

Date: September 23, 2009

To: County of Sonoma Board of Supervisors: Paul Kelley, Chair, Valerie Brown, Efren Carrillo, Mike Kerns, Shirlee Zane, Mayors, City Council members, CAO, City Managers

CC: Phil Demery, Susan Klassen

From: *Climate Protection Campaign, Sierra Club – Redwood Chapter, Leadership Institute for Ecology and the Economy, Sonoma Ecology Center, Sonoma County Conservation Action, Sonoma County GoLocal Cooperative, LITE Initiatives, Accountable Development Coalition*

Recommendation to reject proposed Purchase and Sale Agreement with Republic Services

We recommend that the Board and cities reject the proposed Purchase and Sale Agreement with Republic Services for the Central Landfill because the deal undermines this community's long term environmental and economic goals.

Selling the solid waste system would permanently transfer an irreplaceable asset from public to corporate ownership. The proposed contract could increase costs to residents and thwart this community's ability to meet its greenhouse gas reduction targets. It would also remove options for the future and diminish this Board's reputation and legacy.

Many of our reasons to oppose divestiture are aimed at the proposed Agreement's financial weaknesses because long term economic goals align with a reduction in greenhouse gas emissions.

Serious flaws in the proposed Agreement include the following:

1. Greenhouse gas from organics, the main source of emissions from solid waste, is inadequately addressed making it very unlikely that Sonoma County will meet its greenhouse gas reduction target in the solid waste sector.
2. The County and cities would continue to have exposure to liability for off-site environmental effects of the Central Landfill for ten years.
3. A 'put or pay' clause in the Agreement creates a perverse incentive and removes possible savings from zero-waste policies and increased recycling.
4. More than \$100 million will be drained from Sonoma County's economy in the form of profit for Republic Systems, an Arizona-based corporation.
5. Disposal rates for residents and businesses are guaranteed to climb and after 20 years Republic could close the landfill and abandon disposal services in Sonoma County.

We recognize that the County has endeavored for years to find a viable solution for Sonoma County's solid waste. In 2006 a study by Brown Vence & Associates recommended that a Joint Powers Authority be charged with solid waste management and maximizing diversion through zero-waste policies. When the County and cities were not able to reach an agreement on a JPA, the Board instructed staff to pursue landfill divestiture. Staff did its best to fulfill the Board's direction and after several years unveiled the proposed Agreement with Republic.

However, we believe the political landscape has changed greatly since 2006. New opportunities for better options now exist.

In addition to the long-term Joint Powers Authority option mentioned above, there are other ways to obtain near-term disposal contracts and meet regulatory deadlines:

1. Cost-effective outhaul agreement – The proposed Operations and Disposal Agreements with Republic could rapidly be turned into an RFP to ensure the County is getting the best value for this service.
2. Regulatory deadlines – Show to the regulatory agencies that there is a good faith effort to resolve the closure liability issue by initiating a closure surcharge on the tipping fee and a commitment to work in concert with RWQCB staff and the cities to develop a solution that protects the environment (and the public value of the system).

The accompanying material substantiates our recommendation to the Board to reject the proposed Agreement with Republic and to seek better solutions.

Thank you for your consideration. We pledge to help you chart a better course to the future.

Problematic Agreement

Is Republic getting too good of a deal from Sonoma County?

Selling Sonoma County's landfill and waste stream would inordinately benefit Republic at Sonoma County's expense. Even if the cities reject the proposed Agreement, the County is still agreeing that Republic will have a 2-3 year, non-competitive contract for hauling and disposal.¹ This provision goes into effect if the County executes the contract on September 29th.

Although no public appraisal of the value of the solid waste system was provided, based on information from the County and Republic, a good estimate can be made.

Republic has stated that the reopened landfill has capacity for 6 million tons of garbage. In 2009 dollars and at \$90/ton, the best rate that Republic is offering, that landfill capacity is worth \$540 million in total revenue.

That gross revenue is reduced by the liner costs (\$70 million), future closure and post-closure liability (\$50 million), the royalty paid to the County (\$54 million) [which is more than offset by future electricity sales revenue to Republic (\$60+ million)], and the cost to operate and maintain the system (\$300 million @ \$50/ton).

Over the twenty year life of the Agreement this will generate at least ***\$126 million in profit for Republic***. And if they fill the Central Landfill faster by importing waste from other counties, they are allowed to transfer our waste to their other landfills, compounding their profits.²

Another substantial asset being sold without consideration is the 20 million cubic yards of aggregate available on the County property. Republic can sell this and then use the remaining quarry to create a landfill twice as large as what's being sold, with the potential to take in 13 million tons of garbage and generate another \$1.2 billion in revenue (not counting the value of the rock).

Republic would also gain the \$3,000,000+ per year revenue stream that the County currently earns from electricity generated by using the methane in the landfill gas at Central Landfill.³ This equals about \$9.62 in electricity sales per ton of landfilled waste according to County staff. Thus for every \$9 per ton Royalty that the County receives from Republic, it will give up \$9.62 or more per ton to Republic – a net loss for the County.

Other favorable terms for Republic in the proposed Agreement include allowing them to close the transfer stations, setting the rates for self-haul waste (30 percent of the waste stream), as well as for any city that doesn't sign their Disposal Agreement.⁴

Rates will rise significantly for 20 years

The proposed Agreement guarantees that rates for residents and businesses will rise much faster than inflation for the duration of the Agreement.⁵

Small compensation for the County

The County will privatize the landfill business and thereby avoid dealing with trash, closure, and regulators. The County receives a Royalty payment of \$2.7 million per year for 20 years for management

¹ Keller Agreement 2.02 Effect of Agreement; Term of Agreement; PSA, Section 1.3 (f) & Section 5.16

² PSA 6.17 (e) Tip Fees; In County Disposal; Handling of Waste

³ PSA 6.8 (a) Power Generation

⁴ PSA 6.17 (p) Tip Fees; In County Disposal; Handling of Waste

⁵ Schedule 6.17 I. Adjustments to Tip Fees and Charges

and liabilities of the closed County dumps that Republic isn't buying nor taking any liability for.⁶ (Please see Appendix for an explanation of the liability issue.)

Cities' disposal rates not assured

Cities should not assume that their disposal rates will be locked in for 20-years. The Disposal Agreement with Republic will require that the garbage now collected by city contract haulers go to Republic. This can increase collection rates in the cities because instead of future savings from recycling going to customers, they will go to Republic. Other communities could lose their transfer stations, creating additional financial and environmental impacts.

Legal challenges could leave County with no options

The process and resulting contract are vulnerable to lawsuits for Brown Act, CEQA and other legal violations. If a court intervenes with a restraining order after the contract is signed, Sonoma County could suddenly be without a disposal solution.

Materials Recovery Facility (MRF) loophole allows burial of recyclables

Although Republic commits to installing waste material recycling equipment as a part of the Agreement, Republic-defined economic conditions allow them to suspend the recycling effort and bury the material.⁷

Additionally, the material most easily recycled will be Construction and Demolition waste, which duplicates private facilities already recycling these materials in Sonoma County.

More roadside dumping, inconvenience and emissions if transfer stations closed

Republic would be required to keep the transfer stations open for five years only and then could close all but one of them, forcing everyone to haul their waste to the Central Landfill thereby increasing roadside dumping, greenhouse gas emissions, and fuel consumption from driving greater distances.⁸

Problematic Process

Short time for review and input on complex deal

The proposed Agreement is over 600 pages long. It was made available to the public on July 31, 2009, after nearly two years of development behind closed doors. Significant revisions to the proposed Agreement were then made less than a week before the scheduled vote by the Board of Supervisors. A deal of this complexity with such significant and permanent impacts deserves more time for public scrutiny and input.

No independent financial analysis

The County proposes to sell a system potentially worth well over a billion dollars, yet the County has not provided a financial analysis of the proposed Agreement, nor does any independent or official financial analysis and verification of the contract's impact seem to exist. The public and cities are entitled to an independent analysis that would allow everyone to know what the financial impact of the proposed sale will be.

⁶ PSA 2.3 A (b) Assumed Liabilities and Excluded Liabilities

⁷ PSA 6.18 (b) (2) Permitting; Capital Improvements; MRF

⁸ PSA 6.11 (c) Minimum Continued Operations

Sonoma County's climate protection commitment unmet

Impact of the proposed Agreement on GHG emissions

The relationship of solid waste and GHG emissions is clarified by these points:

1. Significant opportunities to reduce GHGs in solid waste come only from reducing organics that are landfilled and then harvesting energy from these recovered organics. Methane, a greenhouse gas over 20 times more potent than carbon dioxide, is produced by rotting organic waste and accounts for far more GHG emissions in the solid waste sector than by emissions from trucks hauling the waste.
2. Even at a managed landfill, where some methane is captured, anywhere between 30-85% of GHG emissions from rotting organics still escapes into the atmosphere.
3. Increased recycling yields additional carbon dioxide reductions through avoided fossil fuel use for mining and processing of virgin materials.
4. From a climate protection perspective, the ideal is to reach “zero waste” where nothing is landfilled and no fossil fuel is used to manage or transport waste.
5. Although solid waste produces less GHG emissions than other sectors (depending on the calculation methodology used), it is easier to reduce emissions from this sector, especially in the short-term. Solid waste emissions are low hanging fruit compared with transportation emissions, for example.

Therefore, when evaluating the impact of the proposed Agreement on GHG emissions, the fundamental question to ask is will it dramatically increase organic waste recycling rates?

Proposed Agreement does not incentivize recycling, thwarts achievement of GHG emission goal

The proposed Agreement with Republic discourages recycling by rewarding both the County and Republic for each ton of solid waste passing through the gate. With this and with other provisions, it is very unlikely that Sonoma County will meet its greenhouse gas reduction target in the solid waste sector.

Put or Pay clause locks in a perverse incentive

The County guarantees Republic a profit regardless of how much waste is recycled. In doing so, the County disincentivizes Republic to promote recycling and caps the amount of money the County could save by diverting more waste into blue (recycling) and green (yard debris) cans.

A minimum climate protection condition must be added to proposed Agreement if it goes forward

If the County pursues an Agreement with Republic, at a minimum it should incorporate a requirement that Republic achieve the County's GHG emission reduction target in the sphere over which it has responsibility, set annual benchmarks to measure progress, have Republic's emissions certified annually by an independent qualified third party, and face significant financial penalties if it fails to meet the annual benchmarks.

Where is the EIR?

Given the potential significant impacts of the proposed sale on the environment, where is the Environmental Impact Report?

Much is at stake

A recent report by Cascadia Consulting Group showed that Sonoma County could reduce its greenhouse gas emissions by 358,000 metric tons of CO₂ equivalent by removing paper and other organics from the waste stream - equivalent to taking 65,000 passenger cars off the road each year. Cascadia referred to their 2007 Waste Composition Study which showed that 62 percent of waste which is currently landfilled could instead be diverted through a Materials Recovery Facility.

Future ability to profit from waste stream constrained

Technologies to turn more waste into energy will become commonplace over the next 20 years. Now is the time – before a 20-year agreement locks us in place – to ensure that Sonoma County profits from our waste stream.

New political landscape creates new opportunities

In the years since 2006 when the BVA report was delivered, a number of changes have occurred and new information has become available that bears on the County's divestiture decision:

- The County and all nine cities in 2005 adopted an aggressive greenhouse gas (GHG) reduction goal that the BVA Report did not consider when assessing alternatives.
- A Waste Characterization Study for the SCWMA in 2007 found that 70 percent of the waste bound for the landfill was potentially recoverable for recycling, compost or energy.
- Although overall County waste disposal has not decreased, there is a substantial quantity of waste that is not processed through the County system. This has produced negative impacts on the County budget and missed recycling opportunities.
- The BVA Report has no analysis of new recycling systems that can recover much of the resources in the solid waste generated in Sonoma County.
- An updated closure plan for the Central Landfill was submitted to the CIWMB in 2008 that showed a cost that is much lower than used in the BVA analysis.
- The Supreme Court issued a 2007 ruling legitimizing flow control for public-owned solid waste systems (*United Haulers Association Inc. v. Oneida-Herkimer Solid Waste Management Authority*). This followed a 1994 decision that banned public agencies from forcing private haulers to dump at a private solid waste facility (*Carbone Inc. v. Clarkstown*).

The political and environmental landscape has changed significantly since 2006 and that cities can now be re-approached to find another solution.

Local Landfill Solution Requires Cooperation

Any future solid waste management option that includes re-opening the Central Landfill will require a flow commitment from the cities and the County. In order to get a private operator, a commitment is required to ensure their investment is not lost as discussed earlier. And a public-owned facility will need this commitment, or flow control, in order to guarantee lenders that there will be future revenue to pay off the bonds necessary to re-open the site.

Alternatives to divestiture

Public Ownership / Private Operation

Looking beyond divestiture (private ownership), there are other forms of solid waste system governance that would work in Sonoma County. These include the current model, with the County of Sonoma having ownership. Other common public ownership models include a JPA such as the SCWMA taking ownership, or a Solid Waste Special District could be established. Neither one of these have been seriously considered during the County's divestiture process.

Below is an example of a specific approach that is similar to other JPA-owned and public waste agencies operating across California. This model meets and exceeds the divestiture goals established by the Board of Supervisors.

JPA Model

- County transfers solid waste facilities and property, including closed landfills, permits, and all funds and liabilities of the Refuse Enterprise Fund to the Sonoma County Waste Management Agency (SCWMA), an existing Joint Powers Agency (JPA).
- SCWMA separates from County and operates independently (like the SCTA) with responsibility for all county solid waste programs except each jurisdiction’s garbage/recycling collection. A legal fire-wall is established to protect the cities and County from liabilities of the SCWMA.
- Cities and County commit their garbage and green waste flow control to SCWMA, and SCWMA institutes flow control for all other waste collectors/haulers in County, except Construction and Demolition.
- SCWMA uses waste flow commitment for financing of super-MRF and landfill expansion at Central Disposal Site (or closure if Regional Water Quality Control Board refuses to issue permit to reopen).
- Develop Central Disposal Site into bio-energy production center for vehicle fuel and electricity.
- Transfer stations, landfill, super-MRF, composting, bio-energy center each operated by different contractor (with economic incentives consistent with public policies for each operation).
- Develop West Expansion Area by selling rock, adding 40+ years of landfill capacity.

Pros	Cons
<ul style="list-style-type: none"> ▪ Can be structured to remove long-term liability from County and cities. ▪ Asset value shared with entire County political structure. ▪ Local control of facilities to reduce waste, GHG’s, control costs. ▪ Low stable rates due to flow control. ▪ Changes to SCWMA authority and scope of work under local control. ▪ Lower cost public financing of landfill expansion and super-MRF possible w/ flow control in-place. ▪ If accomplished soon, SCWMA will be able to apply for federal grants for numerous renewable energy elements. ▪ No changes to County-wide Integrated Waste Management Plan needed. ▪ EIR not needed (except for rock extraction and marketing of aggregate). 	<ul style="list-style-type: none"> ▪ Requires cooperation of County and all cities ▪ RWQCB okay needed to expand Central – alternatively out-haul residue from super-MRF to other landfills

Appendices

1. Clarity on Liability
2. Sonoma Waste Composition (Cascadia Report)
3. Pro Forma model for Republic PSA
4. GHG Diagram for Solid Waste
5. Examples of alternative approaches and best practices

Appendix 1: Clarity on liability

The financial assurance requirements of modern landfills are little understood and have many unique elements. As a consequence, over the past four years the County has used wildly different cost figures for the waste system financial liability. This has led to confusion and distrust among the public and elected leaders, confusion compounded by public discussions that include two viable future landfill scenarios, each with its own set of liabilities.⁹

There are two potential liability scenarios:

Scenario 1: The landfill closes and doesn't re-open

Scenario 2: The RWQCB agrees that the site can re-open and the 9 million cubic yards of capacity can be used

Within each scenario there are three liability components.

Closure

This is the expense for putting a synthetic cover over the landfill after it is filled to its permitted capacity. This liability is regularly estimated and funds are set aside such that when the landfill is filled to capacity, adequate funds are set aside to cover the cost of the cap. The California Integrated Waste Management Board requires an annual report from all landfills documenting that the fund has accumulated the required amount. When the RWQCB abruptly stopped the Central Landfill from continuing landfilling waste, the closure fund was only half funded, because the landfill was only half full.

Scenario 1: The current closure fund has about \$10 million of an estimated \$21 million current closure cost. This leaves an unfunded liability of about \$11 million. By applying a \$14/ton surcharge on County garbage, the current liability could be funded in three years.

Scenario 2: The site re-opens. The closure requirement is no longer applicable until the site completes filling the 9 million cubic yards of remaining capacity. The closure cost at that time is estimated at up to \$50 million, however with the \$10 million available and a fee of \$6.70/ton this financial liability would be fully funded landfill when the current capacity is filled.

Post-Closure Liability

This is the legal requirement that the owner of a landfill have adequate funds be set aside to monitor and maintain a closed landfill site after it closes for another 30 years.

Scenario 1: The current closure plans estimates that the post-closure liability for the Central Landfill if it closes at this time is about \$660,000 per year for thirty years, or about \$2.5 per ton, for the next 30 years.

Scenario 2: The post-closure liability doesn't apply until the landfill closes. By setting aside another \$5/ton for the remainder of the landfill capacity will ensure that the post-closure liability is fully funded.

Leak Liability

All active landfills in California are required to maintain a Leak Fund. This fund is to be maintained at a funding level to be able to fully cover the cost of the most likely leak scenario.

Scenario 1: The Central Landfill Leak Fund is currently fully funded with \$2.34 million in FY 2007-08. There is no unfunded liability in this Central liability component.

⁹ Data regarding liability from documents on the Sonoma County Transportation and Public Works website, <http://www.sonoma-county.org/tpw/documents.htm>.

Scenario 2: The re-opened site will be required to maintain the fund and increase as necessary to offset inflationary costs. There would be no unfunded liability for this Central liability component if the current fund is maintained at a level to offset inflation and revised to reflect any new environmental monitoring data.

The following table summarizes the total liabilities and their unfunded elements and their equivalent cost per ton at 300,000 tons per year.

Scenario 1 – landfill stays closed	\$/ton	Scenario 2 - landfill reopens	\$/ton
Closure Liability Total \$21 million, \$11 million unfunded	\$14/ton for 3 years	Closure Liability Total \$50 million, \$40 million unfunded	\$6.70/ton until landfill is full
Post Closure Liability Liability - \$660,000/year for thirty years	\$2.50/ton for 30 years	Post Closure Liability Liability - \$1,000,000/year for thirty years, when landfill is full	\$5.00/ton until landfill is full
Leak Fund – fully funded	\$0	Leak Fund – keep existing restricted Fund fully funded	<\$1/ton
Total Unfunded Liability in \$/ton	\$16.50/ton for 3 years and \$2.50/ton for the following 27 years.	Total Unfunded Liability in \$/ton	\$11.70/ton, until landfill is full

Appendix 2: Sonoma County Waste Stream (2006)

	tons (thousands)	percent	
Food	82.2	22%	} 65% divertable GHG-causing organics
Residential	40.0	49%	
Commercial	41.4	50%	
Self-Haul	0.7	1%	
Paper	60.4	16%	
Residential	21.3	35%	
Commercial	30.7	51%	
Self-Haul	8.4	14%	
Non-food Organics	54.6	15%	
Residential	17.8	33%	
Commercial	21.8	40%	
Self-Haul	15.0	28%	
Recyclable Wood	46.2	12%	
Residential	2.6	6%	
Commercial	8.2	18%	
Self-Haul	35.4	77%	
C&D (Asphalt, Concrete)	38.7	10%	
Residential	1.5	4%	
Commercial	6.4	17%	
Self-Haul	30.8	80%	
Residue Waste	28.6	8%	
Residential	9.1	32%	
Commercial	12.7	44%	
Self-Haul	6.9	24%	
Plastics	27.4	7%	
Residential	9.6	35%	
Commercial	15.2	56%	
Self-Haul	2.6	9%	
Metals	14.6	4%	
Residential	3.9	27%	
Commercial	6.8	47%	
Self-Haul	3.8	26%	
Rocks / Soil	12.0	3%	
Residential	2.3	24%	
Commercial	5.8	60%	
Self-Haul	3.9	41%	
Glass	9.6	3%	
Residential	2.4	25%	
Commercial	3.9	40%	
Self-Haul	3.3	35%	
TOTALS	374.3	100%	

Residential	29.5%
Commercial	40.8%
Self-Haul	29.6%

NOTE: Residential (Gray-can) is primarily single-family units;
 Commercial includes most apartments, restaurants, other businesses
 Self-hauled waste is from landscaping, demolition, construction, etc.
 Source-separated (blue-can & green-can) are not included

SOURCE: [SCWMA Waste Characterization Study, 11/07 \(Cascadia\)](#)

Appendix 3

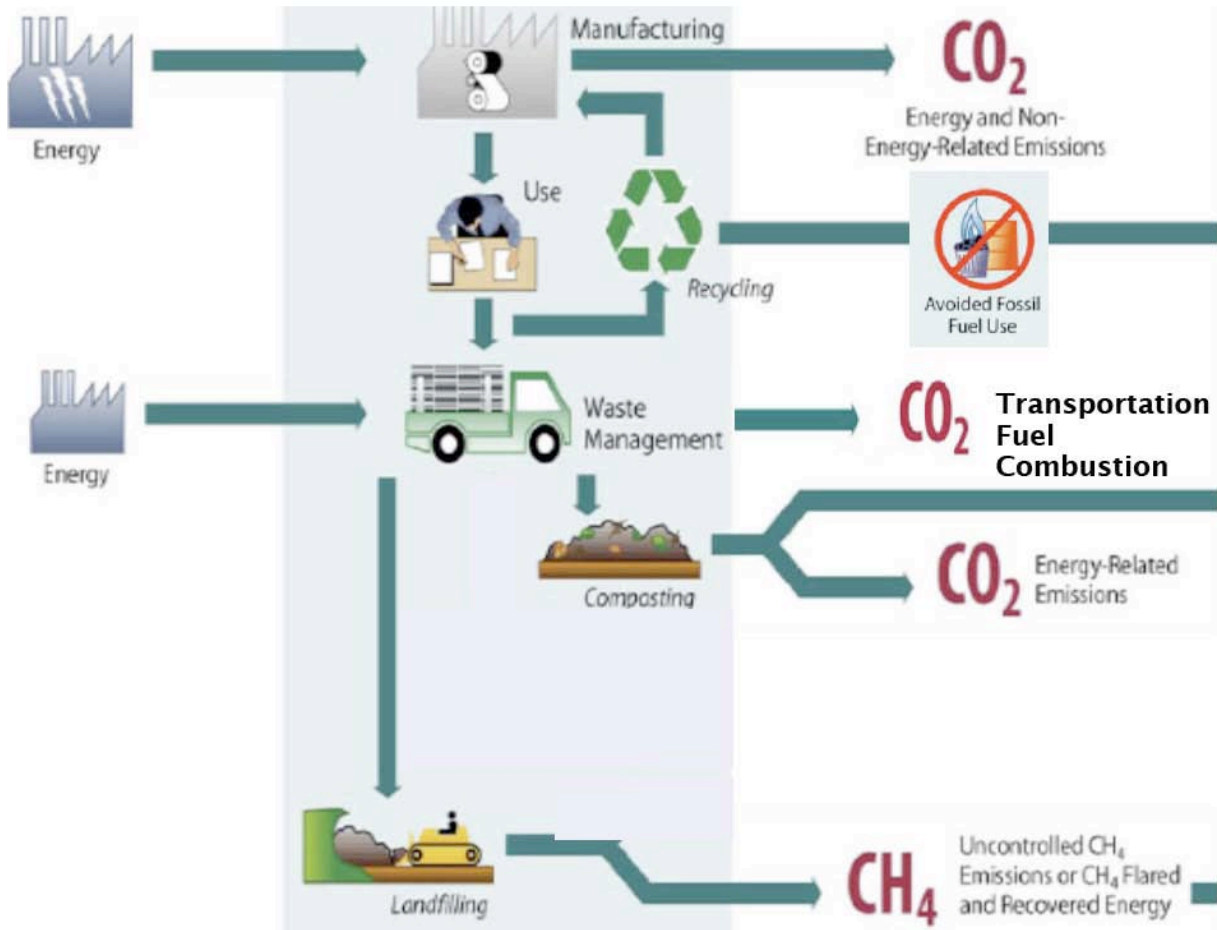
SONOMA COUNTY SOLID-WASTE SYSTEM PROFIT-LOSS PRO-FORMA -- 227,000 tons/yr (millions of 2009 dollars)

9/09/09
S Birdlebough

YEAR	CAPACITY MIL. TONS	TIP-FEES	O&M L/F	EXISTING LAND-FILL AREA			CLOSURE RESERVE	12 MONTH PROFIT/LOSS	CUMULATIVE RETURN	
				O&M MRF	ROYALTY	CAPITAL COST				
1	2010	4,500	22.7	9.08		2.04	10.0 Liner	2.0	-0.42	-0.42
2	2011	4,273	22.7	9.08		2.04	0.0	2.0	9.58	9.16
3	2012	4,091	22.7	8.07	1.01	2.04	3.5 MRF	2.0	6.08	15.24
4	2013	3,909	22.7	8.07	1.01	2.04	0.0	2.0	9.58	24.82
5	2014	3,727	22.7	8.07	1.01	2.04	10.0 Liner	2.0	-0.42	24.40
6	2015	3,545	22.7	8.07	1.01	2.04	0.0	2.0	9.58	33.98
7	2016	3,363	22.7	8.07	1.01	2.04	0.0	2.0	9.58	43.56
8	2017	3,181	22.7	8.07	1.01	2.04	10.0 Liner	2.0	-0.42	43.14
9	2018	2,999	22.7	8.07	1.01	2.04	0.0	2.0	9.58	52.72
10	2019	2,817	22.7	8.07	1.01	2.04	0.0	2.0	9.58	62.30
11	2020	2,635	22.7	8.07	1.01	2.04	0.0	2.0	9.58	71.88
12	2021	2,453	22.7	8.07	1.01	2.04	10.0 Liner	2.0	-0.42	71.46
13	2022	2,271	22.7	8.07	1.01	2.04	0.0	2.0	9.58	81.04
14	2023	2,089	22.7	8.07	1.01	2.04	0.0	2.0	9.58	90.62
15	2034	1,907	22.7	8.07	1.01	2.04	10.0 Liner	2.0	-0.42	90.20
16	2025	1,725	22.7	8.07	1.01	2.04	0.0	2.0	9.58	99.78
17	2026	1,543	22.7	8.07	1.01	2.04	0.0	2.0	9.58	109.36
18	2027	1,361	22.7	8.07	1.01	2.04	0.0	2.0	9.58	118.94
19	2028	1,179	22.7	8.07	1.01	2.04	0.0 Liner	2.0	9.58	128.52
20	2029	997	22.7	8.07	1.01	2.04	10.0 Liner	2.0	-0.42	128.10
PROFIT ON 20 YEAR CONTRACT (LESS CLOSURE COST)									128.10	

NOTES: Assumes \$100 per ton tip-fee, \$49 per ton Operation & Maintenance cost including \$9 royalty for 20 years, and no royalty thereafter
MRF for demolition, construction, & commercial material cuts landfilled waste 20%
Liner expansion in stages (\$70 million per 900 million tons)
Closure of current & expansion areas includes insurance against leakage

Appendix 4: Greenhouse Gas Emissions Related to Solid Waste



Appendix 5: Examples of alternative approaches and best practices¹⁰

Zero Waste Policies

Zero Waste policies are being implemented around the world. The Zero Waste International website [<http://www.zwia.org/zwc.html>] shows that almost 30 American counties and cities adopted this strategy as of December 2008.

Zero Waste should be a top priority for Sonoma County. Some areas have very aggressive implementation strategies (Abu Dhabi) and others have much more gradual plans (Palo Alto). Then, there are cities like Oakland that have put together a very feasible strategic plan. Oakland's would be a worthy model for Sonoma because it is aggressive in its targets while being realistic in the measures used to achieve them.

Palo Alto

In Palo Alto, the Zero Waste plan has a target date of 2021. The city's adoption of this plan is relatively recent, so their website and resources are still limited. One particularly interesting tool was their creation of an online discussion group so Palo Alto citizens can log in to discuss Zero Waste and how it can be improved or customized [http://www.cityofpaloalto.org/depts/pwd/recycle/zero_waste_program.asp].

Oakland

Oakland's Zero Waste Strategic Plan is one of the most comprehensive yet. Their recommended next steps are viable, all-inclusive, and well-organized

[<http://www.zerowasteoakland.com/AssetFactory.aspx?did=2123>].

However, Oakland and most of the other cities are in positions similar to Palo Alto, where the program is up and running but has only relatively recently been adopted and has target dates at least a decade away. It should be noted that most Zero Waste Strategic Plans were compiled with plenty of community input and discussion. [<http://www.zerowasteoakland.com/Page749.aspx>]

Marin

In 2006, Marin County set a goal to divert 80% of Marin's waste by 2012 and become a "zero waste" county by 2025. Marin currently diverts 72% of their waste and in August 2009 the Marin County Hazardous and Solid Waste Management JPA released their Draft Zero Waste Strategic Plan [http://www.marinrecycles.org/Docs/Draft_Report_Marin_JPA_August_2009.pdf]. The Marin Independent Journal had a detailed article on this: [http://www.marinij.com/sanrafael/ci_13331840]

Material Recovery Facilities (MRFs)

Establishing a Comprehensive MRF in Sonoma would be a significant step towards zero-waste. However, it would be important to secure buy-in from surrounding communities. The model that seemed to work the best for diverting trash with a MRF is a public-private partnership (meaning public ownership with a private operator).

Several MRFs were examined below, including those in Sunnyvale, CA; Keene, NH; Edmonton, Canada and the SMaRT Station in the South Bay. Many cities and counties were reviewed, but these four stood out for their innovations and applicability to Sonoma's situation.

One possible improvement identified while researching MRF contracts is to encourage higher rates of recycling by having a policy that discourages MRFs from disposing excessive waste residual. An added goal for the MRF would be to assist in educating our community by making our MRF clean, healthy, and

¹⁰ Written by Rena Wang, Montgomery High School, edited by Brant Arthur, CPC Implementation Manger

friendly enough to take schoolchildren on regular field trips. What better way to spread the word about a healthy, beneficial operating facility than to invite youth and their parents chaperones?

Sunnyvale, CA

The Sunnyvale Materials Recovery and Transfer (SMaRT) Station serves the cities of Mountain View, Palo Alto and Sunnyvale. The dirty MRF diverts roughly 20% from the trash stream (mainly recyclables). The station operates under public ownership and private operation and therefore also makes its data available.

SMaRT Station website:

<http://sunnyvale.ca.gov/Departments/Public+Works/Solid+Waste+and+Recycling/SMaRT+Station/>

Keene, NH

Keene has had a landfill gas-to-energy policy to power their MRF since 1994

[<http://www.icleiusa.org/success-stories/cool-infrastructure/municipal-landfills/city-of-keene-nh-powers-its-materials-recovery-facility-with-landfill-gas-1/>]. While similar to Central Landfill's LFG plant, Keene's example differs in that their gas-to-energy generator was installed in part to provide three-phase power for the adjacent Materials Recovery Facility. This reduces greenhouse gas emission from the landfill by 140 tons (CO₂ equivalent) and saves the city \$55,000 a year by providing power to the facility.

San Jose, CA

The comprehensive MRF in San Jose is the most advanced and effective MRF in our area. The private operator, Green Waste [<http://www.greenwaste.com/about-us-we-are-a-brighter-shade-green>], claims to divert 85% of all household waste through their facility (built by Bulk Handling Systems [<http://www.bulkhandlingsystems.com/newsarticle/103>]). This is significantly higher than most 'dirty MRFs'. The design is also more automated than most other MRFs and is cheaper to operate due to lower labor costs.

San Jose is continuing to develop its waste resources by starting the planning process for a biogas facility that would be operational by 2011 and use a 'dry anaerobic fermentation' process that is new to the United States [http://www.biomassmagazine.com/article.jsp?article_id=2912].

Edmonton, Canada

The City of Edmonton [http://www.edmonton.ca/for_residents/garbage_recycling/materials-recovery-facility.aspx] has a particularly interactive MRF. In fact, "Every school year about 11,000 students receive tours of the MRF, from the vantage point of a comfortable and safe viewing gallery" (any group of 10 or more people can have a guided tour).

One other aspect that stood out about Edmonton's strategy was its very healthy, transitional public-private partnership. As a business partnership, the City retains ownership and Waste Management of Canada Inc. is responsible for operation of the facility for its first 10 years.

Operational Models

There are two popular models of public ownership with private operation. One is the traditional model of public ownership where the County or City signs a contract with a private operator. The SMaRT station (mentioned above), Napa City and Yolo County are good examples of this model. The other model is where a Joint Powers Authority takes ownership (similar to the Sonoma County Transportation Authority) with the Salinas Valley Solid Waste Management Authority being a useful example for Sonoma.

The case studies below show that a model of public ownership and private operation has been key to achieving the waste reduction goals set by policy makers.

Napa City

Napa owns their own clean MFR, the City Material Diversion Facility, and has a performance-based contract that would be a great model for Sonoma (frequently referred to as one of the best).

More on Napa's process for contracting services:

http://wasteage.com/mag/waste_building_bridges/

Napa Recycling and Waste Services (see bottom of page):

http://www.naparecycling.com/other_services.html

Yolo County

Yolo County has a central landfill that is publicly owned and privately operated. They also have a recent contract that is performance based and worth studying.

Yolo Integrated Waste Management:

<http://www.yolocounty.org/Index.aspx?page=1359>

Salinas Valley Solid Waste Management Authority

The SVSWA is one of the best examples for Sonoma of JPA ownership and private operation

[<http://www.svswwa.org/>]. Their mission statement includes many of Sonoma's goals and shows the benefits that a JPA model has to offer:

To reduce the amount of waste by promoting individual and corporate responsibility. To recover waste for its highest and best use while balancing rates and services. To transform our business from burying waste to utilizing waste as a resource. To eliminate the need for landfills.

More JPA-owned solid waste operations in California

- Western Placer Waste Management Authority
- Tehama County/Red Bluff Landfill Management Agency
- Tehama County Sanitary Landfill Agency
- Kings Waste and Recycling Authority
- Merced County Solid Waste Regional Agency