

**2018-2023 SBP Update  
Reduction Option Template**

<b>Cost Reduction:</b> Sewer Cleaning #5	<b>Owner:</b> John Holmes
<b>Focus Area:</b> Protecting Environmental & Public Health	<b>Sponsor:</b> Madeline Goddard
<b>Risk Level:</b> HIGH	<b>Rate Path Option:</b> 5.3

**1. Short summary of the cost reduction (suitable for using with Customer Review Panel and other members of the public, plus additional specifics required for clarity of action).**

This reduction option would decrease system wide sewer cleaning by \$3.9 million over 2018-2023. SPU increased investment in cleaning efforts in 2016 as part of the 2015-2020 Strategic Business Plan. This investment has been effective tool in helping meet the goal of at or under four sewer overflows per 100 miles of sewer pipe (regulatory requirement) and cleaning the whole system by 2022. As of 2016, SPU held a two-year rolling average of 3.8 overflows per 100 miles.

This work is currently being done by term-limited employees. This proposal would eliminate the term-limited employees in 2019.

This proposal would reduce the sewer cleaning efforts specific to pipe with no cleaning history. Without this investment, it will make it more challenging for SPU to remain in the high performing quadrant that has allowed SPU to have a performance based regulatory agreement. While this action carries a higher level of risk to SPU, it is an option to consider if reductions are necessary. It is also a level of risk SPU had been exposed to a few years ago that nearly resulted in a Corrective Action Plan.

**2. What are the impacts or risks of this cost reduction? How will you mitigate these risks?**

Reduced sewer cleaning may lead to the following:

- An increased occurrence of sewer overflows and backups into people's homes.
- An increased risk of not meeting SPU's regulatory performance threshold of no more than four sewer overflows per 100 miles of sewer pipe and increased regulatory fines.
- Loss of flexibility from the regulatory agencies for how SPU manages the sewer system. Other areas in the country have very prescriptive requirements. SPU has been given flexibility to manage adaptively as we see needs. If we no longer meet the sewer overflow performance threshold or are in the high performing quadrant, we will likely be told how much to clean, inspect and rehabilitate each year with little regard for financial impact. This would likely lead to increased expense to SPU at a later date.
- Unable to meet the goal to inspect the full sewer system by 2026. To accurately understand the structural condition of our aging sewer system and to be efficient with CCTV inspection crew time, the pipes must be clean. It will take longer to complete inspections with fewer cleaning crews.
- Potential operational inefficiencies or increased costs:
  - The CCTV crews that take pictures/video of the inside the pipe for analysis and planning purposes often need the pipes to be cleaned prior to sending a camera down for pipe assessment. This work will take longer to complete if less cleaning is occurring.
  - Prior to this investment most of the new asset cleaning was done on overtime. SPU sustainably reduced overtime as part of the operations and maintenance budget. If both the cleaning efforts and the overtime is reduced, SPU will unlikely able to meet the goal of cleaning the system by 2022.

## Risk mitigation:

- SPU establishes cleaning preventative maintenance work orders (PMs) to reduce the risk of sewer overflows from assets with known risks such as sags, low gradient, root intrusion or structural issues. These PMs will be completed by existing sewer cleaning crews. Assets with no cleaning history will likely cause sewer overflows in the future and additional PMs will have to be added as these occur. SPU will need to balance existing and additional PMs based on risk and resources available.

### 3. Implementation plan and timeline.

The cleaning work performed by term-limited employees would terminate in 2019. Term-Limited employees can be reduced at any time; they are not treated the same as regular (permanent) employees under personnel rules. SPU has no contractual obligation to these 12 temporary employees.

### 4. Budget and FTE changes

#### Changes (relative to baseline)

	2018	2019	2020	2021	2022	2023
O&M (Non- Labor) Budget Change		(1,102,875)	(681,230)	(691,179)	(701,376)	(711,829)
CIP Budget Change						
FTE Change						

### 5. Identify possible race and social justice implications for this reduction. How will it impact service equity and how will you resolve this impact?

The cleaning zones that staff started to develop in 2016 with the addition of the 12 term-limited employees began incorporating race and social justice (RSJ) into zone selection for cleaning efforts. The impacts of reducing cleaning are citywide, not neighborhood specific. Existing cleaning crews have the capacity to complete PMs; however, any additional capacity (if available) could be steered thoughtfully towards areas that have been adversely impacted historically.

### 6. Describe your plan for evaluating the impacts of this reduction. Include any metrics you have.

- Sewer cleaning efficiencies to date (predominantly achieved prior to hiring temporary employees): **45% reduction in hours per work order, and a 41% reduction in cost per work order.** A total of approximately 14,000 sewer cleaning work orders were completed in 2016.
- 2016: the term-limited employees allowed the sewer cleaning crews to clean **an additional 142 miles of pipe that previously had no cleaning history.** This is significant in that it represents approximately 10% of SPU's total sewer system.
- Monitoring the number of sanitary sewer overflows per 100 miles of pipe. These were moderate in 2016 and much lower than 2015. While there are multiple factors in the performance of the sewer system to consider, additional cleaning efforts were a factor in the system's overall performance and fewer sewer overflows and backups.
- Monitoring SPU's goal is to clean its full sewer system by 2022. The term-limited employees support this goal and SPU's commitment to meet it.