

2018-2023 SBP Update
Gap Action Plan Template – REVISED April 3, 2017

Action Plan Title: Sanitary Sewer Capacity (#6)	Action Plan Owner: Ben Marre
Focus Area: Operational Excellence	Action Plan Sponsor: Madeline Goddard

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

This action plan increases funding to solve sanitary sewer capacity problems. This increase is needed to help SPU meet performance based regulatory requirements and respond to a changing environment. Capacity problems are becoming increasingly challenging as we remedy the problems from past development, deal with increased urbanization and density, and react to climate change. In order to project the required investment SPU has identified the highest priority projects based on previous sewer system planning, known problem locations, customer reports of problems, and wastewater business cases documenting a defined need.

2. What outcome will this action achieve? What problem does it solve? What are the benefits?

Planned funding helps assure the program can mitigate more system capacity issues sooner beginning with the highest prioritized sites first. The type of solutions included in increasing capacity to reduce wastewater backups are as follows:

- keeping drainage out of the sewer system through separation, infiltration and/or inflow reduction,
- increasing the size of pipes,
- increasing storage,
- increasing the capacity of the downstream system, and
- installing backflow prevention for connected customers.

The benefits would include:

- A faster pace of reducing and eliminating sanitary sewer overflows (SSOs) due to capacity constraints, thereby helping to meet NPDES permit requirements not to exceed four SSOs per 100 miles of pipe per year, on a rolling, two-year average. Not meeting this threshold requirement could have significant requirements from our regulators including corrective action plans and more stringent requirements into the future.
- Improving public health and safety in general.
- Improving the experience and service level for SPU customers and the general public.
- Making capital reinvestment in our wastewater infrastructure system earlier, and at lower costs.
- Making capital solutions occur in a more proactive manner.

3. Short description of activities already in the baseline, incremental work.

The baseline currently includes a limited number of projects.

- City-wide capacity analysis of the wastewater system,
- Dayton Ave SSO & Drainage Improvements (Broadview),
- Pearl Street DWW Improvement Project (Beacon Hill), and
- The 2017 Sanitary Sewer Overflow Capacity Projects Package, options analysis phase work, including the following problem locations:
 - Harvard & Roy
 - 8th Ave NE & NE 55th St DWW Imp
 - 24th & Harrison Sewer Capacity

- The baseline also assumes one new sanitary sewer capacity per year, 2020-2023, to enter options analysis phase, and very limited funds for construction of two smaller sewer capacity projects by 2023.

4. Implementation plan and timeline.

Baseline work as described above, with:

- 2017 SSO Capacity Projects package, design start 2018, construction start 2019 (the baseline only includes funding for options analysis, not for design and construction), and,
- Design and construction of two to four sanitary sewer capacity projects over the period from 2020 through 2023. Half would be expected to start by 2023 but complete construction later.

5. Implications for budget and FTE (if any)

Changes (relative to baseline)

	2018	2019	2020	2021	2022	2023
O&M (Non- Labor) Budget Change						
CIP Budget Change				4,000,000	16,500,000	16,500,000
FTE Change						

6. Alternatives considered for varying options/levels of effort.

Alternatives that have been considered include maintaining the current baseline option, which slows the current pace of sewer capacity work, or a reduction to this action plan which is included in rate reduction package C. Either alternative increases the risk that SPU will not be able to meet the performance based regulatory requirement of no more than 4 sanitary sewer overflows per 100 miles of pipe.

7. Is there lower-priority work underway whose resources could be directed to this effort? Please describe.

No. The capital program is highly constrained due to the high number of projects required to meet regulatory requirements or other equally important needs.

8. Identify and describe any significant external constraints affecting this action plan.

None known at this time.

9. Identify possible race and social justice implications for implementation of this plan. How will it impact service equity and how will you resolve this impact?

Wastewater capacity problems can occur in areas where development and infrastructure have not historically been aligned, developed jointly or managed well. Also, minority communities and underserved areas can lie at lower elevations, where other types of system flooding exacerbate wastewater problems. These inputs can elevate the level of concern for specific problem locations within the *sanitary sewer capacity* program, elevating their priority need to become specific capital projects. Generally, a lens of service equity is applied after assessment of the gravity of the wastewater problem so underserved areas receive a higher qualitative prioritization.

10. Describe your plan for evaluating success or progress of this plan. Include any metrics you have.

The program aims to measure success both qualitatively and quantitatively. Eliminating long-known *sanitary sewer capacity* problem locations from our tracking, from both historical sewer plans as well as business cases, helps us make progress forward with real capital improvement results.

More straightforward metrics include:

- Reduction of reported SSOs which are due to capacity
- Reduction of capacity-caused SSOs occurring within the basins where improvement projects are located.
- Reduction of the total number of claims related to capacity; and, reduction of the total number of claims due to capacity which SPU pays out
- By the end of 2019, complete the *wastewater system analysis* to inform future programming and planning.
- By the end of 2023, complete options analysis phase work for four sewer capacity projects (one per year from 2020 through 2023).
- By the end of 2023, complete construction for at least two capacity projects (above the baseline).