2022 - 2027

Lewisville Public Services

Business Plan

2022 - 2027

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Introduction

At the 2021 City Council Retreat, the Parks and Recreation Department presented a Business Plan for the five-year period 2021-2026. At the time this plan was a model that would be rolled out throughout the organization as a way to focus departmental efforts toward organizational goals and assist with the future budget process by predicting needs over a five-year term rather than being surprised on an annual basis by big-ticket needs.

The Public Services Department began the effort to develop this plan after the 2021 retreat. This effort involved reviewing, revising, and confirming the mission and the goals of the department. The department has had our mission and goals on the website for some time, but this process involved many meetings where the goals were discussed at all levels of the department.

Once the mission and goals were finalized, additional discussion on the strategies to attain these goals was discussed with all departmental staff members. The strategies in this document are not new but have never been written down and agreed to as they have been in this process. The Public Services Department supports the strategies as outlined herein and will commit to working on them over the next five years.

The final portion of this document is the Five-Year Forecast. Much of the departmental budget is spent on capital expenditures for maintenance of physical assets including roads, sidewalks, drainage infrastructure, traffic signals, water, and sewer infrastructure, as well as the tools, equipment, and personnel costs associated with the maintenance of these assets. The department produces several long-range planning documents on an annual basis forecasting capital needs. This plan adds to those documents an analysis of anticipated personnel needs in the five-year period as well as any equipment, facility, and other anticipated expenses that do not appear in the capital planning documents.

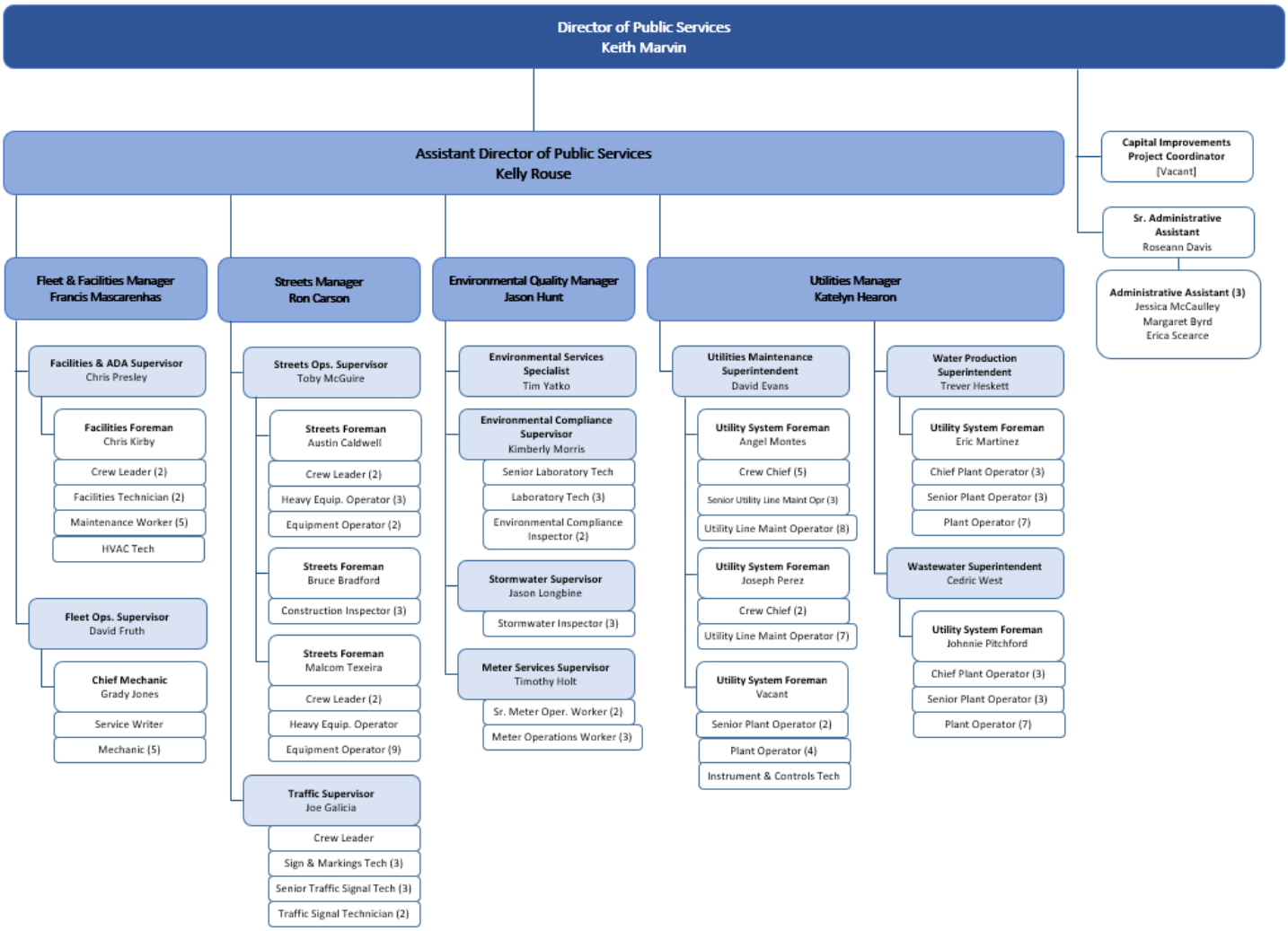
See the remaining sections of this plan, including the appendices for more detailed information.

Department Overview

The Lewisville Public Services Department is made up of a team of 152 individuals bringing a wide range of education, skills, and abilities to bear on our area of responsibility. The department is broadly broken down into the following five distinct divisions:

1. Administration
2. Utilities
3. Public Works
4. Internal Services
5. Environmental Quality

See the current organizational chart below.



Public Services **Administration Division** consists of the Director, Assistant Director, Division Managers, the Capital Improvement Project Coordinator, and Administrative Staff. Public Services Administration provides leadership, budgetary, accounting, administrative, safety compliance, and public relations support and customer service for internal customers, as well as residents and businesses of Lewisville.

The **Utilities Division** is the largest division of Public Services and includes Water Production, Wastewater Treatment, and Utilities Maintenance. This division is responsible for providing treated drinking water to all 132,000 customers and commercial businesses. The division also collects wastewater from all residents and businesses and treats the waste stream before releasing it back to the Elm Fork of the Trinity River.

The Utilities Division operates 24 hours per day, seven days per week at the two plants, and on an on-call basis around the clock for maintenance operations. The maintenance operations provide both reactive and preventative maintenance for more than 470 miles of water lines, 375 miles of sewer lines, 3,300 fire hydrants, 16 lift stations, 5 elevated water towers, and dozens of pumps and motors. Much of the capital improvement plan attached to this document is driven by the needs of these systems.

The **Public Works Division** is made up of Street Maintenance, Contract Maintenance, Drainage Maintenance, Signs and Markings Maintenance, Traffic Signals, and Street Lighting Maintenance. Street Maintenance is responsible for maintenance of both asphalt and concrete pavement. This includes pothole repair, crack sealing, utility cut repairs, sidewalk, alley, and street repairs. Contract Maintenance is responsible for coordinating and inspecting Public Works repair projects that are completed by contractors. This includes projects like pavement repair, screening wall repairs, street sweeping, and creek channel mowing. Drainage Maintenance is responsible for ensuring the drainage system stays flowing. This includes repair of erosion problems, plugged or separated pipes, and removing debris from drainage inlets, creek channels, and right-of-way.

Signs and Markings are responsible for all City-owned pavement markings and signs. This includes all street and parking lot striping, street name signs, stop signs, and any other signage owned by the City.
Traffic Signals and Street Lighting Maintenance are responsible for maintaining all the traffic signals in Lewisville, as well as TxDOT-owned signals in Lewisville, The Colony, Hickory Creek, and Corinth. They also maintain all the school zone beacons in Lewisville along with all City-owned streetlights.

The **Internal Services Division** consists of Facilities Maintenance and Fleet Maintenance. Facilities Maintenance consists of a supervisor, foreman, two crew leaders, and eight maintenance staff. The Facilities Maintenance Division is responsible for the operation and maintenance of City buildings and the mission is to provide for a proper, comfortable, safe, and clean environment; not only for our employees but also for the general public who visit our facilities.

The City's current building portfolio includes more than 45 buildings totaling almost 550,000 square feet of space. These buildings are maintained by a staff that includes HVAC technicians, electricians, plumbers, general maintenance technicians, and both a day and evening custodial staff. Facilities Maintenance currently handles around 30-40 work orders on a daily basis. Facilities Maintenance also conducts preventative maintenance work on all City assets, structures, equipment, and they oversee contracted maintenance & repairs, and project management.

Fleet Maintenance consists of an operations supervisor, chief mechanic, service writer, and four mechanics. It is the mission of Fleet Operations to provide our customers, the employees of the City of Lewisville, with safe and dependable vehicles, equipment, and service facilities. Our goal is to work in partnership with our customers and employees to provide high-quality products and services in a cost-effective manner.

The division also maintains the police and fire department vehicles. Currently, the City's fleet consists of more than 371 vehicles and 189 pieces of equipment. Fleet receives an average of around 10 - 12 vehicles/equipment for repair on a daily basis. The City of Lewisville has five fueling stations which are managed and maintained by fleet maintenance. As part of the Lewisville 2025 Big Move Initiative, Sustainability is considered a priority. Fleet currently has 24 hybrid vehicles, 11 all-electric vehicles, 2 LPG forklifts, 10 propane mowers, 35 downsized trucks, and 8 EV charging stations.

The **Environmental Quality** Division includes the ECS Laboratory, Pretreatment program, Storm Water, Solid Waste and Recycling, Residential Convenience Center, and Meter Operations. Laboratory employees analyze water samples to support both treatment plants to ensure quality water and wastewater. The water laboratory is NELAC accredited and analyzes microbiological samples for internal and external customers. The Pretreatment Program prevents the introduction of pollutants into the wastewater treatment plant that would cause interference with the operation or disrupt the treatment process. ECS Inspectors monitor local industrial users through permits. Industries are sampled and inspected during the year.

The City of Lewisville has operated under a Texas Pollutant Discharge Elimination System – Municipal Separate Storm Sewer System (MS4) permit since August 2007. The Storm Water group focuses on five key areas: construction site stormwater runoff control, pollution prevention and good housekeeping for municipal operations, illicit discharge detection and elimination, post-construction stormwater management, and public education and outreach. A Storm Water Utility was established in October 2017 and billing began in January 2018. The City identified $33.7 million in necessary drainage improvements as a starting point for this utility. The Storm Water division handles appeals, complaints, and the credit program.

Environmental Quality staff manages the City's solid waste and recycling contracts as well as the residential convenience center. Republic Services (Republic) is the contract hauler for trash and recycling. The recycling program accepts Paper, Cardboard, Plastic #1-7, Steel, Aluminum, Glass. Serviced same day as trash pickup. The Lewisville Residential Convenience Center (RCC) provides residents with an environmentally appropriate method of disposing of Household Hazardous Waste and Electronics; disposal at the RCC is both safe and easily accessible.

The Meter Division of Environmental Quality manages over 28,000 water meters. This includes monthly readings with internal staff working in conjunction with an outside vendor, meter replacements, customer calls for service, issuing meters for new construction, and supporting Utility Billing with re-reads, missed reads, and other work orders generated through the billing process.

Mission Statement

The mission of the Lewisville Public Services Department is to provide valued, well maintained, and sustainable infrastructure, and to deliver responsive exceptional customer service. We strive to meet the needs and expectations of the residents of Lewisville, the traveling public, and City employees so they can live, work, and play in an environment where their health and wellbeing are protected.

Goals

Goal 1: Build a sustainable and resilient future: Public Services contributes to the long-term viability and health of environmental, social, and economic aspects of our community. We will anticipate, prepare for, and respond to changing conditions through short and long-term planning.

Proper planning is necessary for success. This goal aligns with ***The Lewisville Way – Build the Future.*** Public Services commits to the development and implementation of its plans to best serve the community.

Goal 2: Grow employees: COL attracts and develops a diverse and highly qualified workforce. We support career satisfaction by providing opportunities for innovation, growth, and excellence in leadership.

In relation to ***The Lewisville Way – Value People***, our employees are our most valuable resource. Investing in them is an investment into the long-term viability of the City of Lewisville.

Goal 3: Public Education: Educating the public on what we do spreads awareness of the services that are provided and their importance.

Communication is a key component of ***The Lewisville Way – Serve Every Day***. Intentional engagement explaining why we do what we do, fosters greater community ownership with our residents.

Goal 4: Maintain the City's infrastructure, facilities, and resources in accordance with City, State, and Federal standards, laws, and mandates. Strive to exceed the expectations of our residents.

Public Services will fully support the City's 2025 Vision Plan Update, particularly ***Big Move #3 – Old Town***, and ***Big Move #4 – Diverse and Thriving Neighborhoods***. Our focus will be on managing investment in infrastructure to maintain community satisfaction. If we invest in the neighborhood, so will the residents and business owners.

Goal 5: Sustainability: Be efficient in the use of City resources. Ensure the right tool is used for the job and eliminate waste where possible.

Public Services has a hand in almost every operation of the City where energy is consumed. We are among the biggest proponents of ***Big Move #7 – Sustainability***. The Internal Services Division is responsible for all City vehicles and facilities, and the Water Utility Division is the biggest energy user in the city, as such, we have the ability, and the obligation, to affect the biggest change in this area.

Strategies

Goal 1 *Build a sustainable and resilient future: Public Services contributes to the long-term viability and health of environmental, social, and economic aspects of our community. We will anticipate, prepare for, and respond to changing conditions through short and long-term planning.*

Strategies

- *Conduct and utilize long-range planning and studies*
  - *Update and Implement Water & Wastewater Master Plan (Every 5 years)*
  - *Conduct annual Flow Monitoring Studies and implement needs (Every 10 years)*
  - *Pavement Condition Index Analysis (Every 3 years)*
  - *Update current ADA transition plan (2 years)*
  - *Work with regional groups doing larger scale planning and studies (Annually)*
  - *Work with planning division and economic development on City long term plans (Annually)*
- *Utilize Asset Management approach in all of our operations*
  - *Develop inventory list of all major equipment, create replacement schedule, new equipment should be cost-effective, high-efficiency replacements (Annually)*
  - *Continually update infrastructure asset condition ratings (Every 3 years)*
  - *Fully implement and utilize CityWorks in as many operations as possible (3 years)*
- *Maintain financial viability*
  - *Update and implement maintenance plans for infrastructure (Annually)*
  - *Continue to develop replacement schedules for infrastructure (Annually)*
  - *Develop emergency cleanup fund for hazmat spills or illegal dumping on city right of way where there is no known responsible party (5 years)*
- *Embrace emerging technologies throughout departmental operations to always be improving.*
  - *Explore technologies to improve traffic flow (Annually)*
  - *Explore technologies to reduce water loss (Annually)*
  - *Explore technologies to assess water and wastewater pipe conditions (Annually)*
  - *Explore technologies to improve data management between the treatment plants and laboratory (Annually)*
  - *Upgrade meter registers to AMI (at minimum AMR) to better detect leaks and decrease cost of meter reading services (5 years)*
  - *Explore inventory management (1 year)*

Goal 2 *Grow employees: COL attracts and develops a diverse and highly qualified workforce. We support career satisfaction by providing opportunities for innovation, growth, and excellence in leadership.*

Strategies

- *Ensure the department is prepared for future changes in workload needs*
  - *Develop departmental success plans (2 years)*
  - *Update job descriptions to reflect current needs for positions (Annually)*
  - *Evaluate current certification, license, and training to meet current requirements and or needs (Annually)*
  - *Develop Business Continuity Plan to mitigate impacts of unplanned events (5 years)*
  - *Seek accreditation from American Public Works Association (5 years)*
- *Evaluate staffing level to ensure right sized for operations Strive to be competitive in recruiting and hiring methodologies*
  - *Continue to analyze compensation structures both internally and externally (In progress)*
  - *Strive to increase the level of comparison with survey cities from 50% to a higher comparison amount and/or review the lag structure currently used for comparisons (In progress)*
  - *Develop an incentive program for the referral of new employees who complete the initial training period (In progress)*
- *Evaluate barriers to upward mobility with the department*
  - *Review solutions to a loss of pay when promoting to a higher position due to loss of overtime and on-call pay opportunities (In progress)*
  - *Provide tiered experience structure and/or license pay to help move employees through pay plan to match experience level (In progress)*
- *Ensure training opportunities are available to all employees*
  - *CDL Training (Annually)*
  - *Water/Wastewater Courses (Annually)*
  - *Railroad Safety (Annually)*
  - *Education Reimbursement Benefit (Annually)*
  - *ASE/EVT Fleet Mechanic Certifications (Annually)*
  - *Stormwater Certificate Program (Annually)*

Goal 3 *Public Education: Educating the public on what we do spreads awareness of the services that are provided and their importance.*

Strategies

- *Become more of a recognized advocate for Public Services*
  - *Become involved in regional and state issues and associations (In progress)*
    - *Wastewater and Treatment Education Roundtable*
    - *Recycling Roundtable*
    - *Solid Waste to Energy Committee*
    - *Landfill Capacity Committee*
  - *Increase social media presence for Public Services (Annually)*
  - *Build relationship with LISD for more opportunities to educate students on Public Services functions and jobs (Annually)*
- *Educate residents, students, and the general public of what we do and why it is important*
  - *Conservation Topics (Annually)*
  - *Storm Water Quality issues (Annually)*
  - *Water/Wastewater Treatment (Annually)*
  - *Educate employees, residents, and visitors on proper recycling techniques (Annually)*
- *Partner with other organizations to spread awareness of career opportunities existing with the department and to develop internship programs*
  - *Develop pipelines for future talent for the department (2 years)*

Goal 4 *Maintain the City's infrastructure, facilities, and resources in accordance with City, State, and Federal standards, laws, and mandates. Strive to meet or exceed the expectations of our residents.*

Strategies

- *Be proactive in all areas of responsibility (In progress)*
- *Be the City's expert resource for ADA infrastructure issues (In progress)*
- *Provide winter storm snow and ice prevention/removal for elevated surfaces and commercial streets (Annually)*
- *Make efforts to improve PCI values*
  - *Implement condition surveys for City infrastructure to better develop 5-year maintenance schedules (Annually)*
  - *Allocate funding to those maintenance practices that have the best return on condition (Annually)*
  - *Develop maintenance schedules that ensure pavement markings are clearly visual (Annually)*
- *Operate and meet/exceed regulatory requirements*
  - *TOPS Program at the Water Plant (In progress)*
  - *Monitoring Plan Requirements (In progress)*
  - *TPDES Permit Requirements (In progress)*
  - *Meet new mandates triggered by Castle Hills Annexation (In progress)*

- *Maintain exceptional customer service*
    - *Find ways to meet customer request for better street light coverage in those areas that meet criteria. (Annually)*
- *Maintain superior water system rating*
    - *Exceed minimum water system capacities (Annually)*
    - *Comply with minimum operating practices (Annually)*
    - *Water quality shall comply with all primary and secondary drinking water standards (Annually)*
- *Develop, monitor, and utilize beneficial performance dashboard metrics. (Annually)*
- *Work with Rail Roads to improve street crossings (Annually)*
- *Maintain Storm Water Permit and BMP's (In progress)*
    - *Street Sweeping (In progress)*

Goal 5 *Sustainability: Be efficient in the use of City resources. Ensure the right tool is used for the job and eliminate waste where possible.*

Strategies

- *Continuously find ways to increase efficiency and effectiveness in our operations*
    - *Reduce sludge tonnage (In progress)*
    - *Energy efficient buildings (In progress)*
    - *Street lighting-continue to replace with more efficient lights (In progress)*
- *Promote water use goals to spur conservation*
    - *Update Water Conservation Plan (2 years)*
- *Utilize a social, environmental, and financial protection mindset to guide decision-making*
    - *Continue to reduce waste entering the landfill in order to extend the life of the landfill (Annually)*
    - *AMI meters empower city, residents and businesses to find leaks and improve water conservation (3 years)*
- *Right-size all operations*
    - *Fleet - continue to "right-size" the fleet and invest in alternative fuel vehicles (In progress)*

Performance Metrics

	Metric	Target
Build a Sustainable & Resilient Future	Conduct PCI Survey	Every 3 Years
	Update Land Use Plan	Every 5 years
	Update Water Master Plan	Every 5 years
	Update Wastewater Master Plan	Every 5 years
	Update Water and Sewer Report Card	Every 5 years
	Update Flow Monitoring	Every 10 years
Grow Employees	**Metric**	**Target**
	Identify staff to workload ratios across all divisions. TBD	Facilities: 25,000 Sq Ft. maintainable space = 1 FTE. Fleet: 120 VEU (Vehicle Equivalent Units) per FT mechanic.
	Number of Open Positions	100% staffed
	LDS Training for Staff	10% of overall employees annually
	Track training hours	% of employees who have attended at least 1 outside training course
	Completion of a departmental/divisional succession plan	pass/fail
Public Education	**Metric**	**Target**
	% of managers/supervisors who are active on at least one committee	100%
	Number of educational events a year	Minimum of 5 events/yr
	Host project search interns	2 annually
Maintain the City's infrastructure, facilities, and resources in accordance with City, State, and Federal standards, laws, and mandates. Strive to meet or exceed the expectations of our residents	**Metric**	**Target**
	Maintenance Percent Reactive vs. Preventive	<10%
	Number of complaints submitted to the Federal Highway Administration (FHWA) found to be non compliant	0
	Number of elevated locations treated	100%
	Latest Average PCI value	>73
	% Passing Bac-t	>99%
	Number of Service Requests Completed	<72 hours
	Drinking Water Turbidity (NTU) - Current Value	<0.10 NTU
	Number of wooden railroad crossings	0
	Amount of debris collected	Number of tons collected
	Sidewalk Repairs - Linear Feet	>33,944
	Average Number of Days to Complete Water Meter Leak Check Requests	<10 days
	Water - Main Breaks - Days to Repair	1 day
	Traffic Signal/Sign Service Request - Days to Complete	<2 days
	Pothole Service Requests - Days to Complete	<2 days
	Work Order Projected Start Date vs. Actual Start Date in Days	1 day
	Percent of Fire Hydrants in Service	95%
Sustainability	**Metric**	**Target**
	Idea meetings with employees	4 times a year
	Replace remaining HVAC system, light fixtures, motors, roofs, etc. nearing end of life	95% Goal
	City Fleet Gold Award	pass/fail
	City Fleet - Reduce the fuel usage by using electric vehicles/alternate fuels	25%
	Current Water Pumped (gal.) per Capita per Day (Yearly)	<140 gallons
	City Fleet - Average Age Replacement	6 years
	Water Meters - Under 15 Years Old	>75%

Five-Year Forecast

The Public Services Department is responsible for the operation, maintenance, and replacement of considerable assets on behalf of the city. During each budget process staff updates 5-year plans and submits the following documents that are included as appendices in this plan:

- 5 Year Street and Drainage Program
- 5 Year W&S CIP
- Utilities Replacement Plan
- Facilities 5 Year CIP

While these documents are good planning tools for capital needs, they do not reflect growing needs in the areas of personnel, major equipment needs, facilities renovation needs within the department, as well as other periodic one-time and ongoing needs of the department. Below is a chart showing the historical action-step requests of the department over the last 5 years and what was funded:

Historical Action Step Requested Trend				
Year	**One-Time**	**Ongoing**	**Total**	**Total Funded**
FY 21/22	$3,014,222	$5,939,413	$8,953,635	$5,026,660
FY 20/21	$563,827	$2,695,370	$3,259,197	$4,087,805
FY 19/20	$4,340,303	$2,582,537	$6,922,840	$5,201,766
FY 18/19	$4,442,149	$423,337	$4,865,486	$4,389,261
FY 17/18	$10,172,680	$1,168,956	$11,341,636	$9,975,762

This table needs a little explanation. In FY 17/18 all Street and Facility capital requests were submitted as one-time requests. After that year, portions of these items were funded in the base budget, which explains the large one-time request in that budget year. FY 20/21 was a year where all budgets were reduced due to the unknown impact of the COVID-19 Pandemic. In FY 21/22 a larger than normal budget request was submitted to address the pending annexation of Castle Hills. Nevertheless, an average of $7M per year has been shown to be requested by the department, split between one-time and ongoing requests above the base budget, with $5.7M of those requests actually being funded.

The following table shows the anticipated needs of the department over the five-year period FY 22/23 – FY 26/27 including the time frame of the need and the order of magnitude of the cost. While these items are anticipated, the timing could vary, and several smaller items may be added as we approach each budget year.

Need	FY 22/23	FY 23/24	FY 24/25	FY 25/26	FY 26/27
Personnel Needs					
Administrative Assistant		X			
Utility Construction Inspector				X	
Utility Training Coordinator					X
Utilities Maintenance Operator					X
Facilities Building Technician			X	X	X
Fleet Mechanic			X		
Meters Foreman		X			
Meters Operations Worker				X	
Stormwater Inspector			X		
Traffic Signal Crew Leader		X			
Major Equipment					
Floatable Collection Equipment (Crane?)			X		
Covered Material Storage		X			
Laboratory Equipment	X	X	X	X	X
Wastewater Sampling Equipment		X		X	
4x4 Vehicles for Inspectors	X				
Vac/Crane Truck for Meters			X		
Vac Trailer for Traffic	X				
Valve & Hydrant Truck with a crane (replacement year 2022)	X				
Brine Tank, Sand Spreader		X			
Building Needs					
WWTP/ECS Building Remodel & Lab Expansion	X				
Design for next phase of Kealy Complex		X			
Renovate/Repurpose Building A	X	X			
Replace Building B/C				X	
WTP Intake Vault Fencing	X				
Other Needs					
CDL License Training	X				
WTP Media Replacement			X		
Lead & Copper Rule Compliance and Sampling		X	X	X	X
UCMR5 Rule Compliance and Sampling		X	X		
Installation of Floatable Collection Devices		X			
AMI Meter Register Change Out		X	X	X	
LIMS for Lab/WTP/WWTP			X		

Appendix

5 Year Street and Drainage Program

Program Type		FY 21/22	FY 22/23	FY 23/24	FY 24/25	FY 25/26
	1	MacArthur from Lewis to Highland	Old Orchard from Main to Valley Pkwy		Railroad St. from Corporate to Hebron Part	
	2	Fox from Old Orchard to Lynnwood		Edmonds Fox to Main		
	3	Valley Parkway from Main to FM 3040	Old Orchard Main to Corporate	McGee from FM407 to Valley Ridge	Maintenance of Main Thoroughfares	Maintenance of Main Thoroughfares
		S. Charles from High Scholl to I35	Edmonds from Corporate to Valleybrook	Work Order Reduction		
			Panel Raising and Crack Sealing	Bennett from Yates to Ridgeview	Work Order Reduction	Work Order Reduction
		Panel Raising and crack sealing $1,000,000				
Concrete Street Rehab		$2,301,520	$2,301,520	$2,301,520	$2,301,520	$2,301,520
		Hunters Glen	Lakewood North			
		Meadowlake				
		The Highlands	Qualicrest			
		Highpoint	Lewisville Valley 6			
		Lewisville Valley 5	Garden Oak Estates			
Neighborhood Rehabilitation		$0.00	$400,000	$0.00	$0.00	$0.00
		Correcting alley approaches to ADA Spec's where sidewalks cross - $170,000	Correcting alley approaches to ADA Spec's where sidewalks cross - $170,000	Correcting alley approaches to ADA Spec's where sidewalks cross - $170,000	Correcting alley approaches to ADA Spec's where sidewalks cross - $170,000	Correcting alley approaches to ADA Spec's where sidewalks cross - $170,000
		5 Yr Plan Alley Schedule.xlsx	5 Yr Plan Alley Schedule.xlsx	5 Yr Plan Alley Schedule.xlsx	5 Yr Plan Alley Schedule.xlsx	5 Yr Plan Alley Schedule.xlsx
Alley Rehab		$0	$0.00	$0.00	$0.00	$0.00
	1	Degan from College to Millican	Lees Ct	TBD	TBD	TBD
	2	Harn from College to Millican	Rachels Ct	East Shore - Tennie to Point - TBD		
	3	Timber Creek and League	Beverly Ct	Point - East Shore to West Shore - TBD		
	4	Cedar Ln. I35 to end	Parkway Mill to Kealy	Tennie - Mill to West Shore - TBD		
	5	Cherry Ln. Purnell to Cedar	Greenland Mill to Parkway	West Shore - Tennie to Point - TBD		
		Waste water plant roads	Simmons Greenland to Kealy			
			East Main St. - SH 121 to Valley Ridge			
		W. Purnell Edmonds to I35	Allen - Hembry to Lone oak - TBD			
			Lone Oak - Mckenzie to E Purnell - TBD			
		Manco Purnel to Main	Hardy - Mckenzie to E Purnell - TBD			
Asphalt Maintenance		$614,286	$614,286	$614,286	$614,286	$614,286
		Correcting sidewalks to ADA Spec's for both Neighborhood and Concrete Street Projects				
			Creek View Village			
		Highpoint	Orchard Hill Addition			
		Lewisville Valley 5	Lewisville Valley 6	Camelot Estates	TBD	TBD
		Hunters Glen	Garden Oak Estates	Summit from College to Main	Sidewalk work order reduction	Sidewalk work order reduction
		Meadow Lake Addition	Valley Parkway from Main to FM 3040	Sidewalk work order reduction		
		The Highlands	Sidewalk work order reduction			
		Sidewalk work order reduction				
Sidewalk Maintenance		$1,454,942	$1,454,942	$1,454,942	$1,454,942	$1,454,942
Screening Wall Maintenance		See Plan $200,000	See Plan $200,000	See Plan $200,000	See Plan $200,000	See Plan $200,000
		Signal Knock Downs $35,101	Signal Knock Downs $35,101	Signal Knock Downs $35,101	Signal Knock Downs $35,101	Signal Knock Downs $35,101
		Old Signal Cabinet Replacement $31,000	Old Signal Cabinet Replacement $31,000	Old Signal Cabinet Replacement $31,000	Old Signal Cabinet Replacement $31,000	Old Signal Cabinet Replacement $31,000
		Old Video Detection repalcement $159,379	Old Video Detection repalcement $159,379	Old Video Detection repalcement $159,379	Old Video Detection repalcement $159,379	Old Video Detection repalcement $159,379
		Signal and Ped Head Repalcement $34415	Signal and Ped Head Repalcement $34415	Signal and Ped Head Repalcement $34415	Signal and Ped Head Repalcement $34415	Signal and Ped Head Repalcement $34415
Traffic Improvements		$259,895	$259,895	$259,895	$259,895	$259,895
Program Total		$4,870,643	$5,270,643	$4,870,643	$4,870,643	$4,870,643

5 Year Facilities CIP Plan

Classification	(All)
Type	(All)
Priority	(All)
Status	(All)
Justification	(All)
Bldg./Unit	(All)
Location	(All)

Facilities 5 Year CIP Plan

Sum of Est. Cost		Est. Completion Year					
System Category	System	2022	2023	2024	2025	2026	Grand Total
Fire Protection	Fire Protection - Other Fire Protection Systems	$42,681.60		$54,539.40	$176,612.00	$43,256.25	$317,089.25
	Fire Protection - Sprinklers		$45,771.00			$51,745.32	$97,516.32
Fire Protection		$42,681.60	$45,771.00	$54,539.40	$176,612.00	$95,001.57	$414,605.57
Interior Finishes	Interior Finishes - Wall Finishes	$282,439.00		$64,298.42	$88,132.49	$141,648.10	$576,518.01
	Interior Finishes - Floor Finishes	$415,764.00	$46,045.44	$58,042.08	$74,171.02	$123,521.95	$717,544.49
	Interior Finishes - Ceiling Finishes			$7,686.34	$61,809.60		$69,495.94
Interior Finishes		$698,203.00	$46,045.44	$130,026.84	$224,113.11	$265,170.05	$1,363,558.44
Roofing	Roofing	$250,000.00			$50,716.00		$300,716.00
Roofing		$250,000.00			$50,716.00		$300,716.00
Exterior Enclosure	Exterior Enclosure - Exterior Walls	$237,844.00	$8,000.00	$23,207.35	$10,932.00	$11,057.90	$291,041.25
	Exterior Enclosure - Exterior Windows	$36,563.47	$31,869.00	$60,057.20		$34,731.94	$163,221.61
	Exterior Enclosure - Exterior Doors	$60,000.00		$6,848.00	$120,627.26	$45,705.18	$233,180.44
Exterior Enclosure		$334,407.47	$39,869.00	$90,112.55	$131,559.26	$91,495.02	$687,443.30
HVAC	HVAC - Terminal & Package Units	$97,216.00	$244,408.74	$1,463,059.55	$83,265.60	$43,912.00	$1,931,861.89
	HVAC - Cooling Generating Systems			$125,580.00			$125,580.00
HVAC		$97,216.00	$244,408.74	$1,588,639.55	$83,265.60	$43,912.00	$2,057,441.89
Equip & Furnishings	Equipment - Other Equipment	$37,804.80	$105,101.80	$99,088.00		$137,089.66	$379,084.26
	Equipment - Commercial Equipment	$19,233.19					$19,233.19
Equip & Furnishings		$57,037.99	$105,101.80	$99,088.00		$137,089.66	$398,317.45
Interior Construction	Interior Construction - Interior Doors	$43,895.98	$18,517.40			$46,223.77	$108,637.15
	Interior Construction - Fittings				$24,918.03	$29,348.00	$54,266.03
Interior Construction		$43,895.98	$18,517.40		$24,918.03	$75,571.77	$162,903.19
Electrical	Electrical - Lighting			$77,125.60	$29,340.80	$37,205.56	$143,671.96
	Electrical - Other Electrical Systems			$16,994.02	$20,903.66		$37,897.68
	Electrical - Service & Distribution			$186,057.11	$14,129.54	$16,017.52	$216,204.18
Electrical				$280,176.73	$64,374.00	$53,223.08	$397,773.82
Conveying	Conveying					$377,280.00	$377,280.00
Conveying						$377,280.00	$377,280.00
Plumbing	Plumbing - Plumbing Fixtures						$0.00
	Plumbing - Domestic Water Distribution						$0.00
Plumbing							$0.00
Grand Total		$1,523,442.05	$499,713.38	$2,242,583.07	$755,558.01	$1,138,743.15	$6,160,039.65

5 Year Water & Sewer CIP Plan

City of Lewisville								
Water & Sewer Capital Improvement Plan								
UTILITY SYSTEM			#	YEAR 1 FY 21-22	YEAR 2 FY 22-23	YEAR 3 FY 23-24	YEAR 4 FY 24-25	YEAR 5 FY 25-26
Collection/Distribution System								
	WL 16" ELV-Merdad/Josey		U1610					
	Midway West		U1305					
	Bioscrubber @ Hebron							
	Bioscrubber @ McGee		U1611					
	Residential Subdivision W/SS	GO						
	Timbercreek Force Main		U1511					
	Timberbrook W&S Line Repl	GO	G1621					
	South Kealy W&S Line Repl	GO	G1623					
	SS Repl 21-30" McGee to Prairie Creek				$2,500,000	$1,500,000		
	Corporate/Huffines W&S Line Repl	GO	G1113	$1,400,000				
	Holfords Prairie W&S Line Adjustments	GO	G1625					
	Gravity SS E Lewisville/Castle Hills				$500,000			$2,000,000
	Lewisville Valley I W&S Line Repl	GO					$1,600,000	
	Bellaire W&S Line Repl	GO					$800,000	
	College W&S Line Repl	GO	G1624					
	Civic Circle & Valley Pkwy	GO						
	Whipporwill Force Main Repair		U2006					
	Cowan (w/ 42" water line distribution)	GO		$1,500,000				
	Jones(Cowan to Kealy)/Kealy (to KC RR)	GO	G1815	$300,000				
	Indian Oaks W&S Line Repl	GO		$2,000,000	$1,700,000			
	Aerial Crossings		U1001					
	W/SS Line Replacements/Other	GO	U1606	$500,000	$500,000	$1,000,000	$500,000	
	$80k of the amount for 2018-19 is to be funded from reserves							
	Valley 4 W&S Line Repl	GO		$1,400,000	$1,400,000			
	Railroad Street W&S Line Repl	GO			$500,000			
	Cowan W&S Line Repl	GO						
	Valley Ridge East W&S Line Repl	GO				$100,000		
	NW Old Town	GO						
	Prairie Creek Gravity Line	GO	U1508					
	Meadow Glen W&S Line Repl	GO					$1,600,000	
	20" Water SH121, Corporate to FM3040				$300,000			$2,000,000
	12" Water IH35 Jones to Valley Ridge				$150,000			$1,000,000
	16" Water Kirkpatrick, Main to Valley				$450,000			
	Rehab 24" Valves East Side PS to Valley Ridge		U2005			$500,000		
	Rehab/Replace 36/42" SS SH121 to Timber Creek LS	GO	U1914	$1,500,000				
	$600k of the amount for 2018-19 is to be funded from reserves							
	12" SS Mill Street, Jones to Lake Park					$150,000	$1,000,000	
	Old Town Sewer Rehab (Walters, North St, Martin)							$150,000
	Midway Road to Parker 12" and 20" Water Line							
	Treated water connection from UTRWD at WTP							

5 Year Water & Sewer CIP Plan continued

	IH35 W&S Rehabilitation		U1909					
	Ace Lane water line (Creekside MHP)							
	Duncan Water Line (Spinks to Harmon)							
	RJN- Grandy's Lane Sewer Rehab							
	RJN- Valley Ridge Sewer Rehab							
	RJN- Old Orchard & Summit Utilities							
	RJN- 36" MacArthur and Lake Vista							
	Northwest Lewisville 12" Water Lines						$780,000	$780,000
	Southwest Lewisville 12" Water Lines						$94,000	$471,000
	W. Southwest Parkway 12" Water Line							
	Northeast 1 Lewisville 12" Water Lines							
	Northeast 2 Lewisville 12" Water Lines							
	Parker Road 12" Water Line							
	North Central 1 Lewisville 12" Water Lines							
Lift and Pump Stations/Storage Tanks								
	Vista Ridge Lift Station Impr		U1505					
	Whipporwill Lift Station Pump/Valve		U1703					
	Castle Hills Lift Station					$500,000	$3,500,000	$3,000,000
	Midway Branch Lift Station & Force Main	GO	U1102					
	Bellaire Elevated Storage Repainting (2024)					$100,000	$1,500,000	
	Southside Ground Storage Tank Repainting (2024)					$500,000		
	Austin Ranch Elevated Storage Repainting (2028)							
	Castle Hills Elevated Repainting (2023)				$125,000	$1,500,000		
	Castle Hills Ground Storage Repainting (2029)							
	Midway Ground Storage Repainting (2032)							
	Eastside GST #1 Repainting (Steel) (2031)							
	Elevated IH35 Storage Tank		U1407					
	Eastside GST #2 Repainting (Concrete) (2022)							
	East Side PS GST							$220,000
	East Side PS							$400,000
	East Side Booster PS							$78,000
	Midway PS GST							
	Midway PS							
Wastewater Treatment								
	Solids Handling							
	WWTP UV Disinfection	GO	U1908			$2,800,000	$2,800,000	$2,800,000
	WWTP/Prairie Creek Lift Station							
	WWTP Capacity Improvements *			$8,100,000	$8,100,000	$8,100,000		
	WW Plant Electric Improvements		U1513					
	Wastewater Treatment Plant Imp.							
	Filter Improvements							
	Headworks Improvements							
	Coarse Screening Improvements							
	Lab/Maintenance Bldg. Improvements							

5 Year Water & Sewer CIP Plan continued

	Phosphorous Removal Improvements							
	Solids Disposal Improvements							
Water Production								
	Raw Water Line behind Dam		U1612					
	Ozone Facilities		U1306					
	WTP Master Plan		U1907					
	WTP Clearwell Repairs		U1704					
	WTP Disinfection Improvements							
	WTP Capacity Improvements *							
	Water Treatment Plant Process Studies				$500,000		$750,000	
	Combined Pump Station and Clearwell						$2,205,000	$4,900,000
	Intake Structure Painting		U1805					
	Raw Transmission Main at Chemical Injection							
	WTP Generator/ATS Upgrade							
	Chemical Facility							
	UT Intake and PS Expansion/Rehabilitation							
Other								
	Meter Replacement Program		U1801	$720,000	$720,000	$720,000		
	Fleet Bldg (25%)		G1804					
	Total Capital Needs			**17,420,000**	**17,445,000**	**17,470,000**	**17,129,000**	**17,799,000**
	Cash Reserve Funding			**4,000,000**	**4,500,000**	**5,000,000**	**5,500,000**	**6,000,000**
	Total Cash Needs			**4,000,000**	**4,500,000**	**5,000,000**	**5,500,000**	**6,000,000**
	Bond Funding			**13,420,000**	**12,945,000**	**12,470,000**	**11,629,000**	**11,799,000**
	Projects above subject to change based on funding sources, scheduling. P							
	**** Estimates; master study needed for more accurate number***			$7,020,000	$7,050,000	$7,170,000	$7,000,000	
				$10,400,000	$10,395,000	$10,300,000	$10,129,000	

5 Year Utility Asset Replacement - 2022

WATER

ASSET ID	SYSTEM	UNIT	ASSET GROUP	COMPONENT	YEAR	COST
9	Intake	Lewisville Intake	VALVES	#5 Check	2022	$28,000.00
137	Treatment	South Plant	PUMPS	Ferric Pumps	2022	$16,000.00
138	Treatment	North Plant	PUMPS	Ferric Pumps	2022	$8,000.00
159	Treatment	Filtration	VALVES	Influent Valve #3	2022	$9,500.00
160	Treatment	Filtration	VALVES	Influent Valve #4	2022	$9,500.00
161	Treatment	Filtration	VALVES	Influent Valve #5	2022	$9,500.00
167	Treatment	Filtration	VALVES	Effluent Valve #3	2022	$9,500.00
168	Treatment	Filtration	VALVES	Effluent Valve #4	2022	$9,500.00
169	Treatment	Filtration	VALVES	Effluent Valve #5	2022	$9,500.00
175	Treatment	Filtration	VALVES	Washwater Waste Valve #3	2022	$9,500.00
176	Treatment	Filtration	VALVES	Washwater Waste Valve #4	2022	$9,500.00
177	Treatment	Filtration	VALVES	Washwater Waste Valve #5	2022	$9,500.00
183	Treatment	Filtration	VALVES	Backwash Valve #3	2022	$9,500.00
184	Treatment	Filtration	VALVES	Backwash Valve #4	2022	$9,500.00
197	Treatment	Filtration	VALVES	Backwash Valve #5	2022	$9,500.00
203	Treatment	Filtration	VALVES	Filter-To-Waste Valve #3	2022	$9,500.00
204	Treatment	Filtration	VALVES	Filter-To-Waste Valve #4	2022	$9,500.00
205	Treatment	Filtration	VALVES	Filter-To-Waste Valve #5	2022	$9,500.00
211	Treatment	Filtration	VALVES	Air Scour Valve #3	2022	$9,500.00
212	Treatment	Filtration	VALVES	Air Scour Valve #4	2022	$9,500.00
213	Treatment	Filtration	VALVES	Air Scour Valve #5	2022	$9,500.00
305	Treatment	Filtration	MOTORS	Backwash Blower Motor #1	2022	$2,000.00
309	Treatment	Northside Pump Station	VALVES	#7 Check	2022	$18,000.00

WASTEWATER

ASSET ID	SYSTEM	UNIT	ASSET GROUP	COMPONENT	YEAR	COST
99	WW Treatment	Plant #1	MOTORS	Blower Motor #2	2022	$30,000.00
338	Sludge Management	East Press	MECHANICAL	Components	2022	$15,000.00
339	Sludge Management	Polymer System	MECHANICAL	Components	2022	$9,000.00
419	Collection System	Forest Park Lift Station	PUMPS	Pumps	2022	$25,000.00
420	Collection System	Valley Four Lift Station	PUMPS	Pumps	2022	$20,000.00
425	Collection System	Whippoorwill Lift Station	PUMPS	Pump #2	2022	$51,000.00
				TOTAL		**$393,000.00**

5 Year Utility Asset Replacement - 2023

WATER

ASSET ID	SYSTEM	UNIT	ASSET GROUP	COMPONENT	YEAR	COST
18	Intake	Upper Trinity Intake	MOTORS	Motor #2	2023	$35,000.00
19	Intake	Upper Trinity Intake	MOTORS	Motor #3	2023	$35,000.00
63	Treatment	Disinfection	CONTROLS	Cl2 Ejector #1	2023	$1,000.00
64	Treatment	Disinfection	CONTROLS	Cl2 Ejector #2	2023	$1,000.00
65	Treatment	Disinfection	CONTROLS	Cl2 Ejector #3	2023	$1,000.00
109	Treatment	North Plant	MECHANICAL	Flocculator Gear Box #1	2023	$10,000.00
110	Treatment	North Plant	MECHANICAL	Flocculator Gear Box #2	2023	$10,000.00
162	Treatment	Filtration	VALVES	Influent Valve #6	2023	$9,500.00
163	Treatment	Filtration	VALVES	Influent Valve #7	2023	$9,500.00
164	Treatment	Filtration	VALVES	Influent Valve #8	2023	$9,500.00
170	Treatment	Filtration	VALVES	Effluent Valve #6	2023	$9,500.00
171	Treatment	Filtration	VALVES	Effluent Valve #7	2023	$9,500.00
172	Treatment	Filtration	VALVES	Effluent Valve #8	2023	$9,500.00
178	Treatment	Filtration	VALVES	Washwater Waste Valve #6	2023	$9,500.00
179	Treatment	Filtration	VALVES	Washwater Waste Valve #7	2023	$9,500.00
180	Treatment	Filtration	VALVES	Washwater Waste Valve #8	2023	$9,500.00
198	Treatment	Filtration	VALVES	Backwash Valve #6	2023	$9,500.00
199	Treatment	Filtration	VALVES	Backwash Valve #7	2023	$9,500.00
200	Treatment	Filtration	VALVES	Backwash Valve #8	2023	$9,500.00
206	Treatment	Filtration	VALVES	Filter-To-Waste Valve #6	2023	$9,500.00
207	Treatment	Filtration	VALVES	Filter-To-Waste Valve #7	2023	$9,500.00
208	Treatment	Filtration	VALVES	Filter-To-Waste Valve #8	2023	$9,500.00
214	Treatment	Filtration	VALVES	Air Scour Valve #6	2023	$9,500.00
215	Treatment	Filtration	VALVES	Air Scour Valve #7	2023	$9,500.00
216	Treatment	Filtration	VALVES	Air Scour Valve #8	2023	$9,500.00

5 Year Utility Asset Replacement – 2023 continued

WASTEWATER						
ASSET ID	SYSTEM	UNIT	ASSET GROUP	COMPONENT	YEAR	COST
58	WW Treatment	Fine Screens	MECHANICAL	Trunnion #1.1 (NE)	2023	$2,000.00
61	WW Treatment	Fine Screens	MECHANICAL	Trunnion #1.4 (SW)	2023	$2,000.00
63	WW Treatment	Fine Screens	MECHANICAL	Trunnion #2.2 (NW)	2023	$2,000.00
64	WW Treatment	Fine Screens	MECHANICAL	Trunnion #2.3 (SE)	2023	$2,000.00
65	WW Treatment	Fine Screens	MECHANICAL	Trunnion #2.4 (SW)	2023	$2,000.00
66	WW Treatment	Fine Screens	MECHANICAL	Trunnion #3.1 (NE)	2023	$2,000.00
67	WW Treatment	Fine Screens	MECHANICAL	Trunnion #3.2 (NW)	2023	$2,000.00
68	WW Treatment	Fine Screens	MECHANICAL	Trunnion #3.3 (SE)	2023	$2,000.00
69	WW Treatment	Fine Screens	MECHANICAL	Trunnion #3.4 (SW)	2023	$2,000.00
70	WW Treatment	Fine Screens	MECHANICAL	Trunnion #4.1 (NE)	2023	$2,000.00
71	WW Treatment	Fine Screens	MECHANICAL	Trunnion #4.2 (NW)	2023	$2,000.00
72	WW Treatment	Fine Screens	MECHANICAL	Trunnion #4.3 (SE)	2023	$2,000.00
73	WW Treatment	Fine Screens	MECHANICAL	Trunnion #4.4 (SW)	2023	$2,000.00
74	WW Treatment	Fine Screens	MECHANICAL	Trunnion #5.1 (NE)	2023	$2,000.00
75	WW Treatment	Fine Screens	MECHANICAL	Trunnion #5.2 (NW)	2023	$2,000.00
76	WW Treatment	Fine Screens	MECHANICAL	Trunnion #5.3 (SE)	2023	$2,000.00
77	WW Treatment	Fine Screens	MECHANICAL	Trunnion #5.4 (SW)	2023	$2,000.00
161	WW Treatment	Plant #2	MOTORS	RAS Motor 1A	2023	$5,000.00
162	WW Treatment	Plant #2	MOTORS	RAS Motor 1B	2023	$5,000.00
163	WW Treatment	Plant #2	MOTORS	RAS Motor 1C2C	2023	$5,000.00
164	WW Treatment	Plant #2	MOTORS	RAS Motor 2A	2023	$5,000.00
165	WW Treatment	Plant #2	MOTORS	RAS Motor 2B	2023	$5,000.00
201	WW Treatment	Plant #2	MECHANICAL	Aeration Diffusers #1	2023	$40,000.00
202	WW Treatment	Plant #2	MECHANICAL	Aeration Diffusers #2	2023	$40,000.00
248	WW Treatment	Cl2/SO2	MECHANICAL	SO2 Inductor #3	2023	$5,500.00
249	WW Treatment	Cl2/SO2	CONTROLS	Chlorinator #1	2023	$8,000.00
250	WW Treatment	Cl2/SO2	CONTROLS	Chlorinator #2	2023	$8,000.00
251	WW Treatment	Cl2/SO2	CONTROLS	Chlorinator #3	2023	$8,000.00
252	WW Treatment	Cl2/SO2	CONTROLS	Chlorinator #4	2023	$3,000.00
253	WW Treatment	Cl2/SO2	CONTROLS	Sulfonator #1	2023	$10,000.00
254	WW Treatment	Cl2/SO2	CONTROLS	Sulfonator #2	2023	$10,000.00
255	WW Treatment	Cl2/SO2	CONTROLS	Sulfonator #3	2023	$10,000.00
302	WW Treatment	Sand Filters	PUMPS	Head-of-Plant Pump #2	2023	$18,000.00
325	Sludge Management	Digester	PUMPS	Sludge Pump #2	2023	$75,000.00
326	Sludge Management	Digester	PUMPS	Sludge Pump #3	2023	$40,000.00
351	Sludge Management	Press Building	PUMPS	Booster Pump East	2023	$5,000.00
352	Sludge Management	Press Building	PUMPS	Booster Pump West	2023	$5,000.00
366	Sludge Management	Press Building	MOTORS	Conveyor Motor Outside	2023	$5,000.00
367	Sludge Management	Press Building	MECHANICAL	Andritz Roller System West	2023	$60,000.00
404	Collection System	Chase Oaks Lift Station	PUMPS	Pump #1	2023	$20,000.00
405	Collection System	Chase Oaks Lift Station	PUMPS	Pump #2	2023	$20,000.00
426	Collection System	Hidden Cove Lift Station	PUMPS	Pump #2	2023	$20,000.00
				Total		**$733,500.00**

5 Year Utility Asset Replacement – 2024

WATER

ASSET ID	SYSTEM	UNIT	ASSET GROUP	COMPONENT	YEAR	COST
29	Intake	Lewisville Intake	MOTORS	Motor #3	2024	$25,000.00
66	Treatment	Disinfection	CONTROLS	Cl2 Ejector #4	2024	$1,000.00
105	Treatment	North Plant	MOTORS	Flocculator Motor #1	2024	$1,000.00
276	Treatment	Facility and Grounds	MISCELLANEOUS	SCBA (x10)	2024	$40,000.00

WASTEWATER

ASSET ID	SYSTEM	UNIT	ASSET GROUP	COMPONENT	YEAR	COST
16	WW Treatment	Prairie Creek Pump Station	PUMPS	Pump #5	2024	$15,000.00
105	WW Treatment	Plant #1	MOTORS	RAS Motor #1	2024	$15,000.00
106	WW Treatment	Plant #1	MOTORS	RAS Motor #2	2024	$15,000.00
188	WW Treatment	Plant #2	CONTROLS	Flow Meter #4- Return	2024	$5,500.00
296	WW Treatment	Sand Filters	PUMPS	Washwater Pump #1	2024	$5,500.00
297	WW Treatment	Sand Filters	PUMPS	Washwater Pump #2	2024	$5,500.00
298	WW Treatment	Sand Filters	PUMPS	Washwater Pump #3	2024	$5,500.00
299	WW Treatment	Sand Filters	PUMPS	Washwater Pump #4	2024	$5,500.00
300	WW Treatment	Sand Filters	PUMPS	Washwater Pump #5	2024	$5,500.00
333	Sludge Management	Digester	MECHANICAL	Submersible Mixer #1	2024	$15,000.00
334	Sludge Management	Digester	MECHANICAL	Submersible Mixer #2	2024	$15,000.00
335	Sludge Management	Digester	MECHANICAL	Submersible Mixer #3	2024	$15,000.00
336	Sludge Management	Digester	MECHANICAL	Submersible Mixer #4	2024	$15,000.00
337	Sludge Management	Digester	MECHANICAL	Submersible Mixer #5	2024	$15,000.00
				Total		$220,000.00

5 Year Utility Asset Replacement – 2025

WATER

ASSET ID	SYSTEM	UNIT	ASSET GROUP	COMPONENT	YEAR	COST
27	Intake	Lewisville Intake	PUMPS	Pump #5	2025	$150,000.00
49	Treatment	Disinfection	CONTROLS	Cl2 Leak Detector #1	2025	$3,000.00
50	Treatment	Disinfection	CONTROLS	Cl2 Leak Detector #2	2025	$3,000.00
51	Treatment	Disinfection	CONTROLS	Cl2 Leak Detector #3	2025	$3,000.00
246	Treatment	Clarifier #1	VALVES	Clarifier #1 Sludge Actuated Valve	2025	$9,500.00
247	Treatment	Clarifier #2	VALVES	Clarifier #2 Sludge Actuated Valve	2025	$9,500.00
277	Treatment	Facility and Grounds	MISCELLANEOUS	LED Security Lights (x36)	2025	$36,000.00
293	Treatment	High Service Pump Station	VALVES	#3 GA	2025	$6,000.00
360	Distribution System	Southside Pump Station	MOTORS	Motor #1	2025	$30,000.00
369	Distribution System	Southside Pump Station	ELECTRICAL	Automatic Transfer Switch	2025	$15,000.00

WASTEWATER

ASSET ID	SYSTEM	UNIT	ASSET GROUP	COMPONENT	YEAR	COST
6	WW Treatment	Prairie Creek Pump Station	MOTORS	Motor #1	2025	$15,000.00
7	WW Treatment	Prairie Creek Pump Station	MOTORS	Motor #2	2025	$15,000.00
8	WW Treatment	Prairie Creek Pump Station	MOTORS	Motor #3	2025	$15,000.00
12	WW Treatment	Prairie Creek Pump Station	PUMPS	Pump #1	2025	$18,000.00
13	WW Treatment	Prairie Creek Pump Station	PUMPS	Pump #2	2025	$18,000.00
14	WW Treatment	Prairie Creek Pump Station	PUMPS	Pump #3	2025	$17,000.00
37	WW Treatment	Prairie Creek Pump Station	PUMPS	Sump Pump #2	2025	$1,500.00
38	WW Treatment	Prairie Creek Pump Station	PUMPS	Sump Pump #3	2025	$1,500.00
92	WW Treatment	Plant #1	BLOWERS	Blower #3	2025	$100,000.00
151	WW Treatment	Plant #2	PUMPS	RAS Pump 1A	2025	$10,000.00
152	WW Treatment	Plant #2	PUMPS	RAS Pump 2A	2025	$10,000.00
236	WW Treatment	Plant #3	MECHANICAL	Clarifier Drive #1	2025	$60,000.00
237	WW Treatment	Plant #3	MECHANICAL	Clarifier Drive #2	2025	$60,000.00
294	WW Treatment	Filter Building	PUMPS	Pump #3	2025	$2,500.00
347	Sludge Management	Press Building	MISCELLANEOUS	Compressor West	2025	$10,000.00
372	WW Treatment	Facility and Grounds	MISCELLANEOUS	Kohler Generator #1	2025	$95,000.00
435	Collection System	Timber Creek Lift Station	CONTROLS	VFD #1	2025	$17,000.00
436	Collection System	Timber Creek Lift Station	CONTROLS	VFD #2	2025	$17,000.00
437	Collection System	Timber Creek Lift Station	CONTROLS	VFD #6	2025	$17,000.00
438	Collection System	Timber Creek Lift Station	CONTROLS	VFD #7	2025	$17,000.00
				Total		**$781,500.00**

5 Year Utility Asset Replacement – 2026

WATER						
ASSET ID	SYSTEM	UNIT	ASSET GROUP	COMPONENT	YEAR	COST
74	Treatment	Disinfection	CONTROLS	Ammoniator #1	2026	$15,000.00
75	Treatment	Disinfection	CONTROLS	Ammoniator #2	2026	$15,000.00
76	Treatment	Disinfection	CONTROLS	Ammoniator #3	2026	$15,000.00
106	Treatment	North Plant	MOTORS	Flocculator Motor #2	2026	$1,000.00
294	Treatment	High Service Pump Station	CONTROLS	VFD #1	2026	$30,000.00
302	Treatment	Northside Pump Station	MOTORS	Motor #7	2026	$15,000.00
313	Treatment	Northside Pump Station	ELECTRICAL	Automatic Transfer Switch	2026	$10,000.00
325	Distribution System	Eastside Pump Station	MOTORS	Motor #4	2026	$25,000.00
336	Distribution System	Eastside Pump Station	CONTROLS	Flow Meter	2026	$10,000.00
361	Distribution System	Southside Pump Station	MOTORS	Motor #2	2026	$25,000.00
363	Distribution System	Southside Pump Station	MOTORS	Motor #4	2026	$25,000.00
WASTEWATER						
ASSET ID	SYSTEM	UNIT	ASSET GROUP	COMPONENT	YEAR	COST
36	WW Treatment	Prairie Creek Pump Station	PUMPS	Sump Pump #1	2026	$1,500.00
39	WW Treatment	Prairie Creek Pump Station	PUMPS	Sump Pump #4	2026	$1,500.00
53	WW Treatment	Fine Screens	MECHANICAL	Fine Screen Drum #1	2026	$60,000.00
54	WW Treatment	Fine Screens	MECHANICAL	Fine Screen Drum #2	2026	$60,000.00
55	WW Treatment	Fine Screens	MECHANICAL	Fine Screen Drum #3	2026	$6,000.00
57	WW Treatment	Fine Screens	MECHANICAL	Fine Screen Drum #5	2026	$60,000.00
115	WW Treatment	Plant #1	PUMPS	Sump Pump #1	2026	$1,500.00
154	WW Treatment	Plant #2	PUMPS	RAS Pump 1B	2026	$9,000.00
157	WW Treatment	Plant #2	PUMPS	RAS Pump 3B	2026	$10,000.00
158	WW Treatment	Plant #2	PUMPS	RAS Pump 3C4C	2026	$9,000.00
166	WW Treatment	Plant #2	MOTORS	RAS Motor 3A	2026	$4,000.00
167	WW Treatment	Plant #2	MOTORS	RAS Motor 3B	2026	$4,000.00
168	WW Treatment	Plant #2	MOTORS	RAS Motor 3C4C	2026	$4,000.00
173	WW Treatment	Plant #2	PUMPS	WAS Pump #3	2026	$5,000.00
174	WW Treatment	Plant #2	MOTORS	WAS Motor #3	2026	$1,200.00
203	WW Treatment	Plant #2	MECHANICAL	Aeration Diffusers #3	2026	$60,000.00
324	Sludge Management	Digester	PUMPS	Sludge Pump #1	2026	$50,000.00
340	Sludge Management	Digester	MECHANICAL	Floating Aerator #3 (South)	2026	$30,000.00
359	Sludge Management	Press Building	MECHANICAL	Andritz Gear Drive West	2026	$5,000.00
400	Collection System	San Antone Lift Station	PUMPS	Pumps	2026	$10,000.00
				Total		**$577,700.00**

SWOT

SWOT Analysis

FY 2023

(9) Public Services

Build Our Future

Strength
Commitment to sustainability in reducing energy usage by retrofitting LED's, replacing old HVAC and purchasing fuel efficient and electric vehicles
Effective vehicle and equipment replacement schedules.
Improving our equipment inventory with quality equipment to make us more efficient and safer.
Robust capital improvements program for maintenance and replacement of City-owned infrastructure.
Software systems that track maintenances, infrastructure, and equipment.
Weakness
Lack of covered storage for bulk materials and parts
Reliance on 3rd party contractors for work that could be done in-house with adequate staffing and/or equipment.
Replacement of older equipment not on the replacement schedule
Opportunity
Adjust maintenance funding to maximize return.
Develop replacement schedule for items needing to be replaced periodically (traffic signals, school flashers, lab equipment).
Infrastructure condition surveys
Limited functionality of currently utilized Utility Billing platform (STW)
Repair & replacement of failing infrastructure resulting in a reduction in liability and maintenance costs.
Taking advantage of alternative ways to fund capital improvement projects (Texas Water Development Fund, SWIFT, FIF)
Upgrade City's fuel management system with Web-Based for asset management and customer interaction.
Utilizing current technology and metric data to operate more efficiently.
Utilizing emerging technology to improve the timeliness and accuracy of sidewalk ratings.
Where possible, replace existing equipment with new that can reduce the number of man-hours required to perform the same task as the old equipment.
Threat
Ability to fund infrastructure per infrastructure investment needs consistent with model.
Aging infrastructure.
Availability of materials
Changing regulatory environment (RLCR, PFAS, Microplastics)
Expanded lab responsibilities has caused outgrowing of lab space
Expanding workforce needs.
Increased population creating new mandate.
Inflationary cost outpacing infrastructure investment
Rate of failure outpacing infrastructure investment.
Rising fuel costs.
TxDot increasing City's maintenance responsibilities on State owned ROW.

Serve Every Day

Thursday, January 26, 2023

Page 1 of 2

SWOT continued

Strength
By-appointment Household Hazardous Waste allowing for more drop off days and reduced wait times.
Complete ROW maintenance practices.
Flexibility with on-call emergencies. An on-call procedure that insures 24/7 coverage in case of off hours emergencies.
Multiple technician related certifications
Weakness
Turn-around time on request.
Opportunity
Identify level of service expectations and additional staffing needs related to the annexation of Castle Hills.
Implement technologies and other practices to reduce accidents.
Leverage a new traffic signal communication plan to reduce response times for signal repairs.
Well developed asset inventory (We know what we need to spend money on)

Value People

Strength
Continued employee relations/recognition events, BBQs, Way Awards, and annual Citywide picnic.
Cross training between divisions
Dedicated and passionate employees committed to improvement
Good communication between divisions
In-house training for certification and renewal hours.
Positive change in leadership that allows more flexibility, new ideas/suggestions, and more productivity.
Versatility in building maintenance staff. Cross-training has helped technicians learn new mechanical systems, in turn effectively being able to streamline workflow
Willingness to help other departments
Weakness
Employee turnover. Understaffing in all divisions.
Finding training opportunities for job skills and knowledge needed for pavement and drainage maintenance.
Inability to keep up with wage growth in the private sector and other related industries.
Labor force challenges, especially with changing demand for specialized skills (Thrive, Mechanics, etc. new technologies)
Lack of qualified applicants for specialized positions
Opportunity
Ability to be flexible with what position people fall in. (example: Traffic Signal Technician Vs. Senior Tech, Maintenance Worker vs. Operations Worker, etc.)
Continuing to develop in-house TCEQ training opportunities.
Increase interdepartmental coordination
New innovative ways to hire and keep employees
Normalize license pay across all divisions that require TCEQ licenses.
The construction of a new fleet and facilities building will enhance fleet and facilities services, reducing downtime and providing staff with modern workplace which will lead to retain qualified staff
Threat
High cost of living due to inflation. Hard for workers to afford a decent living.
Inability to fill open positions
Loss of well trained employees for various reasons.
Reduced staffing due to COVID-19.

Thursday, January 26, 2023 Page 2 of 2

SWOT List of Services

SERVE EVERY DAY - SWOT LIST OF SERVICES

STRENGTH

Administration
Greets walk-in customers.
Incoming/outgoing telephone calls.
Communicate with crews by radio.
Completes financial transactions.
Orders supplies.
Creates service requests from calls and online.
Assign water meters per request.
Process street light issues.
Process in-house electric new connections and disconnects.
Process employee paperwork.
Prepare door tags, memos, press releases, and agenda information.
Update communication board for the department.
Verify Executime entries.
Enter on-call time into New World.
Maintain department website.
Organize department events.
Maintain safety supply stock for employees.
Process financial paperwork.
Laserfiche scanning.

Trash/Recycling/HHW - MMS = Materials Management Specialist
MMS is liaison with waste hauler to handle residential and commercial issues as they occur.
MMS contacts businesses with non-franchise haulers and ensures following franchise.
MMS organizes weekly hazardous household waste events.
Coordinates with trash hauler roll-off containers for community events.
MMS maintains and updates the website.
MMS grant management has helped stem costs of HHW program.

Stormwater
Storm Water inspectors inspect construction sites for compliance with permit.
Storm Water inspectors conduct routine inspections at construction sites.
Storm Water inspectors conduct rainfall inspections at construction sites.
Storm Water inspectors take enforcement for noncompliance.

SWOT List of Services continued

Stormwater - Continued

Storm Water Division staff attend Preventing Storm Water Pollution at Construction Sites workshop hosted by NCTCOG.
Storm Water inspectors obtain Certified Erosion Sediment and Storm Water Inspector certification.
Storm Water Specialist maintains Certified Professional in Municipal Stormwater Management certification.
Storm Water inspectors inspect approximately 560 storm sewer outfalls each year for signs of physical, chemical, or biological degradation.
Storm Water inspectors conduct dry weather screenings at outfalls to identify illicit discharges.
Storm Water inspectors analyze dry weather screening samples for pH.
Storm Water inspectors analyze dry weather screening samples for temperature.
Storm Water inspectors analyze dry weather screening samples for conductivity.
Storm Water inspectors analyze dry weather screening samples for dissolved oxygen.
Storm Water inspectors analyze dry weather screening samples for chlorine.
Storm Water inspectors analyze dry weather screening samples for ammonia nitrogen.
Storm Water inspectors analyze dry weather screening samples for copper.
Storm Water inspectors analyze dry weather screening samples for color.
Storm Water inspectors analyze dry weather screening samples for odor.
Storm Water inspectors report drainage and maintenance issues to the Streets Division.
Storm Water inspectors report suspected utility leaks to ULM.
Storm Water inspectors investigate reports of alleged illicit discharge and illegal dumping.
Storm Water inspectors attend training for dry weather screening and illicit discharge investigations.
Storm Water inspectors collect surface water samples and send to laboratory for Priority Pollutant Scan analysis.
Storm Water inspectors collect surface water samples and send to laboratory for oil and grease analysis.
Storm Water inspectors collect surface water samples and send to laboratory for total suspended solids analysis.
Storm Water inspectors collect surface water samples and send to laboratory for sulfates analysis.
Storm Water inspectors respond to spills and environmental emergencies.
Storm Water Division staff maintain HAZWOPER certifications.
Storm Water inspectors ensure proper mitigation of spills and illicit discharges.
Storm Water Division attends pre-construction meetings.
Storm Water Division distributes NCTCOG construction field guide to builders and developers.

SWOT List of Services continued

Stormwater - Continued
Storm Water Division participates in plan review.
Storm Water Specialist reviews and approves Stormwater Pollution Prevention Plans.
Storm Water Specialist applies for municipal construction permits under the TCEQ Construction General Permit.
Storm Water Specialist terminates municipal construction permits when projects are complete.
Storm Water Specialist develops the Storm Water Management Plan in accordance with MS4 General Permit requirements.
Storm Water Specialist applies for municipal permits under the TCEQ MS4 General Permit.
Storm Water Specialist terminates municipal permits under the TCEQ MS4 General Permit.
Storm Water Specialist tracks all data required under the TCEQ MS4 General Permit.
Storm Water Specialist compiles the annual report to TCEQ.
Storm Water Division responds to questions from residents and businesses regarding storm water pollution prevention.
Storm Water Division develops and submits posts for city social media pages.
Storm Water Inspectors developed a pollution prevention brochure for the general public.
Storm Water Division provides promotional items to the public at city events.
Storm Water Division promotes a reporting hotline phone number.
Storm Water Division provides municipal pollution prevention training to all employees of Public Services and Parks and Recreation.
Storm Water Specialist reviews TCEQ permits for regulatory changes.
Storm Water Specialist evaluates storm water ordinance for need to update.
Storm Water inspectors assess city facilities for storm water compliance.
Storm Water inspectors help facilitate the disposal of wastes identified in facility assessments.
Storm Water Specialist facilitates the inclusion of pollution prevention SOPs into service contracts.
Storm Water Specialist administers the Stormwater Utility Fee.
Storm Water inspectors conduct impervious area dispute inspections.

ECS General
ECS Employees answer phone calls to open gate at WWTP daily.
ECS Employees answer phone calls from residents daily.
ECS Employees answer phone calls from sales representatives daily.
ECS Employees answer phone calls and transfer them to the appropriate person daily.
ECS Employees order supplies by phone.
ECS Employees order supplies online.
ECS Supervisor codes invoices and sends them to Accounts Payable daily.
ECS Employees collect the mail for the plant daily.

SWOT List of Services continued

ECS General - Continued
ECS Supervisor represents the City at NCTCOG's Wastewater and Treatment Education Roundtable quarterly.
ECS submits monthly billing report for water sample analysis to Utility Billing.
ECS submits monthly billing report for waste hauler discharge at WWTP to Utility Billing.
ECS submits quarterly sampling and inspection billing report for industrial users to Utility Billing.
ECS submits quarterly surcharge billing for industrial users to Utility Billing.
ECS Pretreatment Employees hold TCEQ Wastewater Operator Licenses as a requirement for WWTP sampling.
ECS Laboratory Employees hold TCEQ Water Operator Licenses as a requirement for distribution sampling.
ECS Pretreatment Employees attend 40 hour Hazmat Technician Class for Hazmat Technician Certification.
ECS Pretreatment Employees attend annual Hazmat Refresher Class to maintain Hazmat Technician Certification.
ECS Supervisor reviews development plans weekly for incoming industries and necessary building requirements.
ECS Supervisor provides monthly safety training for ECS Employees.
ECS submits monthly report of safety meeting attendance to upper management.
ECS Employees compile WWTP data for monthly reporting of effluent stream quality to downstream water utility.
ECS Supervisor coordinates annual Calibration service on 2 laboratory balances.
ECS Supervisor coordinates annual preventative maintenance service for Total Organic Carbon Instrument.
ECS Supervisor coordinates annual preventative maintenance service for Gas Chromatography/Mass Spectrometry Instrument.

ECS Laboratory - Wastewater
Laboratory Technicians analyze WWTP Effluent for Biochemical Oxygen Demand daily for permit compliance.
Laboratory Technicians analyze WWTP Effluent for pH daily for permit compliance.
Laboratory Technicians analyze WWTP Effluent for Total Suspended Solids daily for permit compliance.
Laboratory Technicians analyze WWTP Effluent for Total Chlorine daily for permit compliance.
Laboratory Technicians analyze WWTP Effluent for Most Probable Number Total Coliforms/E. Coli daily for permit compliance.
Laboratory Technicians analyze WWTP Effluent for Dissolved Oxygen daily for permit compliance.
Laboratory Technicians analyze WWTP Effluent for Ammonia daily for plant process control.

SWOT List of Services continued

ECS Laboratory – Wastewater - Continued

Laboratory Technicians analyze WWTP Effluent for Total Organic Carbon daily for plant process control.
Laboratory Technicians analyze WWTP Effluent for Alkalinity daily for plant process control.
Laboratory Technicians analyze WWTP Effluent for Phosphorus weekly for plant process control.
Laboratory Technicians analyze WWTP Effluent for Turbidity daily for plant process control.
Laboratory Technicians analyze WWTP Influent and 16 other individual stages in the plant for Biochemical Oxygen Demand daily for plant process control.
Laboratory Technicians analyze WWTP Influent and 16 other individual stages in the plant for Total Suspended Solids daily for plant process control.
Laboratory Technicians analyze WWTP Influent and 16 other individual stages in the plant for pH daily for plant process control.
Laboratory Technicians analyze WWTP Influent and 16 other individual stages in the plant for Dissolved Oxygen daily for plant process control.
Laboratory Technicians analyze WWTP Influent and 16 other individual stages in the plant for Ammonia daily for plant process control.
Laboratory Technicians analyze WWTP Influent and 2 other individual stages in the plant for Total Organic Carbon daily for plant process control.
Laboratory Technicians analyze WWTP Influent for Alkalinity three times a week for plant process control.
Laboratory Technicians analyze WWTP Influent for Turbidity three times a week for plant process control.
Laboratory Technicians analyze WWTP Influent for Phosphorus monthly for plant process control.
Laboratory Technicians analyze WWTP Head of Plant for Phosphorus weekly for plant process control.
Laboratory Technicians analyze WWTP Head of Plant for Ammonia weekly for plant process control.
Laboratory Technicians analyze WWTP Chlorine Contact Basins for Total Chlorine Daily for permit compliance.
Laboratory Technicians analyze WWTP Chlorine Contact Basins for pH weekly for plant process control.
Laboratory Technicians analyze WWTP Chlorine Contact Basins for Dissolved Oxygen weekly for plant process control.
Laboratory Technicians analyze WWTP Chlorine Contact Basins for Carbonaceous Biochemical Oxygen Demand weekly for plant process control.

SWOT List of Services continued

ECS Laboratory – Wastewater - Continued

Laboratory Technicians perform Manganese Interference Check for Total Chlorine Process Control Monthly.
Laboratory Technicians analyze WWTP Sludge samples from 14 individual stages in the plant for pH daily.
Laboratory Technicians analyze WWTP Sludge samples from 14 individual stages in the plant for Dissolved Oxygen daily.
Laboratory Technicians analyze WWTP Sludge samples from 14 individual stages in the plant for Total Suspended Solids daily.
Laboratory Technicians analyze WWTP Sludge samples from 14 individual stages in the plant for Volatile Suspended Solids daily.
Laboratory Technicians analyze WWTP Sludge samples from 8 individual stages in the plant for Settleability daily.
Laboratory Technicians analyze WWTP Sludge samples from 2 individual stages in the plant for Percent Moisture Weekly.
Laboratory Technicians create daily report of results for the WWTP Operators.
Laboratory Technicians report permit violations or anomalies to the ECS Supervisor and WWTP Superintendent immediately when observed.
Laboratory Technicians analyze WWTP's 8 Stormwater Outfalls for Biochemical Oxygen Demand twice per year for permit compliance.
Laboratory Technicians analyze 11 industries for 3-day average Biochemical Oxygen Demand Surcharge Analysis quarterly.
Laboratory Technicians analyze 11 industries for 3-day average Total Suspended Solids Surcharge Analysis quarterly.
Laboratory Technicians calibrate 2 pH meters daily.
Laboratory Technicians calibrate 2 Dissolved Oxygen meters daily.
Laboratory Technicians calibrate Balance daily.
Laboratory Technicians calibrate Ammonia meter daily.
Laboratory Technicians calibrate Turbidity Meter weekly.
Laboratory Technicians calibrate Total Organic Carbon instrument monthly.
Laboratory Technicians perform process control analysis for Biochemical Oxygen Demand daily.
Laboratory Technicians perform process control analysis for Total Chlorine daily.
Laboratory Technicians perform process control analysis for Total Suspended Solids daily.
Laboratory Technicians perform process control analysis for Ammonia daily.
Laboratory Technicians perform process control analysis for Total Organic Carbon daily.
Laboratory Technicians clean Wastewater sample bottles and test containers daily.
Laboratory Technicians clean Wastewater laboratory daily.

SWOT List of Services continued

ECS Laboratory - Wastewater
Laboratory Technicians write and review Wastewater Laboratory Standard Operating Procedures annually.
ECS Supervisor and Laboratory Technicians participate in TCEQ Wastewater Laboratory Audits.
ECS Supervisor and Laboratory Technicians participate in EPA Wastewater Laboratory Audits.
Laboratory Technicians analyze 4 Monitoring Well samples for Most Probable Number Total Coliform/E. Coli quarterly.

ECS Laboratory - Water Laboratory
Laboratory Technicians analyze WTP Raw water for Nitrate weekly for plant process control.
Laboratory Technicians analyze WTP Raw water for Nitrite weekly for plant process control.
Laboratory Technicians analyze WTP Raw water for Chloride weekly for plant process control.
Laboratory Technicians analyze WTP Raw water for Dissolved Oxygen weekly for plant process control.
Laboratory Technicians analyze WTP Raw water for Total Hardness weekly for plant process control.
Laboratory Technicians analyze WTP Raw water for Free Ammonia weekly for plant process control.
Laboratory Technicians analyze WTP Raw water for Total Solids weekly for plant process control.
Laboratory Technicians analyze WTP Raw water for Total Suspended Solids weekly for plant process control.
Laboratory Technicians analyze WTP Raw water for Total Dissolved Solids weekly for plant process control.
Laboratory Technicians analyze WTP Raw water for Most Probable Number Total Coliform/E. Coli weekly for plant process control.
Laboratory Technicians analyze WTP Raw water for Calcium Hardness weekly for plant process control.
Laboratory Technicians analyze WTP Raw water for Magnesium Hardness weekly for plant process control.
Laboratory Technicians analyze WTP Raw water for Manganese weekly for plant process control.
Laboratory Technicians analyze WTP Raw water for Conductivity weekly for plant process control.
Laboratory Technicians analyze WTP Raw water for Fluoride weekly for plant process control.
Laboratory Technicians analyze WTP Finished water for Nitrate weekly for plant process control.
Laboratory Technicians analyze WTP Finished water for Nitrite weekly for plant process control.

SWOT List of Services continued

ECS Laboratory - Water Laboratory - Continued

Laboratory Technicians analyze WTP Finished water for Chloride weekly for plant process control.
Laboratory Technicians analyze WTP Finished water for Dissolved Oxygen weekly for plant process control.
Laboratory Technicians analyze WTP Finished water for Total Hardness weekly for plant process control.
Laboratory Technicians analyze WTP Finished water for Free Ammonia weekly for plant process control.
Laboratory Technicians analyze WTP Finished water for Total Solids weekly for plant process control.
Laboratory Technicians analyze WTP Finished water for Most Probable Number Total Coliform/E. Coli weekly for plant process control.
Laboratory Technicians analyze WTP Finished water for Calcium Hardness weekly for plant process control.
Laboratory Technicians analyze WTP Finished water for Magnesium Hardness weekly for plant process control.
Laboratory Technicians analyze WTP Finished water for Manganese weekly for plant process control.
Laboratory Technicians analyze WTP Finished water for Conductivity weekly for plant process control.
Laboratory Technicians analyze WTP Finished water for Fluoride weekly for plant process control.
Laboratory Technicians analyze WTP Finished water for Presence/Absence Total Coliform/E. Coli daily.
Laboratory Technicians analyze WTP's 4 clearwells for Nitrites weekly.
Laboratory Technicians analyze 4 WTP process control sites for Chloride weekly.
Laboratory Technicians analyze 4 WTP process control sites for Dissolved Oxygen weekly.
Laboratory Technicians analyze 4 WTP process control sites for Total Hardness weekly.
Laboratory Technicians analyze 4 WTP process control sites for Free Ammonia weekly.
Laboratory Technicians analyze 4 WTP process control sites for Most Probable Number Total Coliform/E. Coli weekly.
Laboratory Technicians analyze 4 WTP process control sites for Calcium Hardness weekly.
Laboratory Technicians analyze 4 WTP process control sites for Magnesium Hardness weekly.
Laboratory Technicians conduct field analysis at 5 Overhead Tanks for Total Chlorine weekly.
Laboratory Technicians conduct field analysis at 5 Overhead Tanks for pH weekly.
Laboratory Technicians conduct lab analysis of 5 Overhead Tanks for Total Chlorine Titration (Free Chlorine, Monochloramine and Dichloramine) weekly.
Laboratory Technicians conduct lab analysis of 5 Overhead Tanks for Alkalinity weekly.

SWOT List of Services continued

ECS Laboratory - Water Laboratory - Continued

Laboratory Technicians conduct lab analysis of 5 Overhead Tanks for Nitrites weekly.
Laboratory Technicians conduct lab analysis of 5 Overhead Tanks for Heterotrophic Plate Count weekly.
Laboratory Technicians conduct lab analysis of 5 Overhead Tanks for Presence/Absence Total Coliform/E. Coli weekly.
Laboratory Technicians conduct field analysis at 3 Pump Stations for Total Chlorine weekly.
Laboratory Technicians conduct field analysis at 3 Pump Stations for pH weekly.
Laboratory Technicians conduct field analysis at 3 Pump Stations for Monochloramine weekly.
Laboratory Technicians conduct field analysis at 3 Pump Stations for Free Ammonia weekly.
Laboratory Technicians collect Total Copper sample at 3 Pump Stations for compliance with TCEQ's approval of Copper Ion Generator.
Laboratory Technicians conduct lab analysis of 3 Pump Stations for Total Chlorine Titration (Free Chlorine, Monochloramine and Dichloramine) weekly.
Laboratory Technicians conduct lab analysis of 3 Pump Stations for Alkalinity weekly.
Laboratory Technicians conduct lab analysis of 3 Pump Stations for Nitrites weekly.
Laboratory Technicians conduct lab analysis of 3 Pump Stations for Heterotrophic Plate Count weekly.
Laboratory Technicians conduct lab analysis of 3 Pump Stations for Presence/Absence Total Coliform/E. Coli weekly.
Laboratory Technicians conduct field analysis at 6 distribution sites for Total Chlorine weekly for compliance with TCEQ Nitrification Action Plan Rule.
Laboratory Technicians conduct field analysis at 6 distribution sites for Monochloramine weekly for compliance with TCEQ Nitrification Action Plan Rule.
Laboratory Technicians conduct field analysis at 6 distribution sites for Free Ammonia weekly for compliance with TCEQ Nitrification Action Plan Rule.
Laboratory Technicians conduct lab analysis of 6 distribution sites for Nitrite weekly for compliance with TCEQ Nitrification Action Plan Rule.
Laboratory Technicians conduct lab analysis of 6 distribution sites for Nitrate weekly for compliance with TCEQ Nitrification Action Plan Rule.
Laboratory Technicians conduct lab analysis of 6 distribution sites for Heterotrophic Plate Count weekly for distribution water quality.
Laboratory Technicians report results of Nitrification Action Plan Testing to Utility Line Maintenance and the Water Treatment Plant weekly.
Laboratory Technicians analyze new Ferric Sulfate brought to the WTP for Specific Gravity when requested.
Laboratory Technicians perform water quality testing for residents with water complaints/concerns.
ECS Lab works with homeowners to collect required Homeowner Lead and Copper Samples.

SWOT List of Services continued

ECS Laboratory - Water Laboratory - Continued

Laboratory Technicians conduct internal taste and odor analysis of raw and finished water for nuisance control weekly (Geosmin/2-MIB Analysis with GC/MS).
Laboratory Technicians provide support for Stormwater Inspectors with laboratory analysis for investigative sampling.
Laboratory Technicians provide support for Utility Line Maintenance with laboratory analysis for investigative sampling.
Laboratory Technicians analyze WTP Raw sample for Total Chlorine for monthly Water Quality Study.
Laboratory Technicians analyze WTP Raw sample for Dissolved Oxygen for monthly Water Quality Study.
Laboratory Technicians analyze WTP Raw sample for pH for monthly Water Quality Study.
Laboratory Technicians analyze WTP Raw sample for Temperature for monthly Water Quality Study.
Laboratory Technicians analyze WTP Raw sample for Alkalinity for monthly Water Quality Study.
Laboratory Technicians analyze WTP Raw sample for Calcium Hardness for monthly Water Quality Study.
Laboratory Technicians analyze WTP Raw sample for Free Ammonia for monthly Water Quality Study.
Laboratory Technicians analyze WTP Raw sample for Copper for monthly Water Quality Study.
Laboratory Technicians analyze WTP Raw sample for Iron for monthly Water Quality Study.
Laboratory Technicians analyze WTP Raw sample for Manganese for monthly Water Quality Study.
Laboratory Technicians analyze WTP Raw sample for Nitrite for monthly Water Quality Study.
Laboratory Technicians analyze WTP Raw sample for Turbidity for monthly Water Quality Study.
Laboratory Technicians analyze WTP Raw sample for Dissolved Organic Carbon for monthly Water Quality Study.
Laboratory Technicians analyze WTP Raw sample for Geosmin and 2-MIB for monthly Water Quality Study.
Laboratory Technicians analyze WTP Finished sample for Total Chlorine for monthly Water Quality Study.
Laboratory Technicians analyze WTP Finished sample for Dissolved Oxygen for monthly Water Quality Study.
Laboratory Technicians analyze WTP Finished sample for pH for monthly Water Quality Study.
Laboratory Technicians analyze WTP Finished sample for Temperature for monthly Water Quality Study.

SWOT List of Services continued

ECS Laboratory - Water Laboratory - Continued

Laboratory Technicians analyze WTP Finished sample for Alkalinity for monthly Water Quality Study.
Laboratory Technicians analyze WTP Finished sample for Calcium Hardness for monthly Water Quality Study.
Laboratory Technicians analyze WTP Finished sample for Free Ammonia for monthly Water Quality Study.
Laboratory Technicians analyze WTP Finished sample for Copper for monthly Water Quality Study.
Laboratory Technicians analyze WTP Finished sample for Iron for monthly Water Quality Study.
Laboratory Technicians analyze WTP Finished sample for Manganese for monthly Water Quality Study.
Laboratory Technicians analyze WTP Finished sample for Nitrite for monthly Water Quality Study.
Laboratory Technicians analyze WTP Finished sample for Turbidity for monthly Water Quality Study.
Laboratory Technicians analyze WTP Finished sample for Dissolved Organic Carbon for monthly Water Quality Study.
Laboratory Technicians analyze WTP Finished sample for Geosmin and 2-MIB for monthly Water Quality Study.
Laboratory Technicians analyze WTP Finished sample for Color for monthly Water Quality Study.
Laboratory Technicians analyze WTP Rapid Mix sample for Total Chlorine for monthly Water Quality Study.
Laboratory Technicians analyze WTP Rapid Mix sample for pH for monthly Water Quality Study.
Laboratory Technicians analyze WTP Rapid Mix sample for Temperature for monthly Water Quality Study.
Laboratory Technicians analyze WTP Rapid Mix sample for Free Ammonia for monthly Water Quality Study.
Laboratory Technicians analyze WTP Rapid Mix sample for Manganese for monthly Water Quality Study.
Laboratory Technicians analyze WTP Settled sample for Dissolved Oxygen for monthly Water Quality Study.
Laboratory Technicians analyze WTP Settled sample for pH for monthly Water Quality Study.
Laboratory Technicians analyze WTP Settled sample for Temperature for monthly Water Quality Study.
Laboratory Technicians analyze WTP Settled sample for Color for monthly Water Quality Study.
Laboratory Technicians analyze WTP Settled sample for Manganese for monthly Water Quality Study.
Laboratory Technicians analyze WTP Settled sample for Nitrite for monthly Water Quality Study.

SWOT List of Services continued

ECS Laboratory - Water Laboratory - Continued

Laboratory Technicians analyze WTP Settled sample for Dissolved Organic Carbon for monthly Water Quality Study.
Laboratory Technicians analyze WTP Filtered sample for Total Chlorine for monthly Water Quality Study.
Laboratory Technicians analyze WTP Filtered sample for Free Ammonia for monthly Water Quality Study.
Laboratory Technicians analyze WTP Filtered sample for Color for monthly Water Quality Study.
Laboratory Technicians analyze WTP Filtered sample for Manganese for monthly Water Quality Study.
Laboratory Technicians analyze WTP Filtered sample for Dissolved Organic Carbon for monthly Water Quality Study.
Laboratory Technicians collect and analyze 4 Overhead Tanks, 3 Pump Stations, and 5 distribution sites for Total Chlorine for monthly Water Quality Study.
Laboratory Technicians collect and analyze 4 Overhead Tanks, 3 Pump Stations, and 5 distribution sites for pH for monthly Water Quality Study.
Laboratory Technicians collect and analyze 4 Overhead Tanks, 3 Pump Stations, and 5 distribution sites for Temperature for monthly Water Quality Study.
Laboratory Technicians collect and analyze 4 Overhead Tanks, 3 Pump Stations, and 5 distribution sites for Alkalinity for monthly Water Quality Study.
Laboratory Technicians collect and analyze 4 Overhead Tanks, 3 Pump Stations, and 5 distribution sites for Nitrite for monthly Water Quality Study.
Laboratory Technicians collect and analyze 4 Overhead Tanks, 3 Pump Stations, and 5 distribution sites for Free Ammonia for monthly Water Quality Study.
Laboratory Technicians collect and analyze 4 Overhead Tanks, 3 Pump Stations, and 5 distribution sites for Turbidity for monthly Water Quality Study.
Laboratory Technicians collect and analyze 4 Overhead Tanks, 3 Pump Stations, and 5 distribution sites for Color for monthly Water Quality Study.
Laboratory Technicians collect and analyze 4 Overhead Tanks and 3 Pump Stations for Nitrate for monthly Water Quality Study.
Laboratory Technicians write and review Water Laboratory Standard Operating Procedures annually.
Laboratory Technicians perform Membrane Filter Fecal Coliform analysis of 4 swim beach samples collected by ECS Inspectors monthly May through September.

ECS Laboratory - NELAP Accredited Laboratory

Laboratory Technicians collect TCEQ required 100 distribution Presence/Absence Total Coliform/E. Coli samples for bacteriological safety monthly.

SWOT List of Services continued

ECS Laboratory - NELAP Accredited Laboratory - Continued

Laboratory Technicians collect TCEQ required 100 distribution Total Chlorine samples for bacteriological safety monthly.
ECS Lab accepts samples from internal and external customers for Presence/Absence Total Coliform/E. Coli samples Monday through Thursday 8 AM - 12 PM.
ECS Lab accepts emergency samples from routine distribution customers outside of the normal Monday through Thursday time frame including weekends/holidays.
ECS Lab provides notification to regular customers of changes to laboratory schedule (i.e. holiday closures).
ECS Supervisor and Laboratory Technicians write and/or review Quality Assurance Plan annually.
ECS Supervisor and Laboratory Technicians write and/or review Customer Survey Implementation and Analysis Standard Operating Procedure annually.
ECS Supervisor and Laboratory Technicians write and/or review Definitions Standard Operating Procedure annually.
ECS Supervisor and Laboratory Technicians write and/or review LIMS Data Entry Standard Operating Procedure annually.
ECS Supervisor and Laboratory Technicians write and/or review Preparation of Proficiency Tests Standard Operating Procedure annually.
ECS Supervisor and Laboratory Technicians write and/or review Thermometer Calibration Standard Operating Procedure annually.
ECS Supervisor and Laboratory Technicians write and/or review Sample Collection Standard Operating Procedure annually.
ECS Supervisor and Laboratory Technicians write and/or review Total Coliform Test Method Standard Operating Procedure annually.
ECS Supervisor and Laboratory Technicians write and/or review Training Standard Operating Procedure annually.
ECS Supervisor provides annual Ethics and Data Integrity training for all analysts.
ECS Supervisor and Laboratory Technicians participate in NELAP Water Laboratory Audits every two years.
Laboratory Technicians individually analyze blind samples for annual Demonstration of Capability to maintain NELAP approval to analyze samples.
Laboratory Technicians calibrate 9 thermometers twice per year.
Laboratory Technicians calibrate GC/MS bimonthly.
Laboratory Technicians change the fiber on the GC/MS bimonthly.

Pretreatment

ECS Inspectors inspect 11 Permitted Industrial Users twice per year for compliance with permit.

SWOT List of Services continued

Pretreatment - Continued

ECS Inspectors collect 3, 24-hour composite samples from 11 Permitted Industrial Users for quarterly surcharge analysis.
ECS Inspectors collect samples from 11 Permitted Industrial Users for the analysis of 12 Local Limits Metals quarterly.
ECS Inspectors collect samples from 11 Permitted Industrial Users for the analysis of Mercury quarterly.
ECS Inspectors collect samples from 11 Permitted Industrial Users for the analysis of Oil and Grease quarterly.
ECS Inspectors collect samples from 11 Permitted Industrial Users for the analysis of Cyanide quarterly.
ECS Inspectors collect samples from 11 Permitted Industrial Users for the analysis of 25 unique Pesticides and PCBs annually; if detected, individual analytes recollected quarterly until not detected.
ECS Inspectors collect samples from 11 Permitted Industrial Users for the analysis of 54 unique Semi-Volatiles annually; if detected, individual analytes recollected quarterly until not detected.
ECS Inspectors collect samples from 11 Permitted Industrial Users for the analysis of 33 unique Volatile Organics annually; if detected, individual analytes recollected quarterly until not detected.
ECS Inspectors analyze samples from 11 Permitted Industrial Users for pH quarterly.
ECS Inspectors analyze samples from 11 Permitted Industrial Users for Temperature quarterly.
ECS Inspectors check on the status of sampling equipment deployed at Permitted IU Facilities to make sure they are iced 2-3 times a day (4 days for each industry each quarter).
ECS Inspectors check on the status of sampling equipment deployed at Permitted IU Facilities to make sure they are still functioning 2-3 times a day (4 days for each industry each quarter).
ECS Inspectors check on the status of sampling equipment deployed at Permitted IU Facilities to make sure they are not causing a clog inside the business' wastewater line 2-3 times a day (4 days for each industry each quarter).
ECS Inspectors review self-monitoring reports from 11 Permitted Industrial Users monthly.
ECS Supervisor sends permit renewal reminder letters to 11 Permitted Industrial Users every three years.
ECS Supervisor sends revised permits to 11 Permitted Industrial Users every three years or if a change is needed.
ECS Inspectors send Notice of Violations to Permitted Industrial Users if a permit violation is discovered.
ECS Inspectors send a second Notice of Violation and Warning Citation to Permitted Industrial Users if a second permit violation of the same type is discovered within a floating 6-month period.

SWOT List of Services continued

Pretreatment - Continued

ECS Inspectors send a third Notice of Violation and issue a Citation to Permitted Industrial Users if a third permit violation of the same type is discovered within a floating 6-month period.
ECS Supervisor and Inspectors participate in TCEQ Pretreatment Audits every 5 years.
ECS Inspectors maintain good working relationships with industry representatives to work towards a common goal of protecting their employees, the Wastewater Collection System, the Wastewater Treatment Plant and the city employees who work on them.
ECS Inspectors are on-call to respond to incidents of environmental concern.
ECS Inspectors prepare 5 bottles and a chain of custody for the Water Treatment Plant's required TOC/DOC analysis monthly.
ECS Inspectors ensure 5 samples for Water Treatment Plant's required TOC/DOC are analyzed by the contract laboratory monthly.
ECS Inspectors prepare 7 bottles and chain of custody for the Water Treatment Plant's required Copper analysis weekly.
ECS Inspectors ensure 7 samples for Water Treatment Plant's required Copper monitoring are analyzed by the contract laboratory weekly.
ECS Supervisor enters results from 7 weekly Copper samples into a Copper Monitoring Spreadsheet for the Water Treatment Plant.
ECS Inspectors collect 2 fecal samples at each of the two city swim beaches monthly throughout the summer (May through September) to ensure water still meets recreational use requirements.
ECS Supervisor conveys results of fecal analysis at swim beaches to Parks Department Director
ECS Inspectors coordinate sample pick up with contract laboratory weekly.
ECS Inspectors coordinate with contractors to ensure state required distribution samples are collected and analyzed for Disinfection Byproducts Testing quarterly.
ECS Inspectors coordinate with contractors to ensure state required distribution samples are collected and analyzed for Unregulated Contaminants Monitoring.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for 13 metals monthly.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Mercury monthly.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Hexavalent Chromium monthly.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Oil and Grease monthly.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Aluminum quarterly.
ECS Inspectors collect 4 WWTP Effluent samples for permit required testing for Low Level Mercury quarterly.

SWOT List of Services continued

Pretreatment - Continued

ECS Inspectors collect 4 WWTP Influent and 4 Effluent samples for permit required testing for Cyanide quarterly.
ECS Inspectors collect 4 WWTP Effluent samples for permit required testing for Total Phenols quarterly.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Aluminum quarterly.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Aluminum quarterly.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Amenable Cyanide biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for 2 Low-Level Volatile Organics biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for 26 unique Pesticides and PCBs biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for 2 unique Chlorinated Herbicides biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Hexachlorophene biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for 2 unique Carbamates biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for 63 unique Base/Neutrals and Acids biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Apparent Color biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Sulfide biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Surfactants biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for 3 unique Anions biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Total Kjeldahl Nitrogen biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Nitrate biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Nitrite biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Ammonia biannually.

SWOT List of Services continued

Pretreatment - Continued

ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for Phosphorus biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for 7 unique Organo-Phosphorus Pesticides biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for 3 unique Organohalide Pesticides biannually.
ECS Inspectors collect WWTP Influent and Effluent samples for permit required testing for 37 unique Volatile Organics biannually.
ECS Inspectors collect WWTP Influent, Effluent, and Return for Phosphorus Monthly.
ECS Inspectors inspect 4 Monitoring Wells on WWTP Sludge Field for depth to water quarterly.
ECS Inspectors inspect 4 Monitoring Wells on WWTP Sludge Field for depth to bottom quarterly.
ECS Inspectors inspect 4 Monitoring Wells on WWTP Sludge Field for pH quarterly.
ECS Inspectors inspect 4 Monitoring Wells on WWTP Sludge Field for Temperature quarterly.
ECS Inspectors inspect 4 Monitoring Wells on WWTP Sludge Field for Conductivity quarterly.
ECS Inspectors inspect 4 Monitoring Wells on WWTP Sludge Field for Dissolved Oxygen quarterly.
ECS Inspectors inspect 4 Monitoring Wells on WWTP Sludge Field for Oxidation-Reduction Potential quarterly.
ECS Inspectors collect samples from 4 Monitoring Wells on WWTP Sludge Field for Most Probable Number Total Coliform/E. Coli quarterly.
ECS Inspectors collect samples from 4 Monitoring Wells on WWTP Sludge Field for Ammonia quarterly.
ECS Inspectors collect samples from 4 Monitoring Wells on WWTP Sludge Field for Alkalinity quarterly.
ECS Inspectors collect samples from 4 Monitoring Wells on WWTP Sludge Field for Total Dissolved Solids quarterly.
ECS Inspectors collect samples from 4 Monitoring Wells on WWTP Sludge Field for Specific Conductance quarterly.
ECS Inspectors collect samples from 4 Monitoring Wells on WWTP Sludge Field for Chloride quarterly.
ECS Inspectors collect samples from 4 Monitoring Wells on WWTP Sludge Field for Sulfate quarterly.
ECS Inspectors collect samples from 4 Monitoring Wells on WWTP Sludge Field for Total Organic Carbon quarterly.
ECS Inspectors collect samples from 4 Monitoring Wells on WWTP Sludge Field for Nitrate quarterly.

SWOT List of Services continued

Pretreatment - Continued

ECS Inspectors collect samples from 4 Monitoring Wells on WWTP Sludge Field for 10 Metals annually.
ECS Inspectors collect samples from 4 Monitoring Wells on WWTP Sludge Field for Mercury annually.
ECS Inspectors collect samples from 4 Monitoring Wells on WWTP Sludge Field for Chemical Oxygen Demand annually.
ECS Inspectors collect samples from 4 Monitoring Wells on WWTP Sludge Field for Total Phenols annually.
ECS Inspectors collect 3 samples for Chronic Ceriodaphnia dubia and Pimephales promelas Biomonitoring quarterly for compliance with WWTP Permit.
ECS Inspectors collect 3 samples for 24-Hour Acute Daphnia pulex and Pimephales promelas Biomonitoring biannually for compliance with WWTP Permit.
ECS Inspectors collect samples from the WWTP Fine Screens for 7 Toxicity Characteristic Leaching Procedure (TCLP) Pesticides annually.
ECS Inspectors collect samples from the WWTP Fine Screens for 2 TCLP Herbicides annually.
ECS Inspectors collect samples from the WWTP Fine Screens for 8 TCLP Metals annually.
ECS Inspectors collect samples from the WWTP Fine Screens for TCLP Mercury annually.
ECS Inspectors collect samples from the WWTP Fine Screens for 22 TCLP Semivolatile Organics annually.
ECS Inspectors collect samples from the WWTP Fine Screens for Percent Moisture annually.
ECS Inspectors collect samples from the WWTP Fine Screens for Ignitability annually.
ECS Inspectors collect samples from the WWTP Fine Screens for Reactive Sulfide annually.
ECS Inspectors collect samples from the WWTP Fine Screens for pH annually.
ECS Inspectors collect samples from the WWTP Fine Screens for Paint Filter Liquid annually.
ECS Inspectors collect samples from the WWTP Fine Screens for Reactive Cyanide annually.
ECS Inspectors collect samples from the WWTP Grit for 7 Toxicity Characteristic Leaching Procedure (TCLP) Pesticides annually.
ECS Inspectors collect samples from the WWTP Grit for 2 TCLP Herbicides annually.
ECS Inspectors collect samples from the WWTP Grit for 8 TCLP Metals annually.
ECS Inspectors collect samples from the WWTP Grit for TCLP Mercury annually.
ECS Inspectors collect samples from the WWTP Grit for 22 TCLP Semivolatile Organics annually.
ECS Inspectors collect samples from the WWTP Grit for Percent Moisture annually.
ECS Inspectors collect samples from the WWTP Grit for Ignitability annually.
ECS Inspectors collect samples from the WWTP Grit for Reactive Sulfide annually.
ECS Inspectors collect samples from the WWTP Grit for pH annually.
ECS Inspectors collect samples from the WWTP Grit for Paint Filter Liquid annually.
ECS Inspectors collect samples from the WWTP Grit for Reactive Cyanide annually.

SWOT List of Services continued

Pretreatment - Continued

ECS Inspectors collect samples from the WWTP Sludge for 7 Toxicity Characteristic Leaching Procedure (TCLP) Pesticides annually.
ECS Inspectors collect samples from the WWTP Sludge for 2 TCLP Herbicides annually.
ECS Inspectors collect samples from the WWTP Sludge for 8 TCLP Metals annually.
ECS Inspectors collect samples from the WWTP Sludge for TCLP Mercury annually.
ECS Inspectors collect samples from the WWTP Sludge for 22 TCLP Semivolatile Organics annually.
ECS Inspectors collect samples from the WWTP Sludge for Percent Moisture annually.
ECS Inspectors collect samples from the WWTP Sludge for Ignitability annually.
ECS Inspectors collect samples from the WWTP Sludge for Reactive Sulfide annually.
ECS Inspectors collect samples from the WWTP Sludge for pH annually.
ECS Inspectors collect samples from the WWTP Sludge for Paint Filter Liquid annually.
ECS Inspectors collect samples from the WWTP Sludge for Reactive Cyanide annually.
ECS Inspectors collect samples from the Timbercreek Lift Station for 7 Toxicity Characteristic Leaching Procedure (TCLP) Pesticides annually.
ECS Inspectors collect samples from the Timbercreek Lift Station for 2 TCLP Herbicides annually.
ECS Inspectors collect samples from the Timbercreek Lift Station for 8 TCLP Metals annually.
ECS Inspectors collect samples from the Timbercreek Lift Station for TCLP Mercury annually.
ECS Inspectors collect samples from the Timbercreek Lift Station for 22 TCLP Semivolatile Organics annually.
ECS Inspectors collect samples from the Timbercreek Lift Station for Percent Moisture annually.
ECS Inspectors collect samples from the Timbercreek Lift Station for Ignitability annually.
ECS Inspectors collect samples from the Timbercreek Lift Station for Reactive Sulfide annually.
ECS Inspectors collect samples from the Timbercreek Lift Station for pH annually.
ECS Inspectors collect samples from the Timbercreek Lift Station for Paint Filter Liquid annually.
ECS Inspectors collect samples from the Timbercreek Lift Station for Reactive Cyanide annually.
ECS Inspectors collect WWTP Sludge samples for 7 PCBs quarterly.
ECS Inspectors collect WWTP Sludge samples for 15 Metals quarterly.
ECS Inspectors collect WWTP Sludge samples for Mercury quarterly.
ECS Inspectors collect WWTP Sludge samples for Percent Moisture quarterly.
ECS Inspectors collect WWTP Sludge samples for Nitrate quarterly.
ECS Inspectors collect WWTP Sludge samples for Nitrite quarterly.
ECS Inspectors collect WWTP Sludge samples for Total Kjeldahl Nitrogen quarterly.
ECS Inspectors collect WWTP Sludge samples for Ammonia quarterly.
ECS Inspectors collect WWTP Sludge samples for Total Cyanide quarterly.

SWOT List of Services continued

Pretreatment - Continued

ECS Inspectors collect WWTP Sludge samples for Total Phosphorus quarterly.
ECS Inspectors maintain 8 portable composite samplers.
ECS Inspectors perform monthly maintenance on 2 refrigerated composite samplers at the WWTP.
ECS Inspectors change the pump tubing on the 2 refrigerated composite samplers at the WWTP monthly.
ECS Inspectors ensure their violation logs for Permitted Industrial Users are up to date quarterly.
ECS Supervisor evaluates whether Permitted Significant Industrial Users are in Significant Noncompliance quarterly.
ECS Supervisor completes and submits TCEQ required Pretreatment Annual Report.
ECS Inspectors collect required samples for WWTP Permit Renewal Application.
ECS Inspectors record field measurement of Water Temperature in Upstream Prairie Creek for Quarterly Effluent Stream Analysis.
ECS Inspectors record field measurement of Conductivity in Upstream Prairie Creek for Quarterly Effluent Stream Analysis.
ECS Inspectors collect sample for Total Dissolved Solids in Upstream Prairie Creek for Quarterly Effluent Stream Analysis.
ECS Inspectors collect sample for Chloride in Upstream Prairie Creek for Quarterly Effluent Stream Analysis.
ECS Inspectors collect sample for Sulfate in Upstream Prairie Creek for Quarterly Effluent Stream Analysis.
ECS Inspectors record field measurement of Water Temperature in Effluent Flume for Quarterly Effluent Stream Analysis.
ECS Inspectors record field measurement of Conductivity in Effluent Flume for Quarterly Effluent Stream Analysis.
ECS Inspectors collect sample for Total Dissolved Solids in Effluent Flume for Quarterly Effluent Stream Analysis.
ECS Inspectors collect sample for Chloride in Effluent Flume for Quarterly Effluent Stream Analysis.
ECS Inspectors collect sample for Sulfate in Effluent Flume for Quarterly Effluent Stream Analysis.
ECS Inspectors record field measurement of Water Temperature in Downstream Prairie Creek for Quarterly Effluent Stream Analysis.
ECS Inspectors record field measurement of Conductivity in Downstream Prairie Creek for Quarterly Effluent Stream Analysis.
ECS Inspectors collect sample for Total Dissolved Solids in Downstream Prairie Creek for Quarterly Effluent Stream Analysis.
ECS Inspectors collect sample for Chloride in Downstream Prairie Creek for Quarterly Effluent Stream Analysis.

SWOT List of Services continued

Pretreatment - Continued
ECS Inspectors collect sample for Sulfate in Downstream Prairie Creek for Quarterly Effluent Stream Analysis.
ECS Supervisor and Inspectors review contract laboratory data for quality control.
ECS Supervisor maintains the TCEQ required Monitoring Plan for the City.
ECS Supervisor publishes report of Permitted Industrial Users in Significant Noncompliance to the local paper annually.
ECS Supervisor calculates and reevaluates Technically Based Local Limits for the city during WWTP Permit Renewal.
ECS Supervisor reviews contract laboratory data to ensure WWTP Permit Compliance samples are analyzed at the Minimum Analytical Level as required by the TCEQ.
ECS Supervisor ensures all Unregulated Contaminants Monitoring Rule Data is uploaded to the EPA's database.

Meters Division
Meter Change Outs
Meter Gaskets
Meter Read Work Orders
Water Meter Rebuild
Water Meter Testing
Provides approved meters to new construction
Responds to customer complains
Assists ULM with water investigations as needed

Wastewater Treatment Plant
Answer phone calls to open gate at WWTP daily.
Answer phone calls from residents daily.
Answer phone calls from sales representatives daily.
Answer phone calls and transfer them to the appropriate person daily.
Order supplies by phone.
Order supplies online.
Supervisor codes invoices and sends them to Accounts Payable daily.
Employees collect the mail for the plant daily.
Superintendent reviews project plans for upcoming projects weekly.
Superintendent completes monthly Discharge Monitoring Reports (DMR).
Superintendent completes monthly Effluent Reports (MER).
Superintendent submits monthly billing report for Effluent Reuse to Utility Billing.
Employees attend required continuing education classes to maintain TCEQ Licenses.
Employees attend 40 hours of Hazmat Technician Class for Hazmat Technician Certification.

Wastewater Treatment Plant - Continued

Employees attend an annual Hazmat Refresher Class to maintain Hazmat Technician Certification.
Superintendent provides monthly safety training for WWTP Employees.
Superintendent submits a monthly report of safety meeting attendance to upper management.
Superintendent provides water meter readings to Utility Billing.
Supervisor coordinates annual Calibration service on all WWTP flow meters.
Supervisor coordinates preventative maintenance service with Utilities Maintenance covering all WWTP and Lift Station equipment.
Supervisors collect, evaluate, and provide Stormwater samples to the Laboratory.
Employees collect approximately 60 Wastewater process control samples and Permit samples daily and provide them to the Laboratory.
Employees analyze WWTP Effluent for the presents of total Chlorine for Permit compliance every two hours.
Employees analyze WWTP Effluent for the lack of total Chlorine for Permit compliance every two hours.
Employees analyze WWTP Effluent for dissolved oxygen (DO) daily for permit compliance every two hours.
Superintendent reviews the monitoring well analysis quarterly.
Superintendent reviews the Biomonitoring analysis quarterly.
Employees perform preventive maintenance on WWTP equipment daily.
Employees collect WWTP Effluent samples for permit required testing for Mercury monthly.
Superintendent provides data for monthly reporting of effluent quality to Upper Trinity Regional Water District (UTRWD).
Employees enter process control data into an iPad per shift.
Employees take 20 DO readings per shift.
Employees take 8 sludge judge readings per shift.
Employees perform 8 - 30 minute settleability tests per shift.
Employees perform 16 Lift Station checks daily.
Employees enter Lift Station information into an iPad for 16 stations daily.
Employees operate one or two - 2.0 meter Belt Presses per shift.
Employees collect two after press sludge samples per week.
Employees operate one generator and two auxiliary engines once per week.
Employees change electric power sources when needed.
Employees change Chlorine one-ton containers every two weeks.
Employees change Sulfur Dioxide one-ton containers every month.
Employees manually clean 8 Clarifiers monthly.
Employees analyze data from the SCADA every two hours.
Superintendent submits a sludge report to the TCEQ ANNUALLY.
Superintendent submits an annual report to the TCEQ covering the analysis from the monitoring wells.

Wastewater Treatment Plant - Continued
Superintendent completes a quarterly report for the Stormwater permit.
Superintendent submits an annual Metals and Biochemical Oxygen Demand report to the TCEQ annually.
Supervisors collect quotes and enter purchase orders for supplies and equipment.
Superintendent attends weekly staff meetings.
Employees attend a monthly safety meeting.
Employees collect daily flow readings and enter readings into a report.
Supervisors collect the monthly readings and create several reports from the readings.
Superintendent completes the annual sludge transporter registration report.
Supervisor coordinates annual Backflow device testing of 8 units.
Supervisor coordinates annual preventative maintenance and load testing of 8 WWTP and Lift Station hoists.
Supervisor coordinates annual service of all WWTP and Lift Station fire extinguishers.

Water Production Plant
Answer phone calls to open gate at WTP daily.
Answer phone calls from residents daily.
Answer phone calls from sales representatives daily.
Answer phone calls and transfer them to the appropriate person daily.
Order supplies by phone.
Order supplies online.
Supervisor codes invoices and sends them to Accounts Payable daily.
Employees collect the mail for the plant daily.
Superintendent reviews project plans for upcoming projects weekly.
Superintendent completes monthly Dallas Monthly Purchased Metering Report.
Superintendent completes monthly Dallas Monthly Raw Water Report.
Superintendent completes monthly Surface Water Monthly Operating Report (SWMOR).
Superintendent coordinates annual PdMA testing of distribution system motors.
Supervisor completes monthly Texas Optimization Program Turbidity Report.
Superintendent provides annual delivery certification to HR (insurance purposes).
Superintendent completes annual underground storage tank certification.
Supervisor obtains quotes to stay in compliance with purchasing requirements.
Employees report daily raw water diversion to the Army Corps of Engineers.
Employees attend a 40-hour Hazmat Technician Class for Hazmat Technician Certification.
Employees attend an annual 8-hour Hazmat Refresher Class to maintain Hazmat Technician Certification.
Superintendent/Foreman provides monthly safety training for WTP Employees.
Superintendent/Foreman submits a monthly report of safety meeting attendance to upper management.
Supervisor coordinates bi-annual Calibration service on all WTP flow meters.

SWOT List of Services continued

Water Production Plant - Continued

Supervisor coordinates preventative maintenance service with Utilities Maintenance.
Supervisor performs SUVA Jar Test monthly to stay in compliance for Total Organic Carbon removal requirements.
Superintendent coordinates annual inspections of hoists.
Superintendent coordinates annual inspections/calibrations of chlorine and ammonia sensors.
Superintendent coordinates annual inspections of storage tanks.
Superintendent coordinates annual inspections of intakes.
Superintendent coordinates annual inspections of cathodic protection.
Superintendent coordinates annual inspections of backflow prevention devices.
Superintendent coordinates hydrostatic testing on SCBA's when needed.
Supervisor performs weekly chemical inventory.
Supervisor performs monthly ordering of chemicals for treatment of water.
Supervisor performs bi-annual testing of scrubber media.
Operators provide daily bacterial samples to the Laboratory.
Operators provide weekly copper and manganese samples to the Laboratory.
Employees calibrate lab equipment daily.
Employees superchlorinate filters annually.
Employees perform filter assessments annually.
Employees analyze chlorine residual every 2 hours.
Employees analyze turbidity every 2 hours.
Employees analyze ammonia residual every 2 hours.
Employees analyze pH every 2 hours.
Employees analyze alkalinity every 8 hours.
Employees monitor and adjust chloramination at the Elevated Storage Tanks.
Employees monitor and perform pumping operations in the distribution system.
Employees perform backwashing of filters daily.
Employees perform preventive maintenance on WTP equipment daily.
Employees enter process control data into a Waterlinks per shift.
Employees perform weekly distribution facilities checks.
Employees change Chlorine one-ton containers as needed.
Employees manually clean 4 clarifiers annually.
Employees manually clean 4 flocculator basins annually.
Employees analyze data from the SCADA every two hours.
Superintendent attends weekly staff meetings.
Employees attend a monthly safety meeting.
Supervisors collect the monthly readings and create several reports from the readings.
Supervisor coordinates annual preventative maintenance and load testing of 8 generators.
Supervisor coordinates an annual service of all WTP facility fire extinguishers.
Employees attend required continuing education classes to maintain TCEQ Licenses (Properly licensed personnel operating the plants).

SWOT List of Services continued

Utilities Maintenance
Supervisor provides annual project schedules to WWTP and WTP.
Supervisor provides 5-year maintenance plans for WTP and WWTP.
Supervisor manages Computerized Maintenance Management Software.
Supervisor inputs data into Asset Management Database.
Employees perform preventive maintenance on motors.
Employees perform preventive maintenance on pumps.
Employees perform preventive maintenance on gearboxes.
Employees perform preventive maintenance on chemical feed systems.
Employees perform reactive maintenance on motors.
Employees perform reactive maintenance on pumps.
Employees perform reactive maintenance on gearboxes.
Employees perform reactive maintenance on chemical feed systems.
Employees perform welding services to the plants.
Employees perform plumbing and pipe services to the plants.

Facilities
Respond to power outages.
Light bulb replacing.
Electrical outlet and switch install.
Electrical short troubleshooting.
Install power to new cubicles.
Repair/troubleshoot Inception lighting.
Repair/install Holiday lighting.
Air-conditioning preventive maintenance.
Air-conditioning repairs.
Roof replacements.
Toilet flush system repair.
Coordinate HVAC contract maintenance.
Sink leak repairs.
Water filter replacement.
Water fountain, boiler, and pump maintenance.
Ceiling tile replacement.
Carpet repair and maintenance.
Emergency generator maintenance.
Painting.
Custodial contract management.
Picture/board hanging.
Custodial services.
Locks and hardware.

Facilities - Continued
Security access control management and operation.
Elevator maintenance.
General maintenance and services.
Carpentry maintenance.
Repair skylights, windows, and hardware.
Perform minor alterations.
Automated clock systems in buildings.
Remove graffiti and apply protective coatings.
Replace lighting ballasts.
Package air conditioning units, split systems, gas packs, heat pumps, straight cooling, and electric heat.
Maintain all-metal handrails.
Electric motor replacements.
Troubleshooting electrical equipment.
Chilled water pump maintenance.
Hook up power to new office cubicles.
Furniture finishing, touch up, and repair.
Mail run.
Pest Control.
Re-key doors and cut new keys.
Security access to make new badges.
Security access set building schedules.
Manage HVAC building occupancy schedules.
Maintain exit signs.
Provide cost estimation for projects and repairs.
Energy usage reporting to SECO.
Disposal of equipment.
Sliding gate maintenance and repair.
Liftgate repair and maintenance.
Repair or replace signage.
Escort contractors through City facilities.
Run data cables.
Inspection of inceptor tank.
Repair SMT spray system.
Repair/maintain fire exhaust fans.
Welding repair and fabrication.
ADA Inspections and corrective action.
Manage contracted projects.

Fleet
Vehicle Inspections
Oil change.
Tire replacement.
Brake repair.
Order, receive, and prepare new vehicles and equipment for service.
Prepare and auction vehicles and equipment.
Provide monthly fuel billing.
Provide monthly fleet billing.
Provide annual fleet allocations for budget.
Maintain, service, and order fuel for five city fueling stations.
Prepare and maintain monthly fuel site inventory and tank test Documents for TCEQ.
Self-certify all underground tanks annually.
Receive annual fuel piping and leak tests for fueling sites.
Maintain and update vehicle and equipment replacement schedule.
Prepare vehicle/equipment surveys for possible replacements.
Provide loaner vehicles to employees.
Coordinate repairs and track vehicle accidents.
State inspections.
Vehicle registrations.
Track annual off-road unleaded fuel quantity for tax credits.
Provide vehicle reports (fuel usage, repair costs, miles driven, etc.) as requested.
Provide reports to US Dept. of Energy.
Maintain documents for environmental disposal (used tires, used oil and filters, used antifreeze, bad fuel).
Provide and maintain a city car wash facility.
Provide information to NCTCOG for clean fleet.
Service vehicles and equipment (oil change, lube replace all filters).
Replace and repair tires and tire pressure monitoring systems, balance tires.
Replace or repair brake shoes and pads, calipers, rotors, master cylinders, hoses and lines, and ABS parts.
Repair, lube, replace, adjust wheel bearings, seals and axle shafts, and drivelines.
Repair, lube, and replace steering and suspension parts.
Replace fuel pumps, lines, modules, evap. system, and tanks.
Diagnose and repair computer-controlled systems.
Repair and replace all vehicle lighting.
Engine cooling system repairs. Radiators, fans, water pumps, thermostats, and coolant.

SWOT List of Services continued

Fleet - Continued
HVAC repairs. Compressors, condensers, evaporators, accumulators, hoses, fans, and actuators.
Alternator, starter, and battery repairs.
All electrical accessories.
Repair and replace hydraulic hoses, pumps, valves, and cylinders.
Welding, cutting, grinding, and fabrication.
Exhaust and emission repairs.
Firetruck pumps and plumbing system repairs.

Traffic
Pavement Marking Repairs
School Beacon Maintenance
School Beacon Repair
Street Light Preventative Maintenance
Street Light Repairs
Signpost Install (New Post)
Signpost Maintenance
Signpost Repair
Sign Fabrication
Signal Conflict Monitor Testing
Signal Maintenance
Signal Repair
Sign Maintenance
Sign Repair

Streets
Alley Debris Removal
Alley Debris Removal Trees
Alley Foam Repair
Alley Graffiti
Alley Utility Cut Repair
Bridge Debris Removal
Bridge Graffiti Removal
Creek Debris Removal
Creek Debris Removal Trees
ADA Ramp Repair
ADA Ramp Temporary Repair
Guard Rail Repair
Guard Rail Temporary Repair
Street Crack Sealing

SWOT List of Services continued

Streets - Continued
Debris Removal
Screening Wall Debris Removal
Screening Wall Graffiti Removal
Screening Wall Repair
Screening Wall Temporary Repair
Special Events crowd and traffic control
Storm Sewer Debris Removal
Storm Sewers Repairs
Storm Sewer Temporary Repair
Storm Sewer Missing Grate
Storm Sewer Missing MH Lid
Street Curb and Gutter REPAIR
Street Debris Removal
Street Debris Removal Trees
Street Drainage Maintenance
Street Drive Approach Repair
Street Graffiti Removal
Street Grinding
Street Panel Raising
Street Pothole Repair
Street Remove Basketball Goal
Street Sweeping
Street Temporary Repair
Street Traffic Control
Street Utility Cut Repair
Winter Storm Operations

Utility Line Maintenance
Camera Inspection
CO/Lateral Line Installation
Curb Stops
Fire Hydrant Flushing
Fire Hydrant Maintenance
Leak Detection
Main Line Cleaning
Sewer Metering Station Maintenance
Site Restoration (SOD)
Utility Line Locates
Valve Maintenance

WEAKNESS

Trash/Recycling/HHW - MMS = Materials Management Specialist
Residential contamination audits are conducted only on an annual basis.
It is hard to reach everyone to properly educate them about contamination.
HHW events are limited to about 200 cars per month and we have a lot of people not reached.
We do not have an understanding of commercial recycling going on in the City.

Stormwater
Storm Water inspectors inspect construction sites less than 1 acre.
Storm Water inspectors map new or changed outfall locations with handheld GPS (not sure if GIS has utilized this data).
Storm Water Division maintains a storm water webpage for information on the program (content has been reduced).
Storm Water Division does not have control over social media content.
Storm Water ordinance not updated since 2010.
Storm Water Specialist coordinates with GIS and Customer Service to apply SWU fee billing to new accounts (workflow has not always been smooth).

Pretreatment
ECS Inspectors survey and inspect potential significant industrial users (could do more; more efficient ways).
ECS Inspectors provide public education/outreach at city events and in schools (could do more).
ECS Inspectors provide public education/outreach in schools (could do more).
ECS Inspectors perform apartment outreach to all apartment complexes in the city for proper disposal of grease and other non-flushables (could do more).

Utilities Maintenance
Employees perform reactive maintenance on motors.
Employees perform reactive maintenance on pumps.
Employees perform reactive maintenance on gearboxes.
Employees perform reactive maintenance on chemical feed systems.

Traffic
Banners
Special Event Traffic Control
Signal Line Locates

Streets
Alley Repair
Alley Crack Sealing
Alley Pothole Repair
Alley Temp Repair
Bridge Maintenance
Bridge Repair
Bridge Temporary Repair
Creek Standing Water Repair
ADA Ramp Debris Removal
Storm Sewer Graffiti Removal
Street Ditching
Street Flooding traffic control
Street Oil Spill Sanding

OPPORTUNITY

Trash/Recycling/HHW - MMS = Materials Management Specialist
Food waste could be kept out of the trash/recycling by encouraging composting.
Brush and yard waste headed to the landfill could be diverted through a mulching program.
We could help defray disposal costs by setting up a “reuse room” where people could come for still good materials.
We could switch from monthly events to “at your door” service through trash hauler.
To get a better understanding of commercial recycling we could develop a commercial recycling recognition program.
Could be more active in social media, such as Next Door to push information out to residents or direct them to the website.
MMS experience with grant writing and management could help us secure more grants in the future.

Stormwater
Storm Water inspectors install “Don’t Dump Drains to Creek” markers on storm drain inlets (could install more).
Storm Water inspectors install temporary information signs in areas where inlet markers are installed (could install more).
Storm Water Division developed promotional giveaways such as pencils, cups, rain gauges, pet waste bags (could develop items specific to particular audiences).
Storm Water Inspectors presented Storm Water outreach to 7th-grade science students in LISD (could expand the program at LISD request).

ECS General
ECS Supervisor represents the City at WEAT's Pretreatment Committee Meetings (could participate in more of WEAT's committees).

ECS General - Continued
ECS Employees with Hazmat Technician Certification volunteer to support Household Hazardous Waste Collection monthly (Could have laboratory technicians interested in volunteering become certified for more help at events).
ECS Supervisor schedules WWTP and Laboratory tours with the WWTP Superintendent (could do more).
ECS Supervisor facilitates WWTP and Laboratory tours with the WWTP Superintendent (could do more).

ECS Laboratory – Water Laboratory
Laboratory Technicians perform water testing for residents for bacteriological safety (could do more testing).
Laboratory Technicians conduct taste and odor analysis of raw and finished water for nuisance control (could provide testing service).

Pretreatment
ECS Inspectors collect oil and grease samples from grease traps in the city for compliance with ordinance (could do more).
ECS Inspectors samples from the Wastewater Collection System for investigation of collection system (could do more).
ECS Inspectors collect samples from Camelot Landfill's Monitoring Wells and area River samples annually (could be monitoring more regularly).

Wastewater Treatment Plant
Employees with Hazmat Technician Certification volunteer to support Household Hazardous Waste Collection monthly.
Superintendent provides WWTP tours.

Water Production Plant
Employees with Hazmat Technician Certification volunteer to support Household Hazardous Waste Collection monthly.
Superintendent provides WTP Tours.

Facilities
HVAC replacements.
Roof leak repairs.
Fire panel maintenance.
Fire sprinkler maintenance.
Backflow preventer maintenance.
Fire extinguisher maintenance.
Appliance maintenance.
Waterline repairs.
Repair and maintain computer room cooling system.
Repair and maintain UPS and inverter systems.
Repair and maintain Energy Management System (EMS).
Repair motor controls (VFD, soft starts, and magnetic).
Building chillers and auxiliary chillers (microscope and MRI coolers).
Walk-in reefer repair and maintain.
Fencing repair and maintenance.
Repair overhead doors.

Fleet
Minor transmission repairs.
Engine overhaul, repair, and tune-up.
Painting and bodywork are performed by an outside vendor.
Front-end alignments are performed by an outside vendor.
Repairs requiring special tools or equipment are taken to outside vendors.

THREAT

Trash/Recycling/HHW - MMS = Materials Management Specialist
Attracting and Retaining Proper Staffing Levels
The international recycling market could continue to limp along increasing our resident's rates.
Water treatment expansion could cause us to close HHW and force us into an "at your door" situation.
The DFW landfill has 1 year of life remaining.

Stormwater
Attracting and Retaining Proper Staffing Levels
Storm Water inspectors investigate runoff/flooding of property adjacent to construction (changing weather patterns necessitate more aggressive BMP implementation).
Storm Water Division is not able to implement a post-construction stormwater program.

ECS General
Attracting and Retaining Proper Staffing Levels
ECS Employees attend required continuing education classes to maintain TCEQ Licenses (Loss of required licenses if not attending required hours of continuing education)

ECS Laboratory - Wastewater
Attracting and Retaining Proper Staffing Levels
Laboratory Technicians analyze blind samples for all permitted tests for DMR-QA Study annually to maintain approved laboratory status to analyze WWTP Permit Samples (if do not pass DMR-QA Study, cannot analyze samples in-house).

ECS Laboratory - NELAP Accredited Laboratory
Attracting and Retaining Proper Staffing Levels
Laboratory Technicians analyze 100 distribution Presence/Absence Total Coliform/E. Coli samples for bacteriological safety monthly (if we lose accreditation).
Laboratory Technicians analyze Presence/Absence Total Coliform/E. Coli samples for outside distribution customers (average 149 samples per month) for bacteriological safety (if we lose accreditation).
Laboratory Technicians analyze Presence/Absence Total Coliform/E. Coli samples for outside construction and other customers (average 132 samples per month) for bacteriological safety (if we lose accreditation).
ECS Lab reports bacteriological samples to the state for the City of Lewisville and customer cities monthly (if we lose accreditation).
Laboratory Technicians email customers the results of bacteriological testing the day they are completed (if we lose accreditation).
ECS Lab provides complete bacteriological test kits to customers including bottles, chain of custody, and chlorine test strips (if we lose accreditation).
Laboratory Technicians analyze blind samples for the biannual Proficiency Test for NELAP Accreditation (if do not pass Proficiency Test could lose accreditation).

Pretreatment
Attracting and Retaining Proper Staffing Levels
ECS Supervisor reviews new COs for new Dental Users in the city to comply with EPA's Dental Amalgam Rule (Mandated regulatory update).

Wastewater Treatment Plant
Attracting and Retaining Proper Staffing Levels
Aging Treatment Facilities
Employees attend required continuing education classes to maintain TCEQ Licenses (Loss of required licenses if not attending required hours of continuing education).

SWOT List of Services continued

Water Production Plant
Attracting and Retaining Proper Staffing Levels
Aging Treatment Facilities
Employees attend required continuing education classes to maintain TCEQ Licenses (Loss of required licenses if not attending required hours of continuing education).

Traffic
Attracting and Retaining Proper Staffing Levels
Street Light Pole Knock Down
Sign Pole Knock Down
Signal Knock Down (Emergency)

Streets
Attracting and Retaining Proper Staffing Levels
Aging Infrastructure
Creek Erosion Repair
Storm Sewer Inspection
Sidewalk inspection

Utility Line Maintenance
Attracting and Retaining Proper Staffing Levels
Aging Infrastructure
Clean Lift Station
Fire Hydrant Repair
Lateral Line Repair
Main Break Repair
Manhole Repair
Minor Main Break Repair
Service Line Repair
Sewer Line Stoppage
Sewer Main Repair
Valve Repair

Facilities
Attracting and Retaining Proper Staffing Levels

Fleet
Attracting and Retaining Proper Staffing Levels