

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

Action Plan Title: Pump Station, Force Main & CSO Outfall Capital Programs (#8)	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 for the pump station, force main, and CSO outfall capital programs 2018-2023.

Pump Station and Force Main Program: This program includes all capital spending to rehabilitate and replace assets at SPU’s 68 sewer pump stations and their associated force mains. Force mains are pipes that convey flow under pressure from the discharge side of a pump to the gravity system downstream.

Outfall Program: This program includes all capital spending to rehabilitate and replace SPU’s 86 CSO outfalls, which are the relief pipes where stormwater and sewage discharge to receiving waters during heavy rain.

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

Pump Station and Force Main Program: Historically SPU has underinvested in this program, spending only \$2-2.5M a year. This has resulted in a significant amount of deferred work. A comprehensive condition assessment completed in 2015 indicates that pump station and force main assets are significantly deteriorated and at or near failure. With the increase of funding requested through this action plan SPU will be able to complete much needed replacements to prevent sewer overflows or backups that have and will result when failures occur.

Outfall Program: When CSO outfalls fail, sewer overflows or backups into homes occur. SPU has only recently begun to assess and replace/repair CSO outfalls. Condition assessments conducted in 2012 have identified required improvements through 2020. Without the incremental funding requested through this action plan SPU will not be able to complete necessary repair/replacements.

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

Pump Station and Force Main Program: The baseline includes only the most essential pump station improvements. These include replacements, valve replacements, electrical replacements, ventilation upgrades, and safety upgrades. The requested increase in funding will allow SPU to increase the rate of the above described improvements as well as begin force main replacements and airlift pump station replacements.

Without the increase of funding SPU will have to defer the following:

- Essential improvements to 15 stations
- Replacement of 5 airlift stations that are old and high maintenance
- Replacement of 4 forcemains that are already more than 80 years old.

Outfall Program: The baseline includes replacement of 2 CSO outfalls. The requested increase in funding will complete 4 condition assessments and 4 outfall repairs/replacements by 2023

4. Implementation plan and timeline.

Action plan projects that are scheduled for construction in 2018 are already in design. Additional action plan projects are ready to begin design as funding allows.

5. Implications for budget and FTE (if any)

Changes (relative to baseline)

	2018	2019	2020	2021	2022	2023
O&M (Non- Labor) Budget Change	0	0	0	0	0	0
CIP Budget Change – Pump Stations	2,433,000	5,989,242	2,480,791	1,370,000	1,020,000	1,000,000
CIP Budget Change - Outfalls	-	1,530	1,003,442	1,000,000	1,000,000	1,000,000
FTE Change	0	0	0	0	0	0

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

The pump stations projects are being packaged together in multiple station design and construction packages to reduce soft costs and level of effort. No other alternatives were considered.

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

No, nearly all other work being conducted by DWW is either regulatory driven or SDOT driven work.

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

There are no external constraints affecting this action plan

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?

Pump station and force main improvements proposed as part of this program are spread throughout the City of Seattle and are driven by asset deterioration and pump station criticality. As such there are no service equity issues associated with these improvements. Furthermore the majority of the pump stations improvements will occur within the below ground pump station structures themselves with minimum impacts to the community.

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

Success of each Program will be measured as follows:

- Pump Stations: complete improvements in 20 stations by 2023
- Force Mains: complete 3 condition assessments and 4 force main replacements by 2023
- Outfalls: complete 4 condition assessments and 4 outfall repairs/replacements by 2023