# City of San Diego Long-Term Resource Management Options (LRMO) Strategic Plan

## **Resource Management Advisory Committee (RMAC)**

Environmental Services Department Auditorium, 9601 Ridgehaven Court, San Diego, CA 92123 Wednesday, June 18, 2008, 3:00 – 5:00 p.m.

## **Meeting Summary**

#### **RMAC Members Present:**

Christina Buchanan (alternate for Bill Prinz), Solid Waste Local Enforcement Agency Sylvia Castillo, PE, City of San Diego Environmental Services Department Bob Epler, City of San Diego Environmental Services Department Richard Flammer, Integrated Waste Management Citizens Advisory Committee Beryl Flom (alternate for Shirley Larson), League of Women Voters of San Diego Lynn France, Integrated Waste Management Technical Advisory Committee Brian Henry (alternate for Rochelle Monroe), City of San Diego Environmental Services Department

Mike McDade (alternate for Kristen Byrne), San Diego County Disposal Association Alan Pentico, San Diego County Apartment Association

### **Project Team Members:**

Chris Gonaver, City of San Diego Environmental Services Department Stephen Grealy, City of San Diego Environmental Services Department Bryan Stirrat, PE, Bryan A. Stirrat and Associates Bob Hilton, HF&H Consultants
Christine Arbogast, PE, Bryan A. Stirrat and Associates
Sonia Nasser, PE, Bryan A. Stirrat and Associates
Chip Clements, PE, Clements Environmental
Lewis Michaelson, Katz & Associates
Kelly Thomas, Katz & Associates

#### **Interested Attendees:**

Lawrence Chapman, Tayman
Bud Chase, Allied Waste
Donna Chralowicz, City of San Diego Environmental Services Department
Matthew Cleary, City of San Diego Environmental Services Department
Stephen Heverly, City of San Diego Environmental Services Department
Gabriel Jebb, Adaptive ARC
Gregg King, Debris Box
Jim Lehman, Allied Waste
Sam Merrill, City of San Diego Environmental Services Department
Jason Rush, WARF Disposal
Steve South, EDCO
Bob Wallace, WIH Resource Group
David Wells, City of San Diego Environmental Services Department
Lisa Wood, City of San Diego Environmental Services Department

## Welcome/Introductions/Approval of April 30, 2008 Meeting Summary

The committee celebrated the successful conclusion of Phase 1 of the RMAC's participation in the Long-Term Resource Management Options Strategic Plan. The committee's input has been extremely helpful and valuable and has shaped the approach for moving into Phase II. At today's meeting the committee reviewed the options that will be analyzed in more detail in Phase II and discussed the schedule of next steps.

## **ESD Programs**

Mr. Stephen Grealy provided an update on two current ESD programs.

# Environmentally Preferable Purchasing Program (EP<sup>3</sup>)

The Environmentally Preferable Purchasing Program (EP³) is a fairly new policy that the Mayor approved in April 2007 and is preparing to formally initiate city-wide. This program encourages all City departments to investigate the environmental impacts of City-purchased products and determine the best ways to incorporate environmentally preferred purchasing into their own programs.

For example, the Park and Recreation Department was using many different chemicals for cleaning facilities, and these chemicals were often being mixed incorrectly. The department limited the number of cleaning chemicals it purchased, which made staff training easier and was environmentally preferred. Also, the City is beginning to purchase smaller pickup trucks for City business unless a larger truck is necessary. Finally, the City already purchases many products made with recycled content, such as street and traffic signs, reprocessed paint, re-refined oil, park benches and park equipment, with no increase in product price.

It is estimated that the City saved at least \$8 million in 2007 through the EP<sup>3</sup> efforts that were undertaken by select City departments.

#### Changes to Park & Recreation Recycling Programs

In 1992, the ESD initiated a Park and Recreation recycling program to provide recycling opportunities for those not served by the City's blue bin program. Under this program, dumpsters were placed at 45 parks and 10 to 12 other City facilities. This program is no longer cost-effective. Therefore, ESD staff will initiate two pilot programs for recycling at Mission Trails Regional Park and Mission Beach. The recycling containers at Mission Trails will look like regular garbage bins but will extend eight feet underground, which will allow for bi-weekly collection and limit scavenging. The containers at Mission Beach will look like normal trash cans but will have a separate container on top for recyclables. If these pilot programs are successful, ESD will expand the use of these containers to other locations.

## **Final Review of Phase I Options**

The committee started earlier in Phase I with a long list of possible options for resource management and prioritized this list of options for deeper analysis in Phase II. Through a series of committee meetings and further analysis, the committee and project team refined the initial list of options, consolidating some and eliminating or adding others. Based on committee

feedback, some of the options were also re-ranked in terms of the screening criteria. This refined list was brought to the committee for one last review before deciding which ones would be carried forward for more in-depth evaluation in Phase II.

The committee concurred with the revised list and then discussed how the screening criteria and relative rankings would be used to produce a "short list" of the top-ranking options in each category. This discussion led to a recommendation to carry forward 39 options that will be analyzed in more detail in Phase II, with two important caveats. First, the screening criteria rankings will not influence the options' evaluation in the second phase; that is, all Phase II options will be evaluated on an equal footing going forward. Second, the team will continue to monitor options that were not carried into Phase II because they were deemed infeasible for the foreseeable future. These options will be monitored for changes in external conditions or the technology/policy itself that may make them more feasible in the future. For example, if the proposed Gregory Canyon Landfill is permitted, it would become a more viable option.

The committee discussed the options of addressing zoning issues for resource management facilities (e.g., composting facilities) individually or taking a more proactive approach of encouraging comprehensive land use modifications before specific projects are proposed. Some committee members felt that changing zoning to allow for siting these kinds of facilities in the county presents a major barrier to expanding resource management options and encouraged the City to be proactive in opening up certain parcels to these land uses. Other members felt that siting/zoning issues should be addressed for each specific project rather than rezoning the whole county. The committee agreed not to include a separate option for comprehensive rezoning at this time because it would not necessarily prevent any particular facility from being studied in more depth in Phase II.

The committee also agreed to study the option of collecting food waste from residences as well as commercial uses in Phase II. The ESD is currently analyzing the feasibility of modifying the Miramar Greenery to collect green waste and food waste together. This option is highly dependent on the feasibility of collecting green waste weekly, which would allow residents to include food waste with green waste, as opposed to the current bi-weekly collection. If the study finds that it is feasible to collect green waste every week, then collecting food waste from residences could be a more feasible option.

#### Phase I Report and Schedule

The Phase 1 report will include an overview of the RMAC process, current solid waste regulations and policies, current and future resource management needs, current financial programs, screening criteria and options, and recommendations for different timelines. The team estimated that the Phase 1 report would be ready in August 2008, after which the report will be presented to the City's Natural Resource and Culture Committee and then to the full City Council. RMAC members will receive an electronic version of the report and an invitation to attend the presentations.

# **Phase II Initiation and RMAC Committee Participation**

The team assumes that all RMAC members will be able to continue their participation in Phase II. RMAC members are encouraged to notify the project team as soon as possible if they are unable to continue participation. The team anticipates that the RMAC will meet for five meetings starting in December 2008. Details on meeting dates and times will be e-mailed.

### **Public Comment**

A guest asked if the public would be able to access copies of the Phase I report. Mr. Chris Gonaver of ESD answered that once the item is docketed for the Natural Resource and Culture Committee, the report will be available to the public and will be posted to the LRMO Strategic Plan Web site.

# CITY OF SAN DIEGO LONG-TERM RESOURCE MANAGEMENT OPTIONS STRATEGIC PLAN

#### COMPOSITE SCORING OF ALL OPTIONS June 18, 2008

NO.	CODE	OPTION DESCRIPTION	Screening
<u> </u>		ZERO WASTE PROGRAMS AND POLICY OPTIONS	Score
1	ZW-SR-2	Implement rigid plastic recycling at curbside	4.33
2	ZW-SR-3	Ban single use polystyrene food containers	4.33
3	ZW-SR-9	Extended Producer/Manufacturer Responsibility	4.33
4	ZW-RU-3	Recycle plastic bags using blue bins	4.00
		Establish future "MRF First" - Require MSW to be processed through a MRF if	
5	ZW-RY-2	available	4.00
6	ZW-OD-1	Increase greenwaste pickup from bi-weekly to weekly	4.00
7	ZW-OD-2	Create a cost incentive for business participation in a food disgards program as markets become available	3.67
_	7111 00 1	Establish restaurant foodwaste collection and composting requirements as	
8	ZW-OD-4	markets become available	3.67
9	ZW-SR-5	Provide business tax credits/incentives for certified Green Businesses	3.33
10	ZW-SR-7	City Procurement Policy - Return usable shipping containers	3.33
11	ZW-RY-7	Establish on-call bulky item pick-up for single, multi-family and businesses	3.33
12	ZW-ED-1	Develop/promote e-newsletters to schools	3.33
13	ZW-ED-2	Educate Restaurants about source reduction	3.33
14	ZW-ED-5	Establish Re-Create Art Contest and Exhibition for youth	3.33
15	ZW-RY-4	Coordinate large retailer drop-off locations for specific wastes  Encourage rebate incentives for marginally economic materials (e.g., carpet	3.00
16	ZW-RU-5	recycling leasing)^	2.67
17	7\\\ D\\\ c	Modify Zoning Code to allow Zero Waste infrastructure (MRFs, Transfer	0.07
17	ZW-RY-9	Stations, Convenience Centers)^	2.67
18	ZW-SR-4	Ban plastic bags in stores with over \$1 million revenue/year^	2.33
19	ZW-SR-8	Require businesses to take back non-recyclable packaging^	2.33
20	ZW-OD-9	Allow inclusion of certain residential foodwaste in the green can (bi-weekly)^	2.00
		INFRASTRUCTURE OPTIONS	
1	ZWI-1	Household Hazardous Waste Collection Center*	4.67
2	ZWI-2	Material Recovery Facilities - Curbside*	4.67
3	LO1	Compaction*	4.67
4	LO2	Alternative Daily Cover - Tarpomatic*	4.33
5	DIN1	Miramar Height Increase (0 miles)	4.33
6	DIN2	Miramar Height Increase (0 miles) Sycamore Landfill (8 miles)	4.33 4.33
6 7	DIN2 ZWI-4	Miramar Height Increase (0 miles) Sycamore Landfill (8 miles) Greenwaste Facilities*	4.33 4.33 4.00
6	DIN2	Miramar Height Increase (0 miles) Sycamore Landfill (8 miles) Greenwaste Facilities* Construction & Demolition Facilities	4.33 4.33
6 7 8	DIN2 ZWI-4 ZWI-5	Miramar Height Increase (0 miles) Sycamore Landfill (8 miles)  Greenwaste Facilities* Construction & Demolition Facilities Gasification & Pyrolysis Landfill Reclamation of North Miramar	4.33 4.33 4.00 4.00
6 7 8 9 10 11	DIN2 ZWI-4 ZWI-5 CT1 LO3 DIN3	Miramar Height Increase (0 miles) Sycamore Landfill (8 miles)  Greenwaste Facilities* Construction & Demolition Facilities Gasification & Pyrolysis Landfill Reclamation of North Miramar Otay Landfill (20 miles)	4.33 4.33 4.00 4.00 4.00 4.00 4.00
6 7 8 9 10 11 12	DIN2 ZWI-4 ZWI-5 CT1 LO3 DIN3 ZWI-3	Miramar Height Increase (0 miles) Sycamore Landfill (8 miles) Greenwaste Facilities* Construction & Demolition Facilities Gasification & Pyrolysis Landfill Reclamation of North Miramar Otay Landfill (20 miles) Material Recovery Facilities - Commercial	4.33 4.33 4.00 4.00 4.00 4.00 4.00 3.67
6 7 8 9 10 11 12 13	DIN2 ZWI-4 ZWI-5 CT1 LO3 DIN3 ZWI-3 ZWI-6	Miramar Height Increase (0 miles) Sycamore Landfill (8 miles) Greenwaste Facilities* Construction & Demolition Facilities Gasification & Pyrolysis Landfill Reclamation of North Miramar Otay Landfill (20 miles) Material Recovery Facilities - Commercial Transfer Facilities**	4.33 4.00 4.00 4.00 4.00 4.00 4.00 3.67 3.67
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6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	DIN2  ZWI-4  ZWI-5  CT1  LO3  DIN3  ZWI-3  ZWI-6  ZWI-7  ZWI-8  CT2  LO4  DOUT1  CT3  CT4  CT5  WTE1  DOUT2  DOUT3  CT6  DIN4  LO5  LO6	Miramar Height Increase (0 miles) Sycamore Landfill (8 miles) Greenwaste Facilities* Construction & Demolition Facilities Gasification & Pyrolysis Landfill Reclamation of North Miramar Otay Landfill (20 miles) Material Recovery Facilities - Commercial Transfer Facilities** Resource Recovery Parks (RRP)- Industrial Resource Recovery Parks - Community (Convenience drop-off) Anaerobic Digestion Alternative Daily Cover-Computer Aided Earth Moving System El Sobrante Landfill (82 miles) Hydrolysis Mechanical Processing (Autoclave) Chemical Processing (Depolymerization) 500-tpd Mass-Burn Municipal Waste Combustor Prima Deshecha Landfill (62 miles) Frank R Bowerman Landfill (78 miles) MSW Composting^ Gregory Canyon Landfill (41 mil)^ Leachate Recirculation^ Bio-Cell - Bioreactor^	4.33 4.33 4.00 4.00 4.00 4.00 4.00 3.67 3.00
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6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	DIN2  ZWI-4  ZWI-5  CT1  LO3  DIN3  ZWI-6  ZWI-7  ZWI-8  CT2  LO4  DOUT1  CT3  CT4  CT5  WTE1  DOUT2  DOUT3  CT6  DIN4  LO5  LO6  DOUT4  DOUT6	Miramar Height Increase (0 miles) Sycamore Landfill (8 miles) Greenwaste Facilities* Construction & Demolition Facilities Gasification & Pyrolysis Landfill Reclamation of North Miramar Otay Landfill (20 miles) Material Recovery Facilities - Commercial Transfer Facilities** Resource Recovery Parks (RRP)- Industrial Resource Recovery Parks - Community (Convenience drop-off) Anaerobic Digestion Alternative Daily Cover-Computer Aided Earth Moving System El Sobrante Landfill (82 miles) Hydrolysis Mechanical Processing (Autoclave) Chemical Processing (Depolymerization) 500-tpd Mass-Burn Municipal Waste Combustor Prima Deshecha Landfill (62 miles) Frank R Bowerman Landfill (78 miles) MSW Composting^ Gregory Canyon Landfill (41 mil)^ Leachate Recirculation^ Bio-Cell - Bioreactor^ Olinda Alpha Landfill (90 miles)^ Rail Haul - Mesquite Regional Landfill (142 miles)^	4.33 4.33 4.00 4.00 4.00 4.00 4.00 4.00 3.67 3.00 3.00 3.00 3.00 3.00 2.67 2.33 2.00
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	DIN2  ZWI-4  ZWI-5  CT1  LO3  DIN3  ZWI-6  ZWI-7  ZWI-8  CT2  LO4  DOUT1  CT3  CT4  CT5  WTE1  DOUT2  DOUT3  CT6  DIN4  LO5  LO6  DOUT4	Miramar Height Increase (0 miles) Sycamore Landfill (8 miles) Greenwaste Facilities* Construction & Demolition Facilities Gasification & Pyrolysis Landfill Reclamation of North Miramar Otay Landfill (20 miles) Material Recovery Facilities - Commercial Transfer Facilities** Resource Recovery Parks (RRP)- Industrial Resource Recovery Parks - Community (Convenience drop-off) Anaerobic Digestion Alternative Daily Cover-Computer Aided Earth Moving System El Sobrante Landfill (82 miles) Hydrolysis Mechanical Processing (Autoclave) Chemical Processing (Depolymerization) 500-tpd Mass-Burn Municipal Waste Combustor Prima Deshecha Landfill (62 miles) Frank R Bowerman Landfill (78 miles) MSW Composting^ Gregory Canyon Landfill (41 mil)^ Leachate Recirculation^ Bio-Cell - Bioreactor^ Olinda Alpha Landfill (90 miles)^	4.33 4.00 4.00 4.00 4.00 4.00 4.00 3.67 3.00
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	DIN2  ZWI-4  ZWI-5  CT1  LO3  DIN3  ZWI-6  ZWI-7  ZWI-8  CT2  LO4  DOUT1  CT3  CT4  CT5  WTE1  DOUT2  DOUT3  CT6  DIN4  LO5  LO6  DOUT4  DOUT6	Miramar Height Increase (0 miles) Sycamore Landfill (8 miles) Greenwaste Facilities* Construction & Demolition Facilities Gasification & Pyrolysis Landfill Reclamation of North Miramar Otay Landfill (20 miles) Material Recovery Facilities - Commercial Transfer Facilities** Resource Recovery Parks (RRP)- Industrial Resource Recovery Parks - Community (Convenience drop-off) Anaerobic Digestion Alternative Daily Cover-Computer Aided Earth Moving System El Sobrante Landfill (82 miles) Hydrolysis Mechanical Processing (Autoclave) Chemical Processing (Depolymerization) 500-tpd Mass-Burn Municipal Waste Combustor Prima Deshecha Landfill (62 miles) Frank R Bowerman Landfill (78 miles) MSW Composting^ Gregory Canyon Landfill (41 mil)^ Leachate Recirculation^ Bio-Cell - Bioreactor^ Olinda Alpha Landfill (90 miles)^ Rail Haul - Mesquite Regional Landfill (142 miles)^	4.33 4.33 4.00 4.00 4.00 4.00 4.00 3.67 3.00
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	DIN2  ZWI-4  ZWI-5  CT1  LO3  DIN3  ZWI-6  ZWI-7  ZWI-6  ZWI-7  ZWI-8  CT2  LO4  DOUT1  CT3  CT4  CT5  WTE1  DOUT2  DOUT3  CT6  DIN4  LO5  LO6  DOUT4  DOUT6  LO7	Miramar Height Increase (0 miles) Sycamore Landfill (8 miles) Greenwaste Facilities* Construction & Demolition Facilities Gasification & Pyrolysis Landfill Reclamation of North Miramar Otay Landfill (20 miles) Material Recovery Facilities - Commercial Transfer Facilities** Resource Recovery Parks (RRP)- Industrial Resource Recovery Parks - Community (Convenience drop-off) Anaerobic Digestion Alternative Daily Cover-Computer Aided Earth Moving System El Sobrante Landfill (82 miles) Hydrolysis Mechanical Processing (Autoclave) Chemical Processing (Depolymerization) 500-tpd Mass-Burn Municipal Waste Combustor Prima Deshecha Landfill (62 miles) Frank R Bowerman Landfill (78 miles) MSW Composting^ Gregory Canyon Landfill (41 mil)^ Leachate Recirculation^ Bio-Cell - Bioreactor^ Olinda Alpha Landfill (90 miles)^ Rail Haul - Mesquite Regional Landfill (142 miles)^ Steam Injection*	4.33 4.33 4.00 4.00 4.00 4.00 4.00 4.00 3.67 3.00
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	DIN2  ZWI-4  ZWI-5  CT1  LO3  DIN3  ZWI-6  ZWI-7  ZWI-6  ZWI-7  ZWI-8  CT2  LO4  DOUT1  CT3  CT4  CT5  WTE1  DOUT2  DOUT3  CT6  DIN4  LO5  LO6  DOUT4  DOUT6  LO7	Miramar Height Increase (0 miles) Sycamore Landfill (8 miles) Greenwaste Facilities* Construction & Demolition Facilities Gasification & Pyrolysis Landfill Reclamation of North Miramar Otay Landfill (20 miles) Material Recovery Facilities - Commercial Transfer Facilities** Resource Recovery Parks (RRP)- Industrial Resource Recovery Parks - Community (Convenience drop-off) Anaerobic Digestion Alternative Daily Cover-Computer Aided Earth Moving System El Sobrante Landfill (82 miles) Hydrolysis Mechanical Processing (Autoclave) Chemical Processing (Depolymerization) 500-tpd Mass-Burn Municipal Waste Combustor Prima Deshecha Landfill (62 miles) Frank R Bowerman Landfill (78 miles) MSW Composting^ Gregory Canyon Landfill (41 mil)^ Leachate Recirculation^ Bio-Cell - Bioreactor^ Olinda Alpha Landfill (90 miles)^ Rail Haul - Mesquite Regional Landfill (142 miles)^ Steam Injection* Allied Imperial Landfill (124 miles)^	4.33 4.33 4.00 4.00 4.00 4.00 4.00 4.00 3.67 3.00
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	DIN2  ZWI-4  ZWI-5  CT1  LO3  DIN3  ZWI-6  ZWI-7  ZWI-6  ZWI-7  ZWI-8  CT2  LO4  DOUT1  CT3  CT4  CT5  WTE1  DOUT2  DOUT3  CT6  DIN4  LO5  LO6  DOUT4  DOUT6  LO7	Miramar Height Increase (0 miles) Sycamore Landfill (8 miles) Greenwaste Facilities* Construction & Demolition Facilities Gasification & Pyrolysis Landfill Reclamation of North Miramar Otay Landfill (20 miles) Material Recovery Facilities - Commercial Transfer Facilities** Resource Recovery Parks (RRP)- Industrial Resource Recovery Parks - Community (Convenience drop-off) Anaerobic Digestion Alternative Daily Cover-Computer Aided Earth Moving System El Sobrante Landfill (82 miles) Hydrolysis Mechanical Processing (Autoclave) Chemical Processing (Depolymerization) 500-tpd Mass-Burn Municipal Waste Combustor Prima Deshecha Landfill (62 miles) Frank R Bowerman Landfill (78 miles)  MSW Composting^ Gregory Canyon Landfill (41 mil)^ Leachate Recirculation^ Bio-Cell - Bioreactor^ Olinda Alpha Landfill (90 miles)^ Rail Haul - Mesquite Regional Landfill (142 miles)^ Steam Injection* Allied Imperial Landfill (124 miles)^	4.33 4.33 4.00 4.00 4.00 4.00 4.00 4.00 3.67 3.00