

LCA 2020 Update

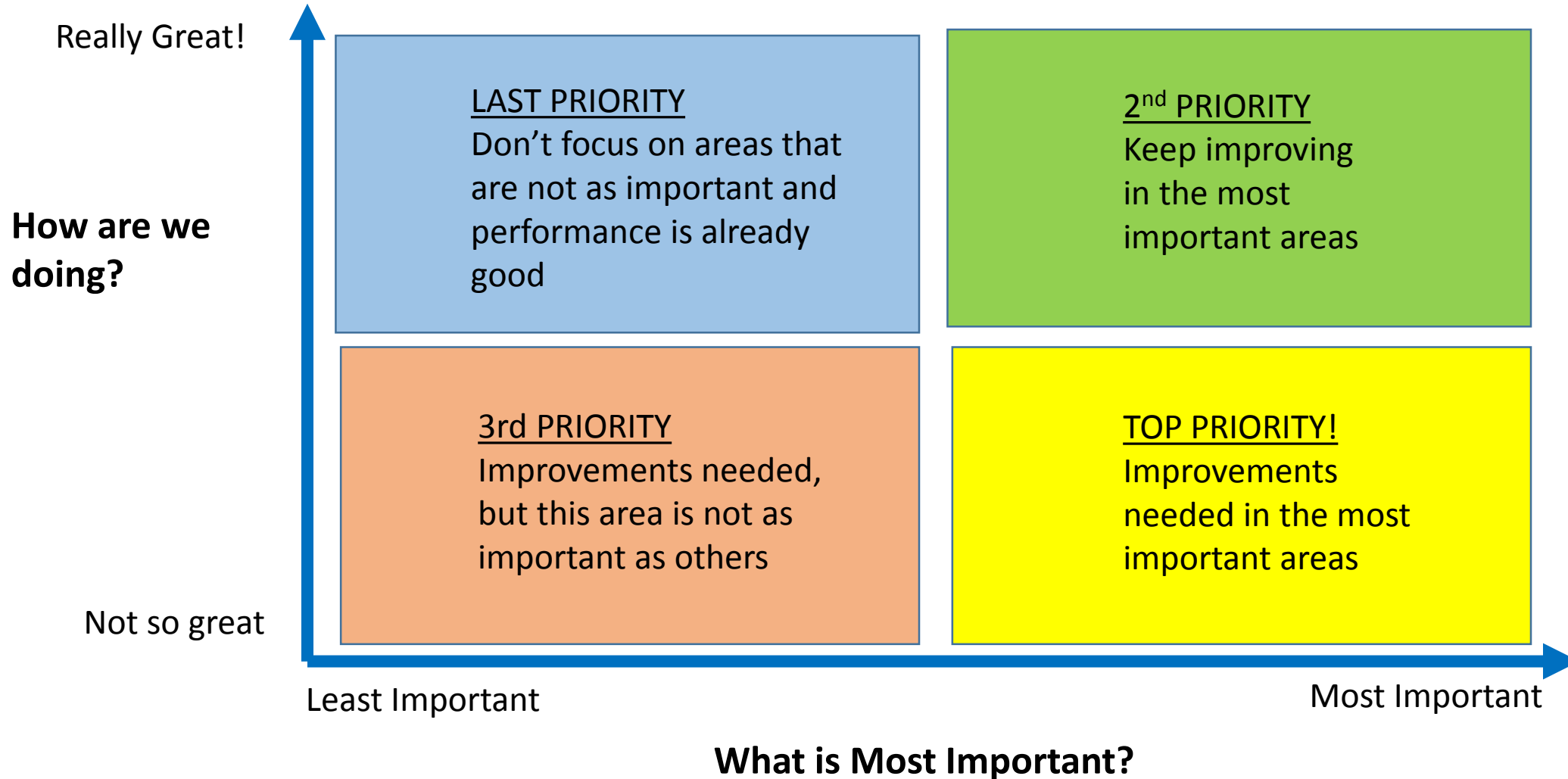
2019 Action Plan Status Report & Discussion

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

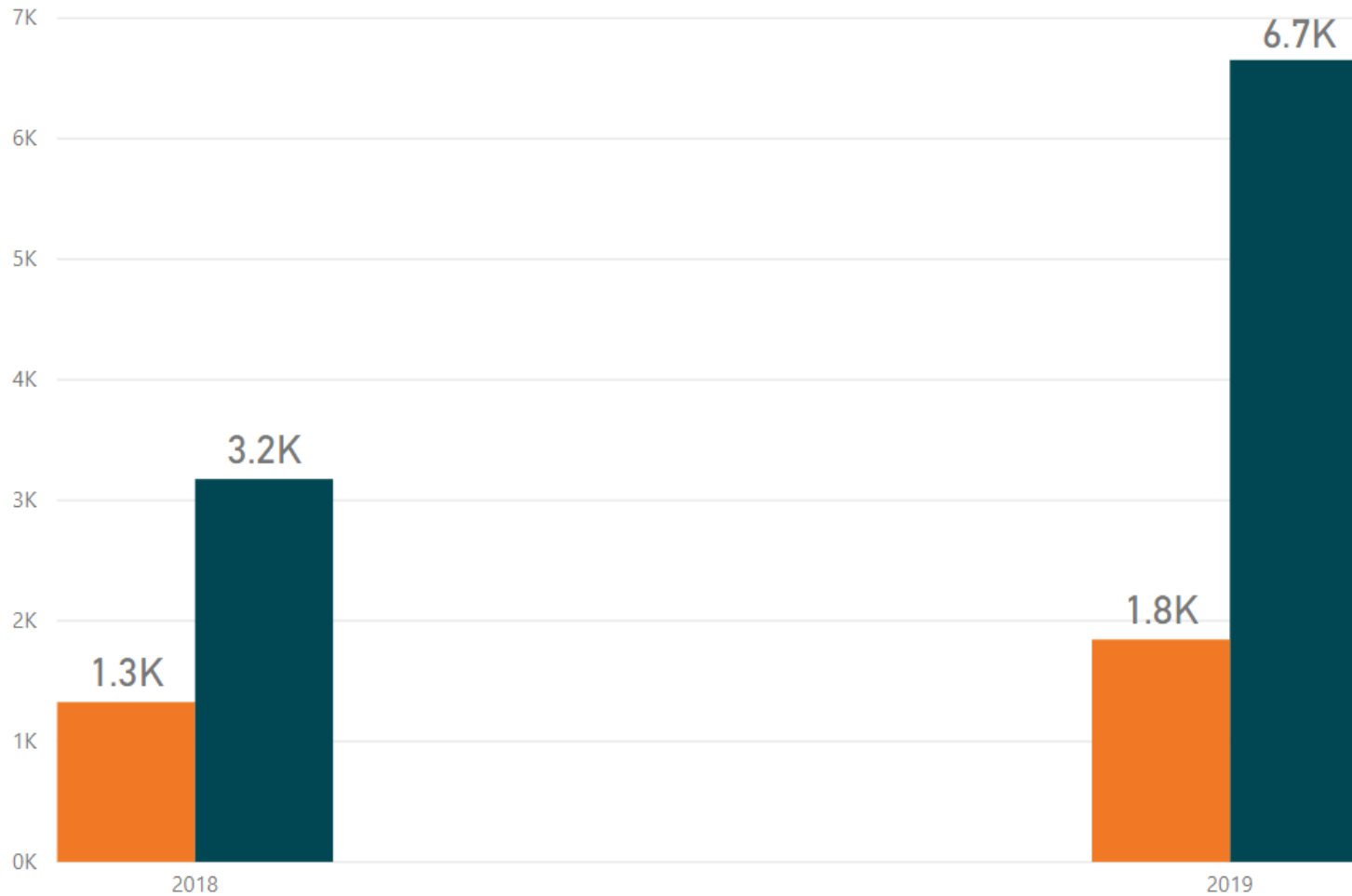
- **Product Quality** → Quality Violations (by type and year)
- **Financial Viability** → Debt Service Coverage & other ratios (monthly financial report from Ed Klein!)
- **Infrastructure Stability** → Corrective Maintenance (CM) vs. Preventive Maintenance (PM)
- **Employee & Leadership Development** → Best Practices (Qualitative)



Corrective Maintenance (CM) vs. Preventive Maintenance (PM)

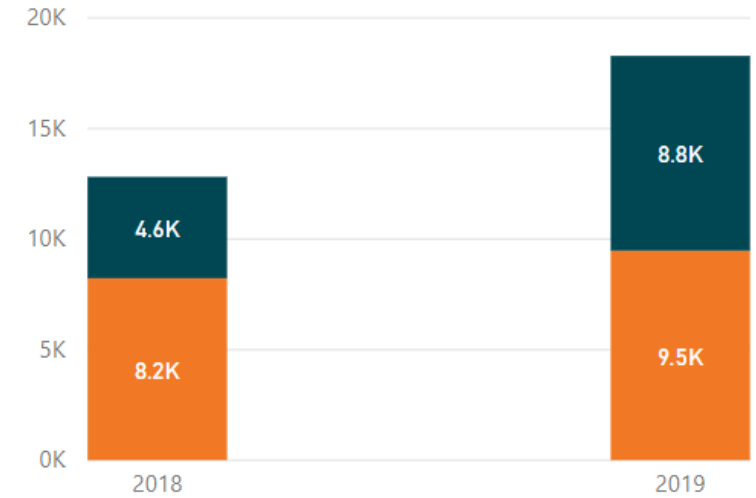
Total # of Work Orders - CM v PM

CM v PM CORRECTIVE MEASURE PREVENTIVE MEASURE



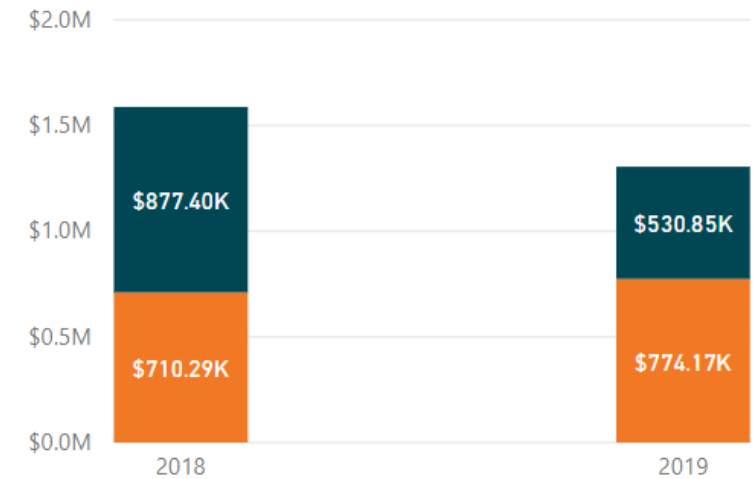
Employee Hours - CM v PM

CM v PM CORRECTIVE MEASURE PREVENTIVE MEASURE



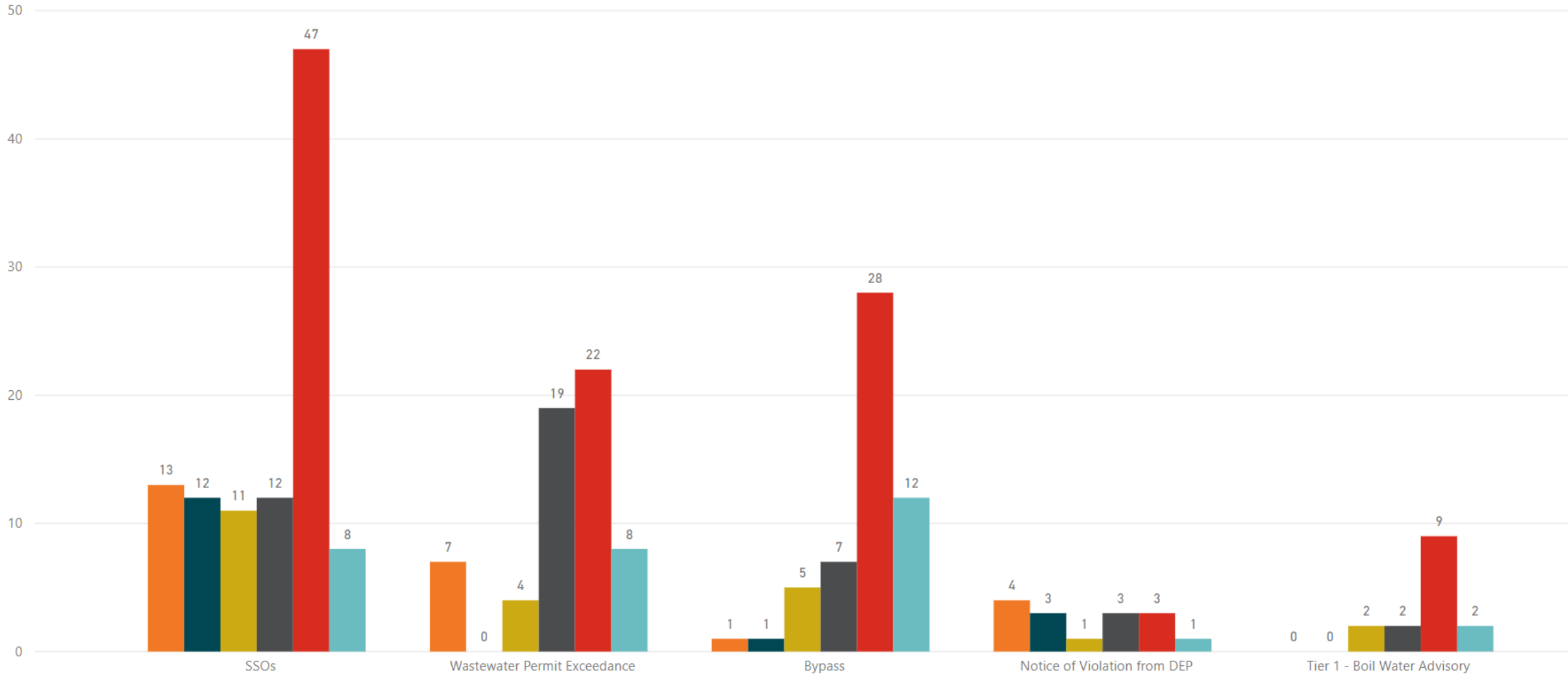
Total Cost - CM v PM

CM v PM CORRECTIVE MEASURE PREVENTIVE MEASURE



Violations By Year

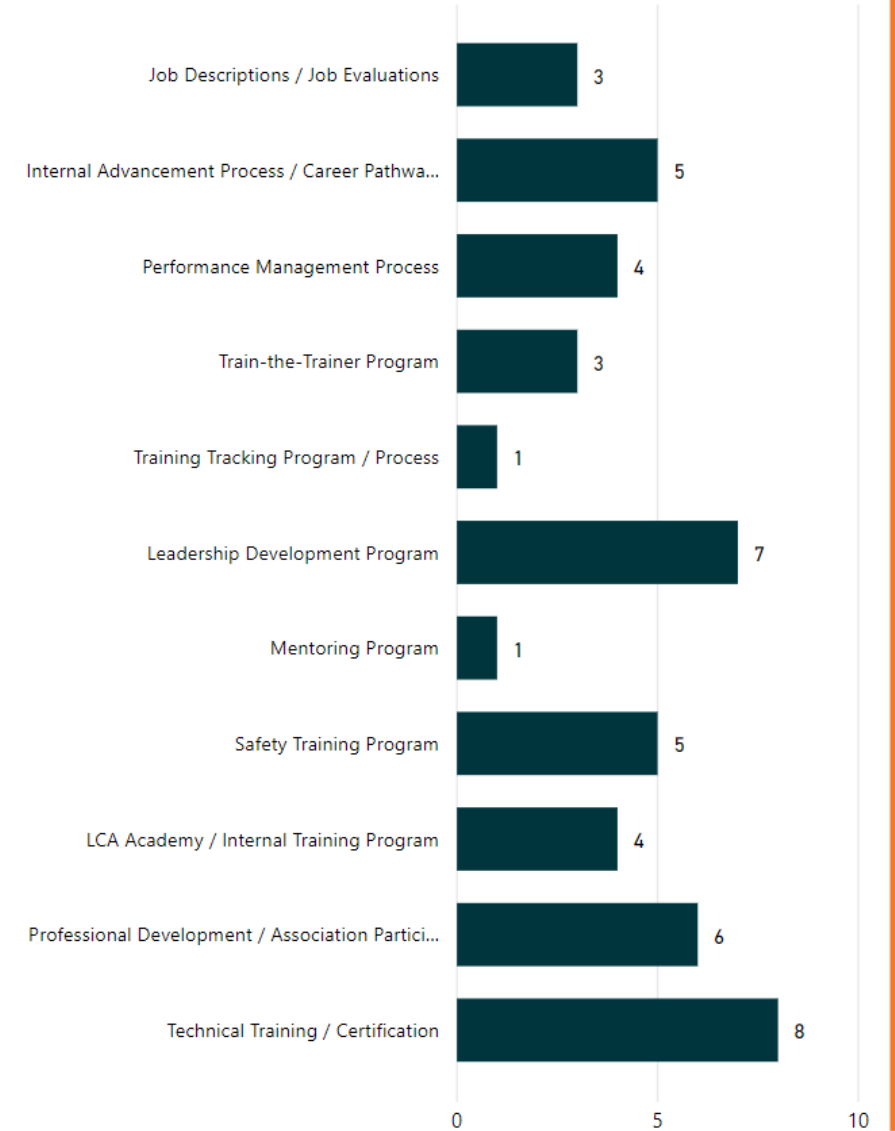
YEAR 2014 2015 2016 2017 2018 2019



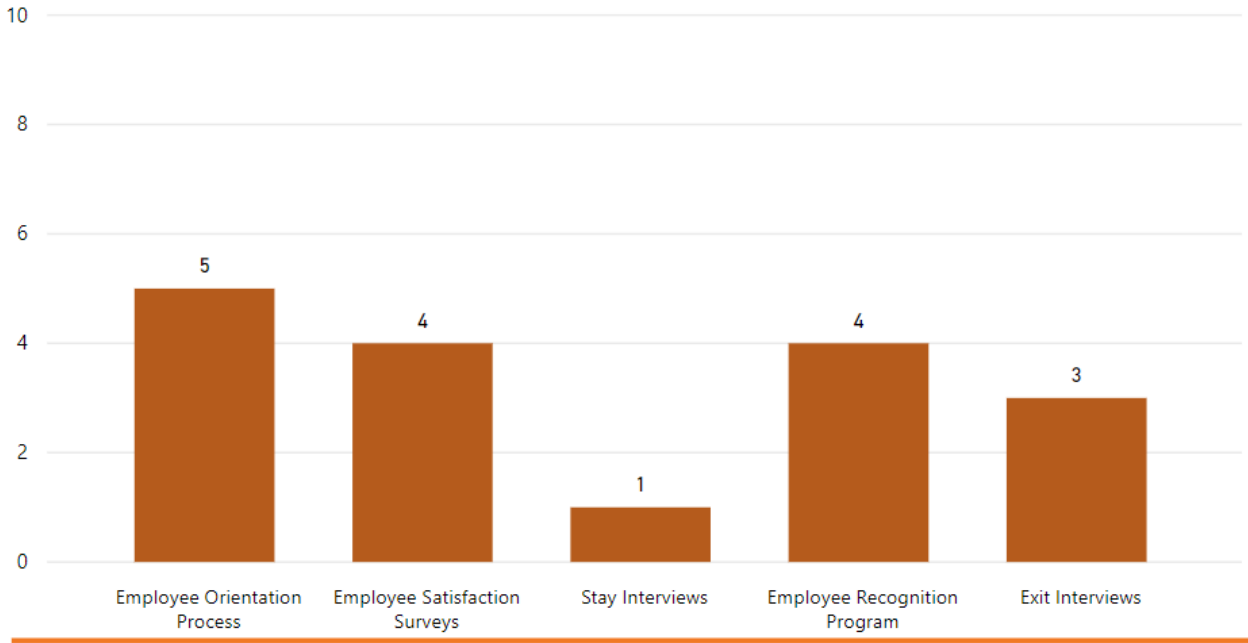


Employee & Leadership Development

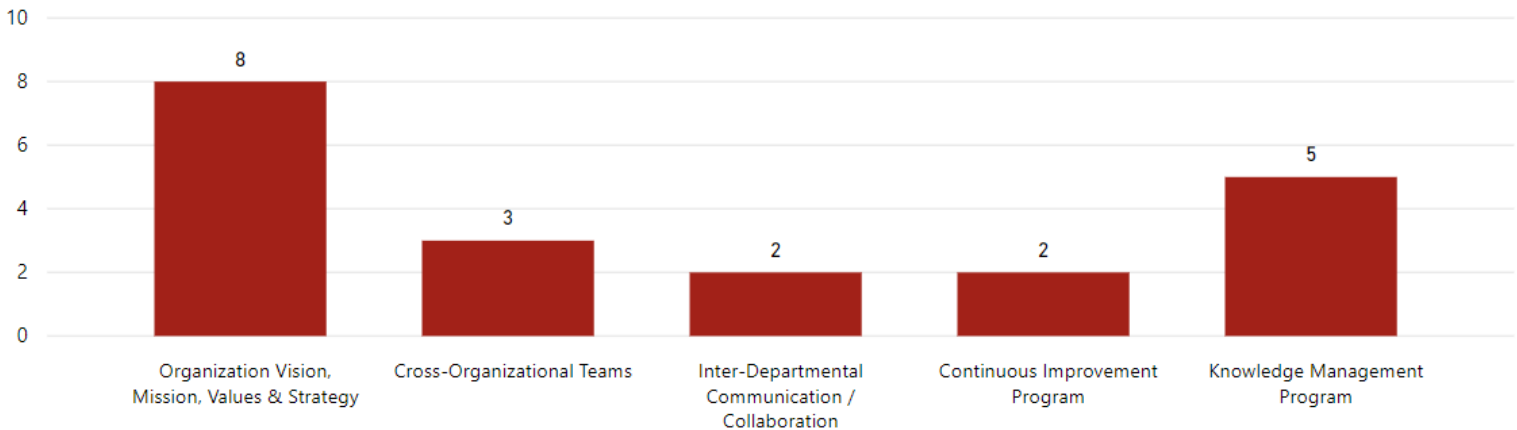
Employee & Leadership Development



Employee Engagement



Organizational Best Practices



Total Positions

165

Total Employees

164

Vacancies

1

Avg Yrs of Service

12

Avg Age

46

LCA 2020: Three-Year Action Plan

- Detailed set of actions for 2018, 2019 & 2020 in each goal area
- 2018 Action Plan – complete!
- 2019 Action Plan – challenged...

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>	2 - On Track for 2019 Completion	John P	Phases 1-3 will be completed in 2019. Phases 4-6 may be removed from "emergency" project and handled on a programmatic basis.
				WLI system flow metering & modeling – <i>CM</i>	2 - On Track for 2019 Completion	Pat M/Chris M	
				Analyze & decide path forward on WLI conveyance projects – <i>CM / CW</i>	3 - In jeopardy for non-completion	Pat M/Chuck V	Trexlerstown Wastewater Storage Facility feasibility and pre-design work kicking off in August, may not be complete until Q1 2020.
				Evaluate need for Act 537 reopener / KITP expansion – <i>CM / CW</i>	3 - In jeopardy for non-completion	Pat M/Chuck V	Requires significant intermunicipal coordination. Discussions under way.
				Evaluate need for updated allocation / planning module approval method for City & Suburban – <i>CW / CM</i>	3 - In jeopardy for non-completion	Pat M/Chuck V	Requires feedback from DEP on overall regional system flow management strategy.
				Complete PPS rehab project & force main evaluation – <i>CW</i>	4 - Schedule Adjustment Required	Chuck V	PPS rehab project will be completed in 2019. Forcemain evaluation has been weather-dependent.
				Implement FOG program – <i>CM</i>	3 - In jeopardy for non-completion	Andrew M	Requires additional internal discussion regarding staffing & scope.
				All CMOM measures achieved / reported – <i>OPS / IT</i>	3 - In jeopardy for non-completion	John P/Chris M	City CMOM work will be achieved. Suburban CMOM work requires staffing analysis for 2020 budget.
				Implement Heidelberg & Lynn Twp corrective action plans – <i>CW / OPS</i>	4 - Schedule Adjustment Required	Chuck V/John P	Corrective action plans have been revised to be multi-year plans, subject to DEP approval.
				City AO projects TBD – <i>CM</i>	2 - On Track for 2019 Completion	Pat M	Design of City projects is under way and on schedule.
				Develop public education for FOG program & removal of clearwater connections – <i>CC</i>	3 - In jeopardy for non-completion	Sue S/Andrew M	Pending completion of FOG program

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>	3 - In jeopardy for non-completion	Liesel G/Ed K	Dependent on results of City / LCA collaboration.
				Develop future capex financing plan and rate forecast for all divisions – <i>FN</i>	1 - Complete	Ed K	Completed with 2020-2024 capital plan
				Adaptive Insights implemented – <i>FN</i>	2 - On Track for 2019 Completion	Ed K/Chris M	
				Develop improved forecasting & reporting tools (revenues, expenses, rates) – <i>FN</i>	2 - On Track for 2019 Completion	Ed K	Tied to Adaptive implementation
				Revamp accounts payable process – <i>FN</i>	4 - Schedule Adjustment Required	Ed K	Needs to be broken into separate milestones for a major multi-year effort.
				Develop enhanced capital improvements prioritization methodology – <i>FN / CW</i>	2 - On Track for 2019 Completion	Ed K/Chuck V	City Division capital plan undergoing significant prioritization effort which will support future funding decisions.
		Division-specific evaluations, goals and plans are needed to address different needs of each "fund"	Capital Cost Coverage (or Operating Ratio / Rate Adequacy)	Review & develop strategy for improved allocation and accountabilities within Internal Services budget – <i>FN</i>	2 - On Track for 2019 Completion	Ed K	To be included in 2020 budget process.
				Documentation of financial processes, policies & strategy – <i>ALL</i>	3 - In jeopardy for non-completion	Ed K	This will be a major multi-year effort.
				Completion of tapping fee calculations for Suburban water – <i>FN</i>	2 - On Track for 2019 Completion	Ed K	
				Implement "One LCA" asset / equipment sharing program – <i>FN / OPS</i>	1 - Complete	Ed K/John P/Chris M	System is in place; requires reinforcement / buy-in with employees.

Strategic Goal	What it means for LCA	Why is it important?	Measure(s)	2019 Action Plan	2019 Status	2019 Owner	2019 Notes
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>	2 - On Track for 2019 Completion	Chris M	
				Convert 3 Suburban stations from Telog to SCADA – <i>IT</i>	2 - On Track for 2019 Completion	Chris M	
				Complete 2 nd Suburban asset upgrade project (mechanical focus, started in 2018) & scope out next project based on next tier of high-risk components – <i>CW</i>	2 - On Track for 2019 Completion	Chuck V	Suburban mechanical upgrade project to be completed in 2019. Next phase to be scoped out for next capital planning cycle.
				Incorporate results of Allentown wastewater master plan into capital plan documentation – <i>CW</i>	1 - Complete	Chuck V	Completed with 2020-2024 capital plan
			Asset "Needs Addressed" Coverage – Progress on addressing needs identified via condition assessment work.	Park Pump Station rehab construction complete – <i>CW</i>	2 - On Track for 2019 Completion	Chuck V	
				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>	3 - In jeopardy for non-completion	Liesel G	Important goal to complete - difficulty creating time to focus on this one.
				Complete Wynnewood wastewater plant reconstruction – <i>CW</i>	4 - Schedule Adjustment Required	Chuck V	Long lead time for equipment - some work will spill into early 2020.
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>	2 - On Track for 2019 Completion	Chris M	
				Implement FOG program – <i>CM (crosses with Product Quality goal)</i>	3 - In jeopardy for non-completion	Andrew M	See status in Product Quality category.
				Phase 3 Interceptor easement clearing program – <i>OPS</i>	1 - Complete	John P	
				Phase 3 flushing, valve & hydrant program – Suburban – <i>OPS</i>	3 - In jeopardy for non-completion	John P	Valve and hydrants (ValveTek) will be complete. Flushing will not be completed fully in 2019 - requires staffing analysis for 2020 budget.
				Evaluate all preventive maintenance strategies implemented by Allentown and Suburban divisions & develop plan for alignment – <i>OPS</i>	2 - On Track for 2019 Completion	John P	

Strategic Goal	What it means for LCA	Why is it important?	Measure(s)	2019 Action Plan	2019 Status	2019 Owner	2019 Notes
Employee & Leadership Development							
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>	3 - In jeopardy for non-completion	Kathy M / Liesel G	Work has not started on this, although individual departments / managers do some aspects of this.
				Develop succession / knowledge retention plan for retirement risks identified in 2018 – <i>ALL</i>	2 - On Track for 2019 Completion	Liesel G	Planning work under way for solicitor & Suburban Operations risks.
				Complete job analysis for training requirements for 5 positions – <i>ALL</i>	3 - In jeopardy for non-completion	Kathy M / Liesel G	Not started.
				Kick off Document Management assessment – <i>IT</i>	1 - Complete	Chris M	Document management effort has kicked off -- will be organizationwide, multi-year program.
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>	3 - In jeopardy for non-completion	Liesel G/Kathy M	Not started.
				Develop mentoring / coaching program for new managers or managers in need of support – <i>ALL</i>	3 - In jeopardy for non-completion	Kathy M / Liesel G	Not started formally. Informal mentoring occurs routinely.
				Conduct employee-wide survey to compare to 2014 results – <i>ALL (completed in 2018)</i>	1 - Complete	Kathy M / Liesel G	
			Leadership / Technical Training programs offered	Assess gaps in inter-departmental communication & cooperation – <i>ALL</i>	2 - On Track for 2019 Completion	Liesel G	Employee focus groups will help define gaps and support improvements planning.
				Conduct targeted employee focus groups to determine barriers to full engagement & explore survey results – <i>ALL</i>	2 - On Track for 2019 Completion	Liesel G	To be completed by end of July.

Key themes for actions that are “in jeopardy”

- Complex / unclear planning process for wastewater capacity issues



Conflicting regulatory guidance over many years (2008-2019)

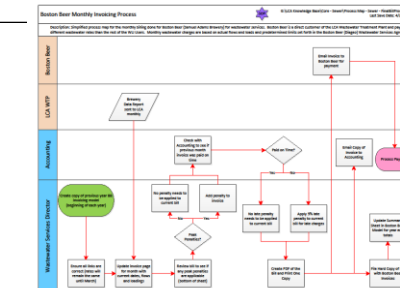
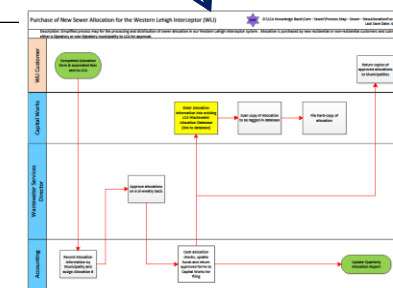
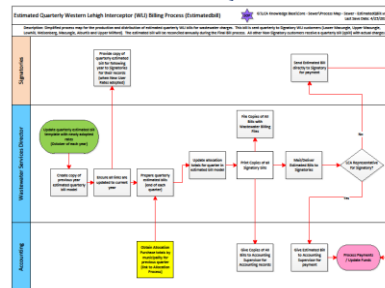
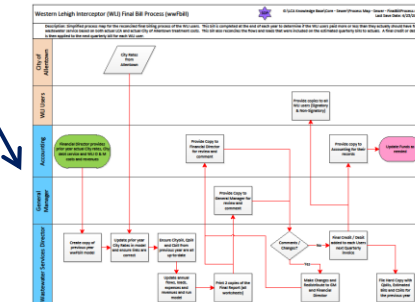
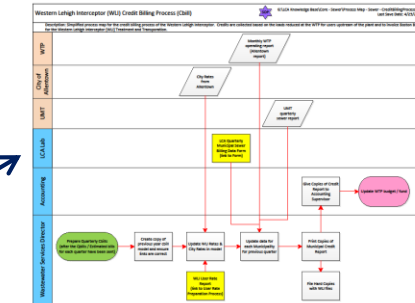
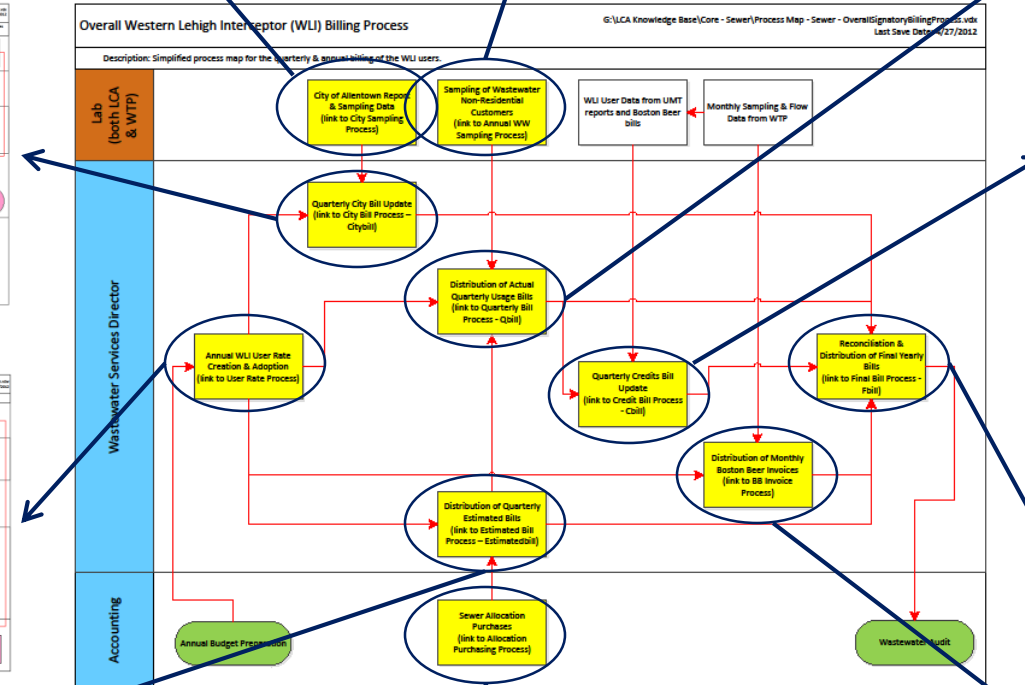
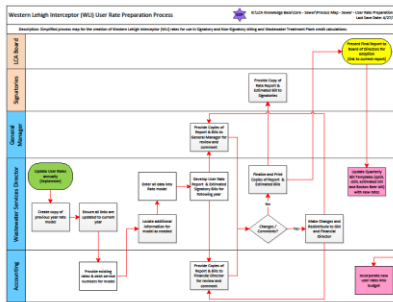
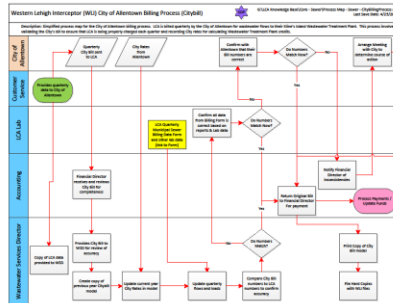
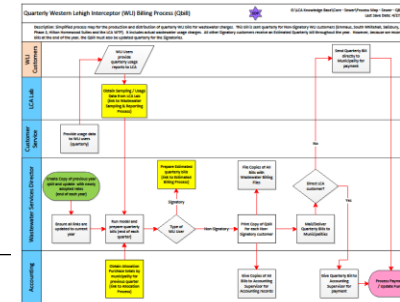
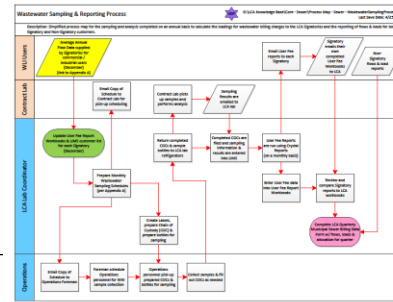
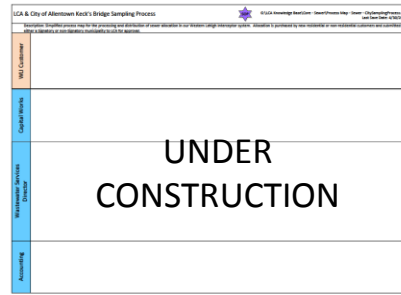
Significant resources put into planning, planning & more planning

Priorities change with each change in regulatory guidance the region receives

How to move forward? And what about the weather / climate change?

Key themes for actions that are “in jeopardy”

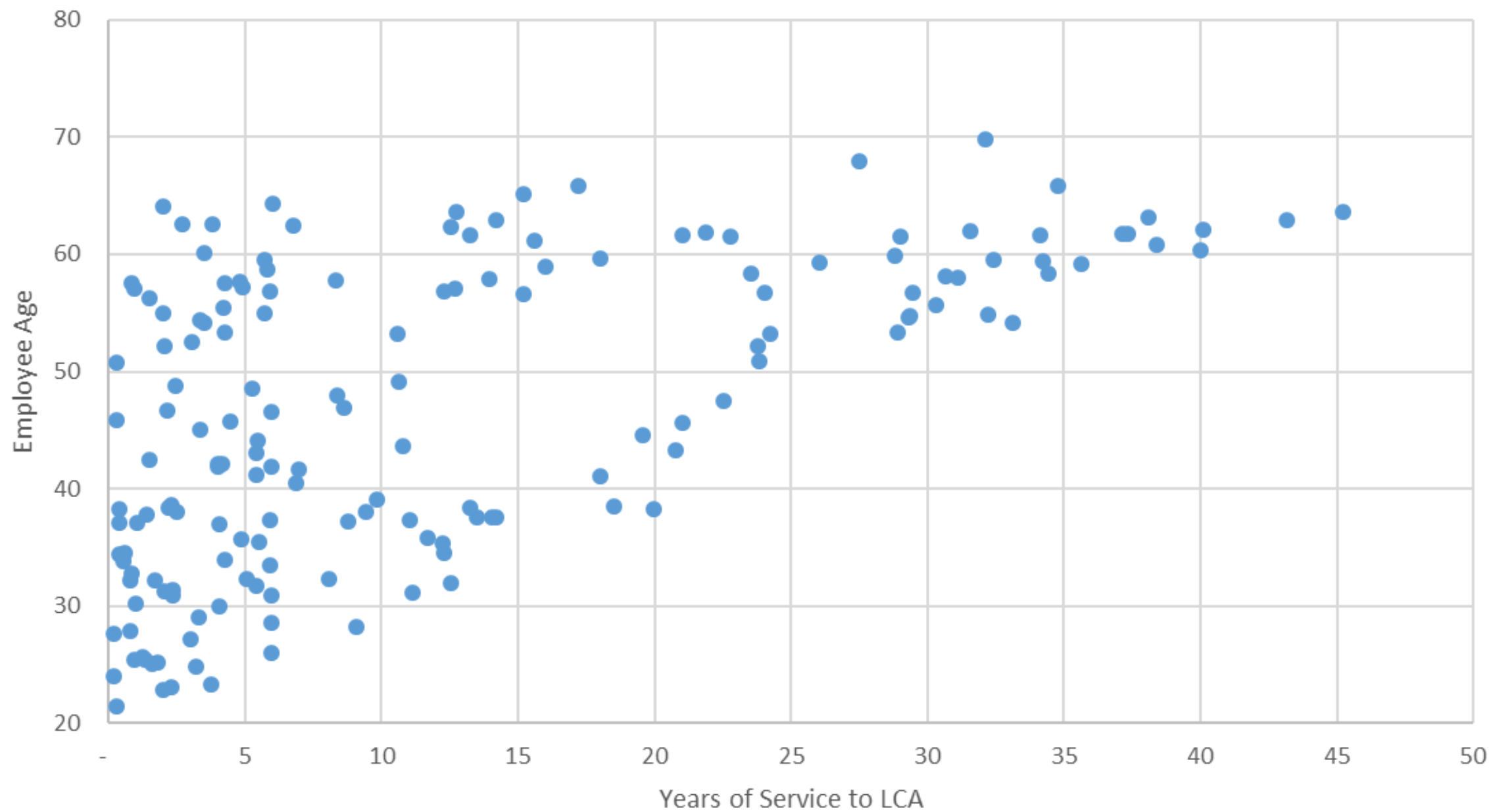
- Significant complex “legacy” administrative processes (payroll, sewer billing, document management, etc.)



Key themes for actions that are “in jeopardy”

- Knowledge loss & staffing capacity for new work
 - “How do I...?” “Who do I ask for info about...?”
 - Adding preventive maintenance = increased resources needed to implement
 - Implementing other new programs = what work doesn’t get done?
 - Focus on improving processes = who has time for that?

LCA Employee Age & Tenure



Strategic Planning Required!

- Where are we now?
- Where do we want / need to be?
- How do we get there?
- What will it cost and is that acceptable?

Next Steps

- Keep working the LCA 2020 Plan!
 - Recognize some action steps will not be completed
- Preliminary staffing evaluation
 - 2020 Budget: address critical needs
- Kick off strategic planning process
 - 2019-2020
 - Stakeholder involvement
 - Financial analysis
 - True implementation planning/strategy



Discussion