

13.1.1 SNOW AND ICE REMOVAL MATERIAL COST PER LABOR HOUR

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	\$20.00	\$15.49	\$17.14	\$23.54	\$26.24	\$15.58	\$20.29	\$14.64	\$20.86	\$21.49	\$22.13

Performance Measure Description

- Calculation includes purchased, not necessarily used, materials such as sand, salt, calcium chloride and brine.

Factors Impacting Outcomes

- Ice storms typically require greater amounts of sand, salt, and brine than do heavy snow storms, when plows can be used to clear much of the accumulation.
- Events that require material to be spread on the streets are more expensive than events that require only plowing.
- The 2018 amount shows a slight reduction, this is due to having full material reserves on hand and therefore no large material purchases.

13.1.2 SNOW AND ICE REMOVAL EXPENDITURES PER CAPITA

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	\$5.75	\$4.63	\$6.51	\$5.61	\$2.11	\$1.82	\$5.76	\$4.16	\$5.91	\$6.06	\$6.21

Performance Measure Description

- Calculation includes materials such as sand, salt, calcium chloride and brine.

Factors Impacting Outcomes

- Ice storms typically require greater amounts of sand, salt, and brine than do heavy snow storms, when plows can be used to clear much of the accumulation.
- Events that require material to be spread on the streets are more expensive than events that require only plowing.
- Snow and Ice crews were activated 15 times in 2018 as compared to only 6 times in 2017, the increase in expenditures per capita relates to the increase in labor hours required.

13.1.3 SNOW AND ICE REMOVAL LABOR HOURS

BENCHMARK			2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	20,000	Annual	57,208	37,232	13,331	7,403	35,000	20,890	35,000	35,000	35,000
	2,500	Per Activation	NA	2,659	1,111	1,234	2,500	1,393	2,500	2,500	2,500

Performance Measure Description

- Labor hours dedicated to snow and ice removal.
- Due to unpredictable weather patterns there is no national benchmark for this measure.
- The hours per activation sub-measure was first tracked in 2015.

Factors Impacting Outcomes

- Snow and ice removal is dictated by the number and severity of snow and ice events.
- Beginning in December 2012, the number of snow and ice removal labor hours are expected to increase in order to maintain an enhanced level of service.
- In the 2018 winter season Snow and Ice crews were activated a total of 15 times.

13.1.4 SNOW REMOVAL: CITIZENS RATING "EXCELLENT" OR "GOOD"

BENCHMARK		2006 ACTUAL	2010 ACTUAL	2012 ACTUAL	2014 ACTUAL	2016 ACTUAL	2018 TARGET	2018 ACTUAL	2020 TARGET
	CoW Similar	51%	54%	47%	44%	54%	60%	61%	60%

Performance Measure Description

- Survey of Wichita residents was commissioned in 2006, 2010, 2012, 2014, 2016 and 2018.
- Expect to re-survey citizens in 2020.
- Survey was conducted by the National Research Center.

Factors Impacting Outcomes

- Possible responses are "Excellent," "Good," "Fair," or "Poor." "Don't Know" responses are excluded.
- The City does not clear residential streets, only arterials, which may affect citizen satisfaction.

13.2.1 CUSTODIAL EXPENDITURES PER SQUARE FOOT

BENCHMARK			2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	\$1.38	City Hall Only	\$0.97	\$0.96	\$1.05	\$0.98	\$1.01	\$1.00	\$1.04	\$1.07	\$1.10
	\$2.29	Administrative Facilities	\$1.06	\$1.11	\$1.17	\$1.12	\$1.15	\$1.14	\$1.19	\$1.22	\$1.25

Performance Measure Description

- This measure includes in-house and contracted custodial services for administrative facilities where Public Works manages custodial services.
- ICMA measure excludes non-occupied structures, such as park restrooms.
- Administrative Facilities includes City Hall expenditures and the Environmental Health Administrative offices.

Factors Impacting Outcomes

- Staffing levels and costs associated with custodial contracts with third party vendors have the most impact on this measure.
- Targets for 2019-2021 have been adjusted to reflect the recently developed labor budget for Facilities Maintenance. The labor budget, a tool that measures all costs associated with performing tasks, incorporates more costs than the previous ICMA measure.

13.2.2 REPAIR EXPENDITURES PER SQUARE FOOT MAINTAINED

BENCHMARK			2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	\$2.55	City Hall Only	\$1.39	\$1.41	\$1.50	\$1.42	\$1.46	\$1.42	\$1.50	\$1.55	\$1.61
	\$1.49	Administrative Facilities	\$1.88	\$1.55	\$1.78	\$1.63	\$1.68	\$1.69	\$1.73	\$1.78	\$1.83

Performance Measure Description

- The performance measure data applies to facilities that the Public Works & Utilities Department maintains. Facilities maintained by other departments are excluded.

Factors Impacting Outcomes

- Repair expenditures may vary with the incidence of vandalism, severe weather, and the age of facilities.
- Targets for 2019-2021 have been adjusted to reflect the recently developed labor budget for Facilities Maintenance. The labor budget, a tool that measures all costs associated with performing tasks, incorporates more costs than the previous ICMA measure.

13.2.3 CUSTODIAL REPAIR REQUESTS PER 100,000 SQUARE FEET MAINTAINED

BENCHMARK			2014	2015	2016	2017	2018	2018	2019	2020	2021
			ACTUAL	ACTUAL	ACTUAL	ACTUAL	TARGET	ACTUAL	TARGET	TARGET	TARGET
	300	City Hall Only	229	226	187	205	205	562	562	562	562
	350	All Other Facilities	350	386	352	328	328	325	328	328	328

Performance Measure Description

- Sum of emergency and non-emergency requests per 100,000 square feet maintained.

Factors Impacting Outcomes

- Types of repair requests include plumbing, electrical, and HVAC repairs.
- City of Wichita includes requests to remove graffiti from public buildings as repair requests; not all jurisdictions report graffiti data in the same manner.
- Targets for 2019-2021 have been adjusted to reflect the recently developed labor budget for Facilities Maintenance. The labor budget, a tool that measures all costs associated with performing tasks, incorporates more costs than the previous ICMA measure.
- In 2018 custodial requests were integrated into the work order system at City Hall resulting in an increase in recorded repair requests.

13.2.4 BUILDING MAINTENANCE BACKLOG (IN MILLIONS)

BENCHMARK		2016	2017	2018	2018	2019	2020	2021
		ACTUAL	ACTUAL	TARGET	ACTUAL	TARGET	TARGET	TARGET
	\$815-\$1,000	\$815-\$1,000	\$815-\$1,000	\$815-\$1,000	\$357	\$357	\$356	\$355

Performance Measure Description

- The City currently has over 625 buildings, not counting public housing, with approximately 6.8 million square feet of floor space which includes more than 75 facility component types such as roofs, flooring, HVAC and electrical plus ancillary assets like swimming pools, fountains, activity courts and plazas.

Factors Impacting Outcomes

- The 2017 Facility Condition Assessment was completed in 2018 and identified 357.3 million dollars in deferred replace/repair actions.
- A comprehensive assessment had not been completed prior to 2018 therefore the previous number reported was the estimated value of the entire building portfolio, rather than the deferred backlog.

13.3.1 NUMBER OF TOP-TEN HIGH ACCIDENT INTERSECTIONS IMPROVED TO REDUCE ACCIDENTS

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	3	1	1	2	2	2	1	2	1	1	1

Performance Measure Description

- This measures the impact of street and traffic signalization improvements at high accident intersections.

Factors Impacting Outcomes

- The changes in traffic patterns, consistent traffic analysis and CIP funding all play a role in improvements made to intersections.
- The number of intersections improved in a given year is highly dependent on the availability of outside funds, primarily from KDOT.
- The intersections at Kellogg and Rock and Kellogg and Towne East Mall Drive were improved in 2018 to reduce accidents.

13.3.2 PERCENTAGE OF PROJECTS BID WITHOUT DEFERRAL

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	90%	89%	97%	94%	88%	94%	90%	85%	90%	90%	90%

Performance Measure Description

- This measures the quality of the plans and specifications when advertised for bid.

Factors Impacting Outcomes

- Factors impacting the outcome include faulty information regarding the location of existing utility lines and the quality of plans submitted by consultant engineer. Special circumstances specific to individual projects can also result in delays or higher than anticipated costs.

13.3.3 PERCENTAGE OF CAPITAL PROJECT CONTRACTS AWARDED THAT ARE WITHIN ORIGINAL CITY COUNCIL APPROVAL AMOUNT

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	85%	100%	82%	95%	97%	94%	93%	89%	93%	93%	93%

Performance Measure Description

- This outcome is a measure of project cost estimate accuracy.

Factors Impacting Outcomes

- The rate of inflation of the cost of labor, fuel and materials, the quality of the engineering plans, and the changes in project design concepts all impact the cost estimate of a project.

13.3.4 EASE OF CAR TRAVEL: CITIZENS RATING “EXCELLENT” OR “GOOD”

BENCHMARK		2006 ACTUAL	2010 ACTUAL	2012 ACTUAL	2014 ACTUAL	2016 ACTUAL	2018 TARGET	2018 ACTUAL	2020 TARGET
	CoW Higher	68%	70%	76%	75%	78%	80%	82%	85%

Performance Measure Description

- Survey of Wichita residents was commissioned in 2006, 2010, 2012, 2014, 2016 and 2018.
- Expect to re-survey citizens in 2020.
- Survey was conducted by the National Research Center.

Factors Impacting Outcomes

- Possible responses are "Excellent," "Good," "Fair," or "Poor." "Don't Know" responses are excluded.

13.3.5 TRAFFIC FLOW ON MAJOR STREETS: CITIZENS RATING “EXCELLENT” OR “GOOD”

BENCHMARK		2010 ACTUAL	2012 ACTUAL	2014 ACTUAL	2016 ACTUAL	2018 TARGET	2018 ACTUAL	2020 TARGET
	CoW Similar	46%	50%	61%	62%	65%	63%	65%

Performance Measure Description

- Survey of Wichita residents was commissioned in 2006, 2010, 2012, 2014, 2016 and 2018.
- Expect to re-survey citizens in 2020.
- Survey was conducted by the National Research Center.

Factors Impacting Outcomes

- Possible responses are "Excellent," "Good," "Fair," or "Poor." "Don't Know" responses are excluded.
- Advanced planning, community input and strategically securing federal funds for major streets has allowed the focus to be on areas with increased congestion, accidents and other safety concerns, enhancing customer satisfaction.

13.3.6 TRAFFIC SIGNAL TIMING: CITIZENS RATING “EXCELLENT” OR “GOOD”

BENCHMARK		2006 ACTUAL	2010 ACTUAL	2012 ACTUAL	2014 ACTUAL	2016 ACTUAL	2018 TARGET	2018 ACTUAL	2020 TARGET
	CoW Similar	36%	39%	39%	40%	42%	46%	41%	46%

Performance Measure Description

- Survey of Wichita residents was commissioned in 2006, 2010, 2012, 2014, 2016 and 2018.
- Expect to re-survey citizens in 2020.
- Survey was conducted by the National Research Center.

Factors Impacting Outcomes

- Possible responses are "Excellent," "Good," "Fair," or "Poor." "Don't Know" responses are excluded.
- Traffic signal timing improvements are being programmed by corridor each year. In 2016, projects were initiated for downtown and arterials. This is anticipated to positively impact Citizen Survey ratings in future years.

13.3.7 EASE OF WALKING: CITIZENS RATING “EXCELLENT” OR “GOOD”

BENCHMARK		2006 ACTUAL	2010 ACTUAL	2012 ACTUAL	2014 ACTUAL	2016 ACTUAL	2018 TARGET	2018 ACTUAL	2020 TARGET
	CoW Lower	46%	50%	45%	44%	51%	52%	46%	52%

Performance Measure Description

- Survey of Wichita residents was commissioned in 2006, 2010, 2012, 2014, 2016 and 2018.
- Expect to re-survey citizens in 2020.
- Survey was conducted by the National Research Center.

Factors Impacting Outcomes

- Possible responses are "Excellent," "Good," "Fair," or "Poor." "Don't Know" responses are excluded.

13.3.8 SIDEWALK MAINTENANCE: CITIZENS RATING “EXCELLENT” OR “GOOD”

BENCHMARK		2006 ACTUAL	2010 ACTUAL	2012 ACTUAL	2014 ACTUAL	2016 ACTUAL	2018 TARGET	2018 ACTUAL	2020 TARGET
	CoW Similar	35%	38%	35%	27%	32%	35%	41%	40%

Performance Measure Description

- Survey of Wichita residents was commissioned in 2006, 2010, 2012, 2014, 2016 and 2018.
- Expect to re-survey citizens in 2020.
- Survey was conducted by the National Research Center.

Factors Impacting Outcomes

- Possible responses are "Excellent," "Good," "Fair," or "Poor." "Don't Know" responses are excluded.

13.4.1 PERCENTAGE OF STREET NAME SIGNS REPLACED

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	10.0%	5.9%	9.6%	11.3%	12.6%	17.0%	10.0%	12.7%	10.0%	10.0%	10.0%

Performance Measure Description

- Describes the percentage of street name signs updated annually.

Factors Impacting Outcomes

- Adverse weather conditions as well as funding limitations could alter the outcome.
- Lower staff numbers in the Maintenance Division have resulted in fewer sign replacements from 2012 through 2014.
- A special effort in the Central Business District, made in advance of the NCAA tournament, contributed to a higher completion percentage in 2017.

13.4.2 NUMBER OF TROUBLE CALLS RECEIVED ON THE CITY OF WICHITA SIGNAL NETWORK

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	1,875	1,313	1,148	1,469	1,125	1,056	1,250	1,071	1,200	1,150	1,100

Performance Measure Description

- Reported problems within the City's signal system.

Factors Impacting Outcomes

- Malfunctions and/or problems in the City's signal system could increase or decrease in conjunction with knockdowns due to traffic accidents, problems due to inclement weather, or other uncontrollable events.
- Outcomes since 2011 remain significantly improved compared to prior years following the installation of new traffic signal controllers and the modification of inspection procedures in 2010. The new traffic signal controllers result in less problems, and the new inspection procedures have resulted in problems being corrected before a trouble call occurs.
- In 2015, the inability to fully staff this section resulted in fewer inspections and therefore less preventive maintenance.



13.5.1 ROAD REHABILITATION EXPENDITURES: PER CAPITA, PER PAVED LANE MILE

BENCHMARK			2014	2015	2016	2017	2018	2018	2019	2020	2021
			ACTUAL	ACTUAL	ACTUAL	ACTUAL	TARGET	ACTUAL	TARGET	TARGET	TARGET
MBP	\$27.60	Per Capita	\$24.16	\$25.97	\$20.11	\$34.11	\$33.33	\$37.69	\$26.60	\$27.27	\$30.15
MBP	\$2,416	Per Paved Lane Mile	\$1,830	\$1,974	\$1,528	\$2,626	\$2,566	\$2,872	\$2,049	\$2,102	\$2,154

Performance Measure Description

- Expenditures are for street surfacing expenditures only. Expenditures for crack seal and preservative seal projects are not included.
- Prior to 2014, costs that are captured by other ICMA-CPM templates, such as fleet, IT, and workers compensation expenses are excluded.
- Excluded expenditures are: new capacity and construction, capital expenditures, debt service payments.

Factors Impacting Outcomes

- Some difference in road rehabilitation expenditures in each jurisdiction may be attributable to external factors such as weather conditions, natural disasters, and legislative mandates. Differences may also result from internal factors such as deferred maintenance policies.
- In 2017 staff performed QA/QC on the City's street asset inventory. Erroneous records were corrected, resulting in revised paved and unpaved lane mile totals.
- Years 2017 and 2018 are impacted by a two year, \$8.89 million special supplemental Maintenance Program, in addition to \$8.5 million in OP3 funds.
- Years 2019 and 2020 are impacted by OP3 funding increases to \$10.5 million and \$11.5 million, respectively.

13.5.2 PAVED LANE MILES ASSESSED IN SATISFACTORY OR BETTER CONDITION AS A PERCENTAGE OF PAVED LANE MILES ASSESSED

BENCHMARK		2013	2014	2015	2016	2017	2018	2018	2019	2020	2021
		ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	TARGET	ACTUAL	TARGET	TARGET	TARGET
ICMA	74.8%	47.7%	NA	68.4%	35.0%	81.2%	54.2%	68.2%	50.6%	47.4%	65.0%

Performance Measure Description

- The City of Wichita rates a portion, but not all, of its paved lane miles each year.

Factors Impacting Outcomes

- External factors such as traffic volume, climate, and soil type, as well as internal factors such as funding levels and maintenance standards, may affect road conditions.
- No standard exists for determining "satisfactory" condition. For these purposes, each lane mile having a Pavement Condition Index (PCI) greater than or equal to 70 is considered "satisfactory" by the City of Wichita.
- Staff turnover and position freezes in 2017 resulted in a low quantity of streets inspected. Recently completed projects were prioritized, so results are skewed significantly higher.
- In 2018 street improvements continued to be a priority as 39 projects in new and reconstructed streets were completed.

13.5.3 LANE MILES OF UNPAVED COLLECTOR AND ARTERIAL STREETS

BENCHMARK		2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	0	14.2	12.1	12.1	10.4	11.3	10.4	10.4	10.4

Performance Measure Description

- This measures the lane miles of existing unpaved collector and arterial streets in the City of Wichita inventory.

Factors Impacting Outcomes

- Unpaved streets can be paved through a benefit district that would result in special assessments for adjoining property owners, or through CIP projects financed by General Obligation Bonds.

13.5.4 VALUE OF PAVED STREET NETWORK (IN MILLIONS)

BENCHMARK		2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	\$500	\$501	\$525	\$563	\$559	\$566	\$570	\$578	\$579

Performance Measure Description

- This measures the dollar value of the City's paved streets and is based on the current conditions of the pavement.

Factors Impacting Outcomes

- Increases to annual maintenance funds, coupled with an enhanced approach, have slowed the loss of asset value dramatically.

13.5.5 REMAINING SERVICE LIFE IN LANE MILE YEARS

BENCHMARK		2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	47,000	46,763	49,132	52,510	52,160	52,546	51,905	51,467	51,488

Performance Measure Description

- Remaining service life (RSL) is the anticipated number of years that a pavement will be functional and structurally acceptable with only routine maintenance. It does not mean that a street is impassible.
- This measures the remaining lifespan of a street, in terms of lane miles.

Factors Impacting Outcomes

- A new maintenance approach, which proportions 60% of expenditures to preservation, and 40% to mitigation, will serve to slow the rate of loss of service life over time, while allowing improvement of the City's poorest condition streets, in the near term.

13.5.6 LANE MILES WITH NO REMAINING SERVICE LIFE

BENCHMARK			2015	2016	2017	2018	2018	2019	2020	2021
			ACTUAL	ACTUAL	ACTUAL	TARGET	ACTUAL	TARGET	TARGET	TARGET
	1,250	Total Lane Miles	915	1,208	1,228	1,253	1,195	1,396	1,532	1,556
	24%	Percent of Lane Miles	18%	24%	24%	25%	23%	27%	29%	30%

Performance Measure Description

- Remaining service life (RSL) is the anticipated number of years that a pavement will be functional and structurally acceptable with only routine maintenance. An RSL of zero does not mean that a street is impassible or unsafe.
- This outcome is a measure of the number of lane miles and percentage of pavement miles in a condition with no remaining service life.

Factors Impacting Outcomes

- The major driver of this outcome is the type of treatment that is emphasized in the annual contract maintenance program.
- The new, enhanced approach to street maintenance emphasizes preservation over rehabilitation of pavement in poor condition, due to a higher return on investment of those treatment methods.
- Shifting funding away from rehabilitation and reconstruction projects will result in increases to the lane miles with no remaining service life. The current approach focuses on preservation and preventive maintenance.
- Streets with no remaining service life have ceased to provide generally accepted minimum levels of service. However, the City's in-house street maintenance operations serve to keep them and other streets safely traversable.

13.5.7 STREET REPAIR: CITIZENS RATING "EXCELLENT" OR "GOOD"

BENCHMARK		2006	2010	2012	2014	2016	2018	2018	2020
		ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	TARGET	ACTUAL	TARGET
	CoW Lower	27%	31%	30%	24%	24%	35%	32%	35%

Performance Measure Description

- Survey of Wichita residents was commissioned in 2006, 2010, 2012, 2014, 2016, and 2018.
- Expect to re-survey citizens in 2020.
- Survey was conducted by the National Research Center.

Factors Impacting Outcomes

- Possible responses are "Excellent," "Good," "Fair," or "Poor." "Don't Know" responses are excluded.
- Increased funding dedicated to street repair is expected to lead to higher levels of citizen satisfaction.

13.6.1 STREET SWEEPING EXPENDITURES

BENCHMARK			2015 ACTUAL	2016 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	\$4.50	Per Capita	\$4.54	\$4.39	\$4.39	\$4.37	\$4.43	\$4.02	\$4.89	\$5.02	\$5.12
	\$81.00	Per Linear Mile Swept	\$64.95	\$73.14	\$73.14	\$67.23	\$69.68	\$86.89	\$64.37	\$56.87	\$51.75

Performance Measure Description

- Sweeping expenditures per capita and cost per linear (driving) mile of streets swept.

Factors Impacting Outcomes

- Expenditures have been recalculated for 2010-2014 to more broadly include all pavement cleaning budget expenditures. Later years have been populated, accordingly.
- Variations in street-sweeping operating and maintenance expenditures per capita may be attributed to differences in the types of streets swept, the number of miles of each type of street swept, and the frequency with which each type of street is swept.
- Climate and geography significantly impact sweeping schedules and expenditures. Some jurisdictions may provide street sweeping only during certain times of year due to winter weather conditions.
- In 2018 operations suffered a 5,516 reduction in total productive hours due primarily to budget cuts, and secondarily to turnover, additionally contributed over 1,066 productive hours to special operations for the NCAA tournament, and experienced a nearly 340% increase in itinerant camp cleanups, resulting in the diversion of approximately 1,000 productive hours from core tasks like street sweeping.

13.6.2 STREET CLEANING: CITIZENS RATING "EXCELLENT" OR "GOOD"

BENCHMARK		2006 ACTUAL	2010 ACTUAL	2012 ACTUAL	2014 ACTUAL	2016 ACTUAL	2018 TARGET	2018 ACTUAL	2020 TARGET
	CoW Lower	43%	45%	38%	38%	36%	40%	44%	45%

Performance Measure Description

- Survey of Wichita residents was commissioned in 2006, 2010, 2012, 2014, 2016 and 2018.
- Expect to re-survey citizens in 2020.
- Survey was conducted by the National Research Center.

Factors Impacting Outcomes

- Possible responses are "Excellent," "Good," "Fair," or "Poor." "Don't Know" responses are excluded.
- This outcome is expected to increase following an effort to improve communication with residents about neighborhood street sweeping schedules via online tools and portable signs.



13.7.1 DIFFERENCE IN DEMAND AND SUPPLY IN MILLION GALLONS PER DAY (MGD)

BENCHMARK		2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 TARGET	2017 ACTUAL	2018 TARGET	2019 TARGET	2020 TARGET
	0	(1.2)	(1.8)	(2.1)	(2.5)	(2.5)	(2.8)	(3.1)	(3.5)

Performance Measure Description

- Difference between projected drought demand and the projected available water supply.
- Assumes a 1% design drought, which is equivalent to the Dust Bowl and occurs once every 100 years.

Factors Impacting Outcomes

- Any change in levels of conservation or addition of new water supply would impact this measure.
- Future demand is likely to increase, therefore this measure would not likely change unless a new water source is added.

13.7.2 VOLUME OF WATER TREATED (BILLIONS OF GALLONS)

BENCHMARK		2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	21	18.1	18.15	18.10	21.40	18.00	21.50	21.60	21.70

Performance Measure Description

- Amount of water treated annually at the City's primary treatment plant.

Factors Impacting Outcomes

- Precipitation and temperature are the primary variables that influence how much water is treated.
- Demand increases significantly during drought periods, and the system has to be sized such that it has resiliency to meet the higher level of demand.

13.7.3 ANNUAL WATER CONSUMPTION REDUCTION FROM CONSERVATION PROGRAMS

BENCHMARK		2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	0.35%	0.11%	0.11%	1.04%	0.82%	.82%	.12%	.12%	.35%

Performance Measure Description

- Amount of water saved through the City's conservation program.
- Measure is determined by calculating gallons conserved and dividing by total system usage in an average year.
- Amount of water saved annually. Not a cumulative measure of conservation achieved and carried over from previous years.

Factors Impacting Outcomes

- Conservation expected to be realized in 2018 include the last portion of the Spirit AeroSystems effluent project and a \$100,000 rebate program approved by the City Council on January 16, 2018.
- All other conservation funds for future years are budgeted for the Spirit AeroSystems effluent project.



13.7.4 ANNUAL WATER CONSERVATION PROGRAM COST

BENCHMARK		2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	\$300,000	\$224,352	\$213,443	\$1,173,141	\$916,141	\$100,038	\$100,000	\$100,000	\$100,000

Performance Measure Description

- Amount spent by the City to realize water conservation savings.
- Water conservation costs include a program to protect previous reductions in consumption gained in previous programs, as well as the addition of new water conservation programs.

Factors Impacting Outcomes

- Different conservation efforts have different costs.
- In 2018 conservation program costs included a water rebate effort that resulted in 25.3 million gallons of water conservation.

13.8.1 CHILD CARE FACILITIES: PERCENTAGE OF FACILITIES SURVEYED NOT REQUIRING RE-INSPECTION

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	83.5%	79%	74%	87%	88%	84%	87%	79%	87%	87%	87%

Performance Measure Description

- Percentage of facilities inspected where providers were compliant with state and local regulations that govern the operations of safe, healthy, and effective child care programs.
- Re-inspections are triggered when there are significant risk factors existing in a facility based upon reported findings from a City of Wichita child care program survey, and a follow-up inspection is necessary to ensure compliance.

Factors Impacting Outcomes

- A new state regulation (Lexie’s Law) temporarily allowed licensed child care facilities with histories of significant compliance to not be inspected, thus providing surveyors with an opportunity to transition registered home daycares to the standards of licensed facilities.
- Beginning July 1, 2011 (SFY 2012), all licensed facilities are required to be inspected. The previously registered homes requiring re-inspection and the licensed homes that failed to maintain compliance the previous year caused the number of facilities requiring re-inspection to jump for a second year in a row.
- Compliance rate is dependent on many factors, including; number of providers in the area, experience of the providers, socioeconomic factors, as well as implementation and timing of new state regulations.
- KDHE introduced a new survey method in 2015, that resulted in a more scientific method of facility sampling. This method uses a history of compliance or noncompliance as a basis for selection and allows regulatory agencies more time to focus on education and consultation.

13.8.2 GROCERY STORE INSPECTIONS NOT REQUIRING A NOTICE OF NON-COMPLIANCE

BENCHMARK		2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	90%	96%	100%	99%	96%	99%	-	-	-

Performance Measure Description

- Food inspections are geared toward analyzing hazards at critical control points during the flow of operations including food source and storage.
- Inspections minimize the risks associated with food-borne illness.
- This outcome performance measure is an indicator that represents the percentage of facilities found to be in substantial compliance at the time of inspection.
- Prior to April 1, 2014 this measure also included data from restaurants.

Factors Impacting Outcomes

- The City of Wichita provided restaurant inspections throughout Sedgwick County according to a contract with the Kansas Department of Agriculture which ended on March 31, 2014. Compliance criteria prior to this date were established by the KDA.
- As of April 1, 2014, the City of Wichita inspects only grocery stores, according to City ordinance. City staff redefined compliance criteria with respect to grocery stores to reflect whether or not all critical violations were corrected during the inspection.
- Grocery establishments tend have fewer violations than food service (restaurant) establishments due to the nature of their operations being less dynamic than that of a restaurant.
- As of December 31, 2018, City of Wichita Environmental Health staff will no longer provide grocery store inspections.

13.8.3 COMPLIANCE RATE: REFUSAL TO SELL TOBACCO TO MINORS

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	80%	84%	86%	85%	91%	92%	90%	89%	90%	90%	90%

Performance Measure Description

- The Tobacco Control program provides compliance checks of local tobacco merchants by utilizing minor-aged volunteers and under cover tobacco compliance officers.
- The benchmark is set at 80% because that is the standard used by the Kansas Department for Children and Families (DCF) for qualifying funding for state programs. The City's tobacco compliance program strives to achieve this standard for public health benefits even though it is not attached to any funding source for the local program.

Factors Impacting Outcomes

- Number and frequency of compliance checks; food service inspections are the programs primary service and receives priority.
- Type of facility and location checked.
- Experience, training and education of proprietors and employees; employee turnover.
- Perceived age of minor volunteer.
- Even though the frequency of compliance checks increased in 2015, the compliance rate remained steady.

13.8.4 INSPECTED AQUATIC FACILITIES WITH HEALTH RISK

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	17%	3% *	2% *	14%	8%	6%	15%	8%	15%	15%	15%

Performance Measure Description

- Aquatics facilities include swimming pools, spa pools, and other recreational water facilities such interactive fountains and spray parks.
- Measure indicates percentage of facilities found with violations posing an immediate public health risk at the time of inspection.
- Health risks increase the potential for water-borne illnesses, injuries, and drowning resulting from safety hazards.
- Facilities are closed temporarily until compliance is met.

Factors Impacting Outcomes

- Compliance rates are impacted by facility operator training and turnover.
- Outcomes are influenced by effective regulatory oversight including inspector training, frequency of inspections, and the effectiveness of education provided.
- In 2017, 5.5% of inspected facilities had immediate public health risk issues at time of inspector arrival. Only 3.5% (61 out 1742 inspections) of inspected facilities required temporary closure at inspector's departure.
- In 2018, 8% of inspected facilities had immediate public health risk issues at time of inspector arrival; 4.3% (80 out of 1,880 inspections) of inspected facilities required temporary closure at inspector's departure.

* Data for 2013-2014 does not include violations that were corrected while the inspector remained on-site. Data for 2015 forward matches the methodology for 2009-2011.

13.8.5 OZONE EMISSIONS: THREE YEAR AVERAGE OF FOURTH HIGHEST DAY

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 ACTUAL	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	≥0.070 ppb	0.076	0.073	0.067	0.064	0.063	0.069	0.065	0.069	0.069	0.069

Performance Measure Description

- Ozone and particulate levels are the two pollutants of concern for the Wichita area. Wichita monitors ozone at three locations.
- Wichita has been in compliance (or attainment) with National Ambient Air Quality Standards since 1989.
- Ozone attainment is determined by averaging three years of the annual fourth highest eight hour average and comparing the value to the numeric standard at each monitoring location.
- The standard value has changed three times since 1989. In 2006 and 2007, the standard was 0.085 ppb. From 2008 to 2015 the standard was 0.075 ppb. In 2015, the EPA announced a new standard of 0.070 ppb.
- The City of Wichita received an attainment designation in 2017 with a 3-year average of 64 ppb. The next designation will not occur until the standard is updated again, likely in another 3-5 years.

Factors Impacting Outcomes

- Factors that impact air quality include: ozone and other pollutants from upwind communities that are carried to the Wichita area, on-road emissions (vehicle travel), point-source pollution (from regulated industries), non-point source pollution (from smaller unregulated industries), and weather.
- The City of Wichita encourages local industries and the public to implement voluntary reduction activities. Point-source pollution sources are regularly inspected to ensure compliance with operating permits.

13.8.6 AIR QUALITY: CITIZENS RATING "EXCELLENT" OR "GOOD"

BENCHMARK		2006 ACTUAL	2010 ACTUAL	2012 ACTUAL	2014 ACTUAL	2016 ACTUAL	2018 TARGET	2018 ACTUAL	2020 TARGET
	CoW Similar	70%	65%	63%	70%	65%	65%	72%	70%

Performance Measure Description

- Survey of Wichita residents was commissioned in 2006, 2010, 2012, 2014, 2016 and 2018.
- Expect to re-survey citizens in 2020.
- Survey was conducted by the National Research Center.

Factors Impacting Outcomes

- Possible responses are "Excellent," "Good," "Fair," or "Poor." "Don't Know" responses are excluded.
- Improvements may be seen in citizen perceptions as the air quality and ozone mitigation work continues.

13.9.1 PERCENTAGE OF CITY-OWNED STREETLIGHTS OUT IN A ROUTINE MONTHLY INSPECTION

BENCHMARK		2015 ACTUAL	2016 ACTUAL	2017 TARGET	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	10.0%	11.7%	10.1%	10.5%	10.5%	10.0%	11.9%	10.0%	10.0%	10.0%

Performance Measure Description

- This measure is determined by a monthly survey of the number of City-owned streetlights that are nonfunctioning; does not include Westar or KDOT owned streetlights.

Factors Impacting Outcomes

- The City does not have the staff needed to repair the approximately 2,415 streetlights monthly.
- The variety of streetlight fixtures and parts makes it cost prohibitive to have the needed parts on hand.

13.9.2 ANNUAL EXPENDITURE PER STREETLIGHT

BENCHMARK			2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	CoW	\$50	\$45.76	\$66.88	\$124.68	\$112.21	\$87.40	\$90.89	\$94.53	\$98.31
	3rd Party	\$200	\$176.82	\$182.58	\$183.74	\$182.18	\$180.50	\$184.99	\$189.66	\$194.51

Performance Measure Description

- City of Wichita streetlights are installed in conjunction with redevelopment projects or other projects with pedestrian elements. Examples are Old Town, Waterman, Douglas & Oliver, and Delano. Capital costs were borne by the associated CIP project or TIF District funding. Expenditures include maintenance by a electrical contractor (Phillips Southern). There are 2,415 City of Wichita streetlights.
- Third party owned streetlights are primarily owned by Westar. The City of Wichita bears no cost associated for maintenance. There are approximately 25,232 third party streetlights.

Factors Impacting Outcomes

- There could be variation in the electrical usage of different lights depending on fixture type and wattage.
- The lease agreement with Westar Energy is the largest factor; 94% of streetlight expenditures are for monthly lease payments to Westar.
- In 2016, costs for City-owned streetlights increased do to an effort to convert all Old Town lighting to LEDs.
- In 2017, streetlight accounting was reviewed as to leased versus City-owned, and a more accurate cost split was applied.

13.9.3 STREET LIGHTING: CITIZENS RATING "EXCELLENT" OR "GOOD"

BENCHMARK		2006 ACTUAL	2010 ACTUAL	2012 ACTUAL	2014 ACTUAL	2016 ACTUAL	2018 TARGET	2018 ACTUAL	2020 TARGET
	CoW Similar	46%	55%	50%	48%	43%	45%	56%	55%

Performance Measure Description

- Survey of Wichita residents was commissioned in 2006, 2010, 2012, 2014, 2016 and 2018.
- Expect to re-survey citizens in 2020.
- Survey was conducted by the National Research Center.

Factors Impacting Outcomes

- Possible responses are "Excellent," "Good," "Fair," or "Poor." "Don't Know" responses are excluded.



13.10.1 CONSTRUCTION AND DEMOLITION WASTE RECEIVED (IN TONS)

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	100,000	107,452	109,011	93,512	90,128	87,922	90,000	86,338	90,000	90,000	90,000

Performance Measure Description

- Tons of waste received at the C&D Landfill.

Factors Impacting Outcomes

- Tonnage fluctuates due to many factors including weather, availability of alternate disposal sites, and the local economy.
- Tonnage in 2015 reflects a loss in market share that is attributed to rates that are higher than competitors.

13.10.2 SAVINGS FROM USING STREET SWEEPING MATERIAL FOR LANDFILL COVER

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	\$1,100,000	\$622,753	\$740,179	\$889,130	\$645,116	\$624,433	\$600,000	\$458,761	\$600,000	\$600,000	\$600,000

Performance Measure Description

- Savings to the General Fund, Water Utility, and Sewer Utility from taking sweepings to the Landfill, using for cover and not paying transfer station fees for disposal.
- Measure is determined by calculating the cost of dirt that otherwise would have been purchased, added to the cost to dispose of the sweepings at the transfer station.

Factors Impacting Outcomes

- Amount of fill dirt used is a factor of tons of C&D waste received. Street sweepings not used explicitly for fill dirt are not captured in this calculation.
- Some street sweeping waste is diverted to the on-site composting facility, while other street sweepings must be disposed of at the transfer station, and then deposited into a Municipal Solid Waste landfill because of the nature of the material.
- In 2018 operations were reduced by 5,516 reduction in total productive hours due primarily to budget cuts, and secondarily to turnover.

13.10.3 ANNUAL NET REVENUE PER TON

BENCHMARK		2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	\$4.62	(\$3.37)	\$14.28	\$9.88	\$7.78	\$12.73	\$7.78	\$7.78	\$7.78

Performance Measure Description

- Net revenue per ton of waste received at the C&D Landfill.

Factors Impacting Outcomes

- Tonnage fluctuates due to many factors including weather, availability of alternate disposal sites, and the local economy.
- O&M cost fluctuates with facility needs; for example, closed portions of the landfill required extra grounds maintenance in 2014 to repair erosion.
- The City took over operation of the landfill on December 1, 2015, which required a \$1.1 million purchase of heavy equipment.

13.11.1 VIOLATION NOTICES ISSUED BY KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT (KDHE)

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	0	0	0	0	1	0	0	0	0	0	0

Performance Measure Description

- Post-closure violations which may include air, groundwater, or solid waste violations related to the closed portions of Brooks Landfill

Factors Impacting Outcomes

- Compliance with environmental requirements is affected by City resources and oversight, expertise of environmental consultants, and performance of grounds maintenance contractors.
- In 2016, the City entered into a consent agreement with the Environmental Protection Agency (EPA) to improve methane monitoring procedures that are provided by a contract with an environmental consultant.

13.11.2 AVERAGE PER WELL GROUNDWATER MONITORING COSTS

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	\$1,000	\$658	\$702	\$1,342	\$673	\$629	\$741	\$617	\$741	\$741	\$741

Performance Measure Description

- Cost per well to monitor groundwater for potential contamination.

Factors Impacting Outcomes

- Costs vary depending on frequency of testing and additional testing requirements.
- Federal regulations require testing for other contaminants every five years that is in addition to routine annual testing, which occurred in 2010 and 2015.
- Results of the testing can result in the requirement to install additional monitoring wells, as was the case in 2010.
- In 2015, KDHE approved a reduction in monitoring requirements due to successful cleanup of historical contamination. Both the frequency of monitoring and number of wells requiring monitoring decreased.
- Current contract for monitoring services ends in 2019, the selection of a new service provider could impact future costs.



13.13.1 COST PER THOUSAND GALLONS TREATED

BENCHMARK			2013	2014	2015	2016	2017	2018	2018	2019	2020	2021
			ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	TARGET	ACTUAL	TARGET	TARGET	TARGET
	Gil-Mo	\$0.25	\$0.53	\$0.71	\$0.71	\$3.26	\$0.77	\$0.79	\$0.65	\$0.79	\$0.79	\$0.79
	NIC	\$1.20	NA	\$1.19	\$1.19							

Performance Measure Description

- Gilbert & Mosley Operation and Maintenance costs are derived from electrical costs to run the treatment plant and extraction wells, maintenance of the extraction wells, heating costs for the treatment system, and repair and replacement of remediation system components.

Factors Impacting Outcomes

- In 2016, the Gil-Mo remediation lines were cleaned, which last occurred in 2009-2010.
- In 2016, the Gil-Mo telemetry and operational system were upgraded; old equipment was replaced and programming was updated, which resulted in an increased operation costs.
- System Startup date
- Groundwater extraction rates
- Operational run times
- Equipment maintenance requirements



13.14.1 IN-TOWN MOWING ROTATIONS DURING GROWING SEASON

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	6.0	2.1	2.2	1.7	1.8	3.0	3.0	3.0	3.0	3.0	3.0

Performance Measure Description

- Different areas of the Wichita/Valley Center Floodway have different mowing schedules; the toe of the levee is scheduled to be mowed once per year, the levees are scheduled to be mowed twice per year and areas near residential areas are scheduled to be mowed three times per year. This is a total of 7,392 acres.

Factors Impacting Outcomes

- Rainfall impacts both the timing of when mowing can be accomplished and the amount of grass that grows between rotations.
- Unusually wet weather in 2016 disrupted normal mowing activities and required some overtime to achieve the goal. The overtime was necessary to prepare for an October inspection from USACE.

13.14.2 ROUNDS OF STRUCTURE INSPECTIONS

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	4.0	4.1	8.1	10.0	23.0	15.5	8.0	22.0	8.0	8.0	8.0

Performance Measure Description

- The best practice is to inspect structures on a quarterly basis to ensure that flap gates are free of debris and the sluice gates are operable.
- Inspections are also conducted following a measurable rain event.
- There are 172 structures included in the Flood Control project.
- USACE regulations require a minimum of 4.0 annual structure inspections.

Factors Impacting Outcomes

- Inspections increased in 2014 through 2018 mostly due to the high rainfall total for the year with heavy rains coming in almost every month. Following every rain event the structures were checked for debris, vandalism, and/or obstructions.

13.15.1 NUMBER OF STOPPAGES

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	130	137	104	132	152	120	130	113	130	130	130

Performance Measure Description

- Stoppages occur when grease, excessive discharge, roots, or mechanical problems stop the normal flow in a portion of the sanitary sewer collection system, causing upstream lines to surcharge and potentially backflow into buildings or overflow into the environment.

Factors Impacting Outcomes

- Residential discharge of grease is a major factor. Another factor is flushable wipes. Additional public education or regulatory measures may be required to address these issues.
- Commercial grease (primarily restaurants) is still a factor, but has been mitigated by strengthened enforcement of grease interceptor ordinances.
- Age and deterioration of portions of the sanitary sewer collection system leads to increased root penetrations, both in size and quantity, allowing other unwanted materials to enter the collection system, accumulate, and contribute to stoppages. Ongoing aggressive rehabilitation of sewer lines reduces these occurrences.

13.15.2 PERCENTAGE OF SYSTEM RECEIVING ANNUAL MAINTENANCE

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	28%	34%	33%	31%	33%	35%	32%	37%	33%	33%	33%

Performance Measure Description

- A calculated percentage of the sanitary sewer collection system that was high-pressure cleaned, inspected by televising, or mechanically cleaned or chemically treated for obstructions and roots.
- The percentage of the sewer system receiving annual maintenance indicates the effective utilization of resources in prevention of sanitary sewer stoppages and overflows.

Factors Impacting Outcomes

- The age, materials, and location of the portions of the sanitary sewer collection system receiving annual maintenance greatly affect maintenance schedules. Newer polyvinyl chloride (PVC) lines and lines in easily accessible areas require less time to maintain than do older, unlined vitreous clay pipe (VCP) lines and lines in less accessible locations.
- Staffing and equipment availability affect the timely completion of scheduled maintenance. Higher priority emergency events, staff illness, or equipment mechanical failure reduces resources allocated to maintenance activities.

13.16.1 WASTEWATER TREATMENT EFFECTIVENESS RATE

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Performance Measure Description

- Wastewater treatment operations are closely regulated at both state and local levels.
- The percentage of days the Utility is in compliance with these regulations shows adherence to mandated regulations and environmentally safe operation of the wastewater treatment process.

Factors Impacting Outcomes

- Compliance with regulatory guidelines is greatly affected by materials introduced into the sanitary sewer system other than human waste.
- Proactive regulation and inspections for fats, oils, greases, chemicals, and biohazards are conducted to minimize the introduction of these materials to the system.
- Inflow of rainwater from heavy rain events also interferes in the wastewater treatment process. Proactive inspection and rehabilitation of sewer lines has greatly decreased the inflow volume and rendered the treatment process more efficient.
- Equipment failure at the treatment plants impacts compliance rates and is offset with an asset management program which assists the utility to maximize the value of its capital as well as its operations and maintenance dollars.

13.16.2 OPERATING AND MAINTENANCE COSTS PER MILLION GALLONS TREATED

BENCHMARK			2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	Treatment Only	\$750	\$884	\$939	\$1,026	\$1,148	\$1,183	\$1,170	\$1,218	\$1,255	\$1,292
	System-Wide	\$2,233	\$986	\$980	\$1,064	\$1,268	\$1,306	\$1,298	\$1,345	\$1,386	\$1,427

Performance Measure Description

- Calculated cost of operations and maintenance per one million gallons of waste water treated.
- The first measure excludes lift station operation and maintenance as well as biosolids hauling.
- The second measure is O&M for the entire wastewater system. AWWA changed benchmarks in 2012 to reflect all operational costs associated with the wastewater system. In 2014, the second measure was added to evaluate system-wide O&M cost.

Factors Impacting Outcomes

- The costs of commodities directly associated with the treatment process, such as electricity, have the greatest impact on the cost of wastewater treatment. Economic factors including annual inflation affect these costs, resulting in reduced purchasing efficiencies and greater operating costs.
- Recent improvements were realized by ongoing aggressive rehabilitation of sewer lines that greatly reduce the volume of water reaching the treatment plants.
- Methane gas released during the treatment process is captured and used to fire water heaters used elsewhere in the treatment process.
- In 2017, replacement of failing equipment was funded through operating budgets in response to reduced capital budget resources.

13.17.1 UTILITY SYSTEM RENEWAL AND REPLACEMENT RATE

BENCHMARK			2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	2.4%	Water Distribution	0.72%	2.58%	2.63%	1.37%	1.45%	2.46%	1.87%	1.91%	1.79%
	2.5%	Sewer Collection	1.79%	2.75%	1.77%	1.44%	1.79%	1.75%	1.83%	1.87%	1.84%

Performance Measure Description

- This performance measure was obtained from the AWWA Benchmarking Report (2012), and quantifies the rate at which the utility is meeting its need for infrastructure renewal or replacement of the water distribution and sewer collection systems.
- This measure is based on the percent of total actual expenditures or total amount of funds reserved for renewal and replacement of the water distribution system, divided by total depreciated water distribution system assets.

Factors Impacting Outcomes

- Decreased revenue and budget cuts may lower available funds for planned infrastructure improvements, while increased revenue and budget updates may increase available funds.
- The bonding and borrowing capability of the Utility may determine the allocation of resources available for these projects.
- The last water distribution project that had been delayed was constructed in 2018, restoring projected expenditures to previously committed CIP levels.

13.17.2 UTILITY ERRORS PER 1,000 LOCATE REQUESTS

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	≤1.0	0.63	0.33	0.29	0.68	0.23	0.48	0.57	0.48	0.48	0.48

Performance Measure Description

- A measure of the number of utility facilities struck during excavation or other work due to inaccurate locates per 1,000 locate request tickets.
- Locate tickets are initiated by other utilities, contractors, and individuals, and each ticket may include from one to over one hundred individual facility locates.
- Located utilities include water mains and services, sewer mains, raw water mains, storm sewers, traffic signal cables, fiber optic communication cables, and ground water remediation piping.

Factors Impacting Outcomes

- Accuracy, skill, and experience of individual locators directly impacts the error rate.
- Accurate map updates.
- Determination of actual locate errors is a subjective process not based on analytical data.

13.18.1 PEAK DEMAND AS A PERCENTAGE OF MAXIMUM TREATMENT CAPACITY

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	< 75.0%	54.5%	51.5%	50.6%	49.7%	49.9%	75.0%	48.9%	75.0%	75.0%	75.0%

Performance Measure Description

- Percentage of capacity dedicated to peak demand indicates the efficiency of design and operation of the water treatment system.
- Daily peak demand is captured as the total gallons consumed during a 24-hour period, and calculated against the maximum design capacity of the treatment system (160 million gallons), to derive a percentage. Recently, the treatment plant has only reached a peak production of 130 million gallons per day.
- Meeting or exceeding the 75% benchmark indicates the need for additional treatment capacity to preserve industry-standard reliability and safety margins.

Factors Impacting Outcomes

- Precipitation levels throughout the year impact the peak demand for water during the hottest periods of the year. The Wichita area experienced higher than average precipitation in 2014, 2015 and 2016, which greatly reduced demand. Water usage was above the ten-year average in 2012.
- Availability and operational functionality of raw water production and transmission, water treatment, and pumping equipment imposes limits on the Water Utility's ability to meet peak demand.
- Economic conditions may impact the amount of water used by customers.

13.18.2 OPERATING AND MAINTENANCE COSTS PER MILLION GALLONS TREATED

BENCHMARK			2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	Treatment Only	\$439	\$362	\$382	\$438	\$467	\$483	\$480	\$507	\$532	\$558
	System-Wide	\$2,240	\$1,333	\$1,442	\$1,682	\$1,667	\$1,717	\$1,687	\$1,769	\$1,822	\$1,876

Performance Measure Description

- Calculated cost of operations and maintenance per one million gallons of water treated.
- The first measure is the calculated O&M of the Water Treatment Plant and Hess Pump Station.
- The second measure is the calculated O&M of the entire water system.
- AWWA changed benchmarks in 2012 to reflect all operational costs associated with the water system. The AWWA benchmark was first used in 2014.

Factors Impacting Outcomes

- The costs of commodities directly associated with the treatment process, such as electricity and chemicals and the amount of performed maintenance compared to deferred maintenance, have the greatest impact on the cost of water treatment production.
- Economic factors, like annual inflation, may increase commodities costs, resulting in greater operating costs.
- Water Treatment equipment is operated in a manner that provides redundancy in the treatment process in order to provide a continuous supply of water that meets drinking water standards. This process increases electricity consumption.
- In 2016, replacement of failing equipment was funded through operating budgets in response to reduced capital budget resources.



13.19.1 LEAKS AND PIPELINE BREAKS PER 100 LINEAR MILES OF PRIMARY DISTRIBUTION SYSTEM PIPING

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	28	23.3	21.8	30.8	29.0	18.0	24.0	20.0	23.0	22.0	21.0

Performance Measure Description

- This performance measure is from the AWWA Benchmarking Report. It measures water distribution system integrity.

Factors Impacting Outcomes

- Ongoing proactive replacement of water mains outliving their life cycle has reduced the number of leaks..
- Extreme temperatures and sudden temperature changes initiate soil shift and result in ruptured mains.
- Sudden water pressure fluctuations can create water hammer effect and result in ruptured main lines.

13.19.2 PERCENTAGE OF CUSTOMERS WITH LEAD WATER UTILITY CONNECTIONS

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	0.00%	0.11%	0.11%	0.01%	0.00%	0.00%	0.00%	0.88%	0.00%	0.00%	0.00%

Performance Measure Description

- A calculated percentage of the number of customer with known lead water utility connections. These tap services are generally found in the core area.
- By definition, lead water utility connections are from the water main to the water meter.

Factors Impacting Outcomes

- By the close of 2016, approximately 150 properties had lead connections removed.
- During 2017, work was continued removing lead services as those were found.
- In 2018, staff identified 1360 locations (488 active accounts) with remaining lead connections.



13.19.3 PERCENTAGE OF SYSTEM VALVES EXERCISED

BENCHMARK			2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	100%	Critical	100%	100%	100%	100%	100%	3.1%	100%	100%	100%
	20%	System	5.0%	8.0%	26.0%	32.3%	40.0%	20.9%	40.0%	40.0%	40.0%

Performance Measure Description

- A calculated percentage of the number of open line valves mechanically exercised.
- Critical valves are 16" or larger; system valves are those not essential to maintaining pressure in the distribution system and are called into action for rapid response to main ruptures.

Factors Impacting Outcomes

- Staff and equipment assigned to proactively exercise open line valves are involved in other capacities as the need arises.
- A high incidence of main leaks may limit the valve exercise program activities.
- Vacant positions resulted in valve crews being diverted to emergencies instead of exercising non-critical valves. Also, turnover in the crew operator position, involved some training that prevented that position from leading one or two others that could continue working while the foreman assisted contractors.
- Additional resources were added in 2016 in order to increase the percentage of system valves exercised.
- Changes in leadership caused the Valve Exercise Program to be short staffed. Plans are in place to meet targets in 2019.

13.19.4 NUMBER OF ERROR-DRIVEN BILLING ADJUSTMENTS PER 10,000 BILLS GENERATED

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	7.2	19.5	19.8	8.6	19.8	NA	NA	1.7	1.7	1.7	1.7

Performance Measure Description

- Billing adjustments are adjustments to a customer's charges resulting from a number of different factors, including errors on the original billing, or leaks, for example. The previous CIS system could not differentiate between error-driven adjustments and adjustments for other reasons.
- Errors include adjustments due to human error, such as meter reads, data entry, calculations, and computer programming. Errors also include inaccurate bills due to mechanical failure of the meter or ERT (Encoder Receiver Transmitter), as well as adjustments to correct estimated readings.
- According to AWWA, the typical range for utilities in the Midwest is 8 to 38; the typical range for utilities with 100,000 to 500,000 customers is 8 to 37; and the typical range of combined water and sewer utilities is 4 to 41.

Factors Impacting Outcomes

- Electronic meter reading is not available in a small amount of instances—in these cases numbers are keyed in manually and errors occur.

13.21.1 UTILITY RETURN ON ASSETS

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	1.5%	1.5%	3.1%	2.0%	2.4%	2.4%	2.5%	2.2%	2.5%	2.4%	2.4%

Performance Measure Description

- Based on the ratio of net income to total assets, this indicator measures the financial effectiveness of the Utility.
- Net income is defined by GASB standards, and total assets are considered all resources of the Utility, both tangible and intangible.

Factors Impacting Outcomes

- Net income includes utility revenue, which is impacted by local economic conditions, local weather conditions, consumer conservation efforts, and other unforeseen conditions.
- The total asset base is affected by the growth rate of the local service area and the renewal and replacement rate of the Utility's infrastructure.
- The utilities experienced a lower than expected return on assets in 2015 and 2016 because heavy spring and summer rains led to lower revenue from water sales.

13.21.2 COMBINED RESIDENTIAL WATER AND SEWER UTILITY MONTHLY RATES COMPARISON

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	\$84.63	\$52.34	\$54.83	\$57.63	\$60.63	\$63.35	\$65.65	\$68.70	\$71.78	\$73.93	\$76.15

Performance Measure Description

- This indicator was obtained from the 2016 Black & Veatch "50 Largest Cities Water / Wastewater Rate Survey." The category for 7,500 gallons of billable usage per month is used for comparison. The previous survey was conducted in 2013.
- The survey found that the national average rate increase (2001-2015) for water and sewer bills was 5.8% annually. That would move the benchmark to \$94.73 in 2018, \$100.23 in 2019 and \$106.04 in 2020.
- This is a comparison of Wichita's cost of combined water and sewer utility rates with the median among the 50 largest cities in the United States.

Factors Impacting Outcomes

- Economic factors strongly influence the Utilities' ability to maintain low-cost services for customers.
- Weather trends, especially temperature and precipitation, directly affect water sales and resulting revenue, influencing the need for rate adjustments for both water and sewer.

13.21.3 PERCENTAGE OF PAYMENTS RECEIVED ELECTRONICALLY

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	50%	50.5%	50.8%	53.4%	55.8%	56.7%	56.7%	61.7%	61.7%	63.0%	65.0%

Performance Measure Description

- Electronic payment methods are bank drafts, electronic checks (which includes payments from banking institutions and mobile apps), phone payments through the IVR system, and web payments.
- Non-electronic payments are mail, drop boxes and Express Office teller transactions.

Factors Impacting Outcomes

- The most common method is mail, which represented 41% of the total in 2017.
- Express Office teller transactions represent 2% of total transactions.
- Of electronic transactions, web payments are the most common at 37%, followed by electronic checks (27%), bank drafts (23%) and phone payments through the IVR (13%).
- Less than 1% of payments are received at a drop box.

13.21.4 UTILITY RATES AS A PERCENTAGE OF MEDIAN HOUSEHOLD INCOME

BENCHMARK			2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	0.64%	Water	0.76%	0.80%	0.84%	0.86%	0.85%	0.87%	0.90%	0.87%	0.87%
	0.76%	Sewer	0.67%	0.71%	0.74%	0.77%	0.78%	0.81%	0.84%	0.82%	0.82%
	1.4%	Combined	1.43%	1.51%	1.58%	1.63%	1.64%	1.68%	1.74%	1.69%	1.69%

Performance Measure Description

- The benchmark is from the 2013 AWWA Water and Wastewater Rate Survey.
- The percentage of median household income required to pay the average annual residential service bill is a measure of affordability. The value is calculated by dividing the average annual residential bill by the median household income for the area, as defined by the U.S. Census Bureau.
- Annual income adjustments are based on published Consumer Product Index numbers. Average residential service bill is set at 7,500 gallons of water consumption (with an average winter consumption of 6,000 gallons).

Factors Impacting Outcomes

- Economic factors such as unemployment rate, economic growth, and demand for manufactured goods have a strong influence on household median income.
- Weather trends, especially temperature and precipitation, directly affect water sales and resulting revenue, influencing the need for rate adjustments for both water and sewer.
- A Cost of Service Analysis was completed in 2015 to provide a current cost of providing water and sewer service and to project future rate adjustments.

13.21.5 WATER UTILITIES: CITIZENS RATING “EXCELLENT” OR “GOOD”

BENCHMARK			2006 ACTUAL	2010 ACTUAL	2012 ACTUAL	2014 ACTUAL	2016 ACTUAL	2018 TARGET	2018 ACTUAL	2020 TARGET
	CoW Similar	Sewer Services	56%	69%	66%	71%	57%	75%	73%	75%
	CoW Similar	Drinking Water	47%	60%	58%	73%	58%	73%	69%	73%
	CoW Similar	Utility Billing	NA	NA	NA	55%	48%	55%	56%	55%

Performance Measure Description

- Survey of Wichita residents was commissioned in 2006, 2010, 2012, 2014, 2016 and 2018.
- Expect to re-survey citizens in 2020.
- Survey was conducted by the National Research Center.
- Question about utility billing was first asked in 2014.

Factors Impacting Outcomes

- Possible responses are "Excellent," "Good," "Fair," or "Poor." "Don't Know" responses are excluded.
- Ongoing communication with citizens regarding any changes to the water or sewer service, water treatment or rate structure is expected to result in high levels of customer satisfaction.

13.22.1 PERCENTAGE OF INVENTORIED EQUIVALENT RESIDENTIAL UNITS (ERUS) COLLECTED

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	100%	97.9%	95.8%	98.0%	100.0%	96.0%	96.0%	97.0%	100.0%	100.0%	100.0%

Performance Measure Description

- Stormwater Utility revenue is collected through monthly Wichita Water Utilities billings.
- Performance measure data represents percentage of current accounts in the water billing database that were collected in December of each year.

Factors Impacting Outcomes

- Parcels that do not link on a one-to-one basis to a water bill are challenging for revenue collection. If a property does not have a water meter, the property owner is billed on a six-month basis.
- Delinquent water bill accounts are sent to collection and the State of Kansas set-off program. Stormwater revenue is sometimes collected in that manner.
- Delinquent stormwater fees that were not billed and are due when the property is transferred to a new owner. The accounts can be sent to collection or the State of Kansas set-off program when the property ownership is transferred.

13.22.2 PERCENTAGE OF CONSTRUCTION SITE INSPECTIONS THAT TRIGGER NOTICES OF VIOLATION

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	0%	31.0%	50.6%	37.0%	37.3%	36.0%	30.0%	30.0%	30.0%	30.0%	30.0%

Performance Measure Description

- This measure demonstrates how many construction sites are in compliance with the erosion and sediment control ordinance upon inspection.
- Construction sites over one acre in size require inspection as part of the construction process.

Factors Impacting Outcomes

- Some inspections originate from public complaints. This results in a percentage of sites that receive notices of violation.
- Contractor education and compliance with regulations directly impacts this outcome.
- The number of construction site inspections is driven by economic climate, housing market, and volume of construction activity.
- The goal of the Stormwater program is for the construction industry to be self-regulating through the completion of regular on-site inspections that can be reviewed by the City of Wichita.

13.22.3 STORMWATER MAINTENANCE BACKLOG (IN MILLIONS)

BENCHMARK		2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	\$56	\$56	\$56	\$56	\$56	\$56	\$56	\$56

Performance Measure Description

- This is a new measure that is based on the ongoing Cost of Service Analysis asset condition analysis.
- The current estimate will be updated as more information is available.

Factors Impacting Outcomes

- A recently completed Cost of Service Analysis determined that the City's stormwater and flood control system has a backlog of \$56 million in deferred maintenance and capital projects that need to be addressed.
- As a result of a COSA review, it is expected that SWU rates were adjusted 2017 and 2018 in order to begin accumulating funds to address maintenance backlogs.
- Large emergency repairs would detract from the ability to address the maintenance backlog.

13.22.4 STORM DRAINAGE: CITIZENS RATING "EXCELLENT" OR "GOOD"

BENCHMARK		2006 ACTUAL	2010 ACTUAL	2012 ACTUAL	2014 ACTUAL	2016 ACTUAL	2018 TARGET	2018 ACTUAL	2020 TARGET
	CoW Similar	26%	40%	43%	53%	37%	53%	48%	53%

Performance Measure Description

- Survey of Wichita residents was commissioned in 2006, 2010, 2012, 2014, 2016 and 2018.
- Expect to re-survey citizens in 2020.
- Survey was conducted by the National Research Center.

Factors Impacting Outcomes

- Possible responses are "Excellent," "Good," "Fair," or "Poor." "Don't Know" responses are excluded.
- Ongoing communication with citizens regarding storm drainage is expected to result in higher levels of customer satisfaction.
- A high number of rain events has an impact on this measure. There were a high number of major rain events in 2015, which could have impacted resident perceptions on the 2016 survey.

13.23.1 PERCENTAGE OF VEHICLES AND EQUIPMENT EXCEEDING REPLACEMENT CRITERIA

BENCHMARK			2014	2015	2016	2017	2018	2018	2019	2020	2021
			ACTUAL	ACTUAL	ACTUAL	ACTUAL	TARGET	ACTUAL	TARGET	TARGET	TARGET
	14.8%	Police	0.0%	7.2%	6.7%	2.2%	0%	2.1%	0%	0%	0%
	19.0%	Fire	4.4%	4.3%	4.2%	11.9%	0%	9.8%	0%	0%	0%
	17.7%	Light	12.9%	15.0%	3.0%	2.2%	0%	2.5%	0%	0%	0%
	21.3%	Medium	10.5%	16.0%	8.3%	9.1%	0%	6.5%	0%	0%	0%
	19.1%	Heavy Vehicles	11.2%	16.3%	17.3%	23.6%	0%	12.0%	0%	0%	0%
	24.6%	Heavy Equipment	9.1%	12.1%	9.0%	12.2%	0%	16.4%	0%	0%	0%

Performance Measure Description

- The percentage of City of Wichita vehicles or pieces of equipment that exceed replacement criteria is calculated by dividing the number of vehicles that exceed replacement criteria by the total number of vehicles in the category.
- This figure is based on data from the end of the reporting period, after current vehicle and equipment orders have been fulfilled.

Factors Impacting Outcomes

- Some variation can be explained by difference in replacement criteria among jurisdictions.
- Criteria may include, but are not limited to age, mileage, condition, maintenance record, and accident history.
- Under the Fleet Decision Tool model, and consistent with Administrative Regulation, the number of assets in each category should remain constant unless additions are approved by the City Manager and City Council.
- With sufficient funding, replacements would be made consistent with the Fleet Decision Support Tool accounting for real world factors in addition to age.
- The goal is for zero assets to exceed replacement criteria based on the Fleet Decision Support Tool model and scorecard criteria.

13.23.2 AVERAGE FLEET MAINTENANCE EXPENDITURE PER VEHICLE

BENCHMARK		2013	2014	2015	2016	2017	2018	2018	2019	2020	2021
		ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	TARGET	ACTUAL	TARGET	TARGET	TARGET
	\$3,100	\$3,270	\$3,205	\$3,059	\$3,055	\$3,750	\$3,863	\$3,914	\$4,031	\$4,152	\$4,277

Performance Measure Description

- The measure is limited to vehicles maintained by the Public Works & Utilities Fleet Maintenance Division.

Factors Impacting Outcomes

- Vehicles become more costly to maintain with age and higher mileage.
- More accidents will result in greater maintenance expenditures.
- In 2017, the labor rate was modified and maintenance expenditures for Police and Fire vehicles increased.
- 2018 analysis showed cost increases are trending 3%-5%, and in some categories more, per year.
- A greater focus on preventative maintenance has resulted in higher maintenance expenditures.
- The timing of replacements can also impact this measure.

13.23.3 PERCENTAGE OF FLEET AVAILABLE FOR USE

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	95.0%	97.9%	97.5%	97.4%	97.1%	97.4%	98.0%	97.2%	98.0%	98.0%	98.0%

Performance Measure Description

- The measure provides an indication of overall readiness and fleet program effectiveness.

Factors Impacting Outcomes

- Vehicles with higher age and mileage are more likely to be unavailable to customers.
- A greater focus on preventative maintenance (PM) results in higher availability due to improved maintenance and finding repairs needed during PM services.

13.23.4 PERCENTAGE OF FLEET CURRENT ON PREVENTIVE MAINTENANCE SERVICES

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	95%	98%	98%	97%	96%	96%	97%	96%	97%	97%	97%

Performance Measure Description

- The preventative maintenance (PM) of a unit relates directly to increasing operator safety, reducing vehicle downtime, improving warranty tracking, and avoiding costly repairs.

Factors Impacting Outcomes

- A higher rate of PM program compliance is driven by maintenance staff providing timely contacts and reminders to customers, and by customers responding to these prompts by bringing the unit in for service.

13.23.5 PERCENTAGE OF EMPLOYEES CERTIFIED BY ASE, EVT, OR EETC

BENCHMARK		2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ACTUAL	2017 ACTUAL	2018 TARGET	2018 ACTUAL	2019 TARGET	2020 TARGET	2021 TARGET
	75%	89%	90%	90%	88%	88%	88%	90%	88%	88%	88%

Performance Measure Description

- Certifying agencies are the National Institute for Automotive Service Excellence (ASE), Emergency Vehicle Technician Certification Commission (EVT), and the Equipment and Engine Training Council (EETC).

Factors Impacting Outcomes

- The measure reports employees certified by national organizations as a proportion of employees that are eligible for certification.
- Service area knowledge, types and length of work experience, study aids, study time, and test taking ability are key components of success.
- Since 2009, 100% of service areas have been certified by ASE.