



County of San Diego Strategic Plan to Reduce Waste



Final Plan
April 12, 2017



HF&H Consultants, LLC

in collaboration with



O'Rourke

This Final Strategic Plan to Reduce Waste presents analysis and recommendations prepared by HF&H Consultants, LLC for the County's achievement of 75% diversion by 2020 and Zero Waste (90% diversion) by 2040.

The County has not endorsed or approved this Strategic Plan or any of its recommendations. County staff will present this Strategic Plan to the County Board of Supervisors in mid-2017 for consideration.

EXECUTIVE SUMMARY

On January 27, 2015, the County of San Diego's (County) Board of Supervisors (Board) directed staff to identify how the County is achieving its current diversion rate, and on programs, policies, and resources needed to achieve 75% Diversion by 2020 and Zero Waste (90% or greater Diversion) by 2040 (collectively "Diversion Targets"). The Board further identified an interest in assessing diversion opportunities and strategies for residents and businesses in the unincorporated areas of the County and for its own operations (internal operations) to support efforts towards Zero Waste. This Strategic Plan to Reduce Waste (Strategic Plan) is a response to the Board's direction. It presents a set of diversion programs and policies to achieve 75% Diversion and additional strategies targeting Zero Waste. Strategies focus on waste prevention, reuse, repair, recycling, composting, and more.

The County's diversion rate was 62% in 2015, as calculated using the State of California (State) reporting methodology. It is reflective of waste prevention and reuse efforts as well as hauler diversion programs. The non-exclusive franchise haulers divert approximately 27% percent of the materials they collect in the unincorporated areas. Given the current diversion rate, reaching 75% Diversion and Zero Waste will necessitate a significant, well-planned, and well-funded effort. Initially, materials targeted for diversion will include traditional recyclables, yard trimmings, food scraps, compostable paper, and construction and demolition debris (C&D); and, later, nearly all types of materials discarded will be targeted.

The County's focus on achieving its Diversion Targets at this time is advantageous for several reasons.

- The State set a 75% State-wide recycling policy goal in 2011 and has passed several pieces of legislation in the past five years supporting this goal;
- Landfills in San Diego County may not have sufficient capacity beyond 2028 if diversion levels are maintained at current levels¹. Increased diversion will extend local landfill capacity;
- Zero Waste programs and policies will support the County's mission, values, and initiatives including the County's *Live Well San Diego* vision, Climate Action Plan, 2015-2020 Strategic Energy Plan, Eat Well Standards, and Food System Initiative; and,
- Materials diverted from landfill disposal will reduce greenhouse gases, which will support the County's Climate Action Plan goals.

The strategic planning process involved a robust program and policy analysis that included identification of over 230 program and policy options, and in-depth analysis of 40 short-listed options. The in-depth analysis examined costs, diversion potential, cost-effectiveness, greenhouse gas (GHG) emissions reductions, and job creation potential. Program and policy options addressed a broad range of sectors, material types, and materials management solutions, including waste reduction, reuse and repair, recycling, composting, and education strategies. A stakeholder outreach process invited input from various parties including residents, businesses, members of the recycling and waste industry, non-profit organizations engaged in diversion programs, and various County departments.

Strategy for Achieving Diversion Targets in the Unincorporated Areas

A recommended set of programs and policies was developed to reach 75% Diversion and move towards Zero Waste. The County has approximately 3.5 years (from mid-2017 to 2020) to achieve 75% Diversion. Several recommended programs require one to two years of planning and implementation time, with

¹ The 2012 Five-Year Review Report of the San Diego County Integrated Waste Management Plan (CIWMP) included a forecast that the landfill infrastructure in San Diego County will have sufficient capacity through 2028 depending on many factors. An updated report is anticipated to be completed in summer of 2017.

more time needed for organics processing facility infrastructure development. Furthermore, programs need time to mature to achieve the diversion success anticipated. Given these factors, reaching 75% Diversion by 2020 will require that the County initiate programs immediately, move quickly with implementation, fully dedicate needed resources, and make a strong commitment to support and manage current and new diversion programs and policies.

It may be more pragmatic for the County to consider a longer planning horizon for achieving 75% Diversion to allow more time to implement programs and policies and to allow the programs to mature into high-performing diversion programs. It should be noted that regardless of the County's diversion goal(s) or desired timeframe for achievement, the County will need to move ahead with several of the programs and policies analyzed as part of this Strategic Plan to meet current State regulations, including those with phased implementation requirements as well as those in the process of being finalized. Regardless of the diversion goal(s) and timeline pursued by the County, the Strategic Plan provides useful information including estimates of diversion potential, cost, cost-per-diverted ton, greenhouse gas (GHG) emissions reductions, potential job creation, and County staffing needs for 20 programs and policies for the unincorporated areas and 20 programs and policies for internal County operations.

Actual diversion performance and costs for the diversion programs and policies will differ depending on: the manner in which the programs are implemented; participation levels of the residents and businesses in the programs; the County's ongoing commitment to the programs; and, external factors such as: the economy; actual composition of the waste stream; growth in population; changes in demographic conditions; number and types of new businesses; product design and packaging; collection and processing technology; changes in federal and State legislation and regulations; and, more. For these reasons, the County will need to periodically assess program performance and adjust its plans over time.

The implementation strategy presented in this Strategic Plan is organized using three planning phases. The Near-Term Phase includes a portfolio of programs and policies selected to achieve 75% Diversion by 2020; and, the Mid- and Long-Term Phases include plans to move diversion to Zero Waste by 2040.

Near-Term Programs (2017-2020) to Achieve 75%

Figure ES-1 presents the recommended list of Near-Term programs and policies and identifies priorities for 2017/2018 and 2019/2020 timeframes. The primary focuses for the 2017/2018 timeframe include:

- Supporting development of large-scale organics processing facilities, on-site community and farm composting, and reducing food waste because 40% (64,000 tons per year) of the diversion needed to achieve 75% Diversion requires processing of yard trimmings, food scraps, and compostable paper. Without significant increases in organics processing capacity, achievement of 75% by 2020 is not realistic. While capacity is being developed, food waste prevention and food donation programs can reduce the amount of food waste disposed and help feed those in need;
- Implementing changes to the non-exclusive solid waste management agreements to increase residential and commercial diversion and C&D diversion by C&D haulers. These changes represent 73% (121,000 tons per year) of the diversion needed to achieve 75% Diversion (and are inclusive of some organic materials reflected in the above point on organics processing); and,
- Amending the County's C&D ordinance to expand its C&D recycling requirements to cover more C&D projects, potentially diverting 6% (10,000 tons per year) of the total diversion needed.

The 2017/2018 focus on these three key efforts must be immediate and intensive, as they are critical to provide the infrastructure and framework to support implementation of several programs needed to reach 75% Diversion. The 2019/2020 programs and policies, including: expanded technical assistance and public education and outreach programs; promotion of reuse and repair opportunities; and, support for and promotion of drop-off sites for paint, mattresses, carpet/padding, and other materials covered

by State product stewardship legislation/regulation are also critical to achieving 75% Diversion. Two household hazardous waste (HHW) programs reduce the illegal disposal of materials that creates potentially significant health risks for the community and the environment and support the County’s compliance with State AB 939 requirements for safe collection and disposal of HHW generated by residents.

Near-term implementation of supplemental programs (listed in Figure 5-2) will provide additional diversion that will serve as a contingency if the diversion from the programs and policies presented in Figure ES-1 do not result in achievement of 75% Diversion. Lastly, implementation of the recommended funding strategies (presented at the end of this section) should be accomplished in 2017/2018 to provide the essential funding resources that will enable implementation of this Strategic Plan.

Figure ES-1: Recommended Near-Term Priorities (2017 – 2020) for Unincorporated Areas

	Program/Policy	Estimated Diversion (d) (tons/year)	2017 / 2018 Priorities	2019 / 2020 Priorities
1	Enhance zoning ordinance to support organics processing (a)	---	✓	
2	Support organics processing facility development (a)	---	✓	
3	Implement commercial food scraps collection (b)	34,000	✓	
4	Regulate C&D haulers with minimum diversion requirements	29,500	✓	
5	Enhance single-family collection with consistent hauler requirements	24,700	✓	
6	Enhance commercial collection with minimum recycling level requirements	21,000	✓	
7	Enhance C&D diversion with ordinance amendment to lower project threshold	10,300	✓	
8	Expand social/behavior change marketing program	9,200		✓
9	Support on-site community/commercial/farm composting	7,500	✓	
10	Expand technical assistance for multi-family, businesses, schools	6,000		✓
11	Support efforts for reuse of textiles and State Extended Producer Responsibility (EPR) for mattresses, carpet/padding, paint	5,300		✓
12	Collect food waste from single-family premises (b)	4,200	✓	
13	Enhance hauler performance standards, including minimum diversion goals	3,900	✓	
14	Improve diversion, tracking and oversight of haulers	2,600	✓	
15	Promote food waste prevention	2,500	✓	
16	Support food donation through County Food System Initiative (c)	1,600	✓	
17	Establish additional hauler-provided drop-off facilities	1,500	✓	
18	Provide regular education on County and State recycling requirements	1,400		✓
19	Collaborate with industry to establish an HHW facility in North County unincorporated area	---		✓
20	Provide additional HHW mobile drop-off events	---	✓	
	Total	165,200		

- (a) Diversion is not listed for "Enhance Zoning Ordinance" and "Support Organics Processing Facility Development" because the organics diversion is included in other programs.
- (b) Food scraps collection implementation is dependent on availability of organics processing facilities; implement collection as soon as possible.
- (c) Food donation diversion is dependent on implementation of the County’s Food System Initiative. Staffing and costs will be covered by the Initiative, and are not in the High Diversion/Zero Waste Strategic Plan.
- (d) Estimated diversion shows the high end of estimates provided in the High Diversion/Zero Waste Strategic Plan. Actual results may be less.

Mid-Term Programs (2021-2030) to Progress Towards Zero Waste

A recommended set of Mid-Term programs is presented in Figure ES-2. Over the next five years, conditions will change both in response to the implementation of this Strategic Plan as well as other external factors like State regulations and the global economy. Given this, the County should evaluate

the Mid-Term programs and policies presented here prior to, or at the commencement of, the Mid-Term Phase and proceed with implementation, unless conditions change to reduce the need for the programs. Additional program and policy options, not listed here, may gain traction in the next few years and will warrant consideration as well.

Figure ES-2: Mid-Term (2021 – 2030) Programs and Policies for the Unincorporated Areas

	Program/Policy*
1	Evaluation of the achievement of the franchise collection system diversion targets, and, if warranted, evaluation of other options that may improve hauler diversion
2	Expanded hauler diversion requirements
3	If warranted, evaluation and adoption of a universal collection ordinance
4	Enforcement of County and State mandatory diversion requirements
5	Amendment of C&D ordinance to increase diversion
6	Landfill bans on selected materials
7	Producer responsibility ordinances
8	Product or packaging bans
9	More convenient organics collection service
10	Mixed materials processing

* The Mid-Term program and policy options presented here will be evaluated prior to or at the commencement of the Mid-Term Phase and implemented, if warranted.

Long-Term Programs (2031-2040) to Achieve Zero Waste

Between now and 2040, technological, legislative, economic, political, global marketplace, and cultural changes will impact waste generation, characterization of materials discarded, and the future of the materials management industry. State legislation and industry perspectives on this subject are highly dynamic. Given these factors, the Strategic Plan does not include recommendations for the Long-Term Phase. If the implementation of Near- and Mid-Term recommendations do not achieve Zero Waste, it will be critical to prepare a new Zero Waste strategic plan during the later portion of the Mid-Term Phase to assess then-current conditions and identify how to reach Zero Waste within that context.

Strategy for Achieving Diversion Targets in County Internal Operations

The County’s goals for this Strategic Plan include a focus on increasing diversion for the County’s internal operations. Because the County does not have a definitive baseline assessment of the current diversion level, making significant long-term commitments of staff time and costs for program and policy implementation does not seem prudent; therefore, recommendations presented for internal operations focus only on the Near-Term Phase (2017 to 2020). Key programs and policies include the following:

- Establishing a measurement and reporting process and determining baseline performance to better understand diversion and materials management practices of internal operations;
- Increasing reuse of the County’s surplus property by revising the process for surplus property disposal when the contract is rebid in 2017; and offering incentives and recognition to departments that acquire surplus property through the reutilization program;
- Establishing a comprehensive Environmentally Preferable Purchasing Policy (EP3) that focuses on choosing environmentally-friendly products and services more broadly;
- Updating the County’s procurement process with more diversion objectives and requirements in the County’s RFPs and resulting contracts for product purchases and service providers (such as food service providers, janitorial services, maintenance services, landscaping, etc.); and,

- Enhancing diversion through new requirements in the County collection contract, new facility leases, and facility lease renewals including requirements for education of employees and janitorial staff; technical assistance to departments; improved recycling container placement and signage; and diversion of additional food waste and yard trimmings.

After these recommendations are implemented and monitored for a year or two to establish a baseline, the County can integrate continual improvement in diversion as part of its Department Excellence Goals. Figure ES-3 identifies the recommended Near-Term programs and policies for internal operations.

Figure ES-3: Recommended Near-Term Programs and Policies for Internal Operations

Program/Policy	
2017 / 2018 Timeframe	
1	Establish High Diversion/Zero Waste policy and organization (a)
2	Establish measurement and reporting process and baseline
3	Increase use of County's existing reutilization process
4	Expand the B-67 Recycled Products Purchasing Policy into an Environmentally Preferable Purchasing Policy (EP3)
5	Incorporate Zero Waste objectives into County procurements
6	Enhance diversion requirements in waste collection contracts (b)
7	Ensure optimal recycling at facilities owned and/or leased by County (b)
8	Increase diversion of yard/wood /food waste generated by County (b)
9	Provide waste reduction and recycling training to employees
10	Require regular training of janitorial staff including contractors
2019 / 2020 Timeframe	
11	Revise G-15 Design Standards to include renovations of facilities
12	Prioritize use of recycled materials in road construction
13	Partner with non-profit organization to provide reuse collections or drop-off boxes at County facilities for employees
14	Partner with Sheriff's Inmate Re-entry Services to consider training program on repair
15	Create capability for collection of used pallets from County facilities
16	Require recycling and composting for County-sponsored events
17	Support food waste reduction and food donation at County operations (b)
18	Increase use of locally-produced mulch/compost at County facilities
19	Support waste reduction and recycling by departments through technical assistance (b)
20	Consider expanding partnerships with artists to create displays from repurposed material

(a) Establishment of a High Diversion/Zero Waste policy (Program 1) is anticipated to occur after a baseline of current conditions is developed (Program 2).

(b) Program implementation for leased facilities may be delayed until lease renewal or amendment.

Funding Strategy

Funding for current County diversion programs for the unincorporated areas is primarily obtained from franchise fees paid on material disposed by the non-exclusive haulers. As the County continues to implement programs to reduce material disposed, it inherently reduces funding received to support its programs. To reach the County's Diversion Targets, a sustainable funding strategy needs to be implemented in 2017 to generate funds to support current and recommended programs. The following funding mechanisms are recommended:

- **Franchise Fee Modifications.** The funding strategy recommends changing the franchise fee collection method, which is now a \$2.35 per-ton fee on solid waste disposed (that has not been adjusted since 1997), to a 4.3% franchise fee charged as a percentage of haulers' gross rate receipts.

Since gross receipts keep pace with inflation and are tied to all tonnage collected (not solely declining solid waste tonnage), this funding will be more sustainable than the County's current method. If the County chooses to continue with a per-ton franchise fee, a \$6.50 per-ton franchise fee is estimated for all tons collected. It should be assessed on all materials collected including solid waste, recycling, organics, and C&D and adjusted annually by an inflation factor. If the County chooses to recover the HHW program costs through the franchise fees, the franchise fees will need to be increased by adding 1.4% for the gross receipts basis or \$2.00 for the per-ton basis. If the County chooses to recover franchise administration costs through the franchise fees, the franchise fees will need to be increased by adding 0.3% for the gross receipts basis or \$0.40 per ton for the per-ton basis.

- **Franchise Administration Fees.** To recover costs related to the administration of the non-exclusive hauling system, recommendations include establishing annual hauler fees (\$8,000 to \$12,000 per hauler per year) subject to annual inflation adjustments and periodic review.
- **C&D Permit Fees.** To recover administration costs related to the C&D permit review process, recommendations include establishing C&D permit fees (\$750 to \$3,000 per C&D permit) subject to annual inflation adjustment and periodic review.
- **HHW Fee.** To fund HHW program costs, establishment of an HHW fee is recommended on occupied residential dwelling units in the unincorporated County, using a Proposition 218 assessment process.² The fee is estimated to be \$5.10 to \$6.50 per dwelling unit per year subject to annual inflation adjustment and periodic review.
- **Customer Rates.** Several recommended programs and policies will increase costs to the non-exclusive haulers providing these expanded diversion services. Haulers will pass these costs onto their customers. Estimated rate impacts range from 9.9% to 11.9%, including franchise fees. Actual rate impacts will be determined by the haulers and will vary widely, with residents likely experiencing smaller impacts and businesses and industry experiencing greater impacts.

While one-time and ongoing program costs are estimated for the recommended programs and policy options for the internal operations, funding for the recommended diversion programs and policies for internal operations is not addressed in detail in the Strategic Plan. After a diversion baseline has been established, the cost estimates for the recommended programs and policies in this Strategic Plan will be reevaluated. It is anticipated that funding for one-time costs would be requested through appropriations from the Board and ongoing costs would be funded through increased internal service funds or general agreements paid by departments.

County Implementation Team

The Strategic Plan anticipates that the Department of Public Works – Solid Waste Planning and Recycling Section will be designated as the lead department for oversight and monitoring of the unincorporated areas' progress towards its Diversion Targets and the Department of General Services will be designated as the lead department for oversight and monitoring of the County internal operations' progress towards its Diversion Targets. Other departments that will play significant roles include: Department of Purchasing and Contracting; Department of Environmental Health; Department of Planning and Development Services; and, Health & Human Services Agency.

² Costs incurred by the County in implementation of an HHW fee would be in addition to the estimated HHW fee.