



City of San Diego, California



Profile

The sixth-largest city in the United States, San Diego is the southern-most major metropolitan area in California. The city lies 125 miles south of Los Angeles and 500 miles south of San Francisco. Current estimated population for the City of San Diego is 1,277,000.

According to the San Diego Regional Chamber of Commerce Economic Research Bureau, projections for the 1999 economy indicate continued growth through 2000. The value of all goods and services generated in San Diego County are projected to be \$117.3 billion for 2001.



The “2020 Regionwide Forecast” released by the San Diego Association of Governments projects that between now and the year 2020 there will be 1 million additional residents, over 365,000 new homes, more than 310,000 new jobs, and a more ethnically diverse population.

The key industries within San Diego and its surrounding communities include: agriculture, defense, high technology, international trade, manufacturing, biotechnology, retail and tourism. Some notable facts...

- The city has more than 100,000 high technology workers in over 500 companies.
- San Diego has the third largest concentration of biotechnology industry in the United States.
- Telecommunications industry contributes more than \$5 billion annually to the local economy.
- San Diego is regularly ranked in the top-ten most popular destinations in the continental United States for international visitors.
- Ranks as the 10th largest agriculture producer in the nation.
- Trade is a major economic strength. The San Diego-Mexico border is the busiest in the world. Goods moving through San Diego customs district totaled \$23 billion in 1997.



The City of San Diego is a charter city operating under the Council-Manager form of government. The City Council is comprised of eight Council Members, elected by district, who serve overlapping four-year terms. The Mayor, elected at large, serves a four-year term. The Mayor and City Council, acting as the City's legislative and policy-making body, appoints the City Manager. The City Manager is the City's chief administrator responsible for implementing policies and programs adopted by the Mayor and City Council. The City Manager is responsible for the daily operations of the City and its' seven business centers. There are also five independent departments (City Auditor, City Clerk, Personnel and Retirement) and a City Attorney elected at large.

Fenceline

The Environmental Services Department is primarily responsible for management of the City's solid waste. The Department consists of over 500 employees organized into six divisions and has a total operations and capital budget of over \$100 million.

The Refuse Disposal Division has been selected as the fenceline. Due to its significant impact on the environment and heavy interface with regulators, Refuse Disposal presents a multi-faceted opportunity. The Division is made up of four major programs that include: Fee Collection, Miramar Landfill Operations and Maintenance, Inactive Site Operations and Maintenance and Biological Services Vegetation Restoration and Bird Control. The Division is overseen by a Deputy Director and consists of 94 employees with a budget of almost \$18.7 million (FY2000).

The Division is responsible for the City's only active municipally owned landfill. Miramar Landfill handles about 1.4 million tons of refuse annually and processes over 400,000 transactions per year.



Other responsibilities include:

- Administration of accounting and cash management for 17 franchised commercial haulers and \$45 million in collected revenues
- Maintenance of six closed municipal landfills, including active environmental restoration
- Operation of a greens diversion/composting operation
- Meeting regulatory requirements from numerous agencies

Key Drivers for Adopting an EMS

The City of San Diego identified several factors that led to their decision to design and implement an EMS. The city hoped to improve employees' participation in environmental

performance as well as improving the city's overall environmental performance. In addition, the adoption of an EMS is consistent with the city's overall environmental principles and potentially provided San Diego with a competitive advantage on issues such as privatization. The availability of government assistant programs to aid in EMS development made the adoption of an EMS attractive for the City of San Diego. An EMS was also viewed as a valuable public relations tool.

Significant Aspects & Impacts

After development and review of the RDD's process maps the EMS Core Team conducted an environmental impact/aspect survey throughout the Division. The impacts/aspects that were identified as a result of this survey were then subjected to our significance criteria matrix producing a list of our significant aspects. Keeping in mind our business realities, twelve of the twenty-three significant aspects were selected for management through our Environmental Management Programs. Objectives and targets were set for managing these significant aspects and the EMPs were put in place. The remaining significant aspects are being controlled through Standard Operating Procedures until such time as they can be addressed through the EMP process.

Objectives & Targets

1) Fuel Use Reduction

- Heavy Equipment
10% fuel use reduction in contracted heavy equipment.
- Stationary Equipment
Review, and amend where necessary, operating procedures and maintenance activity to obtain optimum fuel efficiency.
- Support Vehicles
5% fuel use reduction in Landfill Gas Management and Groundwater Monitoring programs.

2) Water Use Reduction – Potable/Reclaimed

- 25% Potable water use reduction
- Conduct Native Plant Nursery water use baseline study.
- Complete Native Plant Nursery water tension meter feasibility study.

3) Resource Conservation Effort (RCE)

- 10% paper use reduction throughout division.



- Complete landfill gas to energy feasibility study for Arizona Street landfill, select privatization vs. city operation, select firm if study data supports project.

4) Positive Impact (Continuous Improvement)

- Expand N.P.D.E.S. Best Management Practices (BMPs) program to include routine pump down of desilting pond, additional mulch and straw wattle application and installation of extra silt fencing.



- Expand Native Habitat Restoration Program awareness to all relevant city departments.
- Complete Ticket-less Transaction for Commercial Haulers Pilot Project and implement program with Waste Management of California. Implement program with as many other commercial haulers as possible.

Benefits of Adopting an EMS

The City of San Diego has realized a number of benefits resulting from the adoption of an EMS into their Refuse Disposal Division. In addition to the long term benefits expected from our EMS, we have been pleasantly surprised by the enthusiasm shown by employees who have already changed the way they look at their jobs. Concurrent with the development of the EMS structure, they have suggested and implemented new work methods including: reductions in potable water use of up to 90% (25 M gallons/year); 50% reduction in water cost by using reclaimed water for 90% of operational water needs; potential for up to \$750 K in annual equipment operations cost savings as a result of looking at fuel use/emission reduction measures for our heavy equipment ops; 90% reduction in purge water generation in our groundwater monitoring program; utilization of stormwater from our sedimentation basin for dust control (up to 500K gallons per storm event) which concurrently minimizes stormwater impacts to the adjacent San Clemente Canyon stream. Other Benefits from their EMS implementation include:

- Increased environmental awareness as employees view processes and operations from an EMS perspective.
- Opportunity to identify environmental impacts throughout the division (both positive and negative).
- Ability to see more clearly the environmental consequences of our operation by focusing on the creation of flow charts and the determination of impacts and aspects.
- Operational cost savings realized by viewing our fenceline areas with an EMS perspective. These savings will be realized as the operational controls are implemented through our Environmental Management Programs.

Next Steps

The Refuse Disposal Division should be in position for the ISO 14001 Certification audit by the spring of 2002. Completing the final stages of the EMS, conducting our first internal audit and management review, and selecting an ISO 14001 Third Party Registrar are our top priorities of our implementation teams in the next few months.

Costs (projected through 3/02)

The Refuse Disposal Division committed the resources of one full time position to fulfill the role of the EMR, hired two student interns to support the project, utilized a four member Process Team to provide project oversight, a five member Core Team for EMS development and implementation, and a twelve member Partnership Team to assist the Core Team in the field. Labor costs are projected to total approximately \$180 K, travel costs \$20 K, and consultant services \$25 K. ISO registration should range between \$10 K to \$ 15K.