

MIDWAY CITY SANITARY DISTRICT



STRATEGIC PLAN 2019

Approved February 5, 2019

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MCSO BOARD OF DIRECTORS

Chi C. Nguyen, President
Sergio Contreras, President Pro-Tem
Al P. Krippner, Treasurer
Andrew Nguyen, Secretary
Margie L. Rice, Director

STRATEGIC PLAN PROJECT TEAM

Kenneth Robbins Jr., General Manager
Robert Housley Jr., Finance / Human Resources Director
Nick Castro, Director of Operations / Safety
Juan Salce, Lead Fleet Maintenance Mechanic
David Hernandez, Lead Solid Waste Worker

MESSAGE FROM THE GENERAL MANAGER

The Midway City Sanitary District (MCSD) has protected public health and the environment by providing the highest levels of service to its constituents and regulators, while spending public dollars wisely since 1939. The MCSD's success is due to the strength of people serving this organization. Our Board of Directors provide strategic leadership and our staff make every day possible.

Following our successful Sewer System Master Plan, adopted by the Board of Directors in June 2004, I am proud to present this plan that continues charting the District's course. The mission, vision, and core values adopted as part of the 2012 plan form the building blocks for a continuation of our efforts. As I step back and look over our accomplishments of the past several years, which include passing a sound financial plan, and an aggressive capital improvement program, I am confident that our Board and staff will continue to strive for excellence and maintain an eye towards future challenges.

Moving forward, this strategic plan adds six goals that are as diverse as the population we serve. I look forward to a thoughtful discussion with staff and the Board of Directors on these important issues. With significant challenges ahead, I am confident that this strategic plan charts a course for success over the next year and beyond.

I am grateful to the Board of Directors for their leadership and support and also to our staff for their dedication.

Respectfully submitted,

Ken Robbins,
General Manager

EXECUTIVE SUMMARY

In June 2004, the Board of Directors adopted a new comprehensive Sewer System Master Plan to drive MCSD's efforts and engage the organization to envision service and operations of the Sewer System over the past eleven years.

The Strategic Plan was added to continue looking at a five-year horizon for the entire District. The General Manager initiated the planning effort with the Executive Management Team, then solicited input and ideas from Lead Workers. In April 2012, the staff-generated ideas were presented to the Board of Directors during a workshop, where Board Members discussed and deliberated changes and additions to the plan. Driven by our mission, vision and core values, this Strategic Plan, adopted for 2012, continues our aggressive efforts to meet the sanitary, health, and safety needs of the more than 103,209 people we serve while protecting the environment where we live. For 2019, this Strategic Plan presents six goals and maintains the high standards set in the Sewer System Master Plan.

The strategic planning effort starts with the Board of Directors setting the overall policy and priorities for the Midway City Sanitary District based on the strategic plan and policy direction. Staff then develops the annual operational plan and budget based on the strategic plan.

- Reaffirming MCSD's commitment to the Sewer System Master Plan, including studying the potential future flows in our system and Closed-Circuit Television portions of the system.
- Developing a green waste/organics reduction program to increase recycling percentage. Approval of new solid waste ordinance allowing only one black solid waste cart and one green organics cart.
- Evaluating and promoting MCSD's environmental initiatives and seeking additional opportunities to improve the District and utilize emerging technologies.
- Continuing to assess and identify risks to MCSD, including political and financial risks, and developing mitigation strategies.
- Developing a comprehensive human resources strategic plan to connect employees with the overall mission, values, and vision of the organization and preparing employees for future leadership opportunities.
- Improving Public Outreach Strategy establishes the public outreach for the Midway City Sanitary District. The community outreach and participation component of the plan update is an ongoing collaborative process between MCSD, residents and businesses.

This Strategic Plan continues to chart a focused roadmap of success for the future of the Midway City Sanitary District. It addresses critical operations and construction issues, financial and budgeting challenges, and gives clear and concise direction to staff, ratepayers, regulatory agencies, the public, and our Board of Directors.

OVERVIEW

Since 1939, the Midway City Sanitary District has provided solid waste and sewage collection to the residents and businesses of the unincorporated Midway City and Westminster areas. In 1957 the City of Westminster was founded and the Midway City Sanitary District continued to serve the area. During calendar year 2018, MCSD sewer mains transported 3,745,000,000 gallons of sewage to OCSD trunk lines. MCSD solid waste department picked up 39,037 tons of solid waste and recyclables. MCSD is currently in the final stages of its Sewer System Master Plan (SSMP) and expensed over \$25 million in capital improvement projects over the past 18 years. The capital improvement program includes critical rehabilitation of aging collection systems and solid waste assets. Against this backdrop of challenging issues, and to meet the large and complex needs of providing services to over 103,209 people in the most effective and efficient way possible, the strategic planning process began in 2012 to continually map a strategy for the future. Beginning with gathering input from the staff, with the leadership of the Board of Directors, MCSD developed its mission, vision, and values to allow all levels of the organization to take ownership in the strategic planning process. The original plan, along with MCSD's mission, vision and values was adopted in 2005. The Executive Management Team once again developed ideas seeking input from Lead Workers and presented six new goals for discussion by the Board of Directors.

MCSD MISSION STATEMENT

The Mission Statement is the basic foundation that defines why we exist.

The Board of Directors and Employees of Midway City Sanitary District work diligently to provide sewer and solid waste services to the residents of the District.

Our top priority is to accomplish this in an ethical, efficient, and cost-effective manner that will protect the health and safety of those we serve.

MCS D VISION STATEMENT

The Vision Statement supports the Mission Statement by expressing a broad philosophy of what the Midway City Sanitary District strives to achieve now and in the future in the delivery of services to our customers, vendors, other agencies, the general public, and each other.

Our vision for Midway City Sanitary District is to be the recognized leader for the provision of solid waste and sanitary sewer collection services.

- Our vision is to enjoy a positive reputation in the county for the provision of these services.
- Our vision is to eliminate areas within our sewer system, which require higher levels of maintenance.
- Our vision is to divert more solid waste from the landfill and increase recycling percentages.
- Our vision is to implement up-to-date technology in all operations.
- Our vision is to maintain a rate structure and rate reserves to support the infrastructure and operations.
- Our vision is to develop the best possible workforce by providing equipment, safety training and standards of operation.

Through the promotion of social responsibility and environmental stewardship, the District in partnership with the community, will continue to improve upon the preservation and decision making to produce optimum financial, environmental and societal results.

CORE VALUES

The Core Values support the Mission and Vision Statements by expressing the values, beliefs, and philosophy that guide our daily actions. They help form the framework of our organization and reinforce our professional work ethic.

Honesty, Trust and Respect

To aspire to the highest degree of integrity, honesty, trust and respect in our interaction with each other, our suppliers, our customers and our community.

Teamwork and Problem Solving

To strive to reach MCSD goals through cooperative efforts and collaboration with each other and our constituents. We will work to solve problems in a creative, cost-effective and safe manner, acknowledging team and individual efforts. We will act in a manner that protects our environment, and we will always be responsive to our customer's needs.

Leadership and Commitment

To lead by example, acknowledging the value of our resources and using them wisely and safely to achieve our objectives and goals. We are committed to act in the best interest of our employees, our organization and our community to protect the environment in each of our operations and projects.

Learning and Teaching – Talents, Skills and Abilities

To continuously develop ourselves, enhancing our talents, skills and abilities, knowing that only through personal growth and development will we continue to progress as an agency and as individuals.

STRATEGIC GOALS & LEVELS OF SERVICE

On the following pages are the strategic goals and levels of service for the next five years. New goals for this report are noted and all goals include a projected completion time. The levels of service standards are measures of service that are seen by our customers as high priorities. Goals and levels of service are divided into nine areas:

- Projects Completed Since 2003
- Solid Waste Management
- Wastewater Management
- Facility Management
- Workplace Environment
- Business Principles
- Goal and Targeted Completion Dates
- Fiscal Sustainability Plan
- Scope of Work and Investment Estimates

Projects Completed since 2003 Sewer System Improvements

- 1) Lift Stations Facility Improvement Project
- 2) 14th and Pacific (pipe bursting)
- 3) 15th / Westminster Blvd.
- 4) Bushard Street / McFadden Avenue Sewer Project
- 5) Damaged / Deteriorated Sewers (Urgent Repairs)
- 6) Manhole Rehabilitation
- 7) Hotspot Rehabilitation and Repair (lining)
- 8) Force Main Project
- 9) Rehabilitation and Repair Project (lining 5/2011)
- 10) CCTV 169 miles of Sewer Mains (2014)
- 11) Updated SCADA system-replaced check valves and purchased portable generator
- 12) Rehabilitation and Repair Project (2016) 12 locations
- 13) 2017 purchase new CNG Combination Sewer Vactor Truck
- 14) 2017 purchase of two new Class-C trucks with arrow boards
- 15) Rehabilitation and Repair Project (2017) 46 locations
- 16) 2018 purchase new CNG Combination Sewer Vactor Truck

Solid Waste Improvements

- 1) Rehabilitation of T51 and T52
- 2) McNeilus to Heil conversions T56, T57 and T59
- 3) Replacement of damaged/deteriorated containers
- 4) Applied and received grants to help boost recycling efforts in 2008 and 2009
- 5) Purchase of T62 and T65 solid waste trucks
- 6) Global Positioning System (GPS) on all solid waste trucks
- 7) Implemented "Pushing the Blues Program" September 2011
- 8) 2014 Purchased two new CNG Solid Waste trucks
- 9) 2015 Purchased eight new CNG Solid Waste trucks
- 10) 2016 Purchased one new CNG 18-foot stake bed truck for bulky item program
- 11) 2017 purchase of one new Class-C trucks with arrow boards
- 12) 2018 Purchased three new CNG Solid Waste trucks
- 13) 2018 Implemented new curbside organic recycling program

District Yard Facility Improvements

- 1) Installation of fire sprinkler system to protect solid waste fleet
- 2) Purchased a pressure washer to wash fleet
- 3) Installed satellite television for emergency purposes
- 4) Installed flat screen television in the Board room for presentations and education courses
- 5) Installation of artificial turf
- 6) SCE lighting improvements December 2010
- 7) Emergency Evacuation Plan and Emergency Support Function August 2011
- 8) 2013 Facility Improvement Project
- 9) 2013 Termite tenting and wood replacement
- 10) 2015 Installation of CNG fueling facility
- 11) 2015 updated electrical and backup generator for all buildings
- 12) 2015 Resurfaced and restripe District parking lots
- 13) 2017 Installation of LED lights throughout the District headquarters

Solid Waste Management

Management System for Environmental Compliance

Implement a management control system for environmental compliance information that incorporates a dashboard-style report

Reaching 75% Recycling

- Evaluate alternatives for complying with AB341, 75% recycling goal
- SB 1383 - Organic Waste Diversion - introduced 8/31/2016

Wastewater Management

SSMP updated April 2017

- Evaluate structural condition assessment of Midway City Sanitary District's existing facilities accomplished through inspection and analysis of all lines within the District's Gravity Collection System.
- Evaluate pipeline segments with a ratio greater than 0.50 are considered to be deficient.
- Complete the Capital Improvement Program (CIP) to provide the Midway City Sanitary District with a long-range planning tool for the implementation of its infrastructure improvements and repairs in an orderly and cost-effective manner.
- Preventive maintenance and rehabilitation projects extend the useful life of the system and result in associated costs that are significantly lower than the expense of emergency repairs or replacement.
- Evaluate equipment used for inspection and maintenance of sewer system.

Facility Management

- Replace broken and/or cracked concrete.

Business Principles

MCSD makes every decision based on short and long-term environmental, societal, and financial impacts (triple bottom line).

Workplace Environment

- Implement training programs for field staff and a succession management plan including management training.

Goals and Targeted Completion Date

Strategic Business Plan

- With Board concurrence, annually update and implement the Strategic Plan.
Ongoing goal to be completed annually

Review Interagency Agreements

- Conduct a comprehensive review of agreements with the City of Westminster, CR&R (Franchise agreement), City of Garden Grove (LAFCO agreement), City of Fountain Valley (sewer facilities agreement) and Orange County Sanitation District.
Targeted for completion in FY 21-22

Solid Waste Improvements

- Promoting the use of one 65-Gallon Black (solid waste cart), one 65-Gallon Green (Organic Recycling) and give an as-needed extra 95-Gallon blue (recycling cart).

Ongoing goal to be completed annually

- Evaluating and promoting recycling program

- Replacement of Solid Waste Trucks

Targeted for completion in FY 29-33

- Evaluating the age of solid waste containers and replacement program.

Ongoing goal to be completed annually

Sewer System Improvements

- Study of future flows within sewer basins

Targeted for completion in FY 20-21

- Closed Circuit Television (CCTV) sewer system

Targeted for completion in FY 24-26

- Update Lift Station SCADA system

Targeted for completion in FY 21-22

- Update Lift Station Pump Replacement

Targeted for completion in FY 23/24

- Phase I through 6 – CIPP liner project

Targeted for completion in FY 16-25 (work delayed due to 405 improvements)

- Completion and adoption of new Sewer System Master Plan (SSMP)

Targeted for completion in FY 21-22

- Replace sewer combination vector trucks

Targeted for completion in FY 32-33

Facility Improvements

- Preventive maintenance on steel structures and concrete replacement.

Targeted for completion in FY 22-23

- CNG Fueling Station major maintenance 5000-hours

Targeted for completion in FY 22-23

- Facility Building Improvements and Solar Power.

Targeted for completion in FY 20-22

Class “C” fleet Replacement

- Class C vehicle replacement

Targeted for completion in FY 30-31

Business Accountability

- Create Business Accountability

Ongoing goal to be completed annually

Business Principles Levels of Service

MCSD will exercise sound financial management

Ongoing goal to be completed annually

Commercial and Business Annual Business user fees
Annual Residential Solid Waste and Sewer user fees
Sufficient to cover all O&M requirements
Public Outreach
Accelerated Safety Training for employees

MCSD will be responsive to our customers

Ongoing goal to be completed annually

Respond to public complaints or inquiries regarding solid waste or sewer services within the same day.

100% > 90%

Respond to public complaints or inquiries regarding construction projects within one working day.

100% > 90%

New connection permits processed within one working day.

100% >90%

Workplace Environment

MCSD provides an environment of partnership, growth, opportunity, responsibility, accountability and safety.

Goals and Targeted Completion Date

Safety and Health Strategic Plan

Update Injury Illness Prevention Plan (IIPP) Safety and Health Management Plan for all MCSD operations.

Ongoing goal to be completed annually

Human Resources Strategic Plan

Design, develop and implement human resources policies, practices systems and tools to ensure MCSD has a workforce that meets its future needs and the public it serves.

Ongoing goal

CONCERNS TO DISTRICT

- 1) Property Tax (take away) 1.8 million plus 1 million from dissolving RDA's
- 2) State Mandate requiring electric solid waste trucks
- 3) The increasing number of bulky items that are picked up by the District
- 4) The increased number of vehicles parked on the street making solid waste service more difficult to provide in a safe and timely manner
- 5) Special District consolidation
- 6) Large disaster (earthquake, etc.)
- 7) State Mandate requiring the District to maintain Private Sewer Laterals
- 8) District Sewer Infrastructure in conflict with other agencies' infrastructure upgrades
- 9) Vandalism and/or Terrorism
- 10) Sinkholes caused by sewer mains segments between and/or behind residences
- 11) Franchise bankruptcy or change in ownership

FISCAL SUSTAINABILITY PLAN

Every budget includes a number of estimates and assumptions about what revenues will be available and what conditions will affect the District's operations during the budget year. It is important to list the most important assumptions to help establish a context for review of the budget. If a revenue source is decreased or eliminated, expenditures should be reduced in response. Some of the most important assumptions are:

ECONOMIC ASSUMPTIONS

Economic forecasts are calling for 2% growth through 2018 with continued gains in employment and continued falling unemployment rates even as inflation remains relatively tame and forecasters expect an uptick in inflation, expecting the core consumer price index to increase to 2.6% in Orange County in 2018.

REVENUE ASSUMPTIONS

Proposition 13 property tax assessments were increased in Orange County for 2018, due to a positive Consumer Price Index (CPI) inflation adjustment the District applied 2.0% increase.

PROPERTY TAX	2019/20	2020/21	2021/22	2022/23	2023/24
Property Tax Secured	\$1,315,800.00	\$1,342,116.00	\$1,368,958.30	\$1,396,337.40	\$1,424,264.10
Property Tax Unsecured	\$45,000.00	\$45,000.00	\$45,000.00	\$45,000.00	\$45,000.00
Pass thru County of Orange	\$225,000.00	\$225,000.00	\$225,000.00	\$225,000.00	\$225,000.00
Pass thru City of Westminster	\$1,300,000.00	\$1,300,000.00	\$1,300,000.00	\$1,300,000.00	\$1,300,000.00

1. User Fee revenues in FY 2018-19 are being budgeted to reflect the current annual rates for service of \$87 per unit for residential sewer service and \$177 per unit for residential curbside service. The commercial sewer service fee is being budgeted to reflect the commercial, industrial and other businesses tiered rate.
2. MCSD collects franchise fees from CR&R for solid waste collection of commercial, industrial, and other businesses from MCSD's service area. MCSD's fee is limited to 14% in FY 2017 –18 of the franchisee's gross annual receipts from the service area.

Note: Revenues from franchise fees are generally stable in MCSD's service area. The budget will reflect franchise fees revenue for FY 2018-19.

YEAR	ESTIMATED FRANCHISE FEES
2019/20	\$1,075,000

3. Redevelopment pass-through revenue in FY 2018-19 was budgeted conservatively at \$1,300,000 expected from the City of Westminster and \$200,000 from the County of Orange for the unincorporated area of Midway City. However, the State Supreme Court on December 29, 2011 ruled to eliminate local redevelopment agencies (RDA's) and thereby shifting those funds to the State or other local agencies. Allocation of any addition tax revenues will be dependent on the City of Westminster's debt obligations and how the County of Orange distributes the funds through a trust that was setup.

OPERATING ASSUMPTIONS

4. Operating, maintenance, and administrative costs for FY 2019-24 are expected to increase as a result of general inflation. Increases are anticipated among personnel salaries, benefit increases, fuel, and rising energy costs.
5. The MOU for the represented employee group show a negotiated 3.0% increase in salaries for FY 2018/19 through FY 2020/2021. The completion of the review process was approved by the Board of Directors and salary (COLA) adjustments will be given to unrepresented employees in 2017/18. In years 2018 through June 30, 2022, a 3% increase was the estimated percentage used.

ESTIMATED OPERATING EXPENSES	2019/20	2020/21	2021/22	2022/23	2023/24
SEWER DEPARTMENT	\$1,626,782.00	\$ 1,675,585.40	\$ 1,725,852.90	\$1,777,628.40	\$ 1,830,957.20
REFUSE DEPARTMENT	\$5,000,000.00	\$ 5,150,000.00	\$ 5,304,500.00	\$5,463,635.00	\$ 5,627,544.00
MECHANICS	\$ 462,470.00	\$ 476,344.10	\$ 490,634.42	\$ 505,353.45	\$ 520,514.05
ADMINISTRATION	\$ 1,850,000.00	\$ 1,905,500.00	\$ 1,962,665.00	\$2,021,544.90	\$ 2,082,191.20
TOTAL	\$ 8,939,252.00	\$ 9,207,429.50	\$ 9,483,652.30	\$9,768,161.70	\$10,061,206.00

ESTIMATED REVENUES	\$11,758,000.00	\$11,758,000.00	\$11,758,000.00	\$11,758,000.00	\$11,758,000.00
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6. Tonnage (dumping fees) fees are subject to an annual CPI increase each fiscal year. This year's CPI adjustment will increase that fee an additional 1.64% (\$0.54) for a potential annual increase of \$27,000 in additional tonnage fees for FY 2019-20. Prior year's increases resulted in \$407,887 over a nine-year period. In 2018 the District added a third container for curbside organic recycling and in doing so added an additional \$325,000. The additional tonnage fees imposed by the County and the organic recycling program have been absorbed by the District and were not passed through to the District's residential customers.

The success of waste diversion and recycling in recent years combined with slow recovery from the Great Recession has caused in-County waste generation to dramatically decrease which in turn has created a reduction in revenues. A committee was organized to address the reduction in revenues and to ensure rate stabilization for local residents and businesses. The Amendment to the WDA sets forth the continuation of future importation to offset the revenue reduction and establishes a fair-share allocation of net importation revenues to cities. An in-depth review of County resources concluded the amount of imported waste combined with in-County waste will remain below total disposal tonnage projections contemplated in the current WDA. The 5-year extension of the WDA to 2025 will provide additional stability to the system in light of more stringent legislative and regulatory requirements such as AB 1826, AB 1594 and the 75% recycling target of AB 341.

Option to Renew. This Agreement shall be subject to renewal by mutual agreement of the parties, on or before June 30, 2023, for an additional term of ten years (the "Renewal Term") on the same terms and conditions as are applicable during the Initial Term hereof. The City shall give the County written notice of its irrevocable election to renew this Agreement on or before June 30, 2022. If the parties do not renew this Agreement by June 30, 2023, the Agreement shall expire on June 30, 2025.

YEAR	ESTIMATED M.R.F. RATE PER TON	ORGANIC ESTIMATED M.R.F. RATE PER TON	ESTIMATED TOTAL MRF FEES
2019/20	\$54.39	\$92.58	\$2,084,190.00
2020/21	\$56.02	\$95.35	\$2,146,610.00
2021/22	\$57.70	\$98.20	\$2,210,900.00
2022/23	\$59.43	\$101.14	\$2,277,150.00
2023/24	\$61.21	\$104.17	\$2,345,360.00

Fees were based on an average of 23,000 tons per year and 9,000 tons per year on organic recycling at 3% CPI increase.

The District has an option to guarantee 75% diversion in diverting the green/yard waste and organic material from solid waste containers with the recovery systems at the MRFs. The cost is \$4.89 per ton.

Cal-Recycle is looking in the near future to impose a landfill tonnage fee of \$4 to \$6 per ton to cover their operation cost.

RESERVE ASSUMPTIONS

Tracking the District's reserves provides a measure of the overall fiscal health of the District's finances and can be used to help make projections on what capital projects the District can plan for and when.

- 7. Operating Funds:** These funds are used for the day-to-day operations, unforeseen emergencies, unanticipated revenue shortfalls or unexpected expenditure increases.

Current Reserve Level \$8,064,929
Goal Long-term Reserve Level \$10,000,000

- 8. Orange County Midway City Redevelopment Reserve:** These funds are received from the County of Orange Redevelopment Agency and are to be used solely for capital infrastructure projects within the unincorporated area of Midway City. This reserve has been established to ensure funds are available for the replacement, upgrade and refurbishment of the District's sewer lines located in the unincorporated area of Midway City.

Current Reserve Level \$2,534,299
Goal Long-term Reserve Level \$3,000,000

9. **Sewer Lines & Lift Station Reserve:** This reserve has been established to ensure adequate funds are available for the replacement, upgrade and refurbishment of the District's sewer lines and lift stations.

Current Reserve Level \$20,186,459
Goal Long-term Reserve Level \$50,000,000

10. **Vehicle Replacement Reserve:** This reserve has been established to ensure adequate funds are available for the systematic replacement and refurbishment of the District's sewer, solid waste, and maintenance trucks and vehicles.

Current Reserve Level \$2,794,433
Goal Long-term Reserve Level \$4,000,000

11. **Building, Equipment and Facilities Reserve:** This reserve has been established to ensure that the District has adequate funds available for the acquisition, construction, replacement and repair/maintenance, for infrastructure, land, equipment and facilities.

Current Reserve Level \$2,470,824
Goal Long-term Reserve Level \$4,500,000

12. **Compressed Natural Gas (CNG) Fueling Facilities Reserve:** This reserve was established to ensure that the District has adequate funds available for the future replacement and repair/maintenance of the CNG equipment and facilities.

Current Reserve Level \$477,823
Goal Long-term Reserve Level \$3,000,000

SUGGESTED FEE RATE STRUCTURE AND INCREASES

1. When considering raising the fee rates the District should do so in all three categories:
 - A) Residential Sewer
 - B) Residential Solid Waste
 - C) Commercial, industrial and other businesses
2. The rate should be charged at the rate of the service provided and to ensure adequate reserves.
3. When considering raising the fee rates the District should consider setting new rates for service with a five-year Consumer Price Index (CPI) escalator for five years with a maximum five percent increase. This will require one proposition 218 hearing for all three rate structures and annual notice of new rates mailed to each business and residential home each year thereafter for a period of five years.

4. The service rate structure below is for the cost of providing services for both the Solid Waste and Sewer Departments. The Administration and Mechanic's cost are figured at 50% of the estimated operating expenses.

5. The service rate structure below does take into account the cost of CNG/other alternative fuel conversion, new sewer system master plan and other infrastructure improvements and is strictly the cost to provide the service. The District, at this time, can use the tax allocation from the dissolved RDA's and franchise fees for all infrastructure improvements. In 2019 the District should look at the then current rates and adjust accordingly if needed.

COST FOR SERVICE	2019/20	2020/21	2021/22	2022/23	2023/24
RESIDENTIAL SEWER SERVICE	\$ 104.46	\$ 107.07	\$ 109.75	\$ 112.49	\$ 115.31
VERY HIGH DEMAND X5	\$ 522.30	\$ 535.36	\$ 548.74	\$ 562.46	\$ 576.52
HIGH DEMAND X4	\$ 417.84	\$ 428.29	\$ 438.99	\$ 449.97	\$ 461.22
AVERAGE DEMAND X3	\$ 313.38	\$ 321.21	\$ 329.24	\$ 337.48	\$ 345.91
LOW DEMAND X2	\$ 208.92	\$ 214.14	\$ 219.50	\$ 224.98	\$ 230.61
VERY LOW DEMAND X1.3	\$ 135.80	\$ 139.20	\$ 142.67	\$ 146.24	\$ 149.90
RESIDENTIAL SOILD WASTE SERVICE	\$ 210.00	\$ 216.36	\$ 226.20	\$ 233.04	\$ 240.00

RESIDENTIAL SOILD WASTE SERVICE	2019/20	2020/21	2021/22	2022/23	2023/24
MONTHLY	\$ 17.50	\$ 18.03	\$ 18.85	\$ 19.42	\$ 20.00
WEEKLY	\$ 4.04	\$ 4.16	\$ 4.35	\$ 4.48	\$ 4.62
DAILY	\$ 0.58	\$ 0.60	\$ 0.62	\$ 0.64	\$ 0.66

RESIDENTIAL SEWER SERVICE	2019/20	2020/21	2021/22	2022/23	2023/24
MONTHLY	\$ 8.71	\$ 8.92	\$ 9.15	\$ 9.37	\$ 9.61
WEEKLY	\$ 2.01	\$ 2.06	\$ 2.11	\$ 2.16	\$ 2.22
DAILY	\$ 0.29	\$ 0.29	\$ 0.30	\$ 0.31	\$ 0.32

	2019/20	2020/21	2021/22	2022/23	2023/24
COMBINED RESIDENTIAL SERVICE	\$ 314.46	\$ 323.43	\$ 335.95	\$ 345.53	\$ 355.31

MONTHLY	\$ 26.21	\$ 26.95	\$ 28.00	\$ 28.79	\$ 29.61
WEEKLY	\$ 6.05	\$ 6.22	\$ 6.46	\$ 6.64	\$ 6.83
DAILY	\$ 0.86	\$ 0.89	\$ 0.92	\$ 0.95	\$ 0.98

SCOPE OF WORK AND INVESTMENT ESTIMATES

SOLID WASTE IMPROVEMENTS

Solid Waste Containers

The District owns 79,872 containers (95 Gal Black 27,630, 95 Gal Blue 25,189, 65 Gal. Black 6,701, 65 Gal. Blue 1,567, 35 Gal. Black 65 and 65 Gal. Green 18,720). Half of them have exceeded their design life span of 10 years. There are an estimated 29,870 containers that are at least 15 years of age and badly in need of replacement.

Total \$3,993,600.00

SEWER SYSTEM IMPROVEMENTS

Sewer Basin Flow Monitoring

Flow monitoring and a Rain Dependent Inflow & Infiltration (RDII) analysis in 28 basins within the sewer collection system. The report should contain the results of flow monitoring data collected with a RDII analysis and an evaluation of the sites' hydraulics and capacity during wet and dry weather flow conditions.

Total \$331,296.00

New Sewer System Master Plan (SSMP)

The Sewer System Master Plan is a comprehensive assessment of its sewer system and its ability to accommodate current and future wastewater collection needs.

This investigation/report includes evaluation and recommendations pertaining to:

- Gravity Collection System/Condition/Deficiencies
- Manhole Rehabilitation
- Maintenance Problem Areas
- Capital Improvement Program
- Fats, Oils, and Grease (FOG) Control Program
- Overflow Emergency Response Plan
- Design and Performance Provisions

Total \$950,000.00

New Sewer Combination Vacuum Truck

The objective of a Sewer Cleaning and Maintenance Program is to operate and maintain the wastewater collection system so it will function and strive toward the following:

- Minimize the number of stoppages per mile of sewer pipe
- Minimize the number of odor complaints
- Minimize the number of lift station failures
- Maintain intended flow in the system

Systems around the world vary in many details. Type of material for the pipe, shape, size and location all differ. Regardless of these variables these systems must be routinely cleaned to ensure safe, consistent movement of the material.

Total \$ 500,000.00

CLASS "C" FLEET VEHICLE REPLACEMENT

Any single vehicle with a gross vehicle weight rating not in excess of 26,000 pounds, any such vehicle towing a vehicle with a gross vehicle weight rating not in excess of 10,000 pounds, any such vehicle towing a vehicle with a gross vehicle weight rating in excess of 10,000 pounds, provided that the combination of vehicles has a gross combined vehicle weight rating not in excess of 26,000 pounds, and any self-propelled or towed vehicle that is equipped to serve as temporary living quarters for recreational, camping, or travel purposes and is used solely as a family or personal conveyance.

Total \$250,000.00

75 Percent Recycling Goal – Curbside Organic Recycling AB 341 & AB 1826

California State Law AB 341 requires that businesses start a recycling program by July 1, 2012. The State Law requires that our franchise waste hauler notify businesses of their recycling options. This will apply to all businesses generating four or more cubic yards of waste per week and multifamily housing communities of five or more units.

MCSD has 1,146 commercial accounts to which our franchise waste hauler provides service, of which 587 or 51.22% are businesses that generate four or more cubic yards of waste generated per week or are multi-family housing communities with five or more units.

Our commercial customers were given three options, all of which qualify under the current guidelines of AB 341.

- 1) Mixed waste processing (current service provided)
- 2) Source separation
- 3) Food waste pickup

Franchise Fee Reduction Estimate

- Eligible Customers represent 51.22% of the revenues
- Equals to \$268,571.21 monthly
- 16% Recycling Incentive = \$42,971.39
- 14% Franchise Fee = \$5,586.28 reduction in monthly revenues

Residential options to reach 75% Recycling Goal

The District shall have the option to divert the green/yard waste and organic material from solid waste containers with the recovery systems at the MRFs. The diversion will be accomplished by running the solid waste from the solid waste containers through a system of trommels, conveyors and sorting technology. The Contractor shall recover green/yard waste and organic material from the exiting solid waste cart at the MRFs **with a guaranteed 75% minimum recycling diversion.**

Estimated cost for this option in 2018 tonnage numbers:
32,000 (tons) X \$4.89 (cost per ton) = \$156,480.00

Time line:

- In 2011, AB 341 revised the solid waste diversion goals for the State of California, requiring **75% of waste diverted by the year 2020.** To reach these new goals, AB 1826 was enacted, phasing in requirements for certain generators of large quantities of waste to add organic waste diversion strategies.
- ***AB 1594 effective January 1, 2020, the use of green material as ADC does not constitute diversion through recycling and will be considered disposal for purposes of measuring a jurisdiction's 50 percent per capita disposal rate.***
- In the 2018 Electronic Annual Report (due August 1, 2019), jurisdictions will include information on plans to address these new requirements and divert green material that is being used as ADC. CalRecycle's Electronic Annual Report (EAR) will be adjusted to reflect these reporting requirements.

2014 Closed Circuit Television

Closed Circuit Television (CCTV) Inspection is the technique whereby a small articulating camera device with a video connection is used to visually inspect lines that would generally not be accessible because of their size.

The goal of the TV inspection is to provide an unobstructed view of the interior of pipeline allowing the camera operator to identify, locate and evaluate structural defects or operation and maintenance problem areas.

The camera is centered in the middle of the pipe and moved through the pipe at a steady pace not to exceed 30 feet per minute and stopped whenever the operator observes a defect. The camera operator can rotate and focus the camera, increase and decrease lighting intensity to identify and quantify the defect. The operator then records the defect using the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Criteria.

In November 2013 Performance Pipeline was contracted to do CCTV inspection and cleaning of approximately 169 miles of the District's pipelines at a cost of \$640,000.00.

Performance Pipeline delivered the inspection videos and logs in MPEG format to MCSD staff for review of the data for structural defects and operational/maintenance defects.

Structural defects include such damage or defects as cracks, fractures, broken or collapsed pipe, joint offsets, and surface damage.

Operation and maintenance defects include such things as deposits, roots, infiltration, obstacles and obstructions. The condition of each reach of sewer pipeline between manholes or cleanouts was rated based on a grading system developed by NASSCO.

Conclusion from the 2014 CCTV inspection: of 243-line segments needs to be addressed over the next 10 years.

Rating system 1 through 5 was used with 1's needing to be addressed sooner than 5's.

By the numbers totals for each:

1's = 59 (completed)

2's = 24 (completed)

3's = 108

4's = 38

5's = 14

Estimated cost of repairs: \$3,159,000.00 over ten years starting in 2016.

Solar Power and Battery Backup

The growing popularity of solar panels is increasing interest in batteries that could store electricity from those installations. In the future, such storage systems could benefit the District by giving us more control over how and when we obtain the power we need, while helping utilities by shifting demand to off-peak hours and smoothing out the load on the system.

The commercial lithium-ion battery systems are sized according to the District's usage patterns, with the smallest modular unit at the size of "a small refrigerator." The system can be installed indoors or outdoors and ranges from tens of kilowatts to hundreds of kilowatts with a minimum of two hours of duration. Typically, the storage system is sized at about 30 percent the size of the solar installation.

Since costs after installation are minimal for solar electricity, the relevant costs are the purchase price and installation costs. Cost components that make up a solar system are: system design, solar modules, balance of system (BOS) which consists of an inverter, bi-directional billing meter, connection devices, and installation labor.

Total Lifetime Solar Energy Production

The value of the electricity produced over the total life cycle of the system is calculated by estimating the initial annual production, called Peak Capacity and then discounting it for future years based on previously observed annual degradation rates for the particular technology of the site. A typical degradation rate is 0.5% per year, although some rates are as high as 1.0% and as low as 0.25%. The first year energy production of the system is expressed in kilowatt hours generated per kilowatt of peak capacity.

Factors Affecting Peak Capacity:

- How the system is mounted and oriented (i.e. flat, fixed tilt, tracking, etc.)
- The spacing between photovoltaic (PV) solar cell panels as expressed in terms of system ground coverage ratio (GCR)
- The energy harvest of the PV solar cell panels (i.e. performance sensitivity to high temperatures, sensitivity to low diffuse light, etc.)
- System losses from soiling, transformers, inverters and wiring inefficiencies
- System availability largely driven by inverter downtime

Estimated cost of ownership \$750,000

Facility Building Improvements

Scope of Work

The project scope of work includes, but is not necessarily limited to, the installation/upgrades to both men's and women's bathrooms, lockers, upgraded kitchens for both offices, break/training room, SCADA/Server/Telephone room, HVAC systems, tank-less water heaters, compliance with ADA laws, paint all buildings/fencing, installation of new conduits for telephone/internet and upgrade achieve room.

Architects work in the construction industry designing new buildings, restoring and conserving old buildings and developing new ways of using existing buildings. They are involved in construction projects from the earliest stages right through to completion. Their work includes:

1. preparing and presenting design proposals to clients
2. advising clients
3. producing detailed drawings
4. negotiating with contractors and other professionals
5. attending regular meetings with clients, contractor

It is expected that the Architect, working in conjunction with the DISTRICT, will manage this project from the pre-design phase through submission by the successful Design-Build Team and also provide oversight of the project during construction and close out.

Estimated cost: \$2,000,000