

# LCA 2020 Update

2019 Action Plan Status Report & Discussion

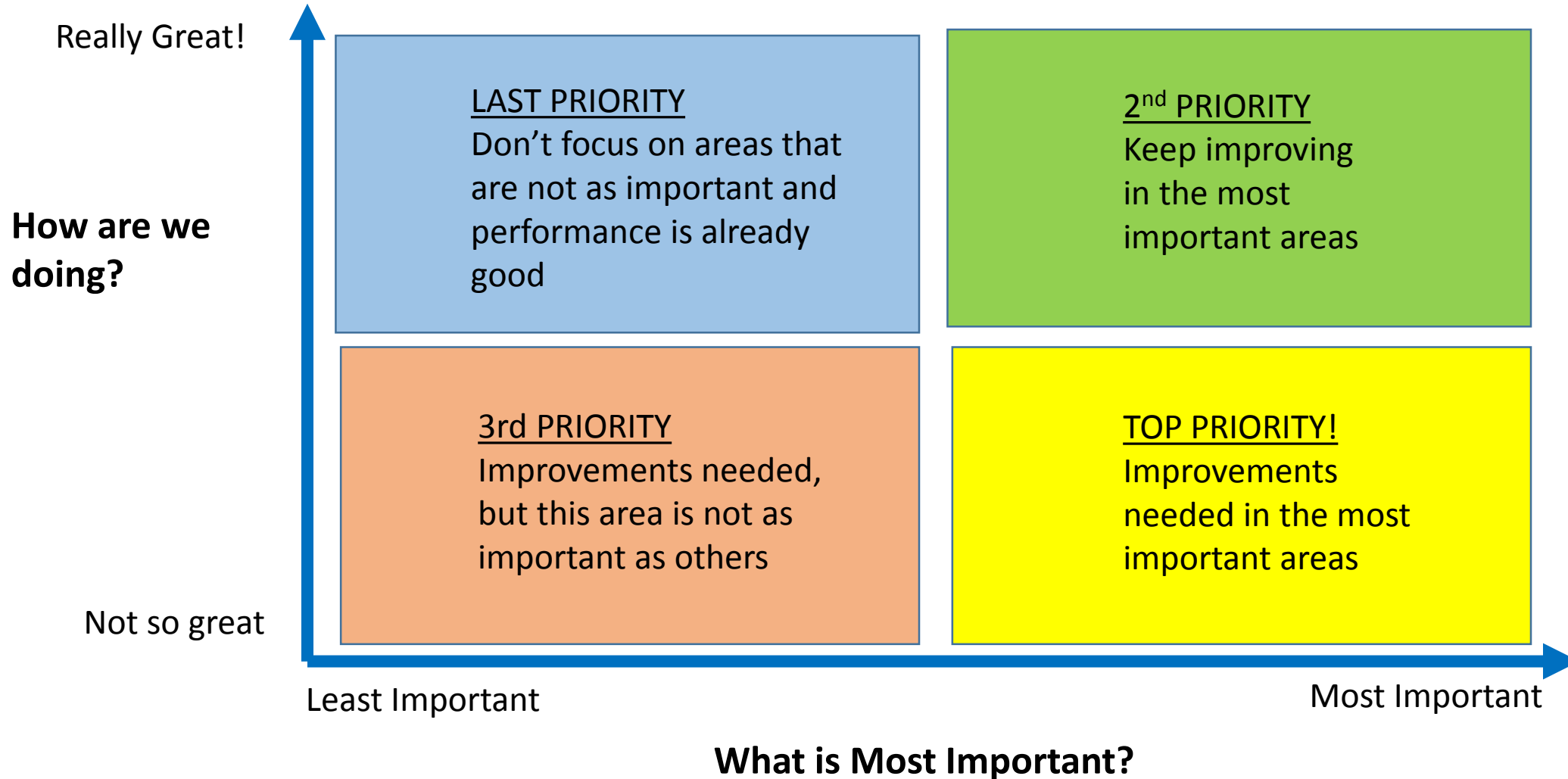
January 27, 2020

# Effective Utility Management (EUM) framework

- Developed by USEPA, AWWA & 7 other industry-leading associations
- Descriptions of 10 attributes of an effectively managed utility
- Outline of 5 keys to success
- Toolkit w/ 80+ industry-accepted measures
- Overall framework for goal-setting & continual improvement



# 2017 Effective Utility Management (EUM) assessment



# 2017 Goals Identified using EUM Categories

- **Product Quality** – Focus on elimination of SSOs & Administrative Order compliance
- **Financial Viability** – Focus on developing capital financing & rate-making strategies
- **Infrastructure Stability** – Focus on Suburban Division asset management & organizationwide CityWorks implementation
- **Employee & Leadership Development** – Focus on workforce / succession planning & knowledge creation

# Plus one more...



- The longer-term view:

- Establish measures for each attribute area
- Develop ways to leverage technology within all goal areas
- Look out through 2020 to develop longer-term plans in these (and other) areas

- **Build a culture of Continual Improvement!**

# Quick highlights of KPIs: Focus on specific LCA 2020 Goals

Preventive vs. Corrective Maintenance

Violations by type per year

Employee & leadership development

Financial dashboard

2017 2018 2019

City

Suburban

City Plants

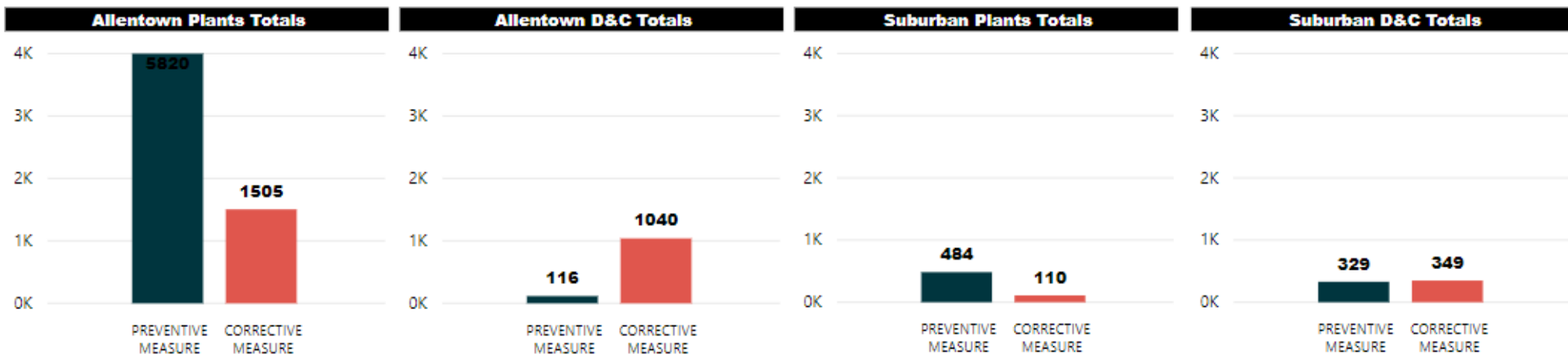
City Sewer

City Water

Suburban Plant

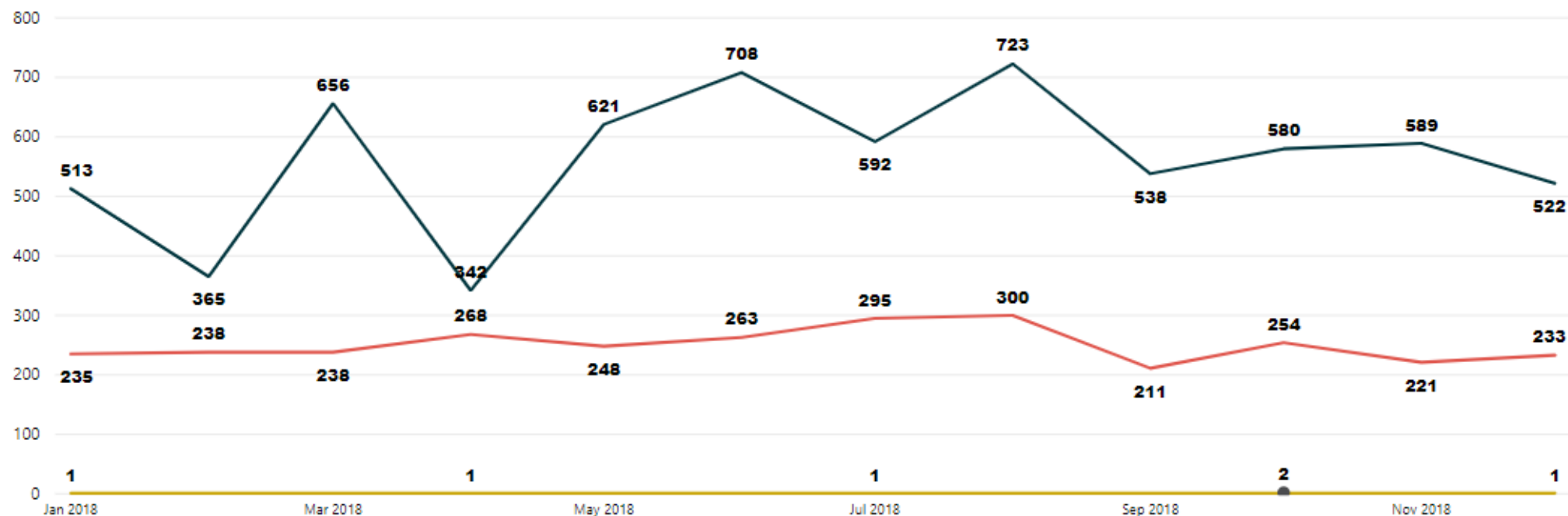
Suburban Sewer

Suburban Water



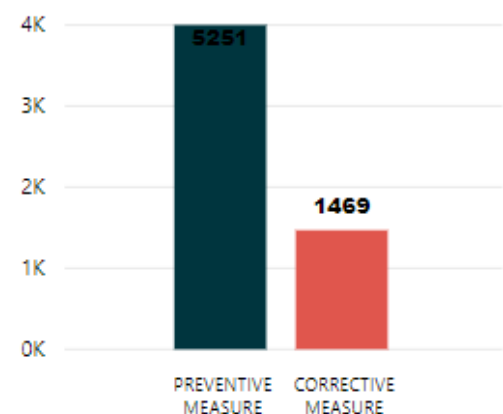
## Work Order Count by Type

Locations ● CORRECTIVE MEASURE ● PREVENTIVE MEASURE ● SUBADMINISTRATIONCM

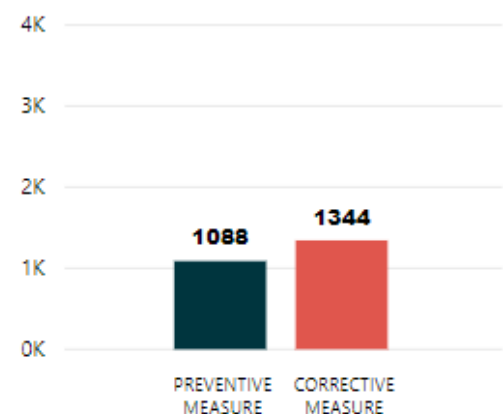


# CM vs PM

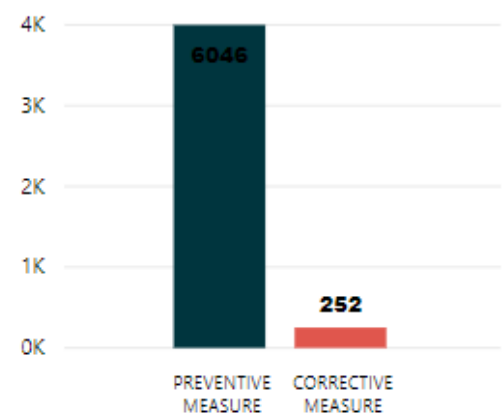
Allentown Plants Totals



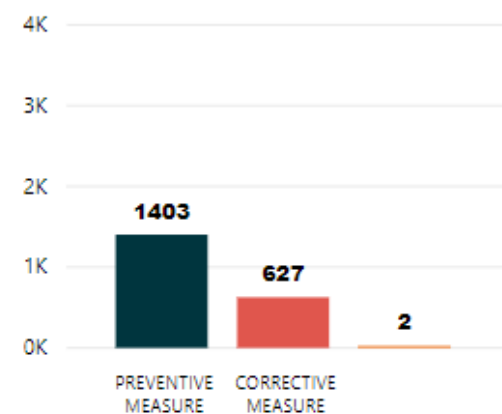
Allentown D&C Totals



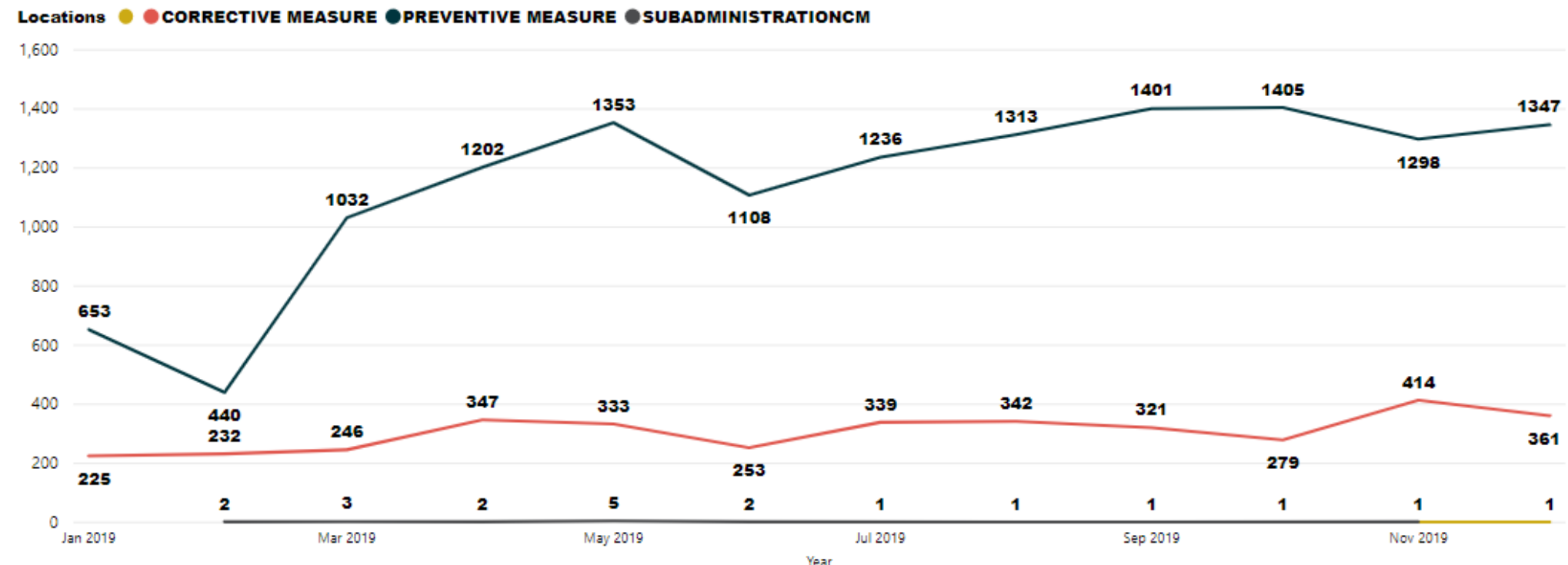
Suburban Plants Totals



Suburban D&C Totals



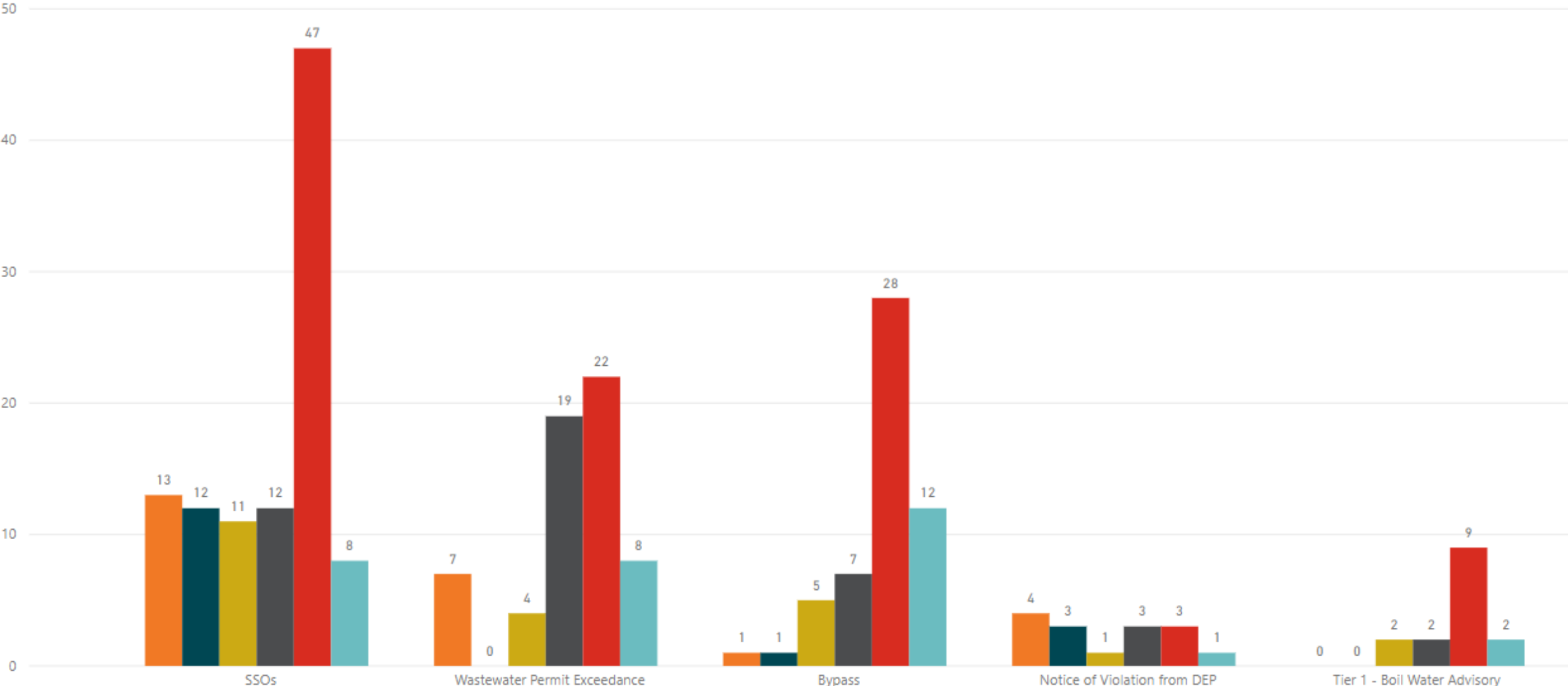
Work Order Count by Type





# Violations By Year

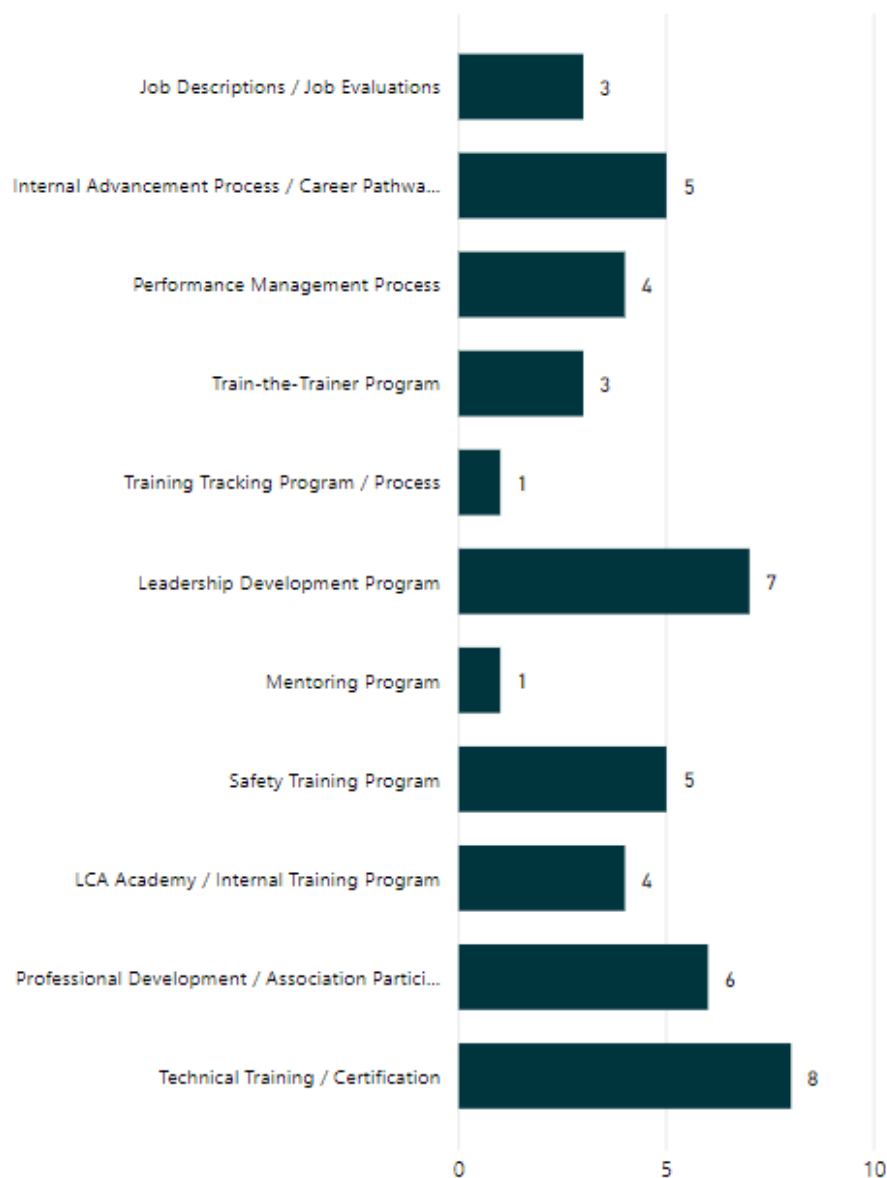
YEAR 2014 2015 2016 2017 2018 2019



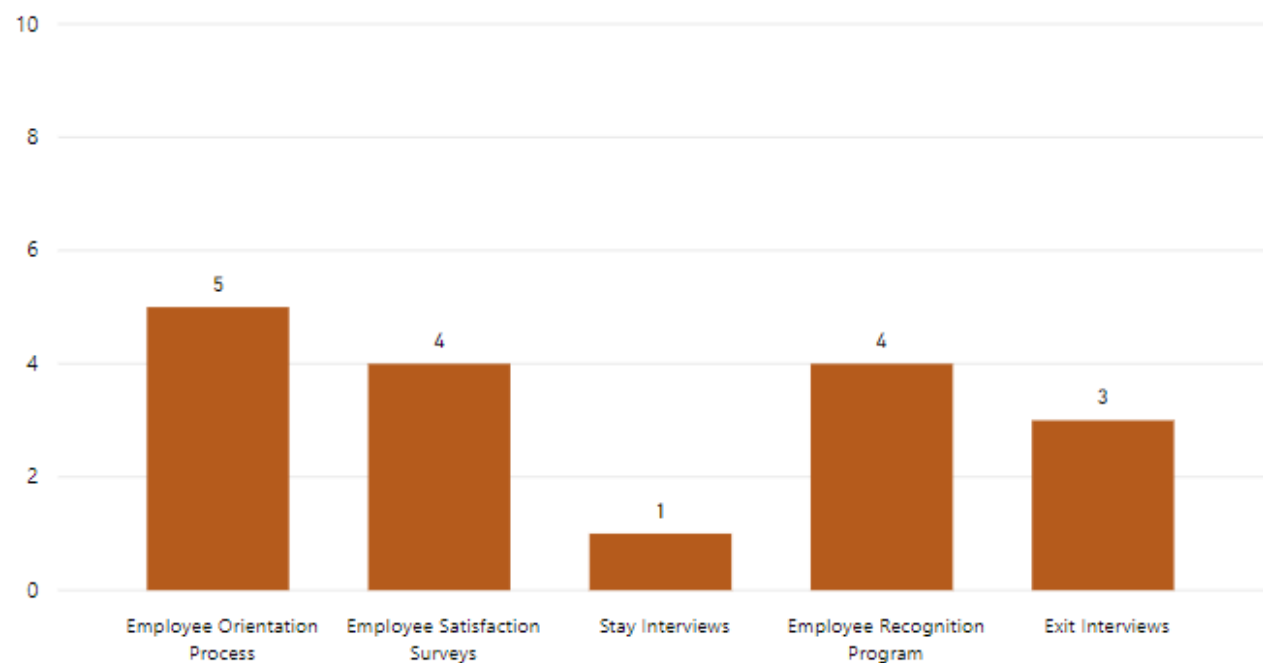


# Employee & Leadership Development

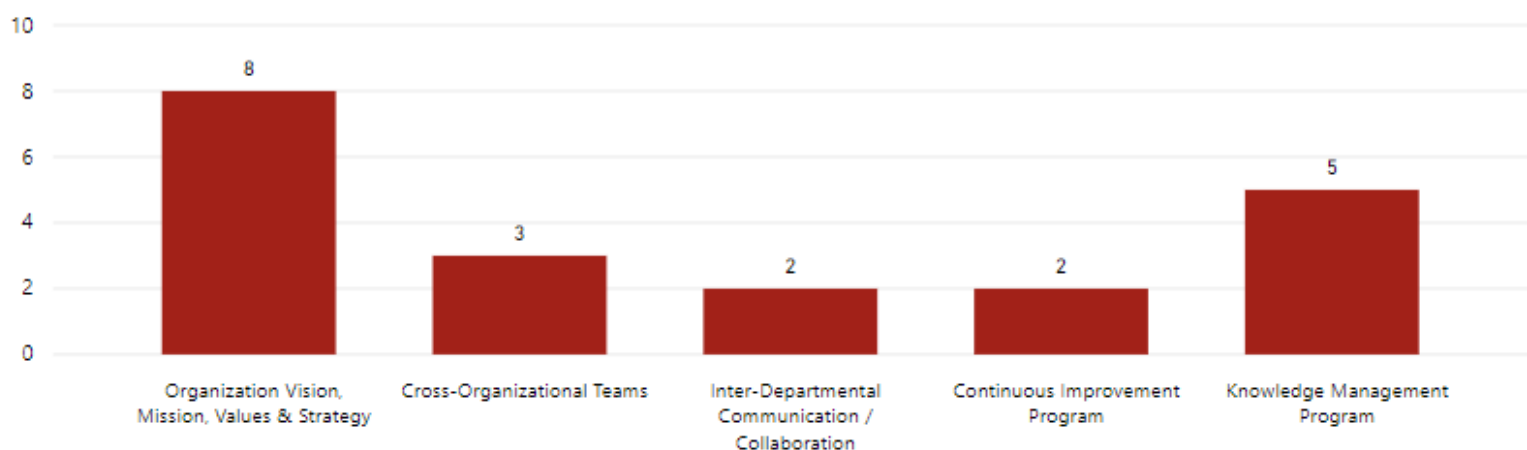
## Employee & Leadership Development



## Employee Engagement



## Organizational Best Practices



Total Positions

**165**

Total Employees

**164**

Vacancies

**1**

Avg Yrs of Service

**12**

Avg Age

**46**

# Other Measures – Data Availability

- Financial Dashboard:
  - Debt service coverage >1.20
  - Operating days cash on hand >180 days
  - Operating Ratio
  - Capital Plan forecasting / coverage
- Employee Safety
- Customer Satisfaction / Collections Performance / Call Center Performance
- Flow Monitoring (stream flows, sewer flows, rainfall)
- System Security / Downtime
- Water Quality / Treatment Performance
- Specific Preventive Maintenance Targets (ex. hydrant maint., leak detection, etc.)
- And much more!

# LCA 2020: Three-Year Action Plan

- Detailed set of actions for 2018, 2019 & 2020 in each of the 4 goal areas

Strategic Goal	What it means for LCA	Why is it important?	Measure(s)	2019 Action Plan	2019 Status	2019 Owner	2019 Notes
Product Quality							
Elimination of SSOs / EPA Clean Water Act compliance	Sewer system under EPA Administrative Orders to eliminate Sanitary Sewer Overflows – must be addressed for environmental compliance as well as to address future needs for system conveyance capacity.	LCA's most significant Product Quality challenge and regulatory compliance issue. Difficult to measure, however, due to regional nature of system, weather impacts and other uncontrollable factors.	Treat as a "project progress" report until approved corrective action plan is in place, when specific targets can be established and reported on.	Complete WLI emergency rehab program – <i>OPS</i>	1 - Complete	John P	Final project review scheduled for 1/27/2020
				WLI system flow metering & modeling – <i>CM</i>	1 - Complete	Phil D	2019 flow metering completed and model calibration on schedule for Q1 2020 completion as planned.
				Analyze & decide path forward on WLI conveyance projects – <i>CM / CW</i>	4 - Schedule Adjustment Required	Phil D/Chuck V	This work is dependent on regional Act 537 planning.
				Evaluate need for Act 537 reopener / KITP expansion – <i>CM / CW</i>	1 - Complete	Phil D	Regional Act 537 Plan work has been kicked off in two phases (2020 and 2021-2025)
				Evaluate need for updated allocation / planning module approval method for City & Suburban – <i>CW / CM</i>	1 - Complete	Phil D	DEP discussions in 2019 has resulted in an approved Connection Management Plan for the region that requires updated tracking of sewage planning modules.
				Complete PPS rehab project & force main evaluation – <i>CW</i>	0 - Goal Adjustment Required	Chuck V	Project must be split into 2 items: PPS on track for Q1 2020 completion Force Main Evaluation - weather dependent / early 2020 NOTE: Repeated in Infrastructure Stability goal, remove from this section
				Implement Fats Oils & Grease (FOG) program – <i>CM</i>	4 - Schedule Adjustment Required	Andrew M	Preliminary planning steps complete with pilot program rolled out for selected commercial properties.
				All sewer system Capacity Management, Operations & Maintenance (CMOM) measures achieved / reported – <i>OPS / IT</i>	4 - Schedule Adjustment Required	John P/Chris M	City Division CMOM work completed in 2019; Suburban Division CMOM work is substantially completed, but not fully achieved.
				Implement Heidelberg & Lynn Twp corrective action plans – <i>CW / OPS</i>	1 - Complete	Chuck V/John P	Corrective action plans submitted for both systems; programs moving according to plan, awaiting DEP approval
				City AO projects TBD – <i>CM</i>	1 - Complete	Phil D	Year 1 (2020) work will be out to bid in February
				Develop public education for FOG program & removal of clearwater connections – <i>CC</i>	0 - Goal Adjustment Required	Sue S/Andrew M	Tied to FOG program schedule.

Strategic Goal	What it means for LCA	Why is it important?	Measure(s)	2019 Action Plan	2019 Status	2019 Owner	2019 Notes
Financial Viability							
Financial plans and rates match up with operational and capital program needs	Cash generated from operations covers both operations and debt-related expenses; forward looking targets established to cover new debt/capex	Excess cash must be generated, which is needed for future capital and principal payments, and to avoid/limit future borrowing, while also allowing for operational goals to be met.	Debt Service Coverage Ratio	Address City Division financial sustainability via monthly billing implementation, lease restructuring, debt restructuring, capex financing, and other available means – <i>ALL</i>	4 - Schedule Adjustment Required	Liesel G/Ed K	Pending dispute resolution process
				Develop future capex financing plan and rate forecast for all divisions – <i>FN</i>	1 - Complete	Ed K	2019 capital plans included 5-year rate forecasts
				Adaptive Insights implemented – <i>FN</i>	0 - Goal Adjustment Required	Ed K/Chris M	Improved financial reporting achieved outside of Adaptive Insights software. Goal to use Adaptive for future budget preparation to reduce Excel reliance.
				Develop improved forecasting & reporting tools (revenues, expenses, rates) – <i>FN</i>	0 - Goal Adjustment Required	Ed K	Some significant improvements made in 2019 - closing general ledger reduced from 5 days to 1 day; Other improvements tied to Adaptive implementation to conform reporting to audit statements
				Revamp accounts payable process – <i>FN</i>	0 - Goal Adjustment Required	Ed K	This is a long-term goal that needs to be broken into separate milestones.
		Division-specific evaluations, goals and plans are needed to address different needs of each “fund”	Internal vs. External Funding for Capital Projects	Develop enhanced capital improvements prioritization methodology – <i>FN / CW</i>	0 - Goal Adjustment Required	Ed K/Chuck V	Prioritization methods developed for City capex. Focus area moving forward is on project accounting and improved forecasting.
				Review & develop strategy for improved allocation and accountabilities within Internal Services budget – <i>FN</i>	0 - Goal Adjustment Required	Ed K	Goal will extend beyond Internal Service budget - New focus is on revamping budget structure to provide Home Department budgets for each manager to improve accountability for costs. Reallocation of internal services will be a product of this budget restructuring.
				Documentation of financial processes, policies & strategy – <i>ALL</i>	0 - Goal Adjustment Required	Ed K	Multi-year effort as processes are updated to best practices.
				Completion of tapping fee calculations for Suburban water – <i>FN</i>	4 - Schedule Adjustment Required	Ed K	Will be completed Q2 2020.
				Implement “One LCA” asset / equipment sharing program – <i>FN / OPS</i>	1 - Complete	Ed K/John P/Chris M	Generating employee buy-in will be an ongoing effort!

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Infrastructure Stability							
Asset Management Program Development	Planned approach to assessing risk and planning projects and preventive maintenance strategies on a life-cycle cost basis.	LCA's asset management approach is currently inconsistent and not well defined, but systems are aging and require increasing investment to repair and replace critical assets. Methods to plan and prioritize our work is a growing need.	Asset Condition Assessment Completion – Number / ratio of critical assets with condition assessed and categorized.	CMMS Integration – 2019 Milestones – <i>IT</i>	1 - Complete	Chris M	Moving this goal into a continuous improvement mode for ongoing integration and support.
				Convert 3 Suburban stations from Telog to SCADA – <i>IT</i>	0 - Goal Adjustment Required	Chris M	SCADA upgrade for Suburban Division will require comprehensive strategy.
				Complete 2 <sup>nd</sup> Suburban asset upgrade project (mechanical focus, started in 2018) & scope out next project based on next tier of high-risk components – <i>CW</i>	1 - Complete	Chuck V	
				Incorporate results of Allentown wastewater master plan into capital plan documentation – <i>CW</i>	1 - Complete	Chuck V	
				Park Pump Station rehab construction complete – <i>CW</i>	4 - Schedule Adjustment Required	Chuck V	Will be completed Q1 2020.
			Asset "Needs Addressed" Coverage – Progress on addressing needs identified via condition assessment work.	Park Pump Station force main evaluation & rehab plan – <i>CW</i>	4 - Schedule Adjustment Required	Chuck V	Weather dependent
				Review / update / align LCA rules & regs for water / sewer service and City ordinances – <i>ALL</i>	4 - Schedule Adjustment Required	Liesel G	Not started, needs to be completed
				Complete Wynnewood wastewater plant reconstruction – <i>CW</i>	4 - Schedule Adjustment Required	Chuck V	Q1 2020 completion expected
Preventive Maintenance Program Development	Applying consistent and measured approach to maintaining assets on a planned / preventive basis, to reduce reactive and emergency-based repairs.	Increased focus on preventive maintenance needed at LCA in certain areas, and measure will also provide focus for establishing consistent procedures for tracking maintenance activities	Planned Maintenance Ratio -- Planned maintenance as a percentage of all maintenance activities completed	CMMS Integration – 2019 Milestones – <i>IT</i>	1 - Complete	Chris M	
				Implement FOG program – <i>CM (crosses with Product Quality goal)</i>	4 - Schedule Adjustment Required	Andrew M	See above.
				Phase 3 Interceptor easement clearing program – <i>OPS</i>	1 - Complete	John P	
				Phase 3 flushing, valve & hydrant program – Suburban – <i>OPS</i>	4 - Schedule Adjustment Required	John P	Valves 50% complete and hydrants 100% complete. Flushing not started. All uncompleted work rolls to 2020.
				Evaluate all preventive maintenance strategies implemented by Allentown and Suburban divisions & develop plan for alignment – <i>OPS</i>	1 - Complete	John P	Preventive maintenance goals / targets have been aligned. Implementation in Suburban Division remains a challenge pending staffing evaluation (2020).



Strategic Goal	What it means for LCA	Why is it important?	Measure(s)	2019 Action Plan	2019 Status	2019 Owner	2019 Notes
<b>Employee/Leadership Development</b>							
Knowledge Management / Succession Planning	LCA's ability to move through personnel transitions within limited downtime in productivity or knowledge loss is critical to maintaining the pace of business and stature in the industry / region.	LCA employees who are new to the organization, or new in their roles as managers/leaders, require training and support to be effective in their jobs.	Training & Knowledge Management Coverage – Ratio of “high risk” employees for which a KM / Succession plan has been developed	Develop employee training tracking system for external and internal training and OJT provided, priorities for future training, and job-specific training requirements – <i>HR</i>	0 - Goal Adjustment Required	Kathy M / Liesel G	All employee engagement goals to be evaluated upon addition of HR Coordinator
				Develop succession / knowledge retention plan for retirement risks identified in 2018 – <i>ALL</i>	1 - Complete	Liesel G	
				Complete job analysis for training requirements for 5 positions – <i>ALL</i>	0 - Goal Adjustment Required	Kathy M / Liesel G	All employee engagement goals to be evaluated upon addition of HR Coordinator
				Kick off Document Management assessment – <i>IT</i>	1 - Complete	Chris M	Board resolution on document control adopted in December
Technical & Leadership Training for LCA Employees / Managers	High rates of employee turnover due to retirements results in many employees in new positions who need to develop expertise and skills to be effective in their new roles. Focus is on technical (water/sewer system operations and maintenance) and leadership skills, as the two areas identified as requiring significant attention to address existing gaps.	Loss of institutional knowledge has already impacted LCA operations as new employees need to learn undocumented LCA processes from scratch. As employees retire from LCA with greater frequency, the importance of planning in advance for those transitions is becoming increasingly urgent.	Training Hours per Employee	Implement “stay interview” technique – <i>ALL</i>	0 - Goal Adjustment Required	Liesel G/Kathy M	All employee engagement goals to be evaluated upon addition of HR Coordinator
			Leadership / Technical Training programs offered	Develop mentoring / coaching program for new managers or managers in need of support – <i>ALL</i>	0 - Goal Adjustment Required	Kathy M / Liesel G	All employee engagement goals to be evaluated upon addition of HR Coordinator
				Conduct employee-wide survey to compare to 2014 results – <i>ALL (completed in 2018)</i>	1 - Complete	Kathy M / Liesel G	
				Assess gaps in inter-departmental communication & cooperation – <i>ALL</i>	1 - Complete	Liesel G	Next step required: develop actions for improvement
				Conduct targeted employee focus groups to determine barriers to full engagement & explore survey results – <i>ALL</i>	1 - Complete	Liesel G	



# Goals not achieved: Key themes

- Complex / unclear planning process for wastewater capacity issues
- Significant complex “legacy” administrative processes (payroll, sewer billing, document management, etc.)
- Knowledge loss & staffing capacity for new work
- These must be addressed in our next strategic plan!

# LCA 2020 Action Plan *(Details included in handout)*

## Critical Organizational Goals:

1. Resolve City Division Financial & Legal Challenges
2. Develop Clarity for the Regional Sewer Capacity Plan
3. Begin Budget Restructuring to support department-level accountability
4. Form Cross-Organizational Teams to support continuous improvement
5. Select three focused areas for process improvement
6. New Strategic Plan
  - Alignment with Community Goals
  - KPIs with Performance Targets / Dashboard (use the data we have!)
  - Implementation Plan

# LCA Strategic Planning



# Next Steps

- Keep working the LCA 2020 Action Plan!
- Gather Feedback (now → May 2020)
  - Key stakeholder interviews
  - Customer survey / community meetings
  - Internal assessments
- Conceptual Plan Development (now → August 2020)
  - Alignment of LCA Vision for the next 5-10 years
  - How will we measure performance?
  - Develop 1- to 3-year goals
  - How will we communicate progress?
- Implementation/Action Plan (August – October 2020)
  - Evaluation of resource requirements
  - Financial analysis & 2021 budget
  - Communications strategy



**LCA Board  
Involvement?**

# Discussion