipated, foams should not be applied. Given time to cure, certain foams absorb and shed water during rain events. Application during a rain event should be avoided in order to prevent possible dilution before curing.

6.2.4.2 Most slurry ADCs can be applied in light rain or drizzle. Once cured, most can stand moderate to heavy rainfall.

6.2.4.3 For reusable geosynthetics, increased panel weight makes placement and retrieval more difficult and increases the risk of damage to the panel.

6.2.4.4 Indigenous materials are generally more difficult to transport and apply, if material has a high moisture content. However, many processed materials are provided with consistent moisture contents, suitable for easy application. Application of all indigenous materials should be avoided during periods of significant precipitation. Also, contaminants present in unprocessed materials can be leached by infiltrating rainwater, possibly affecting the composition and disposition of leachate. As with any engineered facility, proper installation is important for adequate performance.

6.2.5 *Wind:*

6.2.5.1 Impact of wind during application of foams is primarily dependent upon the proximity of the discharge nozzle to the working face. Additional touch-up may be required if the material is blown away. Insufficient information is available on the ability of foams to sustain high winds during their effective life.

6.2.5.2 Many slurry ADCs can be applied in winds up to forty-five miles per hour. Once applied, high winds have little or no effect on the slurry ADC.

6.2.5.3 The impact of wind on the placement of geosynthetic panels onto the working face is primarily dependent

upon the weight of the material and the size of the panel. For example, a large, lightweight panel will be more difficult to place under windy conditions than a smaller or heavier panel, or both. The method used to place a panel, whether manually, towed or deployed with landfill equipment or rolled onto the working face, also influences the potential impact of wind during placement.

6.2.5.4 Indigenous materials, when dry, except processed materials such as shredded tires and asphalt-stabilized soil, are prone to dust generation. Some processed materials can actually be used to suppress dust from landfills. Lighter components of green waste/compost can become wind-blown.

6.2.6 *Freezing Temperature/Snow:*

6.2.6.1 Foam constituents must generally be protected from freezing. With certain exceptions, application equipment requires inside storage when not in use.

6.2.6.2 Most slurry ADCs can be applied in freezing temperatures and during or after a snow, or both. The hydroseeding equipment contains agitators that maintain the slurry in the cold conditions.

6.2.6.3 Geosynthetic panels can be damaged if removal is necessary and attempted when frozen to the working face. In order to prevent damage or possible loss, reusable geosynthetic panels are usually not used when snow is predicted. Snow can bury the panel, necessitating removal of the snow before the panel can be retrieved from the working face. This will not only require additional time and labor, but greatly increases the likelihood of tearing and destroying the panel due to the additional weight imparted by the snow. With a heavy snowfall, removal of snow may be impractical. This can result in the loss of the panel or necessitate the use of an alternative working face until the snow thaws. If an alternative working face is not available, the buried panel may be lost for further use and may act as an internal barrier to gas and leachate movement unless destroyed.

6.2.6.4 If indigenous material has a high-moisture content, it can freeze similar to wet soils, and be difficult to excavate and apply.

6.2.7 *Disease Vector Control (Access By Insects, Vermin, and so forth)*

6.2.7.1 Non-hardening foams discourage insects and birds from landing and animals from digging. Hardening foams and slurries can form a crust or shell which controls disease vectors when sprayed on with proper thickness.

6.2.7.2 When properly placed over the working face, geosynthetic panels completely cover the waste and block out disease vectors, unlike soil where bulky items may still protrude from the working face and attract disease vectors. Handling requirements for reusable geosynthetics during retrieval may, however, bring personnel contact with disease-causing bacteria.

6.2.7.3 Indigenous material must be applied at sufficient thickness to completely cover wastes.

6.2.8 *Fire Control:*

6.2.8.1 Foams generally do not sustain a flame nor release heat in calorimeter tests, and can be classified noncombustible.

6.2.8.2 Some spray-on slurries are also noncombustible in

accordance with Test Methods D 4982. This should be established by independent laboratory testing of a representative sample of the slurry material after curing.

6.2.8.3 Many other ADCs release more or less heat in calorimeter tests, but may or may not provide other fire suppression behavior. Geosynthetics, for example, offer substantially improved barrier properties to gas and air migration, reducing the transfer and mixing of atmospheric oxygen with landfill fuel gases, an important element in the spread of landfill fires.

6.2.8.4 Indigenous materials vary widely in their performance for fire control. Permeability to air and gas migration, in particular, is variable, and a number of them provide significant combustibility. With green waste/compost, risk of fire increases in hot weather. Some components of automobile recycling fluff are combustible. Others, such as asphalt-stabilized soil are impermeable to air and gas as well as noncombustible.

6.2.8.5 Laboratory testing uniform to all the different candidate ADC's is difficult to specify due to the many different materials and variables affecting ultimate fire control performance at a landfill.

(1) Other Considerations for Fire Control:

(a) Daily cover soil's perceived role in reducing and controlling the fires at landfills was based on casual observation, not on scientific research. While cover soil is in most instances itself noncombustible, its efficacy for fire control also depends on the uniform barrier it provides to the flow of oxygen and landfill gas. As the standard for fire control, though soil is strong in the area of noncombustibility, it is much less so in the area of preventing gas and air exchanges.

(b) Breaks and settlement in the working face of a landfill disrupt the uniformity of soil cover, the uniformity of barrier to fuel and oxygen, and therefore compromise the daily cover's ability to control fires. In the past, soil daily covers were thought to provide barriers within the landfill to the spread of underground fires deep beneath the surface. However, this has been shown not to be the case. Because landfills settle in a differential manner, daily soil cover does not maintain a continuous barrier. Consideration of fire control behavior in candidate ADCs should therefore consider both the function of combustibility and the barrier provided to gas and air exchange.

(c) No ADC should be used which would promote a fire in a landfill.

(2) In modern landfill practice there are other mitigating factors for landfill fires, which may or may not lend themselves to consideration of ADC fire control capability. A significant modern day decline in the number of landfill fires can be attributed to the following factors:

(a) The municipal solid waste stream has changed over the years. Materials that caused many of the fires at landfills have been eliminated (for example, ashes from coal-burning furnaces and boilers).

(b) Landfill operations have changed because of new federal and state regulations imposed to protect the environment. Under today's regulations, the following contributing factors have been eliminated. open burning is prohibited (40 CFR 258.24); access to the working face during and after opera-

tional hours is controlled, minimizing the threat of someone intentionally starting a fire (40 CFR 258.20); and hot loads are detected in surveillance and inspection programs of incoming loads at the gate or by spotters and operators on the working face (40 CFR 258.20).

(c) Compaction levels of the waste have increased (approximately 40 %) because of better equipment and more conscientious efforts to save landfill capacity. Higher compaction of placed waste results in less void space and reduced oxygen levels below the surface. Fires below the surface level are starved for oxygen or never start.

(d) Stockpiling soil to smother fires at the working face if a fire should occur (that is, covering the area with a very thick layer of soil to eliminate openings is the accepted and proven method for extinguishing fires).

6.2.9 Odor and Air Emission Control:

6.2.9.1 Foams can create an effective barrier against odors and other emissions. But uniform coverage is the key.

6.2.9.2 Some slurries applied with proper thickness create an effective barrier against odors and other emissions. For slurries and geosynthetics, an odor control test should be conducted to assess performance. For these materials a permeation test, Test Method E 96, is suggested, correlating the movement of water vapors through an ADC layer to the movement of odor layers through such layer. Water vapor loss through the ADC should be less than 3000 g/m²/day.

6.2.9.3 Reusable geosynthetic panels trap odors and other emissions while in place. But if panels are retrieved, particularly if left in place for several days, odors and emissions previously contained may be released. (This is similar to what can occur when soil daily cover is scraped from a working face prior to the start of the next operating day, as is practiced at some sites to conserve landfill capacity and soil.)

6.2.9.4 The ability of automobile recycling fluff and other indigenous materials to suppress odors is dependent on the thickness of application and compaction. Dredged materials can themselves be odorous.

6.2.10 *Dust Control*—Most ADCs contain and suppress dust while in place. But many unprocessed indigenous materials, particularly sands, soils, sludges, and sludge-derived products are prone to dusting when dry. Hot, dry weather promotes the dusting. Other stabilized/processed materials can control dust.

6.2.11 Blowing Litter Control—

6.2.11.1 Foams and sprayed-on slurries readily adhere to and contain wastes, preventing blowing litter provided there is a thorough, uniform coverage.

6.2.11.2 As long as geosynthetic panels completely cover the working face, blowing litter is effectively controlled. Blowing litter may be released if the geosynthetic panels are not anchored properly.

6.2.11.3 As long as appropriate thicknesses are applied, many indigenous materials can control blowing litter. However, lighter components of automobile recycling fluff and green waste are prone to being blown off a working face.

6.2.12 Water Infiltration Control:

6.2.12.1 Certain foams can shed water during moderate

rains, once cured. Others are not rain-resistant. During operation of the working face, the infiltration control is no longer functional as these covers are broken up with application of new waste.

6.2.12.2 Many slurry ADCs and geosynthetic materials are water-resistant and, when properly placed onto the working face with good slurry thickness and without gaps between panels if multiple geosynthetic panels are used, shed rainwater very effectively, prevent infiltration into the wastes, and thereby help to reduce leachate generation. Although some slurry ADCs and nonwoven fabrics initially absorb moisture during rain events, similar to soil cover, they are also able to subsequently shed water from the working face, depending on the intensity of the rain event. Reusable geosynthetics do not provide this function when they are removed during working hours.

6.2.12.3 Among the indigenous materials, automobile recycling fluff, green waste, and many foundry sands are too permeable to shed much water. Others, such as stabilized soils applied to appropriate grades and compacted, become water-resistant and able to shed rain.

6.2.13 Leachate and Gas Migration Control/Interference:

6.2.13.1 Foams are broken up by the placement of wastes on subsequent days. Hence, they do not create a barrier that could impede movement of leachates and gases.

6.2.13.2 Most slurry ADCs also have sufficient porosity to allow proper leachate and gas movement within a landfill.

6.2.13.3 If reusable geosynthetic panels are removed as

intended, leachate and gas movement within the landfill is not curtailed, as no restrictive barriers remain within the landfill.

6.2.13.4 If nonreusable (disposable) geosynthetics contain pro-degradant additive(s) the barrier-to-infiltration function in the top layers gives way within the landfill to allow free fluid movement. Without pro-degradant additive(s), nonreusable (disposable) geosynthetics can seriously interfere with both landfill gas and leachate movement. Unintended side-slope seepages, for example, may occur.

6.2.13.5 Among indigenous materials, ash-based wastes, dredged soils, clayey soils, and cementitious foundry products can all create intervening layers that may impede leachate and gas movement.

6.2.14 *Anesthetic Appearance*—In general, in the opinion of many observers, ADCs provide a more sightly appearance than soil cover, since there are fewer objects protruding from the working face. Aesthetics depend on thickness and continuity of application.

6.2.15 *Qualified Laboratory*—Any laboratory performing one or more of the tests or analyses mentioned, or both, herein should have a comprehensive quality assurance plan and must be approved by the Department of Natural Resources or similar agency, in the state in which the landfill is located, or an equivalent approval from another state.

7. Keywords

7.1 material evaluation; material selection

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Green/Wood Waste Materials

Green/wood waste materials do not include manure and typically consist of varying proportions of wood and yard waste from urban and other sources. Prior to use as ADC, the majority of the green material will be ground, chopped, shredded, screened, or otherwise processed in a manner to provide a compacted material free of open voids when applied to the waste at the end of the working day. Green/wood waste material collected from the residential green waste curbside recycling program is also utilized as ADC. Green/wood waste material will be restricted to a minimum compacted thickness of 6 inches and an average compacted thickness of less than or equal to 12 inches. Green/wood waste material used for ADC will not be exposed for more than 24 hours and will not be used as intermediate cover.



LINDA S. ADAMS
SECRETARY FOR
ENVIRONMENTAL PROTECTION

CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD



ARNOLD SCHWARZENEGGER
GOVERNOR

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FEB 22 2007

Mr. Sherman Quinlan, Director
Contra Costa County Health Services Department
Environmental Health Division
2120 Diamond Blvd. Ste 200
Concord, CA 94520

701-H

**Subject: State 18-Month Inspection Report for the Keller Canyon
Landfill, (SWIS # 07-AA-0032)**

Dear Mr. Quinlan:

Pursuant to Division 30, Public Resource Code (PRC) section 43220, staff of the California Integrated Waste Management Board (CIWMB) conducted an 18-month inspection of the Keller Canyon Landfill on January 23, 2007, in conjunction with you, Mr. Eric Fong of your staff. A copy of staff's inspection report is enclosed for your records. A copy of this correspondence and the inspection report has also been forward to the facility operator.

The primary purpose of this inspection is to evaluate whether the LEA is appropriately applying and enforcing state minimum standards at solid waste facilities within its jurisdiction. Therefore, the state inspection report is directed to the LEA and provides recommendations and/or direction on compliance issues observed during the facility inspection. If the LEA does not address all compliance issues observed and documented in this report with the operator of the facility, Board staff at its discretion, may conduct inspections and investigations of this and other solid waste facilities in order to continue to evaluate the LEA and to ensure that state minimum standard are met.

The facility was evaluated for compliance with applicable sections of Division 30 of the PRC, and with Title 27, California Code of Regulations (27 CCR), Division 2, Subdivision 1, Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste.

During the inspection CIWMB staff noted the following:

1. One area of concern was noted of Division 30 PRC:
 - Section 44014(b) – Terms and Conditions of the Permit.

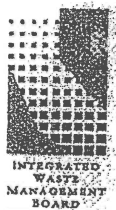
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2. One violation was noted of Title 27 CCR:

- **Section 20690 –Alternative Daily Cover**

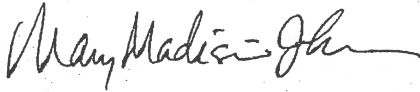
3. One area of concern was noted of Title 27 CCR:

- **Section 20640 – Spreading and Compacting**

As the LEA, please work with the operator to bring this facility into compliance with all applicable CIWMB Standards. Appropriate enforcement action (s) should be taken by your agency, as necessary, to ensure compliance. Additionally, please have your staff follow up with the above violation and areas of concern in subsequent monthly inspection reports.

Your Agency's cooperation with staff during the recent inspection is appreciated. As always, this office is available to assist you. If you have any questions or comments, please contact me at (916) 341-6329 or Ms. Beatrice Poroli of my staff at (916) 341-6411.

Sincerely,



Mary Madison-Johnson, Supervisor Region 1
Permitting and Inspection Branch
Permitting and Enforcement Division

Enclosures

Cc:

Mr. Kevin Chiapello, General Manager,
Keller Canyon Landfill
901 Bailey Road
Pittsburg, Ca 94565

Mr. Eric Fung, LEA Contra Costa County
Contra Costa County Health Services Department
Environmental Health Division
2120 Diamond Blvd. Ste 200
Concord, CA 94520

**CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD
STATE INSPECTION REPORT
DISPOSAL SITES**

FACILITY: Keller Canyon Landfill

SWIS NUMBER: 07-AA-0032

INSPECTION DATE: January 23, 2007

FACILITY LOCATION: 901 Bailey Road
Pittsburg, CA

FACILITY OPERATOR: Keller Canyon Landfill
Inc. (Allied Waste)

LAND OWNER: Same as operator

LOCAL ENFORCMENT AGENCY: Contra Costa
County Environmental Health

INSPECTOR: B. Poroli, California Integrated
Waste Management Board (CIWMB)

ACCOMPANIED BY: Eric Fung, Contra Costa
LEA, Todd Pattee (Lead Operator), Micky Hill (Site
Manager) and Kevin Chiappello (General Manager)

PERMITTED TONNAGE: 3,500 tons per day

ACTUAL TONNAGE: Peak - 4,398.36 TPD on
10/02/06

SITE TELEPHONE NO.: (925) 458-9800

PERMIT ISSUE DATE: 3/27/2000

LAST PERMIT REVIEW COMPLETED:
3/24/2005

LIQUID WASTES ACCEPTED: No

GAS/LEACHATE CONTROLS: Yes, Flare

COVER: Tarps, Soil and Greenwaste. Greenwaste
and soil were used on this inspection

ACREAGE: Total Permitted Area - 1,399 acres.
Permitted Area - 244 acres for disposal

INSPECTION PURPOSE:

In accordance with Public Resources Code Section 43220, staff of the California Integrated Waste Management Board conducted an 18-month inspection of Keller Canyon Landfill in conjunction with staff of the Contra Costa County Local Enforcement Agency.

BACKGROUND:

The site is located just west of the City of Pittsburg in Contra Costa County. The landfill is surrounded by grazing land, zoned residential and commercial. The landfill is open to commercial haulers and not open to the general public (self haul). A large portion of the waste comes from the Contra Costa Transfer and Recovery Station (07-AA-0027) located in Martinez. Operational hours are 0700-1930 Monday through Saturday and no waste is accepted after 1900. The required daily cover shall be completed by 1930 at which time stationary working lights shall be extinguished.

PREVIOUS CIWMB INSPECTION RESULTS:

The previous State inspection of this facility was conducted on July 26, 2005. The inspection identified one violation of Public Resources Code, Division 30, Part 4, Chapter 3 for Section 44014(b) - Terms and Conditions of the Permit for exceeding the permitted traffic volume.

VIOLATIONS:

- A. The inspection identified no violations of Public Resources Code, Division 30, Part 4, Chapter 3:
- B. There was one violation of Title 27, California Code of Regulations, Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste as follows:

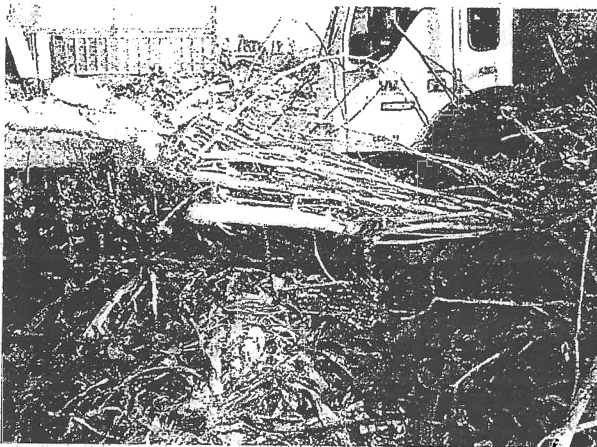
Section 20690 - Alternative Daily Cover. (b) (3) Processed Green Material (A) For the purposes of this section, processed green material means any plant material that is either separated at the point of generation, or separated at a centralized facility that employs methods to minimize contamination. Green material includes, but is not limited to, yard trimmings, untreated wood wastes, paper products, and natural fiber products. Green material does not include treated wood waste, mixed demolition or mixed construction debris, manure and plant waste from the food processing industry, alone or blended with soil. Processed green material may include varying proportions of wood waste from urban and other sources

 Supervisor

 Inspector

and shall be ground, shredded, screened, source separated for grain size, or otherwise processed. (B) Green material used for alternative daily cover shall be processed prior to being applied to the working face unless the green material to be used as alternative daily cover already meets the grain size specifications. Prior to spreading and compacting on the working face, processed green material shall comply with a grain size specification by volume of 95 percent less than 6 inches. Alternative processing and grain size specification requirements may be approved by the EA if the EA determines that the alternative meets the performance requirements of ¶(a)(2) and (a)(3) of this section and the CIWMB concurs. (C) Processed green material shall be restricted to a minimum compacted thickness of 6 inches and average compacted thickness of less than or equal to 12 inches

According to the operator, green waste is not processed prior to placement on the working face as ADC. The regulations require that the green material used as ADC be processed prior to being applied to the working face unless the green material to be used already meets the grain size specifications. Based on Board staff observation on the day of the inspection, the material did not meet the specifications required in the regulations.



Unprocessed green material as it is used for ADC



Unprocessed green material as it is used for ADC

AREAS OF CONCERN:

- A. The inspection identified one area of concern of Public Resources Code, Division 30, Part 4, Chapter 3.

Section 44014(b) – Terms and Conditions of the Permit. The solid waste facilities permit shall contain all terms and conditions that the local enforcement agency determines to be appropriate for the operation of the solid waste facility. The operator shall comply with all terms and conditions of the permit.

The facility weight and/or volume records indicated that the operator has on several occasions received more than the permitted 3,500 tons per day maximum. It has been the Board's policy that everything through the gate counts with the exception of soil, regardless of whether it is landfilled or not. The operator stated that they have not been including the green material and concrete in the daily tonnage because the green material is used as ADC and the concrete as road base. The LEA should require the operator to implement a procedure to ensure that the maximum permitted daily tonnage limits are not exceeded.

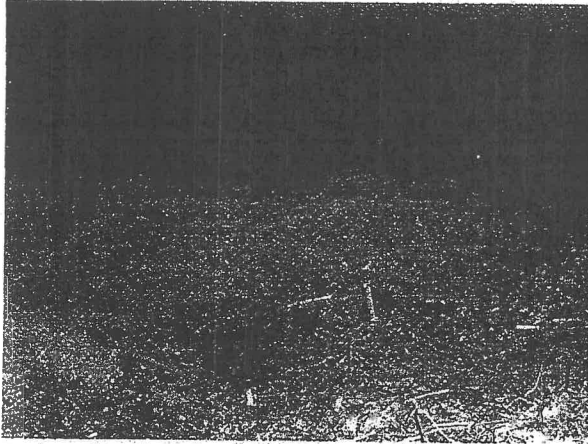
- B. There was one area of concern of Title 27, California Code of Regulations, Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste as follows:

Section 20640 - Spreading and Compacting. Solid waste shall be spread and compacted in layers with repeated passages of the landfill equipment to minimize voids within the cell and maximize compaction. The loose layer shall not exceed a depth of approximately two feet before compaction. Spreading and compacting shall be accomplished as rapidly as practicable, unless otherwise approved by the enforcement agency.

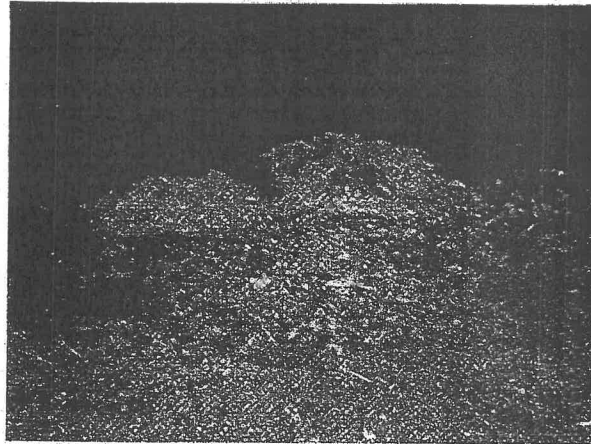
Board staff arrived at the site at 0545 to inspect cover. Green material was noted as ADC on the areas to be used the following day and soil in areas that would not be used for the next few days. During the inspection it was

Inspector

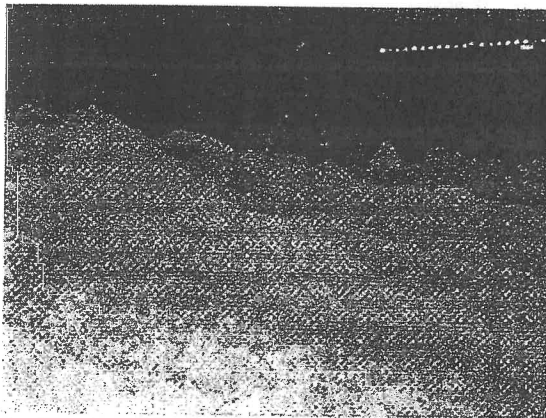
observed that the green material had not been properly spread and compacted. Some small areas were compacted, but throughout the working face where green waste was spread it was poorly compacted. This could be a result of the using the green material as ADC that has not been processed. Board staff observed some of the areas covered with soil were not properly spread and compacted.



A view of previous day active face covered with green material



The previous day active face covered with green material.



A view of previous day active face covered with soil.

COMMENTS:

1. **Report of Disposal Site Information (21600)** – The load checking program in the RDSI requires a minimum of one vehicle transporting MSW each day and one self-haul vehicle per week. During review of the records it was noted that these minimum number of load check logs were not met. The minimum number of load check logs as specified in the RDSI must be met.
2. **Tires** – At the time of the inspection tires located behind the maintenance shop had standing water in them. Please ensure that the water is removed and that they are stored in matter to prevent standing water.
3. The operator's quarterly landfill gas monitoring reports results indicated no detectable levels of methane. On the day of the inspection methane samples were taken at GMP#1 and no detectable levels of methane were noted.

BCN Inspector

SOLID WASTE FACILITY PERMIT

1. Facility/Permit Number:

07-AA-0032

2. Name and Street Address of Facility:

Keller Canyon Landfill
901 Bailey Road
Pittsburg, CA 94565

3. Name and Mailing Address of Operator:

Keller Canyon Landfill Company
901 Bailey Road
Pittsburg, CA 94565

4. Name and Mailing Address of Owner:

Keller Canyon Landfill Company, a wholly owned
Subsidiary of Allied Waste Industries, Inc.
18500 N. Allied Way
Phoenix, AZ 85054

5. Specifications:

a. Permitted Operations:

- | | |
|--|--|
| <input type="checkbox"/> Composting Facility
(mixed wastes) | <input type="checkbox"/> Processing Facility |
| <input type="checkbox"/> Composting Facility
(yard waste) | <input type="checkbox"/> Transfer Station |
| <input checked="" type="checkbox"/> Landfill Disposal Site | <input type="checkbox"/> Transformation Facility |
| <input type="checkbox"/> Material Recovery Facility | <input type="checkbox"/> Other: |

b. Permitted Hours of Operation:

6 days/week, Monday through Saturday, with operating hours of 7:00 a.m. to 7:30 p.m.; no waste shall be accepted after 7:00 p.m. The required daily cover shall be completed by 7:30 p.m., at which time stationary working lights shall be extinguished.

Transfer vehicle traffic shall be regulated in accordance with COA² 29.9, Peak Period Traffic Management.

c. Permitted Tons per Operating Day:

Non-Hazardous - General and designated waste	.....3500 tons/day maximum Disposal..	Total:	Tons/Day
Non-Hazardous - Sludge	.....3500 Disposal.....	Tons/Day	
Non-Hazardous - Separated or commingled recyclables	.....	Tons/Day	
Non-Hazardous - Other (See Section 14 of Permit)	.....	Tons/Day	
Designated (See Section 14 of Permit)	.....	Tons/Day	
Hazardous (See Section 14 of Permit)	.....	Tons/Day	

d. Permitted Traffic Volume:

Incoming waste materials	.....260.....	Total:	Vehicles/Day
Outgoing waste materials (for disposal)	..140 transfer vehicles (annual average).	Vehicles/Day	
Outgoing materials from material recovery operations	.....	Vehicles/Day	

e. Key Design Parameters (Detailed parameters are shown on site plans bearing LEA and CIWMB validations):

	Total	Disposal	Transfer	MRF	Composting	Transformation
Permitted Area (in acres)	1399 acres	244 acres	N/A a	N/A a	N/A	N/A a
Design Capacity	75 MCY (air space)	60 - 64 MCY (net waste)	N/A tpd	N/A tpd	N/A tpd	N/A tpd
Max. Elevation (Ft. MSL)		1050 ft.	N/A	N/A	N/A	N/A
Max. Depth (Ft. BGS)	Canyon fill/N/A	N/A	N/A	N/A	N/A	N/A
Estimated Closure Date	N/A	2050	N/A	N/A	N/A	N/A

Remaining capacity as of September 2008 is estimated at 71,900,000 cubic yards net air space (refuse).*

*This figure was obtained from the most recent aerial survey conducted on April 2008.

Any change which would cause the design or operation of the facility not to conform to the terms or conditions of the permit is prohibited. Any such change shall be considered a significant change, and will require a revision of this permit pursuant to PRC, Division 30, Section 44004. The attached permit findings and conditions are integral parts of this permit and supersede the conditions of any previously issued solid waste facility permits.

6. Approval:

Approving Officer Signature

Sherman Quinlan, R.E.H.S., M.S.E.H., Director of Environmental Health
Name/Title

7. Enforcement Agency Name and Address:

Local Enforcement Agency
Contra Costa Environmental Health
2120 Diamond Boulevard, Suite 200
Concord, CA 94520

8. Received by CIWMB:

SEP 17 2009

9. CIWMB Concurrence Date:

NOV 12 2009

10. Permit Review Due Date:

December 14, 2014

11. Permit Issued Date:

December 14, 2009

SOLID WASTE FACILITY PERMIT

Facility/Permit Number:

07-AA-0032

12. Legal Description of Facility (attach map with RFI):

Property Boundaries. The Class II Landfill is located south of the City of Pittsburg, east of Bailey Road, north of Mulligan Hill and north of the City of Concord, situated in the foothills of the Mt. Diablo Range in Contra Costa County, California. Site location maps are attached as Exhibit A and Plate 1. The Assessors Parcel numbers are as follows:

094-050-001 094-060-001 094-060-002 094-070-001 094-080-003 094-100-001 094-110-001 094-120-001 094-130-006

The site occupies 2,628 acres of Sections 23, 24, 25 and 26 of Township 2N Range 1W, MDB&M. The facility activities will encompass a total of 375 acres, while the limit of waste disposal, the landfill "footprint", is 244 acres. The total permitted acreage is 1399 acres. The remaining 1229 acres will be reserved for uses consistent with open space and agricultural designations, as determined by the County.

13. Findings:

- a. This permit is consistent with the Contra Costa County Integrated Waste Management Plan (CIWMP), May 1993. Public Resources Code, Section 50001. The facility is discussed on the following pages of the CIWMP: I-1, I-7, I-23, I-37, I-41 through 44, II-2 & 3, II-7 through 9, II-11 through 22, and Table C. The Contra Costa County Integrated Waste Management Plan, May 1993 has been approved by the CIWMB, December 15, 1993.
- b. General Plan Amendment Keller Canyon Landfill, (GPA 3-89-CO) (hereinafter, GPA) provides for compatibility with surrounding land use. In approving the GPA, the Contra Costa County Board of Supervisors has found that the facility is consistent with surrounding land uses. Keller Canyon Landfill site is identified in and is consistent with the General Plan Amendment approved by the Contra Costa County Board of Supervisors on October 17, 1989 and subsequently adopted with the Contra Costa County General Plan, January 1991.
- c. This permit is consistent with the standards adopted by the California Integrated Waste Management Board (CIWMB), Public Resources Code, and Section 44010.
- d. The design and operation of the facility is in compliance with the State Minimum Standards for solid waste handling and disposal as determined by Contra Costa Environmental Health (LEA) of Contra Costa Health Services and is consistent with standards adopted by the California Integrated Waste Management Board.
- e. The Riverview Fire Protection District has determined that the facility is in conformance with applicable fire standards as required by Public Resources Code, Section 44151.
- f. The revisions to the SWFP and the amendments to the RDSI are within the scope of the Keller Canyon Landfill project evaluated in the 1990 Environmental Impact Report (EIR) (SCH No. 1989040415) prepared and certified by the Contra Costa County Board of Supervisors in July 1990. Supporting documentation Mitigated Negative Declaration, State Clearing House No. 1999092018, submitted September 7, 1999, approved October 6, 1999.

14. Prohibitions:

The following activities, operations, and conditions are expressly prohibited at the facility:

1. Accepting or disposal of wastes for which the facility is not approved, including:
 - o Hazardous wastes,
 - o Liquids or slurries unless authorized by the RWQCB and LEA,
 - o Septage,
 - o Designated wastes not identified in the Permit or in the WDR,
 - o Burning wastes,
 - o Large dead animals or large quantities of small dead animals, except with the approval of Contra Costa Health Services (LEA),
 - o Untreated medical waste as defined in Chapter 6.1 of the California Health and Safety Code or infectious wastes as defined in 27 CCR 20880.
2. Conducting unacceptable activities such as:
 - o Burning of wastes,
 - o Scavenging,
 - o Accepting or disposing of any other waste for which this facility is not permitted,
 - o Accepting quantities of wastes exceeding the permitted capacity of the facility as stated in the findings section of this permit, without prior approval of the LEA.
3. Allowing conditions which are not acceptable, such as:
 - o Standing water on covered fill areas,
 - o Landfill fires,
 - o Slope failure.

SOLID WASTE FACILITY PERMIT

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07-AA-0032

15. The following documents also describe and/or restrict the operation of this facility (insert document date in space):

	DATE		DATE
[X] Report of Facility Information	January, 1992	[X] Waste Discharge Requirements	91-052, 97-060, 98-081
[X] Amendments to RFI (RDSI)	March, 2000 May, 2008	[X] Preliminary Closure & Post Closure Maintenance Plan (deemed complete by LEA on September 14, 1995)	September 14, 1995
[X] Franchise Agreements, Contra Costa Board of Supervisors Amendment #1 Amendment #2 Amendment #3	October 31, 1990 November 8, 1994 February 27, 1996 February 2, 1999	[X] Other (list):	
		1. Implementation & Mitigation Monitoring Program, Contra Costa Community Development	January 29, 1992
[X] Williamson Cancellation Act Contra Costa Board of Supervisors (amended)	July 14, 1990 October 5, 1991	2. USFS & BLM Special Use Permits are not required	
[X] Land Use Permits and Conditional Use Permits, Permit 2020-89 (amended)	July 24, 1990 November 1, 1994	3. Nationwide Permit No. 26, Dept. of the Army, Corps of Engineers (COE)	June 14, 1991
[X] Air Pollution Permits and Variances Plant 4618, Permit 21312 (Conditions 16461, 9527, 16462)	October 8, 1999	4. Streambed Alteration Agreements California Dept. of Fish & Game	October 18, 1991
[X] Environmental Impact Report State Clearing House No. 1989040415	July 1990	5. Clean Water Act 401 Certification, State Water Resources Control Board (SWRCB)	October 3, 1991
[X] Mitigated Negative Declaration State Clearing House No. 1999092018	November 12, 1999		
[X] Local & County Ordinances Contra Costa County Ordinance Code, Chapter 418.4 - Disposals Sites Contra Costa County Ordinance Code, Chapter 418.5 - Franchises for Solid Waste Facilities			

SOLID WASTE FACILITY PERMIT

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16. Self Monitoring:

a. Results of all self-monitoring programs as described in the Report of Facility Information, will be reported as follows:

Program	Reporting Frequency	Agency Reported To
1. Landfill Gas Monitoring Program	1. Quarterly	1. LEA
2. Groundwater Monitoring Program	2. Quarterly with annual summary	2. LEA, RWQCB
3. Remaining Site Life/Capacity	3. Annual – with aerial surveys	3. LEA
4. Daily Tonnage Records – daily quantities of waste received	4. Quarterly – due no later than 30 days into succeeding quarter	4. LEA
5. Daily random waste load checking program	5. Daily	5. Available for LEA monthly inspection
6. Log and report the types and quantities of prohibited waste found in the waste stream and disposition of these materials	6. Quarterly	6. Available for LEA monthly inspection
7. Special Occurrence Log and operator's action(s) taken to correct/resolve each problem/situation	7. Daily	7. Available for LEA monthly inspection
8. All operational records, monitoring reports, results of regulatory inspections, summaries of daily inspection reports	8. Available upon request	8. LEA
9. Air quality Monitoring Program	9. Quarterly monitoring	9. LEA, BAAQMD – Available onsite for inspection

CIWMB = California Integrated Waste Management Board
RWQCB = Regional Water Quality Control Board
BAAQMD = Bay Area Air Quality Management District
LEA = Local Enforcement Agency

+ The reporting frequency will be that required in the RWQCB WDR requirements

SOLID WASTE FACILITY PERMIT

Facility/Permit Number:

07-AA-0032

17. LEA Conditions:

(NOTE: LEA conditions listed here shall be in addition to conditions of other documents controlling operation of this facility.)

- a. The facility shall comply with all State Minimum Standards for Solid Waste Handling and Disposal as specified in Title 27 of the California Code of Regulations (CCR).
- b. The facility shall comply with all federal, state, and local requirements and enactments, including implementation of all mitigation measures developed in accordance with any certified environmental document filed pursuant to Public Resources Code (PRC) 21081.6.
- c. Any additional information required by Contra Costa Health Services (LEA) shall be furnished to agency personnel on request.
- d. The operator shall maintain a copy of this Solid Waste Permit (SWFP) and the RDSI at the facility at all times.
- e. This SWFP is subject to review by the LEA and may be modified, suspended, or revoked at any time for sufficient cause after a hearing.
- f. **Types of Waste Received.** The landfill will receive residential, commercial, industrial, construction/demolition, designated and special wastes as provided in the RDSI and as set forth below. The facility will not accept hazardous wastes. The facility shall accept the following designated, non-hazardous or inert wastes:

Municipal Solid Waste	Commercial and Industrial Waste	Geothermal Wastes
Drilling Muds	Agricultural Wastes	Cannery Wastes
Contaminated Soils	Filter Cake/Dewatered Sludge	Sewage Sludge
Shredder Waste	Construction/Demolition Debris	Spent Catalyst Fines
- g. **Quantification of Waste Received.** Maximum peak permitted capacity is 3500 tons disposal per operating day. Design capacity is estimated to be 60-64 million cubic yards compacted at 0.6 tons/cubic yard. Maximum total waste mass shall not exceed 38.4 million tons. In addition the Facility is allowed 1300 TPD of beneficial reuse material at the following limits:

500 tpd of green waste	300 tpd of wood waste	500 tpd of inert materials
------------------------	-----------------------	----------------------------
- h. **Method of Operation.** The Class II landfill will operate as a modified canyon fill, using daily cover. Waste will be compacted in layers of no greater than two feet, and from the base of the working face, at a final slope of 4:1. The size of the working face will be adjusted to optimize response to tipping area traffic, necessary space for landfill equipment, economy of use of cover soil or ADC and minimization of litter, odors, unsightliness and vectors. The working face shall not exceed an area of one acre nor measure more than 250 feet in width, with a maximum slope of 3:1.
- i. **Waste Reduction and Resource Recovery.** Municipal solid waste received at this facility shall arrive by transfer vehicles from transfer stations where waste reduction and resource recovery activities have taken place.
- j. **Hazardous Waste Screening.** A hazardous waste screening program has been developed pursuant to San Francisco Bay Area Regional Water Quality Control Board Waste Discharge Requirements 91-052 (hereinafter, WDR). The program consists of the following activities: inspection of random incoming loads; regular visual inspection of wastes deposited at the facility; training of facility personnel in hazardous waste recognition and proper hazardous waste handling procedures; reporting incidents of unlawful disposal to agencies specified below; installation of signs at the facility's entry way indicating that no hazardous wastes are accepted; a list of unacceptable wastes. Additional measures may be required upon the request of the LEA or the CIWMB.

Agencies to be notified in case of unlawful disposal:

Contra Costa Health Services-Environmental Health – (925) 692-2500

Contra Costa Health Services Environmental Health-Hazardous Materials Program – (925) 646-2286

San Francisco Bay Area Regional Water Quality Control Board – (510) 622-2347

Riverview Fire Protection District – (925) 757-1303
- k. **Special operating procedures:**
 - (a) Soils excavated during or incidental to construction of the landfill shall be stockpiled and reused for cover material to the fullest extent possible.
 - (b) Erosion control techniques such as providing road shoulder berms, covering areas of high erosion potential, diverting and controlling water runoff, and reseeding exposed areas, shall be implemented. Other erosion control measures shall be implemented as may be required by the LEA.
 - (c) Refuse and cover material shall be compacted in a manner so as to maximize strength and slope stability. The dimensions of the landfill working face shall not exceed those stated in the Findings of this permit. The working face shall not exceed a slope of 3:1.
 - (d) Surface roads shall be paved or wetted wherever such pavement or wetting is required by the LEA for purposes of dust suppression. The use of other dust palliatives on onsite roads and operating areas may also be required by the LEA.
 - (e) Litter fences shall be placed as required by the LEA in the event of demonstrable litter problems.
 - (f) The operator shall take all possible steps, including but not limited to staged cover, bird wires, "screamers", etc., to minimize attracting birds to the landfill.
 - (g) An odor complaint program shall be established and odor problems mitigated within time constraints imposed by the LEA.
 - (h) Operator must accept such waste as directed by LEA in response to any declared emergency.
 - (i) Pursuant to Section 44012, Public Resources Code, the enforcement agency may prohibit or condition the handling or disposal of solid waste to protect, rehabilitate, or enhance the environmental quality of the state or to mitigate adverse environmental impacts.

SOLID WASTE FACILITY PERMIT

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07-AA-0032

- l. Any change which would cause the design or operation of the facility not to conform to the terms or conditions of the permit is prohibited. Any such change shall be considered a significant change, and will require a revision of this permit pursuant to PRC, Division 30, Section 44004.
- m. This facility has a total permitted capacity of 3500 tons per day for disposal only and 1300 tons per day of beneficial reuse; and shall not receive more than that amount without first obtaining a revision of the permit
- n. Keller Canyon Landfill Company (KCLC) shall be considered operators of the landfill site. KCLC is a wholly owned subsidiary of Allied Waste Industries, Inc., a Delaware corporation.
- o. A log of special occurrences, pursuant to the provisions of 27 CCR 20510(c), shall be maintained at the at the facility and be made available to the LEA or the CIWMB on demand, and annually reported to the LEA on a date to be determined by the LEA.
- p. Preliminary closure and postclosure maintenance plans have been submitted pursuant to 27 CCR 21780.
- q. All documentation relating to the preparation of the closure and postclosure maintenance costs shall be retained by Keller Canyon Landfill Company and shall remain available for inspection by the Local Enforcement Agency and the CIWMB.
- r. The operator shall, once per calendar year, have this facility surveyed. Such survey shall be performed and signed by a licensed land surveyor or registered civil engineer, and it shall show the following:
- (a) Total volume of fill for the phase surveyed,
 - (b) Volume of fill since last survey, and
 - (c) Remaining volume to be filled in the phase.

Aerial survey is required, including an initial survey before waste is accepted into each phase. All coordinate/elevation points shall be made available to the LEA on request.



United States
Environmental Protection
Agency

Office of Research and
Development
Washington, DC 20460

EPA/R-99/XXXX
July 2000
www.epa.gov

Life Cycle Inventory and Cost Model for Mixed Municipal and Yard Waste Composting

Table 6. Moisture Contents, Bulk Densities, and Screening Efficiencies at Several Stages of Composting

Component	Moisture contents (% wet weight) *	Bulk densities (lb / yd ³) *	Screening efficiencies **
Mixed paper	10.2	95	58%
Yard waste ^a	60.0	122	79%
Food waste ^a	70.0	594	79%
Plastic / leather / textiles	5.0	68	58%
Glass	2.0	460	95%
Tin / aluminum	5.0	122	55%
Other inorganic components	2.0	68	95%
In windrows	50.0 **	500 ^b	
Cured compost	40.0 ^g	700 ^c	100% ^d , 85% ^e , 95% ^f

* From Tchobanoglous et al., 1993 (pp.79).

** After water addition to windrows.

* Based on data from Diaz et al. (1993) for loose MSW components at tipping floor, unless specified otherwise.

** % of feed passing through the trommel assuming a trommel screen with a 120-mm mesh size screen and a 50 tph feed rate (based on experimental data from Alter, 1983). Used in the LQCF only.

^a Components with similar particle size range to aluminum, based on information in Tchobanoglous et al. (1993).

^b Based on a value of 400 lb/yd³ for shredded mixed MSW (Diaz et al., 1993) and assuming an increase to 500 after water is added to achieve a 50 percent moisture content.

^c On a dry weight basis as applies to both MSW- and YW-derived compost (Diaz et al., 1993).

^d Assumed post screening efficiency for LQCF because no screen was used.

^e Assumed post screening efficiency for HQCF.

^f Assumed post screening efficiency for YWCF.

^g based on Diaz et al., 1993.

4.5 Design of Specific Elements of Compost Facilities

The following sections briefly describe the design approach followed for the key elements that constitute all three types of compost facilities. Differences among the designs of the three facilities are discussed in these sections. It is noted that part-time use of equipment was allowed and a linear correlation of all design parameters to waste flow rate was implemented with an intercept. Therefore, a minimum number of units was assumed to exist for each type of facility, regardless of waste flow rate, to allow more accurate comparison with data from actual solid waste composting facilities.

4.5.1 Trommel Screens

A 12-cm opening precomposting trommel screen was used for the LQCF to remove large items. Because recycling and preprocessing of wastes has already taken place prior to the wastes entering the HQCF, wastes are assumed to be directly shredded by the hammermill prior to composting without the use of a precomposting screen. A 1.25-cm (0.5-in.) opening postcomposting trommel screen was used in the case of the HQCF and the YWCF. In the case of the precomposting trommel screen, relevant efficiencies

Solid Waste

R.C. Bailie | J.W. Everett | Béla G. Lipták | David H.F. Liu |
F. Mack Rugg | Michael S. Switzenbaum

Source and Effect

10.1

DEFINITION

Waste Types Included
Waste Types Not Included

10.2

SOURCES, QUANTITIES, AND EFFECTS

Sources
Quantities
Effects

Characterization

10.3

PHYSICAL AND CHEMICAL CHARACTERISTICS

Fluctuations in Solid Waste Quantities
Component Composition of MSW
Component Composition of Bulky Waste
Density
Particle Size, Abrasiveness, and Other Physical Characteristics
Combustion Characteristics
 Proximate Composition
 Ultimate Composition
 Heat Value
Bioavailability
Toxic Substances in Solid Waste

10.4

CHARACTERIZATION METHODS

Purposes of Solid Waste
 Characterization
Basic Characterization Methods
Estimation of Waste Quantity
Sampling MSW to Estimate
 Composition
 Selecting Samples
 Collecting Samples
Number of Samples Required to Estimate
 Composition
Sorting and Weighing Samples of MSW
 Sorting Areas
 Sorting Containers
 Container Labeling
 Sorting Process
 Weighing Samples
 Dumping Samples
Processing the Results of Sorting
Visual Characterization of Bulky Waste
Sampling MSW for Laboratory Analysis
 Mixed Sample versus Component Sample Testing
 Laboratory Procedures
 Collecting Material for Laboratory Subsamples
Review and Use of Laboratory Results
Estimating Combustion Characteristics Based on Limited Laboratory Testing

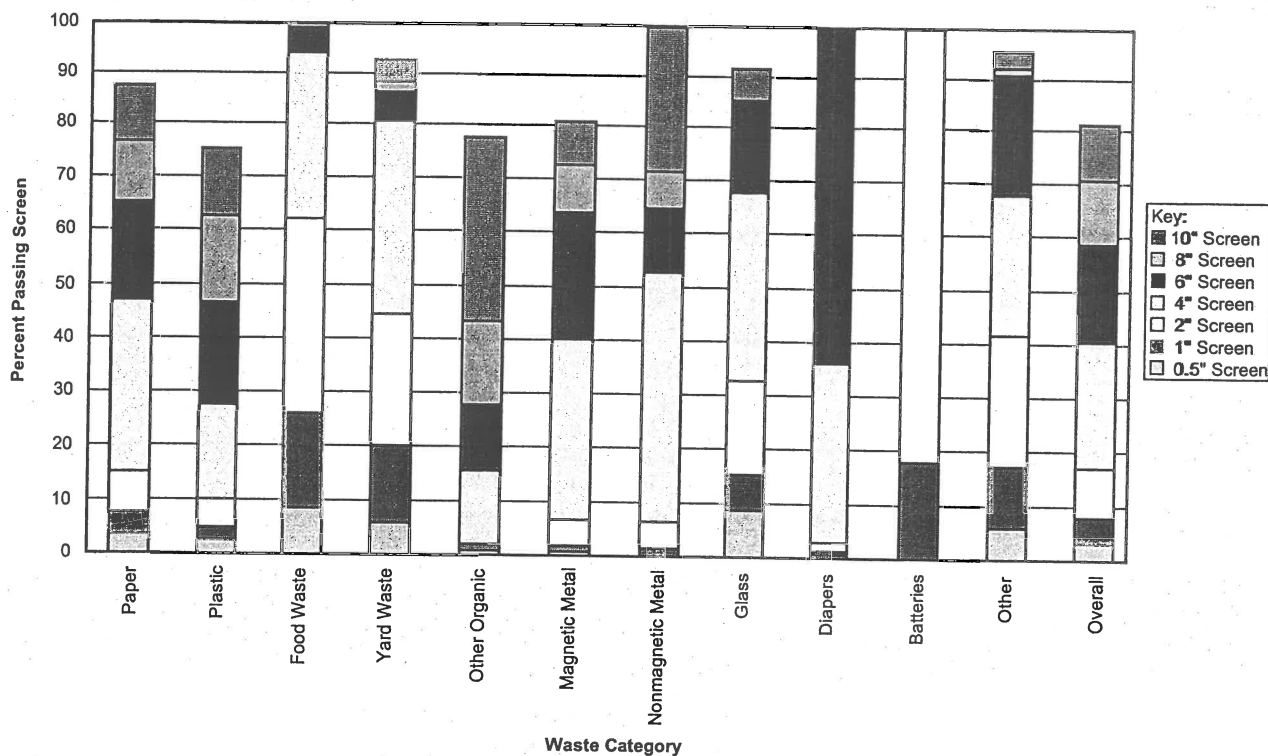


FIG. 10.3.2 Representative size distribution of MSW. (Adapted from D. Hilton, H.G. Rigo, and A.J. Chandler, 1992, *Composition and size distribution of a blue-box separated waste stream*, presented at SWANA's *Waste-to-Energy Symposium*, Minneapolis, MN, January 1992.)

side the truck. When MSW is removed from one side of a storage bunker at an MSW combustion facility, the waste on the other side generally does not fall into the vacated space. This characteristic allows the side on which trucks dump waste be kept relatively empty during the hours when the facility receives waste.

MSW tends to stratify vertically when mixed, with smaller and denser objects migrating toward the bottom and lighter and bulkier objects moving toward the top. However, MSW does not stratify much when merely vibrated.

Although MSW is considered soft and mushy, it contains substantial quantities of glass, metal, and other potentially abrasive materials.

Combustion Characteristics

Most laboratory work performed on samples of solid waste over the years has focused on parameters related to combustion and combustion products. The standard laboratory tests in this category are proximate composition, ultimate composition, and heat value.

PROXIMATE COMPOSITION

The elements of proximate composition are moisture, ash, volatile matter, and fixed carbon. The moisture content of

solid waste is defined as the material lost during one hour at 105°C. Ash is the residue remaining after combustion. Together, moisture and ash represent the noncombustible fraction of the waste.

Volatile matter is the material driven off as gas or vapor when waste is subjected to a temperature of approximately 950°C for 7 min but is prevented from burning because oxygen is excluded. Volatile matter should not be confused with *volatile organic compounds* (VOCs). VOCs are a small component of typical solid waste. In proximate analysis, any VOCs present tend to be included in the result for moisture.

Conceptually, fixed carbon is the combustible material remaining after the volatile matter is driven off. Fixed carbon represents the portion of combustible waste that must be burned in the solid state rather than as gas or vapor. The value for fixed carbon reported by the laboratory is calculated as follows:

$$\begin{aligned} \% \text{ fixed carbon} &= 100\% - \% \text{ moisture} \\ &\quad - \% \text{ ash} - \% \text{ volatile matter} \end{aligned} \quad 10.3(1)$$

Table 10.3.4 shows a representative proximate composition for MSW. The values in the table are percentages based on dry (moisture-free) MSW. Representative moisture values are also provided. These moisture values are for MSW and components of MSW as they are received at a disposal facility. Because of a shortage of data for the

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ENVIRONMENTAL, LAND USE
PUBLIC AGENCY PRACTICE

REPLY TO: WALNUT CREEK

925-295-3133
FAX: 925-295-3132

February 12, 2014

Via E-Mail and US Mail

The Hon. Karen Mitchoff, Chair
and Members of the Board
Contra Costa County Board of Supervisors
651 Pine Street
Martinez, CA 94553

Re: CCCSWA RFP and Contractor Selection Process
Recent Claims of Contra Costa Waste Services, Inc.,
Mt. Diablo/Recology

Dear Chair Mitchoff and Members of the Board:

This undersigned serves as outside counsel to Allied Waste Systems, Inc. *dba* Republic Services of Contra Costa County and its affiliates (collectively, "Republic") in connection with Republic's proposal submitted in response to the Central Contra Costa Solid Waste Authority ("CCSWA") Request for Proposals ("RFP") for collection and processing services, now in the final contractor selection stage. I am writing to address certain specific unfair trade practices claims previously asserted on the eve of the January 30, 2014 CCCSWA meeting by the principal competitors of Republic in the RFP process, Contra Costa Waste Services, Inc. ("CCWS") and Mt. Diablo/Recology ("MDR", a joint venture) in letters dated January 27, 2014 and January 29, 2014. I understand that counsel for CCWS and MDR has submitted an additional, lengthy letter to your Board during public comment at the Tuesday, February 11, 2014 Board meeting, which we will review and respond to under separate cover. I believe that many of the claims asserted by CCWS/MDR counsel are likely addressed in this letter.

The January 27 and January 30 CCWS/MDR letters (1) incorrectly assert that the US Department of Justice Antitrust Division ("DOJ") and State of California, in approving Republic Services, Inc.'s 2008 acquisition of Allied Waste Services, found that Republic was operating or could operate in Contra Costa County in a way that harms competition; (2) incorrectly assert that Republic has violated both the antitrust laws and California's unfair competition law, Cal. Bus. & Profs. Code § 17200 et seq. ("Section 17200"), by submitting a combined proposal for collection

The Hon. Karen Mitchoff, Chair
and Members of the Board
Contra Costa County Board of Supervisors
February 12, 2014
Page 2

and disposal services, and (3) incorrectly assert that Republic's waste acceptance obligations under the terms of the Keller Canyon Landfill conditional use permit require Republic to accept waste at prices and conditions determined *not* by Keller Canyon, but as demanded by facility customers such as CCWS and MDR.

As I indicated in my brief testimony Tuesday morning, these claims are baseless and interposed to delay and cloud the CCSWA's RFP process. The plan appears to be to have your Board spend time and staff resources investigating myriad specious claims, in order to try and delay the CCSWA's process for contractor selection pending completion (if ever) of your Board's investigations.

We are confident in our legal opinions regarding Republic's compliance with antitrust and unfair business practice laws in participating in the CCSWA's RFP. The bottom line is that applicable law squarely holds that Republic owes no duty to deal with its rivals on terms and conditions that its rivals would find commercially advantageous. There is no Keller Canyon Landfill use permit requirement that would obligate Republic to offer disposal rates and terms to competitors in order to allow a competitor to bid against Republic in seeking business. The Keller Canyon Landfill Franchise Agreement authorizes Keller Canyon to establish disposal rates in its sole discretion. CCWS and MDR have cited no case or statutory authority requiring Republic to offer them disposal rates to allow them to use the Keller Canyon facility and bid against Republic, because they can't. These unsupported unfair business practice claims of CCWS and MDR are more fully addressed below.

The 2008 Republic/Allied Waste Merger and Settlement

CCWS and MDR have asserted that the Department of Justice Antitrust Division ("DOJ") and State of California found in 2008 that Republic was operating or could operate in Contra Costa County in a way that harms competition in connection with the DOJ approving Republic Inc.'s acquisition of Allied Waste Services. This assertion is flatly untrue. The complaint referenced by CCWS and MDR was filed by the DOJ, State of California and other states as part of a settlement of the plaintiffs' claims that Republic's 2008 merger with Allied Waste Industries would harm competition in certain markets *unless Republic divested the landfills and other assets agreed to by the parties*. In other words, by agreeing to settle its civil antitrust lawsuit filed in connection with Republic's merger with Allied, the DOJ and the plaintiff states, including California, expressly determined that, post-merger, and upon the sale of the agreed-upon divestiture assets, there would be *ample competition* in the market for municipal solid waste ("MSW") disposal services in certain areas, including the Bay Area. Thus, as the DOJ explains in its Competitive Impact Statement ("CIS") filed in connection with the settlement, Republic was required to divest, and did divest, its Potrero Hills Landfill ("PHL") in Suisun, California to address the alleged MSW disposal market concerns in the area.

The DOJ's CIS statement explicitly states that Republic's divestiture of PHL will "preserve competition" in the San Francisco area, which includes Contra Costa, Solano and Alameda Counties, between the PHL and the Keller Canyon Landfill for the disposal of MSW.

The CIS referenced by CCWS/MDR was filed by the DOJ "together with its complaint [and] a stipulation and order under which the parties consented to entry of a proposed final judgment aimed at remedying the alleged anticompetitive effects of the merger." *United States of America et al. v. Republic Services, Inc. et al.*, Civ. No. 08-2076 (RWR), Memo. Opinion at 3 (filed July 15, 2010). In subsequently entering that proposed judgment as final, the U.S. Court for the District of Columbia held that it was doing so "[b]ecause there is a reasonable basis upon which to conclude that the divestitures in the proposed final judgment will adequately remedy the competitive harms alleged in the government's complaint, entry of the proposed final judgment is in the public interest."

Accordingly, the CCWS/MDR suggestion that the 2008 case reflects a view of the DOJ that Republic enjoys a disposal "monopoly" in the San Francisco area are completely unfounded and misleading. In fact, PHL is the identified best disposal site option in the analysis of the CCWS/MDR proposal, underscoring that the PHL facility is a viable competitor in the Bay Area disposal market.¹ PHLF was less expensive than Recology's own Hay Road Landfill in Solano County and Waste Management's Redwood Landfill in Novato, Marin County. The Hay Road Landfill is located just a few miles north from PHL on State Route 113. CCWS own a transfer station on Loveridge Road in Pittsburg that currently hauls waste to PHL and can easily access Hay Road Landfill and other more distant facilities. The PHL and Hay Road landfill facilities are important participants in the Bay Area landfill disposal market.

Bus. & Profs. Code §17200 et. seq. Does Not Apply

Republic submitted a combined proposal for collection and transfer/disposal services that the CCCSWA staff, consultant and ad hoc committee has determined is in the best overall value and lowest cost proposal to benefit the CCCSWA and its constituents, and have therefore unanimously recommended Republic. CCWS and MDR assert that in presenting a combined (bundled) services and pricing proposal, Republic has violated both the antitrust laws and California's unfair competition law, Cal. Bus. & Profs. Code § 17200 et seq. ("Section 17200").

CCWS and MRD are mistaken, however, for any number of reasons, including that:

1. CCCSWA authorized such pricing in its RFP and has broad discretion to determine not only to whom it will award franchises for waste hauling and disposal, but

¹ Recology, along with other companies, urged the State of California to insist on the divestiture of PHL in the Republic/Allied merger evaluation. Recology also made a proposal to acquire PHL in the divestiture process, but was unsuccessful in doing so. The PHL site was divested to Waste Connections, Inc. on April 21, 2009.

how it will make such determinations²: and Republic did nothing more than submit a proposal in response to the RFP;

2. Contrary to CCWS and MDR's assertion, Republic does not have market or monopoly power in Contra Costa County in waste disposal services, and their assertion that the DOJ took such a position in 2008 is both inaccurate and misleading; and

3. Even, if Republic has market power, which it does not, CCWS and MDR do not remotely raise a genuine issue as to whether Republic's combined RFP proposal violates Section 17200 or had an effect on CCWS and MDR's ability to submit a competitive bid.

Furthermore as explained in more detail below, Republic violated no law by submitting a competitive RFP proposal based upon its ability to take advantage of the efficiencies arising from its investments in both hauling and disposal capabilities, which benefits the County residents and businesses within the CCCSWA. Perhaps more to the point, CCWS and MDR appear confused about the purpose of the unfair competition and antitrust laws. The purpose of such laws is to protect *competition* from conduct that tends to restrict production, raise prices or otherwise control the market to the detriment of consumers. They were not adopted, and are not enforced, to protect *competitors from* competition; which is what CCWS and MDR argue.

The Integrated Waste Management Act of 1989 ("the Act") and the RFP developed in accordance with the Act provide CCCWSA with wide latitude in not only determining RFP terms and to whom it will award contracts for waste hauling and disposal, but how it will make such decisions. Specifically, the Act permits the CCCWSA to determine whether collection and disposal services are to be provided by one or more contractors, to determine whether to use an RFP or other procurement processes, and to determine the various options, pricing, terms and conditions upon which such services will be provided. Furthermore, the CCCSWA's RFP encouraged combined proposals with discounted services for various services and facilities compared to stand alone pricing. (*See*, RFP for Collection Services, Announcement at p. 3.)³

Here, the CCSWA staff, HFH Consultants and the *ad hoc* committee recommended that Republic's proposal combining collection and disposal represents the overall best value for services that would best serve the needs of Central Contra Costa County. CCWS and MDR's further assertions regarding the CCSWA allegedly abandoning a "mix and match" approach are also not only within the CCWSA's authority and discretion, but are simply irrelevant. The Act

² *See*, Public Resources Code section 40059

³ "Each proposer will be required to provide stand-alone pricing for collection services and each of the processing services it proposes; *and will be invited, at its option, to provide a discounted rate for a combined collection and processing services proposal*, and for transfer and/or disposal services if it submitted a proposal for those services in response to the CCCSWA's March 29, 2013 RFP for Transfer and Disposal Services." [Emphasis added]

and the RFP clearly establish the CCCSWA's right to adopt any approach that it sees fit, "mix and match" or otherwise.

CCWS and MDR cannot credibly assert to your Board that Republic's participation in conformance with the CCCSWA's RFP constitutes "unfair competition" under Section 17200. To establish a violation of Section 17200, a complainant must show that alleged unlawful conduct violates the antitrust laws. *See, e.g., Docmagic, Inc. v. Ellie Mae, Inc.* 745 F.Supp.2d 1119, 1131 (N.D. Cal., 2010) ("where the same conduct is alleged to support both a plaintiff's federal antitrust claims and state-law unfair competition claim, a finding that the conduct is not an antitrust violation precludes a finding of unfair competition"). As noted above, there is no violation of the antitrust laws. A further analysis follows.

No Section 17200 Duty to Provide an Advantage to a Rival Company

CCWS and MDR do not cite a single case holding that Republic charging *itself* less for services than it charges third parties such as MDR or CCWS can provide a basis for a claim under Section 17200. Nor can they. Whatever Republic decides to have one affiliate charge itself in a packaged price simply cannot affect competition under these circumstances. In fact, this issue has been expressly addressed by a number of courts applying the federal antitrust laws.

The Clayton Act Section 2(a) establishes a claim for price-discrimination under certain circumstances.⁴ That provision requires that the seller discriminate between two or more "purchasers." However, whatever one Republic company decides to charge a sister company, both of which are owned ultimately by the same company – Republic Services, Inc. – cannot serve as the basis of a price-discrimination claim by another purchaser. The subsidiaries are treated as one and the same entity for purposes of Clayton Act Section 2(a), and there is simply no sale to two or more purchasers for price discrimination analysis purposes. *See, e.g., Caribe BMW, Inc. v. BMW AG*, 19 F.3d 745, 750-51 (1st Cir. 1994) (in *dictum*, holding that a transfer to a subsidiary can never be considered a "sale" for Robinson-Patman Act purposes); *City of Mt. Pleasant v. Associated Elec. Coop.*, 838 F.2d 268, 278-79 (8th Cir. 1988) (same); *Russ's Kwik Car Wash v. Marathon Petroleum Co.*, 772 F.2d 214, 217-20 (6th Cir. 1985) (same); *O'Byrne v. Cheker Oil Co.*, 727 F.2d 159, 164 (7th Cir. 1984) (same); *Sec. Tire & Rubber Co. v. Gates Rubber Co.*, 598 F.2d 962, 966 (5th Cir. 1979) (same).⁵

Nor can MDR and CCWS credibly assert that Republic's conduct can constitute "unfair

⁴ Section 2(a) provides that "It shall be unlawful for any person engaged in commerce ... to discriminate in price between different purchasers of commodities of like grade and quality ... where the effect of such discrimination may be substantially to lessen competition." 15 U.S.C. § 13(a).

⁵ Any Clayton Act price-discrimination claim predicated upon the facts here would also fail because Section 2(a) applies only to the sale of "commodities" not services. *See, e.g., Yeager v. Waste Mgmt.*, 1994 WL 761959 (N.D. Ohio 1994) (granting defendants' motion for summary judgment with respect to plaintiff's Robinson-Patman claims where plaintiff alleged that defendants conspired to discriminate in the price of landfill services.)

competition” under monopolization or any other theory. Except under very limited circumstances not present here – such as those governed by the Clayton Act – firms may charge their customers, including their customer-competitors, whatever they wish to charge. *See Pacific Bell Telephone Co. v. LinkLine Communications*, 555 U.S. 438, 450 (2009) (“*Trinko* ... makes clear that if a firm has no antitrust duty to deal with its competitors at wholesale, it certainly has no duty to deal under terms and conditions that the rivals find commercially advantageous”); *see also Person v. Google, Inc.*, 2007 U.S. Dist. LEXIS 22499, at *14 (N.D. Cal., 2007) (reinforcing precedent that “high prices, by themselves, are not anticompetitive or exclusionary,” and that “[a]bsent predatory practices, discriminating pricing does not threaten competition”).

For these reasons, the so-called antitrust and unfair competitive claims of MDR and CCWS are completely without merit.

The Keller Canyon Use Permit Argument Is Unavailing.

The CCWS/MDR use permit argument is based on the erroneous and unsupported assertion that condition 5.1 of the Keller use permit – a general condition that says Keller must accept solid waste originating in Contra Costa County if delivered to the facility in compliance with applicable permits *and* if appropriate disposal fees are paid - would somehow obligate Republic to make its Keller Canyon Landfill available to a marketplace competitor at the same rates and on the same terms as Republic would provide to its affiliated companies. To the contrary, Keller Canyon is authorized by its use permit and Franchise Agreement to charge different rates to different users. There is no obligation, express or implied, to offer disposal rates that are either (1) demanded by a rival/customer, or (2) equivalent to rates Keller Canyon would charge its affiliates or other customers.

The County Does Not Set or Regulate Landfill Rates. Contrary to the assertion made by counsel for CCWS/MDR at your February 11 Board meeting, the County does not and cannot regulate disposal rates established by Keller Canyon for customers and/or competitors under the terms of the Franchise Agreement governing the relationship between the County and Keller Canyon Landfill. The County does not have authority to set rates for the landfill, including a rate demanded by a competitor. Rate setting was initially included in the use permit and Franchise Agreement, however the Franchise Agreement was amended and restated in September 1994 expressly removing provisions authorizing County rate setting and regulation, and establishing in their place provisions that Keller Canyon Landfill will establish disposal rates in its sole discretion. That amended and restated Franchise Agreement has been in effect between the parties for over 19 years.

CCWS and MDR Have Access to Several Landfills in the Region. There are many landfills in the Bay Area including PHL and Hay Road Landfill in Solano County, (owned by Waste Connections, Inc. and Recology respectively), the Altamont Landfill in Alameda County

and the Redwood Landfill in Marin County (owned by Waste Management) that can easily be accessed using transfer vans hauling waste from a transfer station, such as the transfer station located in the City of Pittsburg and owned by CCWS. Indeed, CCWS and MDR would do just that in their proposal as evaluated by CCCSWA—use the Pittsburg transfer station to haul waste requiring landfill disposal to PHL – just a short distance from the Pittsburg transfer station. As I indicated in my testimony to the Board, it is common knowledge that MDR’s sister companies, Concord Disposal and Pittsburg Disposal have for the past 20 years used the Pittsburg transfer station owned by CCWS to transfer waste collected from the cities of Concord and Pittsburg to the nearby PHL in Suisun. In addition to making the obvious point that Keller Canyon enjoys no monopoly, the out-of-county waste outflow represents a significant amount of solid waste that has escaped the County’s established franchise fee and other governmental charges, irretrievably lost revenue for the past 20 years.

CCWS and its affiliated entities have not in the past sent any significant quantities of the waste collected in Contra Costa County to the Keller Canyon Landfill, because these Garaventa affiliates have claimed they obtained a better economic package from PHL for disposal of waste from their franchised cities. And with less and less solid waste collected by franchised haulers actually being landfill as opposed to recycled, and with state law requiring imposing even greater recycling goals in the future under AB 341 and other laws and regulations, disposal pricing is becoming less and less of a factor in a collection company’s overall cost structure. CCWS and MDR are hard pressed to argue “monopoly” and being deprived of access to Keller Canyon Landfill when they have voluntarily chosen an out of county disposal site for their disposal needs. CCWS and MDR thus concede that the disposal market is competitive and that they have chosen a different service provider for many years.

CCWS and MDR Concede that Republic Has Submitted a More Favorable Combined Price. In making groundless “monopoly” claims, CCWS and MDR are also conceding that Republic has submitted a more favorable combined (bundled) price for collection, transfer and disposal in response to the CCCSWA’s RFP. Just because CCWS and MDR have submitted a more expensive competing proposal using an alternative landfill disposal provider -- their long-utilized disposal site, PHL – does not mean that Republic has somehow unfairly eliminated MDR from competition. Rather, it reflects the essence of competition. It is common practice in a free enterprise society for companies to compete with each other using their own facilities that they spent literally millions of dollars on to permit, construct and develop. The Garaventa’s transfer station in Pittsburg is one such example. Would Mt. Diablo Recycling charge a competitor wanting to use its Pittsburg transfer station the same internal company rate that it charges its sister companies Concord Disposal and Pittsburg Disposal, so that their competitors could then compete with more favorable pricing for collection services contracts in Concord and Pittsburg?

Republic Owes No Duty Under Federal Or State Laws To Provide A Pricing Advantage To A Rival. Company Republic owes no duty under federal or state antitrust laws or unfair

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competition laws to provide a pricing advantage to a rival company. Condition 5.1 of the Keller Canyon use permit also does not require -- and cannot be reasonably read to require -- that Republic must accept waste at disposal rates dictated by a competitor in an RFP process (or through any other process for that matter). CCWS and MDR cite no relevant law or other support for this ridiculous assertion.

I am hopeful that your Board sees the CCWS and MDR tactics for what they are -- a desperate last minute smear campaign from a sour grapes competitor who did not receive a favorable recommendation from the CCCSWA staff, an independent consultant and the ad hoc committee of the CCCSWA Board that unanimously recommended Republic as the best overall value and lowest cost provider for recyclables/solid waste collection and disposal services.

I respectfully ask your Board to avoid the trap of endless County staff work projects and investigations of unsupported claims that were first asserted on the eve of the CCCSWA's final contractor selection meeting. The CCCSWA is, of course, already evaluating claims that have now been brought to your Board. The delay strategy of CCWS and MDR most likely means there will be new claims, new questions, more testimony and strategically delivered last minute lawyer letters from CCWS and MDR submitted for any further Board of Supervisors meetings. The entire effort has been orchestrated and carefully choreographed in an effort to cloud the CCCSWA process and interpose delay. I would urge your Board to resist the temptation to participate in such a contorted process, and allow the CCCSWA to complete its process.

Thank you for your consideration of these matters.

Very truly yours,



Scott W. Gordon

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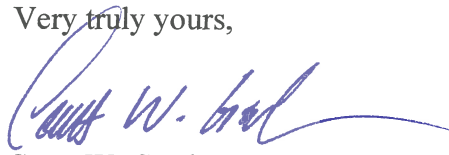
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