SWANA 2011

Collection Systems Award Submission

City of San Diego
Environmental Services Department
Collection Services Division
(4-10’s-5: A New Way of Doing Business!)
Executive Summary

4-10’s-5: A New Way of Doing Business

In 2010, like many municipalities across the country, the City of San Diego’s General Fund was experiencing significant challenges with a projected $59 million shortfall in its FY-2011 Budget. The Mayor challenged General Fund departments to make significant cost reductions since taxes could not be raised and other revenue sources were adversely impacted by the nation’s economic downturn.

The Collection Services Division (CSD) of the Environmental Services Department rose to the challenge by developing and implementing a major change in its method of collecting residential refuse and recyclables that resulted in annual savings of $4.4 million.

By shifting from a traditional 8 hour day, five day per week collection system to a system where drivers work 10 hours per day, four days per week, but refuse and recyclables are collected five days per week; the number of routes were reduced by 24%, the collection fleet was reduced by 29 vehicles and staffing was reduced by 40 positions without layoffs or reducing the high level and quality of collection services provided to San Diego residents.

Good planning, effective public outreach and fully involved employees enabled CSD to successfully implement this significant change to San Diego’s residential collection system.
Introduction

Prior to 1919, refuse and garbage in the City of San Diego was collected and disposed of by a private hauler under a contract from the City. All refuse generated in the City was required to be exclusively handled by the City’s contractor which led to serious conflicts with local businesses, especially hotels and restaurants, who contended that the City could not compel them to give their garbage to the contractor and threatened to litigate all the way to the California Supreme Court. Their basic contention was that the garbage had value and the City’s contractor, and not them, would profit from selling it as feed to local hog farmers.

The issue over who would provide refuse collection services was so contentious that the citizens of San Diego placed an initiative on the ballot of a general election held on April 9, 1919, to require the City to provide refuse collection and disposal services and to levy a tax sufficient to pay for the services rather than directly charging individual residents and businesses.

On May 1, 1919, with an annual budget of $75,000, City employees began providing refuse collection services to the City’s 25,000 residents using five mule drawn wagons. In 2010, 91 years later, the City had grown to a population of 1.4 million people with City employees providing refuse collection services to 305,000 residences. The solid waste collection fleet had grown to 185 collection vehicles, primarily automated side load packers, and the annual budget had grown to $50.9 million.

With all of this growth and technological changes, the 1919 People’s Ordinance was still in effect and the City still provided residential refuse collection services with no direct fee or charge. The collection of commercial and industrial wastes was now provided by eleven local, regional and national refuse collection companies under City granted non-exclusive franchises with the market place setting commercial hauling rates and commercial haulers paying a franchise fee to the City.

At the same time, like many municipalities across the country, the City’s General Fund was experiencing significant fiscal challenges with a projected $59 million shortfall in its FY-2011 Budget. The Mayor challenged General Fund departments to make significant cost reductions, since taxes could not be raised and other revenue sources were adversely impacted by the nation’s economic downturn, to close the budget gap.
Design of 4-10’s-5 Collection System

San Diego is the nation’s eighth and California’s second largest city with a population of over 1.4 million, an area of 342 square miles and over 3,000 miles of streets and alleys used for refuse collection. San Diego stretches nearly 40 miles from south to north and has a topography consisting of mesas intersected by canyons running north to south, south to north and east to west with elevations ranging from sea level to 600 feet and four major mountains with elevations up to 1,600 feet. The southern City limit is the international border with Mexico, and the remainder of the City limits includes 93 miles of shoreline (bays, lagoons and the Pacific Ocean). The City also abuts twelve of the County’s eighteen cities and a section of unincorporated County.

The City has grid pattern streets in only a moderate portion of the City that was developed early in the 20th century, and most of the City is broken up into distinct communities, with meandering streets and numerous dead ends and cul-de-sacs, by the area’s extensive canyon systems.

All of these factors contribute to the complexity of providing reliable weekly refuse collection and bi-weekly recyclables and green waste collection services. Additionally, because of San Diego’s moderate climate, green waste needs to be collected year round.
To service 305,000 of San Diego’s single and multiple family residences, CSD developed a comprehensive collection system of over 600 routes per week using a combination of 32 cy automated side load packers, 25 cy rear load packers, 37 cy front end load packers, 18 cy rear load packers and 6 cy side load packers to meet the specific needs of San Diego’s diverse residential communities.

As a General Fund activity, CSD is in direct competition with other core municipal services, such as police, fire, library, parks and recreation programs, for funding. CSD has a long history of continued improvements in productivity, employee safety and cost containment. This included moving from mule drawn wagons to motorized vehicles in the 1920’s, to enclosed packer trucks in the 1950’s, high capacity rear load packers in the 1970’s, one person manual side load packers in the 1980’s and automated side load packers in the 1990’s. San Diego began the curbside collection of recyclable materials in the early 1990’s and expanded the service citywide by 2000.
During the last decade, efforts were focused on improving collection productivity by rerouting the entire City using routes designed by Route Smart software, and using GPS tracking of vehicles to aid in dispatching trucks to missed pickups or where a vehicle had broken down and help was needed to complete a collection route.

Today the City’s residential solid waste collection system utilizes an integrated and sophisticated system of state-of-the-art automated collection vehicles, Geographic Information System (GIS) mapping, Route Smart software route designs, Global Position Satellite (GPS) tracking of vehicles and route status, real time electronic transmission of disposal tonnage, computerized customer service and dispatch centers, and radio and/or computer communications in all vehicles for drivers and supervisors to receive and respond to resident service requests in real time.

All of these changes have resulted in major improvements in productivity that allowed more homes to be serviced and for more tons of refuse and recyclables to be collected with fewer employees and collection vehicles. Despite being an efficient and effective collection system, the City’s financial circumstances required CSD to look into how costs could be reduced even further without reducing service levels to the public.

The City’s residential solid waste collection service has three major cost elements: labor, equipment (acquisition, maintenance and fuel) and landfill disposal fees. Employee salaries and fringe benefits are set by the City Council though meet and confer sessions with employee unions and are out of the control of the CSD; as are disposal fees at the City’s Miramar Landfill which are set by the Mayor and ratified by the City Council.

In order to meet the Mayor’s challenge to achieve significant cost reductions or face arbitrary budget reductions, CSD had to develop and implement a radical change in its collection system that would increase productivity, reduce the size of its collection fleet and reduce staffing without impacting the high level and quality of collection services San Diego residents were accustomed to receiving.
In response to the Mayor’s challenge, CSD staff identified two major solid waste collection program resources that were not being fully utilized and, if they could be more fully utilized, had the potential to provide significant operational costs savings.

The first underutilized resource was CSD’s refuse and recycling collection vehicle fleet. Under the existing eight-hour day system, each vehicle was expected to operate approximately 1,500 hours per year or 10,500 hours over its projected seven year life cycle. This is fewer hours than the 15,000 hour projected life of modern refuse collection vehicles, assuming a strong program of preventative maintenance and regular repairs. If the vehicles could be operated ten-hours per day and five days per week, they could be expected to operate for approximately 2,000 hours per year or up to 14,000 hours over a seven year life cycle.

The second underutilized resource was daylight and the Miramar Landfill’s hours of operation. While operating on an eight-hour work schedule, which allowed crews to return to the yard after seven hours if they had completed their assigned collection routes, City crews were taking their last load to the landfill or recycling center between 1:30 and 2:00 pm, while these facilities accepted loads until 4:30 or 5:00 pm. In San Diego, sunset is not until 5:00 pm during the winter and as late as 8:00 pm during summer daylight savings time. By changing from an eight-hour work schedule to a ten-hour work schedule, City crews would be able to take full advantage of available daylight and disposal/recycling facility operating hours.

However, while changing to a ten-hour day with collection services provided on four days each week would make better use of daylight hours and facility operating hours, it would not improve equipment utilization rates or significantly improve productivity.

CSD staff then explored an alternative work schedule of employees each working four ten-hour days per week, but with collection services continuing to be provided on five days per week. By running computer simulations using GIS map data and Route Smart software, this alternative work schedule was projected to achieve the City’s objectives of more effectively using its solid waste collection vehicles, increasing productivity, and at the same time, decreasing the number of collection routes and personnel needed to provide citywide residential refuse and recycling collection services without making major changes to residents’ day of collection.
SWANA Collection System Excellence Award

On a 4–10’s–5 schedule, approximately 20% of the employees are off on each day of a five day work week and 80% of the employees collect the same number of residences as was previously done by 100% of the employees on an eight-hour day.

To implement this work schedule, the Division was reorganized and the existing ten field sections and supervisors were reduced to seven field sections and supervisors. Two sections remained on an eight-hour day, five day per week schedule to provide manual yard waste collection services for 191,000 residences on a bi-weekly basis or approximately 95,500 residences per week or 19,000+ residences per day. Because of the fatigue factor involved in manually loading green waste containers and bundles weighing up to 50 pounds each, the labor union representing the Division’s employees was not supportive of extending their workday to ten hours. As a matter of employee health and safety, Division management agreed with this position.

Employees in the remaining five field sections were transitioned to a 4–10’s–5 schedule to provide weekly refuse collection for 305,000 residences, approximately 61,000 residences per day and bi-weekly collection of recyclables at 257,000 residences, approximately 128,500 residences per week or 25,000+ residences per day. Since all of these residences are serviced by automated or semi-automated collection vehicles, the fatigue factor was considered to be less of an issue than with the manually collected green waste.

As shown on the following table, two sections work four days in a row and then have three days off, two sections work three days then have one or two days off and then work one day and have one or two days off, and one section works two days, then has one day off, works two days and then has two additional days off. It was found this schedule has an additional benefit in that employees are willing to work on a day off to fill in for absent employees, at one and a half times premium pay, providing the City with extra employees when needed.

Illustration of 4 – 10’s – 5 Weekly Work Schedule

<table>
<thead>
<tr>
<th>Section</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 1</td>
<td>RDO</td>
<td>6:00 – 4:30</td>
<td>6:00 – 4:30</td>
<td>6:00 – 4:30</td>
<td>6:00 – 4:30</td>
</tr>
<tr>
<td>Section 2</td>
<td>6:00 – 4:30</td>
<td>RDO</td>
<td>6:00 – 4:30</td>
<td>6:00 – 4:30</td>
<td>6:00 – 4:30</td>
</tr>
<tr>
<td>Section 3</td>
<td>6:00 – 4:30</td>
<td>6:00 – 4:30</td>
<td>RDO</td>
<td>6:00 – 4:30</td>
<td>6:00 – 4:30</td>
</tr>
<tr>
<td>Section 4</td>
<td>6:00 – 4:30</td>
<td>6:00 – 4:30</td>
<td>6:00 – 4:30</td>
<td>RDO</td>
<td>6:00 – 4:30</td>
</tr>
<tr>
<td>Section 5</td>
<td>6:00 – 4:30</td>
<td>6:00 – 4:30</td>
<td>6:00 – 4:30</td>
<td>6:00 – 4:30</td>
<td>RDO</td>
</tr>
</tbody>
</table>

RDO – Regular Day Off

By changing the work day for refuse and recyclable collection from an eight-hour day to a ten-hour day and continuing to provide collection services on five days per week, CSD was able to accomplish all of its goals in meeting the Mayor’s challenge to make a significant reduction in its FY 2011 budget without reducing the level or quality of collection services to San Diego’s residents.
Environmental Controls and Regulatory Compliance

Southern California has some of the most restrictive air emissions standards in the nation, and CSD’s collection fleet is in full compliance with all applicable rules and regulations of a variety of regulatory agencies, including but not limited to, the California Local Enforcement Agency (LEA), San Diego Air Pollution Control District (APCD), California Air Resources Board (CARB), San Diego County Health Department and the California Highway Patrol (CHP).

To meet these regulations, CSD collection vehicles are fueled with ultra low sulfur diesel fuel, equipped with diesel particulate filters, and undergo regular preventative maintenance checks and servicing. Additionally, all of the trucks are equipped with the Zonar Electronic Vehicle Inspection System to ensure daily safety and operational checks are correctly performed and reported. With the Zonar System in place, CSD has consistently passed its CHP Biennial Inspection of Terminals.

City collection routes are designed so that all collection services, refuse, recyclable materials and green wastes, occur on a single day each week in each neighborhood. The citywide rerouting project to implement 4-10’s-5 reduced the number of collection routes by 24% and further reduced the number of packer vehicles in San Diego neighborhoods on any given day; thereby reducing air pollutants and heavy traffic on residential streets.
Because of San Diego’s large population and geographic land mass, its division into more than 50 distinct neighborhoods or communities by the City’s extensive system of canyons and mesas, and over 600 individual collection routes that needed to be rerouted; program planning for the 4-10’s-5 work schedule became a complex and time consuming operation.

The goals and criteria of the new 4-10’s-5 system were to keep collection days the same for the greatest number of residents, to achieve a major reduction in the number of routes, collection vehicles and personnel needed to service CSD’s customer base while maintaining the high standards of services previously provided. Two major assumptions for transitioning to the new collection system were the continuation of sector management and the collection of all waste commodities, refuse, recyclable materials and green waste, on a single day of the week for all residences. Sector management is defined as a route design that concentrates all routes, equipment and labor in a single geographic area of the City each day. This minimizes the time needed to return to the prior day’s collection area for missed stops and provides help to complete routes on the scheduled day in the event of an equipment breakdown.

With a target date of July 12, 2010 for initiating the transition to 4-10’s-5, CSD began an eight month project to redesign all of the City’s refuse and recyclable materials collection routes to meet these goals.

Rerouting was done using Route Smart software, historical tonnage data for existing routes, GIS based maps, house and automated container counts, and input from drivers and supervisors to create new routes to maximize productivity over the new 10 hour per day work schedules. Driver and supervisor input were especially important in redesigning the routes to provide “on-the-ground” information about hard to collect street segments resulting from San Diego’s complex canyon and mesa topography. As an example, in hilly older areas of the City there are narrow dead end streets without room for the packer to turn around. As a result, the driver must back up the hill and collect while going back downhill, which takes more time than servicing the same number of homes on a flat street.
SWANA Collection System Excellence Award

Another major concern was how rush hour traffic on the City’s freeways would affect the ability to increase the number of productive collection hours in the neighborhoods. By adding two hours to the workday, drivers might experience afternoon stop-and-go traffic enroute to the landfill and reduce productive collection time.

The San Diego Municipal Code (SDMC) restricted refuse collection in residential areas to 7:00 am to 7:00 pm to minimize noise impacts on residents in the early morning and evenings. CSD successfully pursued an amendment to the SDMC to permit refuse collection activities to start at 6:00 am, a full hour earlier. As a concession to the employees, the starting time for work was backed up by a half hour from 6:30 am to 6:00 am and the start of collection activities to 6:30 am. This is the same time as airline flight operations start at the City’s Lindberg Field, so residents were not upset by this earlier collection time. However, if experience shows an earlier start time to be necessary in the future, the SDMC would permit collection operations to start in neighborhoods at 6:00 am.

Since refuse is collected weekly and recyclables and green waste are collected on a bi-weekly schedule, the service week for some resident’s bi-weekly collection had to be changed to accommodate the new route designs. This turned out to be a minor problem and residents quickly adjusted to the schedule change. Out of CSD’s 305,000 customers, only 500 customers had their day of the week for collection services changed.

As part of the project, management engaged in Meet and Confer sessions with the two labor organizations representing CSD employees to discuss the impacts of the proposed 4-10’s-5 work schedule on the employees’ hours and working conditions.
**Performance and Cost Effectiveness**

By implementing a 4-10’s-5 work schedule, CSD met the Mayor’s challenge by achieving significant real and lasting budget savings in the current and future years through better use of resources and increased driver productivity.

The 4-10’s-5 collection system implementation resulted in a significant reduction in the numbers of collection vehicles and staff needed to provide citywide collection services.

<table>
<thead>
<tr>
<th></th>
<th>Budget</th>
<th>Vehicles</th>
<th>Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre 4-10’s-5</td>
<td>$50.9 M</td>
<td>185</td>
<td>239</td>
</tr>
<tr>
<td>Post 4-10’s-5</td>
<td>$44.9 M</td>
<td>156</td>
<td>199</td>
</tr>
<tr>
<td>Savings:</td>
<td>$6.0 M</td>
<td>29</td>
<td>40</td>
</tr>
</tbody>
</table>

The savings shown above includes $4.4 million in direct savings from implementation of a 4-10’s-5 work schedule, and approximately $1.6M in additional budget reductions implemented by CSD unrelated to that program.

Additionally, in reducing the size of the collection fleet by 29 vehicles, CSD is avoiding approximately $7.25 million in one-time costs by not having to purchase replacements for those vehicles at the end of their life at an estimated cost of over $250,000 each.

By a combination of eliminating vacant positions, service retirements and absorbing employees in other positions in the City, CSD was able to reduce staffing by 40 positions without layoffs.

As a result of the 1919 People’s Ordinance, San Diego is one of only three of California’s 150 largest cities which do not charge residents a separate fee for refuse, recycling and green waste collection services.

Instead, the City funds these services from General Fund tax revenues, which places collection services into competition with other core municipal services such as police, fire, libraries, parks, etc., for San Diego’s scarce tax revenues.

The City’s budget priorities are health, safety and welfare, so police, fire, and sanitation (refuse collection) take precedence over parks, recreation programs and libraries when tax resources are allocated.

Implementation of the 4-10’s-5 work schedule has delivered valuable budgetary savings for the City which makes more funding available for citizen quality of life programs such as parks, recreation programs and libraries.
SWANA Collection System Excellence Award

The new work schedule and collection program was delivered with minimal impacts to residents. The City has long maintained a “no fault” waste collection policy for its residents. If a resident failed to put their waste out for collection, for whatever reason, or claimed the City missed collecting properly set out containers, CSD would send a vehicle to collect those containers even if the “missed collection” was reported days later.

This overly generous and costly policy was changed in conjunction with the implementation of 4-10’s-5 to further reduce costs and increase collection productivity. Now, residents must report “missed” refuse or recycling collections within one work day of their scheduled collection day to receive a special return collection.

This helps improve overall program efficiency since “clean up” trucks are run only in the two previous days’ geographic sectors rather than covering service requests to pick up “missed” collections citywide every day of the week.

Under 4-10’s-5, refuse collection productivity per driver has increased by over 30%, from an average of 19 tons per day to 25 tons per day. Productivity on recycling routes has increased by a dramatic 40% from an average of 10 tons per day to 14 tons per day. By shifting to a 4-10’s-5 work schedule, CSD is better able to fully utilize the hauling capacity of each refuse or recycling collection vehicle, maximize productive hours each day, hours actually spent in communities collecting refuse or recyclables, and increased the number of full loads taken to a disposal or recycling facility.

At the same time, the quality of service has remained at the high levels expected by San Diego residents, which has resulted in refuse and recycling collection services having the highest customer satisfaction ratings of all City services for more than ten years.
Utilization of Solid Waste Collection Equipment and Technology

Since the late 1970’s, CSD has used technology to improve productivity and protect its drivers’ health and safety. The most dramatic improvement was the conversion to fully mechanized collection vehicles in the late 1990’s. All automated collection vehicles purchased by the City are state-of-the-art with air conditioning, air cushion seats, FM radios, two-way radios, GPS tracking, up to three TV cameras for rear, blind side and hopper views, Zonar Inspection and Reporting Systems, and Diesel Particulate Filters to provide for driver comfort, safety and productivity and compliance with California’s strict air emissions requirements.

With new collection vehicles costing over $250,000 each, it is essential to obtain maximum utilization of the City’s significant capital investment in the collection fleet. The 4-10’s-5 collection schedule takes complete advantage of productive work hours, daylight and facility operating hours, and collection vehicle utilization. This new schedule has allowed the size of the packer fleet and the number of drivers to be reduced significantly, saving the City money that would have otherwise be spent for labor, fuel, equipment maintenance and future capital equipment replacement costs.

California has a strict Vehicle Code requirement that each heavy on-road vehicle must receive an extensive pre-trip and post-trip safety inspection each operating day. Previously, each driver would spend five hours per week doing the pre and post-trip inspections. Now, on the 4-10’s-5 work schedule each driver spends only four hours per week on this mandatory task.

Previously, CSD refuse and recyclables collection vehicles averaged two full loads to the landfill or recycling center per day. Now, refuse and recycling collection vehicles make an average of three trips to the landfill or recycling center each work day. With fewer trucks arriving more times during the day, the landfill and recycling centers experience a more even workload allowing a better utilization of their staff and equipment.

CSD is fortunate to have a dedicated full service vehicle maintenance facility co-located at its operations station. The maintenance facility is more heavily staffed during the evening shift to work on collection vehicles after each day’s routes are completed. Day time staffing is geared to quick repairs of minor problems to keep trucks on the route.

The effect of the increased duty cycle on vehicle repairs and maintenance is still to be determined. The typical engine life for a heavy duty collection vehicle is 18,000 hours which would indicate a potential life cycle of nine years. Automated side load packers have many moving parts, especially in the collection arms, and are typically overhauled twice during a vehicle’s life cycle.

As more experience is gained with the 4-10’s-5 work schedule, the repairs and preventative maintenance frequencies required as a result of the increased vehicle usage will be closely monitored to determine if vehicle life cycles need to be adjusted to be compatible with the 4-10’s-5 work schedule.
Worker Health and Safety

San Diego has long maintained a focus on worker health and safety and that was not changed with the implementation of the 4-10’s-5 work schedule. CSD has three dedicated safety and training officers to provide material for monthly tailgate sessions with drivers focusing on equipment operation, safety and customer service. These safety officers and the immediate supervisor investigate every vehicle or industrial accident or incident, no matter how minor, and try to develop additional training and policies to minimize future accidents.

In meetings with the labor organizations representing CSD employees, extensive discussions were held around the issue of driver fatigue. During the first four weeks of implementation, employees did report increased fatigue from the ten-hour work day. However, employees adapted to the longer work day within the first month of the new schedule. Most employees take advantage of their trips to the landfill or recycling center to take a break and stretch.

Many employees have expressed positive feedback on the ten-hour day schedule, finding the extra week day off provides them time to work in their children’s classrooms, pursue personal hobbies, or catch up on yard work or household chores. A few employees have expressed difficulty with after school care schedules for younger children due to the longer work shift.

The City observes 10 holidays per year, solid waste that is not collected on the holiday is collected the following day and Friday’s routes are collected on Saturday. As part of the negotiations with labor unions on the impacts of the 4-10’s-5 work schedule, management agreed to delay waste collection after just 6 of the City’s 10 observed holidays throughout the year. This was warmly received by employees as they receive pay for the holiday, overtime pay for working on a holiday, and still enjoy two-day weekends on both sides of the holiday.

Holidays which no longer result in delayed waste collection are Martin Luther King Day, President’s Day, Cesar Chavez Day, and Veteran’s Day. Refuse and recyclables are not collected on New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, which are more family oriented holidays, so drivers can take part in them with their families.
Employee morale is a key to CSD maintaining its standing as “#1 in customer service” through the City’s annual residential satisfaction survey, an accomplishment in which Division employees take great pride.
SWANA Collection System Excellence Award

**Public Acceptance, Appearance and Aesthetics**

San Diego residents have been keenly aware of the financial challenges facing municipal governments over the past few years as City services have been reduced or eliminated to save money.

For over ten years, CSD’s refuse and recycling collection programs have consistently placed in the top two City provided services in the City’s annual resident satisfaction survey. The concept of redesigning refuse and recycling collection routes citywide to obtain budget savings through longer work days, without reducing service levels, was well received by City residents and taxpayers. The most often heard complaint during the transition to 4-10’s-5 was that a resident didn’t want to lose their friendly driver!

A newsletter was mailed to all of CSD’s 305,000 customers informing them of the changes that would be taking place. The mailer included an 18-month collection calendar. Some residents were affected in that their service week for a commodity collected bi-weekly, recyclable materials or green waste, would be changed.

The other two impacts on residents were the time of collection (earlier or later in the day than they had been accustomed to) and there would be no delay in trash collection following four holidays during the year.

Local media picked up the story and ran informational pieces in both print and television news programs.

The City’s website and the Environmental Services Department’s website featured the changes and provided detailed information and a telephone number for residents to call with questions or for additional information.

Overall the transition to longer work schedules and collection routes, which began July 12, 2010, went quite smoothly and residents continue to enjoy their high quality refuse and recyclables collection services, with a smile, and without disruption to their normal routines.
Conclusion

The Collection Services Division of the City’s Environmental Services Department successfully developed and implemented “4-10’s-5: A New Way of Doing Business” as a creative solution to the Mayor’s budgetary challenge. By focusing on maximizing its resources and altering its business processes in the collection of refuse and recyclable materials, CSD achieved real and lasting financial savings in a time when government at all levels are experiencing declining tax revenues and increased costs.

In addition to its financial benefits of 4-10’s-5 for the City, employees are supportive of the new work schedule as it gives them an additional week day off to pursue personal interests; residents still receive the same quality of service with minimal changes, such as being collected either earlier or later in the day than in previous years; and the Miramar Landfill and recycling centers serving CSD’s collection fleet are able to better utilize their resources disposing or processing wastes that now arrives in a more even pattern throughout the day.

Although the current budget for its refuse and recyclable materials collection programs was reduced to only 88% of the previous year’s funding levels, and only 83% of the budget for the year before that, CSD continues to complete 100% of its workload of collecting residential wastes and recyclable materials from 305,000 customers without sacrificing service quality by implementing “4-10’s-5: A New Way of Doing Business.”