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The Future Of Trash Management In San Mateo County

Issue

Is there a need for proactive planning and technology re-assessment relative to future waste disposal methodology and siting?

Background

Although the concept of “county dump” is widespread in the public consciousness, there is not, nor has there ever been, a California state law requiring County governments to be responsible for the existence of landfills. Indeed, our county is peppered with decommissioned sites that are/were owned and operated by individuals, local governments, waste disposal companies, and – to a limited degree – County government. These legacy sites pose numerous environmental problems and opportunities but are not the subject of this report.

Currently, most of the trash collected in this county is trucked to the Ox Mountain Landfill (Landfill). The Landfill is located on the San Mateo Coastside near the City of Half Moon Bay. It is owned and operated by Browning Ferris Industries under permits and contracts as issued and administered by San Mateo County government.

The San Mateo County Integrated Waste Management Plan, Siting Element, published January 8, 1999, by the City/County Association of Governments (C/CAG) was written to comply with the California Public Resources Code (PRC) Section 41700:

“Each county shall prepare a countywide siting element which provides a description of the area to be used for development of adequate transformation* or disposal capacity concurrent and consistent with the development and implementation of the county and city source reduction and recycling elements adopted pursuant to this part.”

The footnote to the above paragraph reads:

“*It should be noted that in both the statute requiring preparation of a Siting Element and the California Integrated Waste Management Board Siting Element Guidelines, the term *waste disposal* includes transformation (the elimination of wastes by incineration processes) as well as landfill disposal. In San Mateo County, however,

there are currently no transformation facilities and the cities and unincorporated area of San Mateo County have no plans to develop transformation facilities as a means to reach the required waste diversion rate of 50% by the year 2000. Therefore, this Siting Element discusses only the landfill disposal options the San Mateo County jurisdictions will utilize.”

It was estimated by C/CAG that the Landfill (which receives its operational permit and Coastal Development Permit from the San Mateo County government) would be full by 2020, but a more recent estimate based on an aerial survey indicates a fill date of 2028. It receives nearly all of the waste from our county and a limited amount from other counties. At the end of each day approximately one foot of green waste (construction materials and yard clippings) is used as daily cover for each day’s trash.

The Landfill is scheduled to begin shutting down in 2010, just two years from now, and no plans are in place for a replacement site. Apanolio Canyon, just west of the Landfill site, failed to gain approval as an expansion site from the Army Corps of Engineers in 1999 due to better alternatives being available.¹

Apanolio Canyon covers 320 acres with a natural stream that flows into Pilarcitos Creek. Pilarcitos Creek is undergoing a watershed assessment plan,² and the Natural Resource Council is currently removing three in-stream barriers to steelhead migration within Apanolio Canyon.³

¹ San Mateo County Integrated Waste Management Plan, Siting Element; January 8, 1999; page VI-2

² www.scribd.com/doc/965175/pilarcitosiwmpdraft

³ <http://gis.ca.gov/catalog/BrowseRecord.epl?id=24574>



Source: Google Maps

The waste disposal interests within the county could conceivably use recycling for 100% of its trash by 2020 as has been suggested by some. However, the recycling calculation methodology report issued earlier by the 2007-2008 Civil Grand Jury makes it seem more likely that if the amount of material being recycled in our county could not meet the state mandated goal of 50% in 2005, it is very questionable that it could reach 100% by 2020.

Investigation

Members of the 2007-2008 Civil Grand Jury (Grand Jury) reviewed the Landfill permits in the Environmental Health Department, examined documents provided by County management, C/CAG, and visited the Landfill site. The Grand Jury also interviewed County management, management of the San Mateo County Public Works Department, management of the City/County Association of Governments of San Mateo County, management of the South Bay Waste Management Authority and private energy consultants with expertise in energy, alternative energy production, and recycling.

Findings

The Landfill is projected to be full in twenty years (2028) but the Grand Jury found no indication that a new or expanded landfill is being planned.

The truck route taken from all communities east of Half Moon Bay to the Landfill requires fuel-consuming, pollution-creating climbing and descending of the coastal hills and crossing over the county's drinking water supply at Crystal Springs Reservoir. Transporting trash across the drinking water supply at Crystal Springs Reservoir is a potential health hazard. Furthermore, such transport is not energy efficient, is costly, creates pollution, and contributes to the production of carbon dioxide (CO₂). Transporting to bayside facilities would create less CO₂ and other pollution, and would use less energy, thereby mitigating the cost impacts of rapidly rising fuel prices.

Apanolio Canyon has been identified as critical steelhead habitat but unless other options are found it could conceivably become the default landfill expansion.

Green waste is used as daily cover at the Landfill. This not only diverts compostable materials, but also increases the rate at which the Landfill is being filled.

In 2008, our county will export approximately 8,531 tons of trash to landfills outside the county and import 58,791 tons from outside the county. This trend is projected to continue and by 2015 approximately 9,156 tons will be exported and 62,474 will be imported yearly.⁴

Importing trash from other counties is projected to add 841,611 tons of trash to the Landfill by 2015. In 1998 this represented only 0.4% of the landfill, but now in 2008, it is 1% and by 2015, it will be 6% annually.

The California Public Resource Code allows for transformation (incineration) of trash where feasible. A "trash train" exporting non-recyclable material to an out of county transformation site is an option.

Conclusions

The Landfill is projected to be full by 2028. There is no current plan for additional landfill siting(s).

This county has not met its 50% recycling diversion rate mandated by 2000, nor is it on schedule to meet 50% any time soon, thereby placing recycling as a solution to landfill scarcity in question.

Apanolio Canyon is worthy of preservation in its natural state as a valuable natural resource and habitat for endangered steelhead.

Current and ongoing advances in technology have made incineration a potentially acceptable management tool for non-recyclable materials.

⁴ San Mateo County Integrated Waste Management Plan, Siting Element; January 8, 1999; Table III-1

Importing trash from other counties is accelerating the rate at which the Landfill is filling.

Transporting trash to the Coastside generates excessive CO2 and pollution, is not energy efficient and is an ever-increasing cost impact. A “trash train” exporting non-recyclable material to an out of county transformation site is an option worthy of further analysis.

Recommendations

The 2007-2008 San Mateo County Civil Grand Jury recommends that the San Mateo County Board of Supervisors direct the County Manager to:

1. Work with the Landfill operator during upcoming contract renewal talks to consider alternatives to using green waste for daily cover such as tarpaulins to avoid filling the Landfill with recyclable green waste, to slow the filling of the Landfill, and to end, or considerably reduce, the importation of trash from outside the county.
2. Work with City/County Association of Governments of San Mateo County to find alternatives other than expanding into Apanolio Canyon.

The Grand Jury recommends that those cities (see Appendix) and authorities that have yet to achieve the State mandated 50% recycling goal:

1. Develop a recovery implementation plan to achieve compliance in order to extend the life of the Landfill.

The Grand Jury recommends that the City/County Association of Governments of San Mateo County, acting in its capacity as the lead agency for the Integrated Waste Management Plan, direct staff to:

1. Explore and recommend acceptable and practical alternatives to expansion into Apanolio Canyon – said alternatives to prospectively include countywide recycling performance improvement, fuel and emission efficient transport of non-recyclable material to locations out of the county; e.g., “trash train”, and long-term analysis of projected advances in transformation technology such as incineration.

Appendix and Reference Materials

Diversion Rates and Numbers of recycling programs for San Mateo County Cities

Jurisdiction	Percent Diversion Rate			Programs Implemented (2005)
	2005 (CIWMB method)	2005 (direct)	2006 (direct)	
Atherton	30	53	52	34
Belmont	53	34	36	33
Brisbane	60	–	–	38
Burlingame	46	28	29	36
Colma	60	–	–	30
Daly City	20	–	–	36
East Palo Alto	79	19	19	35
Foster City	37	28	30	35
Half Moon Bay	34	–	–	32
Hillsborough	38	46	53	35
Menlo Park	40	35	39	35
Millbrae	63	–	–	33
Pacifica	42	–	–	38
Portola Valley	73	–	–	29
Redwood City	55	28	30	34
San Bruno	39	–	–	29
San Carlos	34	33	35	36
San Mateo (City)	42	30	31	37
SMC Unincorp.	62	–	–	38
So. San Francisco	36	–	–	38
Woodside	78	–	–	29

Ox Mountain Landfill Permit; San Mateo County Environmental Health and Planning Departments.

San Mateo County Integrated Waste Management Plan, Siting Element; San Mateo County Public Works Department; January 8, 1999.

California Integrated Waste Management Board; <http://www.ciwmb.ca.gov/>



COUNTY OF SAN MATEO
Inter-Departmental Correspondence

County Manager's Office

DATE: Sept. 22, 2008
BOARD MEETING DATE: October 7, 2008
SPECIAL NOTICE: None
VOTE REQUIRED: None

TO: Honorable Board of Supervisors
FROM: John L. Maltbie, County Manager
SUBJECT: 2007-08 Grand Jury Response

Recommendation

Approve this report containing the County's responses to the following 2007-08 Grand Jury report: The Future of Trash Management in San Mateo County.

VISION ALIGNMENT:

Commitment: Responsive, effective and collaborative government.

Goal 20: Government decisions are based on careful consideration of future impact, rather than temporary relief or immediate gain.

This activity contributes to the goal by ensuring that all Grand Jury findings and recommendations are thoroughly reviewed by the appropriate County departments and that, when appropriate, process improvements are made to improve the quality and efficiency of services provided to the public and other agencies.

Discussion

The County is mandated to respond to the Grand Jury within 90 days from the date that reports are filed with the County Clerk and Elected Officials are mandated to respond within 60 days. To meet those requirements, attached is the County's response to the Grand Jury report on Recycling Performance Measurements, issued on July 14, 2008.

The Future of Trash Management in San Mateo County

Findings:

Staff is in general agreement with the Grand Jury's findings. However, a few clarifications are needed. While appreciating the Grand Jury's concern about planning for the closure of the Ox Mountain landfill, it should be pointed out that the landfill closure dates in the report are inaccurate. The report states that the Ox Mountain landfill "is scheduled to begin shutting down in 2010." Staff told the Grand Jury in meetings with the County Manager that the landfill has 18 to 20 more years of useful life under the current conditional use permit and that state regulations require development of a transition plan when the site has 15 years of remaining life. It is still three to five years until the 15-year plan has to be started. Thus, Ox Mountain will not begin shutting down in 2010.

The report also notes that the County has not met the 50% recycling diversion rates. Although not every city has met the 50% target, 14 of the 21 jurisdictions in the County have met or exceed the target, which is 67% of the total. The County is one of the 14 jurisdictions that have met the target along with 13 cities. The Waste Board has granted time extensions to six cities with diversion rates under 50% as they are making good faith efforts to reach the 50% target. Therefore, almost all the cities and the county have met the 50% rate or are on track to achieve that rate soon.

The Grand Jury report also stated that due to the current diversion rates, recycling as "a solution to landfill scarcity" is not an answer. Although not the complete solution, Staff believes that recycling is a key component of extending the useful life of Ox Mountain; the cities and the County are taking steps to further increase diversion rates.

- The South Bay Waste Management Authority (SBWMA), which provides garbage collection service to 10 cities and many of the County unincorporated areas, is currently reviewing proposals for the collection of waste, recycled items and organic materials for the members of the JPA. The new contract will start on or before January 1, 2011 and includes new services such as single stream recycling and recycling of organic materials and universal and e-waste that are expected to increase diversion rates.
- Other cities in the non-SBWMA service areas are also continually working with their franchise haulers to improve their diversion rates.

It is agreed that more work is needed to optimize diversion in the County; however, feel significant progress has been made. Also, plans are in place for further improvements to the recycling programs in the County, which will extend the useful life of the Ox Mountain landfill.

Recommendations:

The Grand Jury Recommends that the Board of Supervisors direct the County Manager to:

- 1. Work with the Landfill operator during the upcoming contract renewal talks to consider alternatives to using green waste for daily cover such as tarpaulins to avoid filling the Landfill with recyclable green waste, to slow the filling of the Landfill and to end, or considerably reduce, the importation of trash from outside the county.**

Response: Agree in part. The current land use permit agreement between the County and the site owner/operator expires on December 31, 2009. The County will certainly discuss and encourage the use of non-green waste as alternative daily cover (ADC) with the landfill operator when the operator applies for new use permit. However, it should be noted that the use of ADC materials, such as green waste or tarpaulins, is regulated by the State through the Local Enforcement Agency (LEA). The LEA must approve any ADC use at Ox Mountain.

The South Bayside Waste Management Authority (SBWMA) discussed using ADC options with the landfill operator a few years ago. The operator indicated that there is inadequate material on site for the daily cover and if green waste were not used, other suitable materials would need to be brought to the landfill site. The operator evaluated three ADC options, and none were viable. Foam was rejected due to the local climate. Tarpaulins were not viable due to the terrain and work hours at the site. Construction demolition debris (C&D) was also evaluated in a pilot project but it failed to satisfy the LEA, and it was not approved. After learning this information, the SBWMA decided to haul all the green waste and C&D materials to San Jose for "higher and best use" diversion of these materials.

- 2. Work with the City/County Association of Governments of San Mateo County to find alternatives other than expanding into Apanolio Canyon.**

Response: Concur. As noted in the findings, when Ox Mountain has a projected life of 15 years, the County will work with C/CAG on developing the transition plan by updating the Siting Element of the Countywide Integrated Waste Management. This work will include evaluating the benefits and impacts of all options.

C/CAG

CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY

*Atherton • Belmont • Brisbane • Burlingame • Colma • Daly City • East Palo Alto • Foster City • Half Moon Bay • Hillsborough • Menlo Park • ~~Marina~~
Pacific • Portola Valley • Redwood City • San Bruno • San Carlos • San Mateo • San Mateo County • South San Francisco • Woodside*

October 16, 2008

Judge of the Superior Court
Hall of Justice
400 County Center; 2nd Floor
Redwood City, CA 94063-1655

Attention: Honorable Joseph C. Scott

Subject: Response to Grand Jury Report on the Future of Trash Management in San Mateo
County

Honorable Joseph C. Scott:

On behalf of the City/ County Association of Governments of San Mateo County (C/CAG), I would like to thank the Grand Jury for their report on the Future of Trash Management in San Mateo County. Since the City/ County Association of Governments of San Mateo County is mentioned in the report, C/CAG would like to provide the following comments on the Grand Jury recommendations.

- 1- C/CAG functions as the Solid Waste Local Task Force. In this role, C/CAG reviews all Solid Waste Management Plans developed by the Cities and the County prior to submittal to the California Integrated Waste Management Board. These documents include updating the Siting Element which addresses a comprehensive review of current and projected landfill capacity and future significant options. C/CAG will work directly with the County and the Cities to update the Siting Element. Projected capacity of the permitted landfill (Ox Mountain) is currently estimated to be 18 to 20 years. This means that planning for additional capacity needs to be initiated during the next year. This review should consider all options, including source reduction, new disposal technology, expanded recycling programs, and landfill expansion/ siting, to increase the capacity to over 25 years. This analysis should not eliminate any option for possible consideration.

Our compliments to the Grand Jury on this important report. If there are any questions please contact me at 650 599-1420.

Sincerely,



Richard Napier
Executive Director