

2022-2023 KERN COUNTY GRAND JURY



Transformation Of Trash

Release Date: December 15, 2022



THE TRANSFORMATION OF TRASH IN KERN COUNTY

From The Garbage Truck to...?

SUMMARY:

Some may think that trash is a necessary nuisance to modern living, while to others trash converts to a universal commodity and new products. This report looks at the costs and benefits of the collection, recycling, and repurposing of trash. There are minimal federal guidelines to monitor the trash business, so regulations are state and local mandates. However, the State of California has mandated new requirements for counties regarding trash disposal and the management of methane, the primary greenhouse gas generated by landfills through the decomposition of organic waste.

The 2022-2023 Kern County Grand Jury (Grand Jury) reviewed aspects of the City of Bakersfield's (City) and Kern County's (County) Public Works Department Solid Waste Divisions: 1) the economics of waste recycling; 2) blue can waste; 3) the processing of green waste; 4) the prospect of converting trash from tan¹ can waste to energy and other useful by-products.

A private company handles roughly one-half of the City's trash collection, and the City collects the other half. The rationale is that by using both systems of collection, the City can have a check on collection costs. Moreover, one system can rely on the other to pick up a route if needed.

PURPOSE OF INQUIRY:

Per California Penal Code §§925 and 925(a), the Grand Jury conducted an inquiry into trash collection. Because China stopped its acceptance of trash from the United States in 2020, the business of safe and economical disposal of American trash has stimulated a new way of thinking about how we manage waste. More conscientious separation of recyclables, and the anaerobic decomposition² of green waste have sparked an industry of repurposing materials that otherwise would have generated increasingly dangerous environmental risks and financial burdens on taxpayers.

¹ Under the mandates of SB1383, tan cans are being replaced by black cans

² The lack of oxygen and abundance of organic matter in the breakdown of the matter

As much as recycling and waste management programs may benefit the health of the environment and reduce disease vectors, the Grand Jury considered the efficiency and cost effectiveness of current and proposed strategies for collecting and processing various waste streams.

METHODOLOGY:

The Grand Jury looked at the costs of maintaining the current strategy of depositing trash into landfills versus the costs of investing into new technologies that would reduce the need for acreage at landfills and have less harmful impact on the environment.

The City contracts with the County for landfill solid waste disposal. The Grand Jury interviewed officials and employees at waste management sites of the Public Works Divisions of the City and County. The Grand Jury conducted internet research on waste management, researched alternative systems to traditional landfill strategies and existing processes of composting, and conducted email correspondences with City officials. Additionally, the Grand Jury toured liquid and solid waste facilities in the City and County.

DISCUSSION OF FACTS:

The City and County waste management departments operate as Enterprise Funds; the General Fund does not subsidize them. The Waste Management Enterprise Funds receive money *only* from fees collected for its services and from revenue generated by the sale of recyclables. Thus, an increase or decrease in the cost of waste disposal has a direct impact on the tipping fees³ collected at the site gate and on the itemized resident property tax bills as “land use fee.”

Many City and County area residents currently use a three-can system of waste collection: tan or black can for trash, blue can for recyclables, and green can for organic waste including kitchen waste. In other areas of the county, the three-can separation of waste will be in effect by July 2023.

Current Trash Streams

Recycling – Kern County uses a “single-stream” blue can recycling system for paper, glass, certain plastics, certain metals, and cardboard. Private and commercial trash haulers in and around Bakersfield take blue can material to a facility they own and operate.

³ Tipping fee or a gate fee is a fee paid by anyone who disposes of waste in a landfill

National data⁴ indicate that 60%-80% of blue can material is recycled. One of the problems with single stream recycling is contamination of the mix with things like electronics, batteries, and non-recyclable plastics. Isolating these items slows down the current recycling process. Another problem is that glass usually gets shattered and crushed during collection and so becomes useless as a recyclable commodity. Further, some of the recyclable materials cost more to recycle than is received through sales; therefore, those items are not recycled, thus increasing the need for landfill expansion.



Loading dock for segregated recyclable materials at Bena. (Grand Jury Photo)

County landfills as well as private and municipal Materials Recovery Facilities (MRF) [*known as Murf*] separate metals, plastics, mattresses, glass, paper, and electronics. Manufacturers buy these materials for use in the production of other products. The City manages an MRF on Union Avenue that bundles paper and cardboard for resale, and it also takes in expired alcohol and carbonated drinks; the alcohol mixed in with the green waste enhances decomposition. The MRF receives and bundles paper, which has a relatively high market value. However, during the rainy season, this commodity deteriorates because the paper is not under a cover.

Landfill – The City uses the County’s Bena Landfill (Bena) to bury trash collected from residents’ tan or black cans, and other trash dropped off by residents and haulers. The Bena facility takes in approximately 1.2 million tons of material a year at a cost of \$58 per ton to process. This cost is approximately the same for all nine County landfills.

⁴ <https://stanfordmag.org/contents/how-much-recycling-actually-gets-recycled>



At left, an active landfill cell at Bena. At right, a new cell that will soon have an impermeable lining in preparation for receiving waste. (Grand Jury Photos)



Two stacks at Bena flare off methane gas from sealed landfill cells. (Grand Jury Photo)

Green Waste:

- **Mt. Vernon** – This City-owned site processes 155,000 tons of organic waste annually. Food waste accounts for 18,000 tons of this material. The result of composting this material produces 80,000 tons of mulch and compost. The process involves piling the organic matter into windrows to encourage heat and the work of microorganisms to convert organic matter into fertilizer and biogas, which is a mixture primarily of methane, carbon dioxide, and hydrogen sulfide.

The pathogen reduction process, the conversion to useable mulch, takes 90 days during which the windrows of chopped green waste must be turned and watered frequently to generate enough heat to break down the organic matter. A final screening extracts large contaminants, completing the process. Mulch and soil amendments are then available to the public at little or no charge.

- **Bena** – Bena also accepts grass clippings, leaves, and manure in a separate area for composting. Its equipment chips branches, small tree trunks, and scrap wood into mulch.

Large root systems and large tree trunks are put into a high temperature firebox to be reduced to a nutrient-rich soil amendment called biochar.



Biochar (www.bing.com/images, stock photo)



Bena processes yard waste and converts it to mulch. (Photo by Grand Jury)

- **Shafter** – Shafter will soon install a closed anaerobic system, which greatly reduces the time to about 28 days to convert the organic matter. This will eliminate the need for the addition of water and will forego the need to winnow the rows for aeration. This system captures methane gas and makes it available for on-site use or as a fuel for utility companies or other major markets.



Site of future anaerobic composting facility at Shafter. (Photo by Grand Jury)

Food Waste – State Mandate (SB1383) passed in 2016, directs citizens to put food waste into the green can and eventually to stop using garbage disposals. The organic matter will enhance the processing of other green garden waste into compost. Separated organics from all cities can be sent to the Shafter compost facility to create compost that will then be delivered back to the cities for their own use.

Mixed Waste – The Grand Jury observed haulers arriving at landfills with mixed materials. Haulers from demolition sites may be unaware of the content of their load. Drivers transporting what they think is a load of scrap wood may be unaware that underneath the top layer there may be other materials such as concrete or steel. Consequently, if the driver dumps the load at the wood recycling pile and the rogue material is processed with the wood, the result is damage to machinery costing thousands of dollars. Incorrect sorting of material is a frequent occurrence, though fines for not following guidelines are not issued, and the errors cause more work at the recycling area. Implementing sanctions for this is a difficult task due to the size of the facility and lack of labor.



A mixed load delivered at the recycling center at Shafter. (Grand Jury Photo)

A 1990-2020 study⁵ found that “Municipal solid waste landfills are the third-largest source of human-related methane emissions in the United States, accounting for approximately 14.5 percent of these emissions in 2020.” This is equivalent to the greenhouse gas emissions from about 20.3 million passenger vehicles driven for one year.

New Landfill Mandates

⁵ *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2020*

State Mandate SB1383 requires that landfills:

- Redirect 20% of edible organic surplus from commercial resources such as restaurants and grocery stores from landfills to community food share. *Waste Hunger Not Food* is Kern County Public Health's food distribution program that addresses this requirement
- By 2020, reduce the amount of organic material disposed in landfills by 50% from the 2014 level
- By 2025, reduce the amount of organic material disposed in landfills by 75% from the 2014 level

Kern County has submitted a plan to comply with SB1383 and other regulatory mandates by January 1, 2024. There will be three-can collection in every census tract that has more than 75 people per square mile. The County will have organic processing capabilities for all collected organic material and will procure the required amount of compost for use by the jurisdiction. Further, it will fulfill all education requirements, perform all testing of the residual waste from processing sites, submit all required reports to the State, and have all ordinances in place.

Current and Closed Landfill Costs in Kern County

Even though closed landfill cells⁶ have a seal of semipermeable material and is returned to a natural vegetation covering, the methane production as a by-product of decomposition never stops, and the cost of maintaining closed landfill cells goes on in perpetuity.

Kern County manages eight closed landfill sites. The costs of maintaining them are:

Site	Closure Date	Post Closure Cost Estimates to Date
Arvin	2001	\$104,623,586
Buttonwillow	2001	16,450,023
China Grade	2000	65,620,968
Glenville	2016	565,454
Kern Valley	2000	79,414,099
Lebec	2000	21,713,777
Lost Hills	2003	14,275,773
McFarland-Delano	1995	28,043,862
Total to Date		\$330,707,543

At present, Kern County manages nine active landfill sites. The current costs of maintaining these are:

⁶ Closed landfill section

Site	Opening Date	Cost of Operation to Date
Bena (Phase 1)	2001	\$ 58,281,244
Bena (Phase 2A)	2004	114,559,467
Boron	2001	26,632,501
Mojave (Phase 1)	2001	29,247,133
Mojave (Phases 2-6)	2013	148,460,539
Ridgecrest	2001	92,300,540
Shafter	2001	118,174,882
Taft	2001	67,685,752
Tehachapi	2001	49,984,823
Total to Date		\$705,326,881

Closed Sites	Active Sites	All Sites Total	Yearly Average
\$330,707,543	\$705,326,881	\$1,156,089,095	\$42,818,115



Example of a closed landfill cell, not in Kern County (Photo www.waste360.com/landfill)

Technological Advancements

A waste-sorting and conversion facility at Bena, when constructed has a hard cost of \$59,550,000 as of November 2022. Such a facility qualifies for up to \$38 million a year in State and Federal renewable fuel credits. This project will also qualify for \$20 million in a federal construction rebate, if substantial construction begins before January 1, 2025. The following data shows a comparison of the revenue and operating expenses of a facility that only processes blue can material with a facility that also harvests landfill gas.

Renewable Natural Gas (RNG) Pro Forma 140,000 tons per annum (tpa) facility

Tipping Fees	\$ 6,300,000
Recycled Metal Sales	1,280,000
RINs ⁷ & LCFSs ⁸	19,800,000
Diesel Equivalent ⁹ @ \$2/gal	<u>4,600,000</u>
TOTAL REVENUE	\$31,980,000

Operating Expenses	\$ 6,980,000
RNG Operating Expense	<u>3,200,000</u>
EBITDA¹⁰	\$21,800,000

Cash on Cash Payback \$42M: 1.9 years

RNG & Landfill Gas (LFG) Pro Forma 140,000 tpa facility

Tipping Fees	\$ 6,300,000
Recycled Metal Sales	1,280,000
RINs & LCFSs	38,800,000
Diesel Equivalent @ \$2/gal	<u>9,092,000</u>
TOTAL REVENUE	\$55,472,000

Operating Expenses	\$ 6,980,000
RNG Operating Expense	<u>6,270,000</u>
EBITDA	\$42,222,000

Cash on Cash Payback \$42M: 1.0 years

⁷ A **Renewable Identification Number** (or **RIN**) is a serial number assigned to a batch of **biofuel** for the purpose of tracking its production, use, and trading as required by the [United States Environmental Protection Agency's Renewable Fuel Standard \(RFS\)](#) implemented according to the [Energy Policy Act of 2005](#) and the [Energy Independence and Security Act of 2007](#)

⁸ A **Low-Carbon Fuel Standard (LCFS)** is an [emissions trading](#) rule designed to reduce the average **carbon intensity** of transportation fuels in a given jurisdiction, as compared to conventional **petroleum fuels**, such as **gasoline** and **diesel**

⁹ In California, this is often referred to as "Green Diesel"

¹⁰ Earnings before interest, taxes, depreciation, and amortization (used as an indicator of the overall profitability of a business)

The following advanced engineering solutions applied to pervasive waste problems are currently on the market. Each has the capability to transform waste into a fuel and/or other products such as fertilizers or building materials, and together the new systems would satisfy SB1383 requirements. The designs of such systems minimize toxic impacts on the environment and use resources such as water and energy more efficiently. When adopted, every city in Kern County will benefit from such technology to achieve total compliance with various regulations currently in place.

A key component of trash conversion is the production and collection, harnessing and channeling, of methane gas to an end-user. As of 2020, most of the natural gas used in California comes from out-of-state gas basins. For example, in 2017, only 8% came from California production.¹¹

Anaerobic Digester of Green Waste: An anaerobic digester processes a wide range of organic material. Once the material is degraded, methane gas, or RNG is produced and captured.

High Temperature Fire Box: This type of unit effectively and quickly reduces large brush and tree waste not useable for composting into biochar, a nutrient-rich product that can be sold as a soil enhancement. The captured heat generates electricity used to recharge the electric vehicles and equipment on-site.



Left: Wood burning generator charging station. (photo provided by vendor, name redacted)
Right: The high temperature firebox at Shafter burning bulky wood waste. (Grand Jury Photo)

Automated Sorting and Pulverization of Trash: A waste conversion system processes all non-hazardous waste and converts it into a reusable product, such as fuel pellets or building materials. Kern County Waste Management is considering this design to reduce landfill expansion. The elimination of a three-can system will lower hauling costs and reduce landfill costs. Four such units placed around the County would service 60% of the disposed waste from all County jurisdictions. Kern County would need 7-8 such units to process 100% of the County's trash.

¹¹ *Natural Gas and California, 2020*



End-product samples of trash conversion. (Photo: www.bing.com/images)

FINDINGS:

- F1. There are alternative technologies that would increase the efficiency of waste management. Since the current economic burden of monitoring a closed landfill continues indefinitely, the ability to process more than 90% of trash would result in diminished landfill acreage. This translates to savings for Kern County residents and lower tipping fees for haulers.
- F2. The efficient processing of solid waste requires a certain number of workers. However, at present, City and County waste facilities are understaffed.
- F3. Unfunded State Mandates regarding the revisions of waste management place an added financial burden on local governments.
- F4. The advancements of recycling trash into marketable products will offset the cost of the State Mandates and be a significant source of revenue both from and for waste management for Kern County.
- F5. Mixed loads of construction site waste materials periodically end up at the recycling area instead of the landfill.
- F6. Some revenue from recycling paper is lost needlessly due to exposure to rain at the City of Bakersfield's MRF.
- F7. The Mt. Vernon Green Waste Facility generates two major by-products: mulch and a nutrient-rich soil amendment. The public should be aware that this valuable garden resource is available at no cost, and the soil amendment is available for \$1/bag or \$20/yard to be picked up at the facility.
- F8. Incorrect disposal of non-recyclables into the blue can complicates sorting when done by hand and can contaminate the entire container, adding to the cost of processing.

COMMENTS:

The Grand Jury toured solid and wastewater sites within and adjacent to the City of Bakersfield and found each of these facilities to be run efficiently and to the best of their capacity given the current labor shortage. Ecological considerations of management are foremost in mind. The workers the Grand Jury spoke with at the facilities were dedicated to the integrity of the waste processing industry, although they could be making more money elsewhere. The Grand Jury thanks the County and City officials who so graciously gave their time and shared their expertise.

RECOMMENDATIONS:

- R1. The Board of Supervisors should direct the Public Works Department to hire sufficient staff for the waste facilities and have the already budgeted positions filled by July 1, 2023. (Finding 2)
- R2. The Board of Supervisors should direct the Public Works Department to apply for grants to offset the costs associated with State Mandates by July 1, 2023. (Finding 3)
- R3. The Board of Supervisors should direct the Public Works Department to implement technologies that mitigate the financial and environmental costs. This should be underway by January 1, 2024, to ensure a more stable waste management system in the future. (Findings 1, 4 and 5)
- R4. The Board of Supervisors should make a loan to the Public Works Enterprise Fund to finance advanced technologies by October 1, 2023. (Finding 4)
- R5. The Bakersfield City Council should direct the Public Works Department to provide an appropriate cover for paper to be recycled at the City of Bakersfield MRF, by July 1, 2023. (Finding 6)
- R6. The Board of Supervisors and the Bakersfield City Council should direct their respective Public Works Departments to issue stickers for both the blue and green cans as a reminder of which items go into each. These stickers should be enclosed with the annual trash pick-up schedule beginning July 1, 2023. (Finding 8)
- R7. The Bakersfield City Council should direct the Public Works Department to create a low-cost marketing plan for the distribution of mulch and soil amendment by March 15, 2023. (Finding 7)

NOTES:

- The Kern County Department of Public Works should post a copy of this report where it will be available for public review.
- The City of Bakersfield Department of Public Works should post a copy of this report where it will be available for public review.

RESPONSE DEADLINES:

- **REQUIRED WITHIN 90 DAYS FROM:** The Kern County Board of Supervisors must respond to Findings 1, 2, 3, 4, 5, and 8; Recommendations 1, 2, 3, 4, and 6
- **REQUIRED WITHIN 90 DAYS FROM:** The City of Bakersfield City Council must respond to Findings 2, 3, 6, 7, and 8; Recommendations 5, 6, and 7

RESPONSES ARE REQUIRED PURSUANT TO PENAL CODE §§933(c) AND 933.05 WITHIN 90 DAYS TO:

**PRESIDING JUDGE
KERN COUNTY SUPERIOR COURT
1415 TRUXTUN AVENUE, SUITE 212
BAKERSFIELD, CA 93301**

**FOREPERSON
KERN COUNTY GRAND JURY
1415 TRUXTUN AVENUE, SUITE 600
BAKERSFIELD, CA 93301**

Reports issued by the Grand Jury do not identify individuals interviewed. Cal. Penal Code §929 requires that reports of the Grand Jury not contain the name of any person or facts leading to the identity of any person who provides information to the Grand Jury.

BIBLIOGRAPHY:

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CLERK OF BOARD OF SUPERVISORS

Kern County Administrative Center
1115 Truxtun Avenue, 5th Floor
Bakersfield, California 93301
Telephone (661) 868-3585
TTY Relay 800-735-2929

February 14, 2023

The Honorable J. Eric Bradshaw, Presiding Judge
Kern County Superior Court
1415 Truxtun Avenue
Bakersfield, CA 93301

Dear Judge Bradshaw:

Transmitted herewith is the Board of Supervisors' response to the 2022-2023 Grand Jury's Final Report titled The Transformation of Trash in Kern County.

The Board of Supervisors appreciates the Grand Jury's review and input.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Flores", is written over a horizontal line.

Jeff Flores, Chair
Kern County Board of Supervisors

JF/SH/COMPL_GJ Public Works A

Attachment

cc: Grand Jury

Kern County Board of Supervisors
Response to Grand Jury Final Report
The Transformation of Trash in Kern County

Response to Facts:

Prior to responding to the Grand Jury's findings and recommendations, the Board of Supervisors would like to clarify and add context to information provided within the final report.

Under discussion of facts, "Current Trash Streams", it is stated that 1.2 million tons of material is handled and disposed annually at Bena Landfill at a cost of \$58 per ton. The 1.2 million figure represents inbound waste streams for all 7 active landfills. Please note that gate fees and other funding are set at rates based upon system costs that are not exclusive to disposal. The actual cost for disposal handling at the Bena landfill is lower than \$58 per ton given economies of scale. This information needs to be considered when comparing costs of incorporating alternative technologies as recommended in the report.

Under discussion of facts; "Current and Closed Landfill Costs in Kern County", the table of Post Closure Cost Estimates to date needs to be revised. It is unclear why the numbers listed are so high, but it appears that the data provided to the grand jury may have needed further interpretation or clarification. Since post closure costs are based on an estimated 30-year timeframe and there are other potential factors/costs such as corrective actions to alleviate identified environmental concerns, we are not able to confirm the derivation method that the Grand Jury used to complete the table. For instance, the table lists a post closure cost estimate of \$21,713,777 for the Lebec Landfill. The Department's current cost estimate is \$1,760,231. There are also significant data issues with the cost of operations data within the report. Revisions to this information need to be considered when comparing costs of incorporating alternative technologies as recommended later in the report.

Under discussion of facts: "New Landfill Mandates", it is important to note that State mandates of 50% and 75% organic waste reduction from 2014 levels are not imposed on individual jurisdictions. These are statewide goals. Kern County is required to provide specific services as stated in the new regulations; however, there are no numeric facility-specific goals, such as 75% organic waste reduction, that must be met.

Under "Technological Advancements", the caveat of handling blue can material exclusively through a waste conversion facility is not accurate. The first Pro Forma listing of handling 140,000 tons is for multi-family and commercial waste collected in bins. The waste conversion facility option is not intended to process blue can material only. Rather the waste conversion technology may include blue can residuals after the recyclables separation process at a clean, blue-materials Material Recovery Facility (MRF). This information of handling mixed refuse rather than blue can material may add context to associated findings and recommendations.

Unfortunately, the data used to support findings and recommendations is either not verified or not properly interpreted. This is understandable since data used in operations spreadsheets are for various internal purposes which may need further clarification for external users, which the Department can provide upon request.

Note: The Board of Supervisors is responding to the Grand Jury Findings and Recommendations solely pertaining to the County of Kern. The Grand Jury report, The Transformation of Trash in Kern County,

Findings 6 and 7 and Recommendations 5 and 7 apply to the City of Bakersfield, as such, no response is provided in this document.

Responses to Findings:

F1: *There are alternative technologies that would increase the efficiency of waste management. Since the current economic burden of monitoring a closed landfill continues indefinitely, the ability to process more than 90% of trash would result in diminished landfill acreage. This translates to savings for Kern County residents and lower tipping fees for haulers.*

Response: Kern County disagrees partially with F1. The economics of alternative technologies requires more review in order to validate waste management savings at this time. The Waste Management Department released a Statement of Information solicitation for review of alternative technologies in 2017/2018. After receiving responses from several companies and conducting onsite initial reviews with three of the respondents, the firm approved by the Department for further review was WastAway. WastAway technology involves separation of mixed waste and transforming pertinent waste streams to a solid fuel for use as a coal replacement at cement kilns. Other separated inert materials (metals, glass, fines) would be marketed to recyclers or used for beneficial use. Parameters of the WastAway process have changed recently from producing solid fuel to incorporating an anaerobic digestion process to produce biogas for eventual processing to renewable fuel. The Pro Forma presented appears promising; however, the information provided to the Department by the firm does not include enough detail and has not been properly vetted yet to make a valid cost comparison with our current disposal management system. It should also be noted that while such an alternative technology could significantly reduce waste disposal at County landfills, no technology exists at present that would operate without some residual that would ultimately need to be disposed in a landfill.

F2: *The efficient processing of solid waste requires a certain number of workers. However, at present, City and County waste facilities are understaffed.*

Response: Kern County agrees with the finding.

F3: *Unfunded State Mandates regarding revisions of waste management place an added financial burden on local governments.*

Response: Kern County agrees with the finding.

F4: *The advancements of recycling trash into marketable products will offset the cost of State Mandates and be a significant source of revenue both from and for waste management for Kern County.*

Response: Kern County disagrees partially with F4. The cost-benefit analysis and the return on investment of waste conversion technologies has not been verified at this time.

F5: *Mixed loads of construction site waste materials periodically end up at the recycling area instead of the landfill.*

Response: Kern County agrees with the finding.

F8: *Incorrect disposal of non-recyclables into the blue can complicates sorting when done by hand and can contaminate the entire container, adding to the cost of processing.*

Response: Kern County agrees with the finding.

Responses to Recommendations:

R1: *The Board of Supervisors should direct the Public Works Department to hire sufficient staff for the waste facilities and have the already budgeted positions filled by July 1, 2023.*

Response: The recommendation is implemented. Recruitment and hiring to fill open positions have been on-going. Finding interested, qualified applicants has been a challenge. The County has increased base salaries over the past two years and will continue to work to fill vacant positions to achieve full staffing.

R2: *The Board of Supervisors should direct the Public Works Department to apply for grants to offset the costs associated with State Mandates by July 1, 2023.*

Response: The recommendation will be implemented. The Public Works Department has identified an available State grant and will submit an application by April 2023.

R3: *The Board of Supervisors should direct the Public Works Department to implement technologies that mitigate the financial and environmental costs. This should be underway by January 1, 2024, to ensure a more stable waste management system in the future.*

Response: The recommendation requires further analysis. The Department has been working with a waste conversion technology firm and a solid waste consultant to help gauge implementation feasibility. Analysis included status of markets, SB 1383 compliance, AB 939 compliance, permitting requirements and facility location evaluations. The technology parameters have recently changed from producing solid fuel to renewable liquid fuels. A proposal for facility design, renewable fuel sale plans, SB 1383 high diversion compliance and facility permitting has been submitted by WasteAway. Decision to move forward is pending WasteAways's response to technology-based questions and facility options presented by the Department in early January 2023.

R4: *The Board of Supervisors should make a loan to the Public Works Enterprise Fund to finance advanced technologies by October 1, 2023.*

Response: The recommendation requires further analysis. See response R3.

R6: *The Board of Supervisors and Bakersfield City Council should direct their respective Public Works Departments to issue stickers for both the blue and green cans as a reminder of which items go into each. These stickers should be enclosed with the annual trash pick-up schedule beginning July 1, 2023.*

Response: The recommendation will be implemented. SB 1383 regulations state that pictorials (molded or stickers) are required on collection containers. County of Kern implementation of public education on collection receptacles will be handled by franchise haulers and is anticipated to be completed by July 1, 2023.

BOARD OF SUPERVISORS
COUNTY OF KERN

TRACKING PAGE

FEBRUARY 14, 2023

TUESDAY - 2:00 P.M.

=====

COUNTY ADMINISTRATIVE OFFICE

CA-16) Proposed response to Grand Jury report titled The Transformation of Trash in Kern County (Fiscal Impact: None) - APPROVED; AUTHORIZED CHAIRMAN TO SIGN CORRESPONDENCE

Peters-Couch: All Ayes



BAKERSFIELD

THE SOUND OF *Something Better*

March 15, 2023

Foreperson
Kern County Grand Jury
1415 Truxtun Avenue, Suite 600
Bakersfield, CA 93301

RE: Responses to Grand Jury Report

Dear Foreperson:

Please see the enclosed responses to the Grand Jury report **The Transformation of Trash in Kern County** from the City of Bakersfield, which was approved by the Bakersfield City Council on February 22, 2023.

Enclosure:
Responses to Grand Jury Report

Sincerely,
Gregg Strakaluse
Public Works Director



Luda Fishman
Solid Waste Director
Public Works Department

c: Gregg Strakaluse

Public Works Department
1501 Truxtun Avenue, Bakersfield, CA 93301
661-326-3724 FAX: 661-852-2120



Findings:

F2: The efficient processing of solid waste requires a certain number of workers. However, at present, City and County waste facilities are understaffed.

City agrees with this finding. At this time of historically low unemployment, filling positions is challenging. The City has held job fairs and employed creative ways to lure qualified candidates to the Solid Waste Division, including a national recruitment for a Director, resulting with the successful hiring of Luda Fishman. Additionally, the City continues to review its salary and benefits program by hiring a consultant to evaluate Employee Class and Compensation (Study). Adjustments to job descriptions and salaries is anticipated at the conclusion of this Study. Finally, the City is currently in negotiations with SEIU and expects changes that make employee salary and benefits competitive in the marketplace.

F3: Unfunded State Mandates regarding the revisions of waste management place an added financial burden on local governments.

City agrees with this finding. To address this (across the board) the Solid Waste Division and Public Works Department consistently pen comments to CalRecycle and the State of California about draft regulations and bills introduced. City is working with a legislative analyst to lobby for fiscally responsible regulation that does not burden local government.

F6: Some revenue from recycling paper is lost needlessly due to exposure to rain at the City of Bakersfield's material recovery facility (MRF).

City does not disagree or agrees with this finding. City staff has a master plan project programmed in its Capital Improvement Program where a consultant will be retained to evaluate all solid waste equipment, operations, and infrastructure. Rain exposure at the MRF will be included in the scope of work and the City will use the results of that plan to make any recommendations or operational changes related to rain exposure.

F7: The Mt. Vernon Green Waste Facility generates two major by-products: mulch and a nutrient-rich soil amendment. The public should be aware that this valuable garden resource is available at no cost, and the soil amendment is available for \$1/bag or \$20/yard to be picked up at the facility.

City agrees with this finding. The Mt. Vernon Organic Facility advertises in the Farmers magazine, City website, social media platforms and staff hands out our pamphlets to users of the facility.

F8: Incorrect disposal of non-recyclables into the blue can complicates sorting when done by hand and can contaminate the entire container, adding to the cost of processing.

City agrees with this finding. Non-recyclables and soiled containers with leftover solids and liquid can contaminate loads, which require extra handling costs to include staffing

and equipment. More education and outreach are needed to further resolve this problem.

Recommendations:

R5: The Bakersfield City Council should direct the Public Works Department to provide an appropriate cover for paper to be recycled at the City of Bakersfield MRF by July 1, 2023.

City does not disagree or agree with this finding. City staff has a master plan project programmed in its Capital Improvement Program where a consultant will be retained to evaluate all solid waste equipment, operations, and infrastructure. Rain exposure at the MRF will be included in the scope of work and the City will use the results of that plan to make recommendations or operational changes related to rain exposure.

R6: The Board of Supervisors and the Bakersfield City Council should direct their respective Public Works Departments to issue stickers for both the blue and green cans as a reminder of which items go into each. These stickers should be enclosed with the annual trash pick-up schedule beginning July 1, 2023.

The recommendation has been implemented. The Solid Waste Division has piloted stickers on containers in the past to gather information to ensure cost effectiveness. Sticker's peel, fade and crack due to sunlight and extreme weather conditions. SW Division took measures and implemented hot stamps directly on the carts for material reference.

R7: The Bakersfield City Council should direct the Public Works Department to create a low-cost marketing plan for the distribution of mulch and soil amendment by March 15, 2023.

The recommendation is being implemented with coordination and direction from the City of Bakersfield's Public Information Officer for low cost marketing strategies.