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ATTENTION: Natural Resources and Culture Committee
Agenda of August 4, 2004

SUBJECT: Status of Solid Waste Diversion

REFERENCE: Manager's Report No. 90-19 (January 11, 1990)
Manager's Report No. 91-519 (November 27, 1991)
Manager's Report No. 94-191 (July 7, 1994)
Manager's Report No. 95-91 (April 26, 1995)
Manager's Memorandum re: CMR 95-91 (May 26, 1995)
Manager's Memorandum re: CMR 95-91 (August 2, 1995)
Manager's Report No. 96-117 (May 28, 1996)
Manager's Memorandum re: Solid Waste Management Issues
(August 1, 1996)
Manager's Report No. 96-179 (October 2, 1996)
Manager's Report No. 98-58 (March 19, 1998)

SUMMARY

THIS IS AN INFORMATION ITEM ONLY. NO ACTION IS REQUIRED ON THE PART OF THE COMMITTEE OR THE CITY COUNCIL.

This report is intended to provide an update on the City of San Diego's progress toward meeting the State of California's waste diversion mandate and, most importantly, to identify upcoming focus areas to achieve 50% waste diversion.

BACKGROUND

The Integrated Waste Management Act of 1989 (AB939) was enacted by the California Legislature to reduce the landfilling of solid waste, and to ensure an effective and *integrated* approach to the safe management of all solid waste generated within the state. AB939 changed the State's focus from "solid waste management" primarily dependent on landfilling to "integrated waste management" emphasizing source reduction, recycling, and composting to preserve irreplaceable landfill space.

In 1989, over two tons of solid waste per capita were disposed in California; more than any other state and nearly twice the rate of many industrialized countries. In response to this statistic and out of concern for dwindling landfill space, AB939 required reduction in the disposal of waste by local jurisdictions by 25% by 1995 and 50% by 2000.

AB939 also required the preparation of a Countywide Integrated Waste Management Plan (CIWMP) which consists of four elements and a CIWMP Summary as follows:

1. Each jurisdiction must have a Source Reduction and Recycling Element (SRRE), which analyzes the local waste stream to determine where to focus diversion efforts and which is updated annually.
2. Each jurisdiction must also have a Household Hazardous Waste Element (HHWE), for reducing, recycling, and safely disposing of toxic household products.
3. Each jurisdiction must have a Non-Disposal Facility Element (NDFE) listing existing and planned transfer stations, material recovery facilities and composting facilities available to jurisdictions.
4. The fourth component, the Countywide Siting Element, is a single, multi-jurisdictional document prepared by County staff in collaboration with local cities. Through this document, the County is required to demonstrate at least 15 years of remaining disposal capacity.
5. The CIWMP Summary contains goals and policies as well as a summary of integrated waste management issues in San Diego County. It must be reviewed for updating every five years. The final draft of the first five-year amendment was completed in December of 2003.

County Trends – San Diego County’s diversion generally reflect statewide trends. While not every city was at 50% diversion in CY2000, the County average was a strong 48%, with eight of the 19 jurisdictions reporting at least 50% waste diversion, and the City of San Diego at the 48% mark. Currently, only six of the 19 show 50% or greater waste diversion (Table 1).

For the most part, jurisdictions in San Diego County have experienced an overall decrease in their diversion rates since CY2000. This is due in large part to increases in per capita waste generation outpacing diversion successes (the latest EPA numbers show that per capita generation has more than doubled to over four tons per person since 1989). The primary reason for the significant increase in waste generation is increased regional construction and renovation activity and the lack of adequate diversion of this type of waste.

Implementation of countywide diversion programs has been a major factor in moderating the increase in disposal tonnage over time. In 1990 the County reported that 19.5%, or approximately 2,300 tons, of the over 12,000 tons of solid waste generated per day in the county was diverted from disposal. In 2001, the countywide diversion rate was approximately 46%, or 8,700 tons, of the 18,900 tons of solid waste generated per day in the region. That equates to a 6,400 ton per day increase in diversion from 1990 to 2001.

Table 1: SD County and Jurisdictional Diversion Rate Status

Jurisdiction	Population	CY 2000 Diversion	CY 2002 Diversion	Comments
Carlsbad	82,000	59%	49%	
Coronado	24,650	56%	53%	
Del Mar	5,400	51%	51%	New Base Year Study in 2000
El Cajon	96,600	55%	47%	
Encinitas	62,100	50%	49%	
Imperial Beach	29,200	50%	48%	
National City	55,400	53%	52%	
Poway	49,300	65%	57%	
Chula Vista	174,300	34%	54%	New Base Year Study
Escondido	127,800	47%	41%	Good Faith Effort Approved for 2000
La Mesa	59,200	43%	35%	Base Year Study Underway
Lemon Grove	25,950	39%	31%	1066 Extension through CY2003 Base Year Study Underway
Oceanside	160,800	46%	41%	1066 Extension through July 2004 Considering Base Year Study
San Diego	1,277,200	48%	44%	1066 Extension through CY2004 Considering Base Year Study
San Marcos	53,900	47%	39%	Good Faith Effort Approved for 2000
Santee	58,300	33%	39%	Base Year Study Underway
Solana Beach	14,350	46%	53%	Good Faith Effort Approved for 2000
Uninc County	469,300	44%	35%	1066 Extension through August 2004
Vista	85,700	49%	35%	Good Faith Effort Approved for 2000
AVERAGE		48%	45%	

The County's report (CIWMP) emphasizes the importance of continuing diversion efforts noting that reaching 55% diversion in 2005 could result in an additional two years of capacity for San Diego landfills. Each 10% increase in diversion after 2005 translates into four to six year of additional years of landfill capacity.

State Trends -The state of California has seen similar diversion trends to those of jurisdictions within San Diego County. Of large cities in the state, only San Jose reached the 50% diversion requirement in CY2000. Table 2 summarizes current large California city diversion rates.

Table 2: Large California Jurisdictions Diversion Rate Status

Jurisdiction	Population	CY 2000 Diversion	CY 2002 Diversion	Comments
Los Angeles	3,823,000	60%	62%	New Base Year Study
Los Angeles-Uninc	1,036,300	31%	18%	1066 Extension through Dec 2004
San Diego	1,277,200	48%	44%	1066 Extension through CY2004
San Jose	923,600	64%	62%	New Base Year Study
San Francisco	801,400	46%	31%*/63%**	New Base Year Study
Long Beach	457,600	55%	44%	
Fresno	420,600	27%	29%	1066 Extension through July 2004
Sacramento	406,000	45%	46%	1066 Extension through July 2003
Oakland	402,100	52%	48%	
AVERAGE		48%	43%*/46%**	

* Per CIWMB database

** Per San Francisco City Staff

The three jurisdictions that surpassed 50% in CY2002 (San Jose, Los Angeles and San Francisco) have all implemented a wide range of aggressive programs. Examples of the more effective programs that San Jose, Los Angeles and San Francisco have implemented are described below.

San Jose

San Jose has implemented a “Pay as You Throw” residential refuse collection program that incentivizes recycling by charging a fee based upon the size of the resident’s trash container. Fees range from \$16/month for the smallest container to \$50/month for the largest container. Unlimited recycling is offered at no additional cost. Eighty percent of San Jose’s residences have selected the smallest container, while in San Diego, where there is no fee for trash collection, 84% of the residents have selected the largest trash container.

On the commercial side, San Jose has implemented a Construction & Demolition (C&D) ordinance thereby catalyzing development of a C&D recycling infrastructure that has diverted over half of San Jose’s mixed C&D wastes. In addition, San Jose has access to privately operated food waste composting facilities that are able to accept mixed food waste.

Los Angeles

Most of the additional diversion achieved by Los Angeles is a result of having an extremely efficient mixed C&D recycling infrastructure which arose to address C&D waste resulting from the 1994 Northridge earthquake. Los Angeles’ C&D processing capability has reduced that portion of their waste stream to less than 10% (compared to 35% in San Diego where a mixed C&D recycling infrastructure does not yet exist).

On the residential side, Los Angeles projects additional growth in their waste diversion as a result of the recently issued \$6,000,000 contract to five haulers to pilot multi-family recycling to 100,000 units over the next two years.

San Francisco

In addition to having a more aggressive “Pay as You Throw” system than San Jose, San Francisco collects food waste in their residential recycling program. They have a single franchised hauler and have incorporated a series of rewards and penalties into the hauler’s contract that inspire recycling. San Francisco sets the rates charged to businesses and residents and allows the hauler to build CIP costs into the rates. As a result, they have been able to construct mixed C&D, food waste and extensive commercial recycling infrastructures. The City also provides free recycling collection to small businesses and offers a 25% discount in the rates for food waste collection.

ESD is reviewing each of these jurisdictions, as well as many other cities’ programs for applicability to San Diego’s unique characteristics. Future recommendations will include the results of this review where applicable.

DISCUSSION

While the City's comprehensive recycling and waste reduction efforts have resulted in tremendous progress, as well as many national awards and recognition, the City has continued to fall short of the required 50% waste diversion mandate. In 2002, based on San Diego's 48% CY2000 diversion rate, the City was granted an extension to the end of calendar year 2004 to achieve the 50% mark. However, preliminary 2003 numbers show City's waste diversion rate dropping to 43%. Per CIWMB staff, the City will be eligible to apply for an additional one-year extension in September 2004, which, if approved by the State Board, would allow the City until December 31, 2005 to reach the mandated 50% waste diversion.

During the coming year, ESD will bring forward a number of policy issues for consideration and action by the Natural Resources and Culture Committee and the City Council. Each is important to demonstrating the City's good faith efforts toward achievement of State mandated 50% waste diversion and will include the following. It is helpful to note that using current conversion factors, every 33,000 tons of waste diverted equates to 1% toward the 50% waste diversion mandate.

- *Construction and Demolition Materials Recycling Policy*
This topic is discussed more fully in a companion City Manager's Report provided to support discussion of this topic on this same Committee Agenda. In summary, the total amount of C&D waste generated within the City jurisdictional boundaries, including what is disposed in other landfills, is estimated to be nearly 600,000 tons annually. About 400,000 tons per year of mixed C&D waste generated by the City of San Diego and surrounding jurisdictions enters Miramar Landfill, making up over one-third of the total waste disposed at Miramar. It is estimated that about 180,000 of the 400,000 C&D tons in the Miramar waste stream could be diverted with implementation of an ordinance. It is unknown how much C&D diversion might be catalyzed by a policy aimed at increasing voluntary compliance.
- *Solid Waste System Financing Issues*
The City's AB939 Fee was implemented in FY1999 at a rate of \$7.00 per ton. The original framework showed that an annual increase of 25 to 50 cents per ton would be required to keep pace with population growth and the phasing in of broader and more varied waste diversion programs. The rate has not been increased since its implementation. Delaying increases was possible due to a one-time \$6.8 million state grant to ensure citywide implementation of residential curbside recycling service.

Most recent Revenue and Expense statements show the Recycling Fund balance dropping from about \$6.2 million to about \$660,000 in FY2005 as the state funding is exhausted. In order to continue to deliver current services (e.g., curbside recycling service, greenery collection service, etc.), fees must be re-

examined in the coming year. This future report will also examine ways to incentivize waste diversion efforts.

- *Mandatory Recycling Ordinance (Single-family, Multi-Family and Commercial)*
To date, the City of San Diego is an anomaly in the County in that it has not implemented mandates to spur residential and commercial recycling participation.

Within the single-family residential sector, San Diegans have done a good job of voluntarily contributing to the waste diversion effort. San Diego's curbside program has an estimated 83% participation rate, which is considered very high in a voluntary program. However, waste stream analysis data shows that significant amounts (approximately 148,000 tons) of highly recyclable commodities (paper, glass, plastic, metals and yard waste) still remain. Potential diversion is dependent upon the type of program eventually implemented.

While there is a high desire for curbside recycling service in the multi-family sector, it is difficult for private commercial haulers to meet that service demand. Focus group data indicates that waste generators and service providers believe the City's role should be to catalyze a critical mass of service demand by mandating recycling. This approach would allow commercial haulers to create the most efficient routes and, thus, most affordable rates for multi-family complexes.

Also difficult within the multi-family sector, however, is the ability to ensure a commodity waste stream low in contamination. Due to the transitory population issues, unique education challenges must be overcome.

Focus group data indicates that waste generator and service providers in the commercial sector would like to participate in recycling. The commercial waste stream analysis shows significant amounts of highly recyclable paper, glass, plastic, metal and yard waste are present. These commodities total over 228,000 tons of the city of San Diego's wastestream. Diversion potential would depend on the type of approach eventually adopted by the City. A local mandate would allow commercial haulers to realize the same economies of scale described in relation to the multi-family sector.

- *Environmentally Preferable Purchasing Policy (EP³)*
Waste diversion programs are only one piece of the puzzle. Efforts to generate local markets for recycled materials are important to sustain and support the recovery of recyclable from the waste stream. This policy will help ensure that City departments are pursuing efforts in this regard.

Also underway is a refocused effort to divert biosolids (the solids remaining after the regions sewage is treated at the City's Metro Biosolids Center). In the first six months of 2004, 90% of the biosolids generated by the City were diverted from the landfill.

In addition, ESD is in the process of developing a Request for Proposals (RFP) to conduct a base year and diversion rate study, similar to those conducted by other large jurisdictions in the State. Many California cities have pursued this option and realized positive results. Although base year and diversion studies are labor intensive and expensive, the results typically give a more accurate indication of true diversion. CIWMB's diversion rate formula adjusts 1990 waste disposal levels for population and economic conditions to project future years' generation rates. A diversion rate is then deduced by subtracting current disposal tonnage from the projected generation rate. While this analysis may result in additional diversion credit to the City, it will not be enough to ensure the City is able to maintain higher diversion rates given the amount of easily recoverable recyclables still remaining in the waste stream and rapidly growing waste generation rates.

History of Public Participation

Beginning in 1994, ESD began working with residents, businesses, and the military to tackle tough disposal issues and identify solutions to increase waste reduction and recycling. A summary of the outreach history follows.

- 1994 PLAN 2000
1,351 outside participants; 391 employees
National Peer Review Panel
Consultant Review
NR&CC and City Council
- 1994-1996 Implement Financing System
- 1997 City Manager's Committee on Curbside Recycling
197 attendees
Recommendation: Implement Citywide Residential Curbside Recycling
- 1998 City Manager's Committee on Waste Reduction
94 attendees
Recommendations: C&D, Office Paper and Multi-Family Mandates
- 1999 NR&CC
Direction: Continue to pursue voluntary compliance
Zero Based Management Review Committee
Recommendations: Increase commercial sector waste diversion and develop an agreement with the military to increase diversion.
- 2003 City Manager's Committee on C&D Waste Recycling
136 attendees
Recommendation: C&D Recycling Policy

PLAN 2000 in 1994 provided a wide range of expansive and comprehensive ideas to maximize waste diversion developed from the input of hundreds of public participants. Those ideas required a solid financing plan, which was implemented between 1994 and 1996. Beginning in 1997, citizen committees have been convened to review specific waste reduction and recycling proposals drawn from the PLAN 2000 process. Each of

the citizen committees incorporated significant additional stakeholder input and two of the three recommended some form of mandate.

CONCLUSION

While San Diego has achieved significant waste diversion since beginning its efforts in the mid-1980's, the city continues to fall short of the State mandated 50% waste diversion goal. Calendar year 2002 figures show 44% waste diversion and preliminary 2003 estimates indicate 43% diversion. For the city to continue to progress in this arena, thereby helping to conserve finite and priceless landfill space at Miramar Landfill, diversion of waste must increase significantly.

During the coming year, a number of significant policy issues will be brought to the Natural Resources and Culture Committee and the City Council for discussion and action.

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HEAP/LLB