

Seattle Public Utilities Capital Improvement Program Briefing

Civil Rights, Utilities, Economic Development
& Arts Committee

June 27, 2017

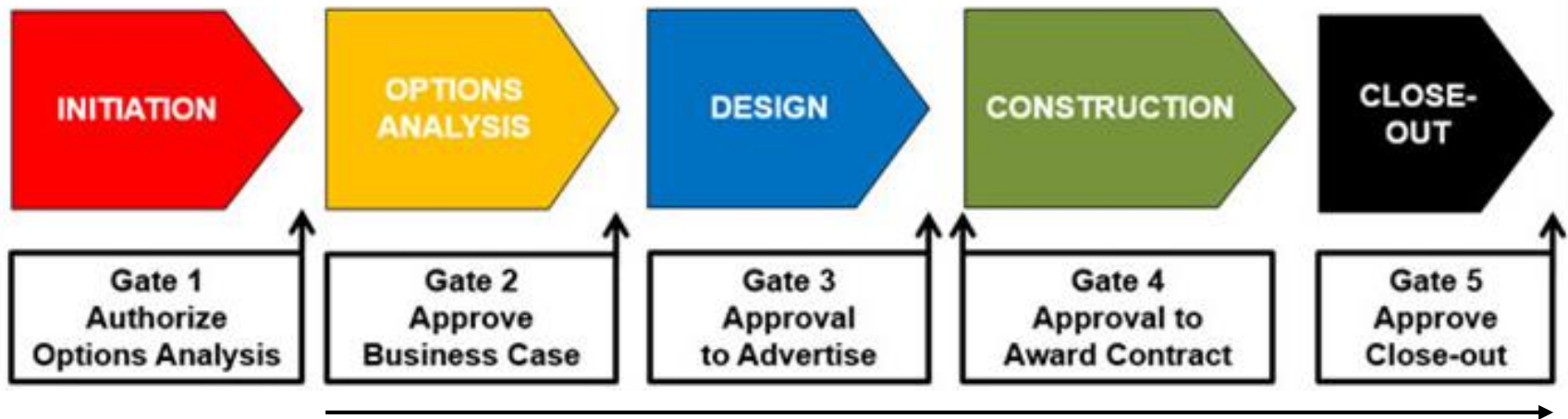
Seattle
 Public
Utilities

Today's Presentation

- Capital program management overview
- Capital program portfolio and project highlights
- Ship Canal Water Quality Project
- Regional construction market conditions

Project Delivery System

Stage Gate Process Flow for CIP Infrastructure Projects



SPU Executive Oversight, Mayor's Office Check-Ins, CBO Review, Quarter Council Status Reports

Project Delivery Best Practices

- Project management maturity and certification
- Risk management
- CIP annual accomplishment rates
- Value management

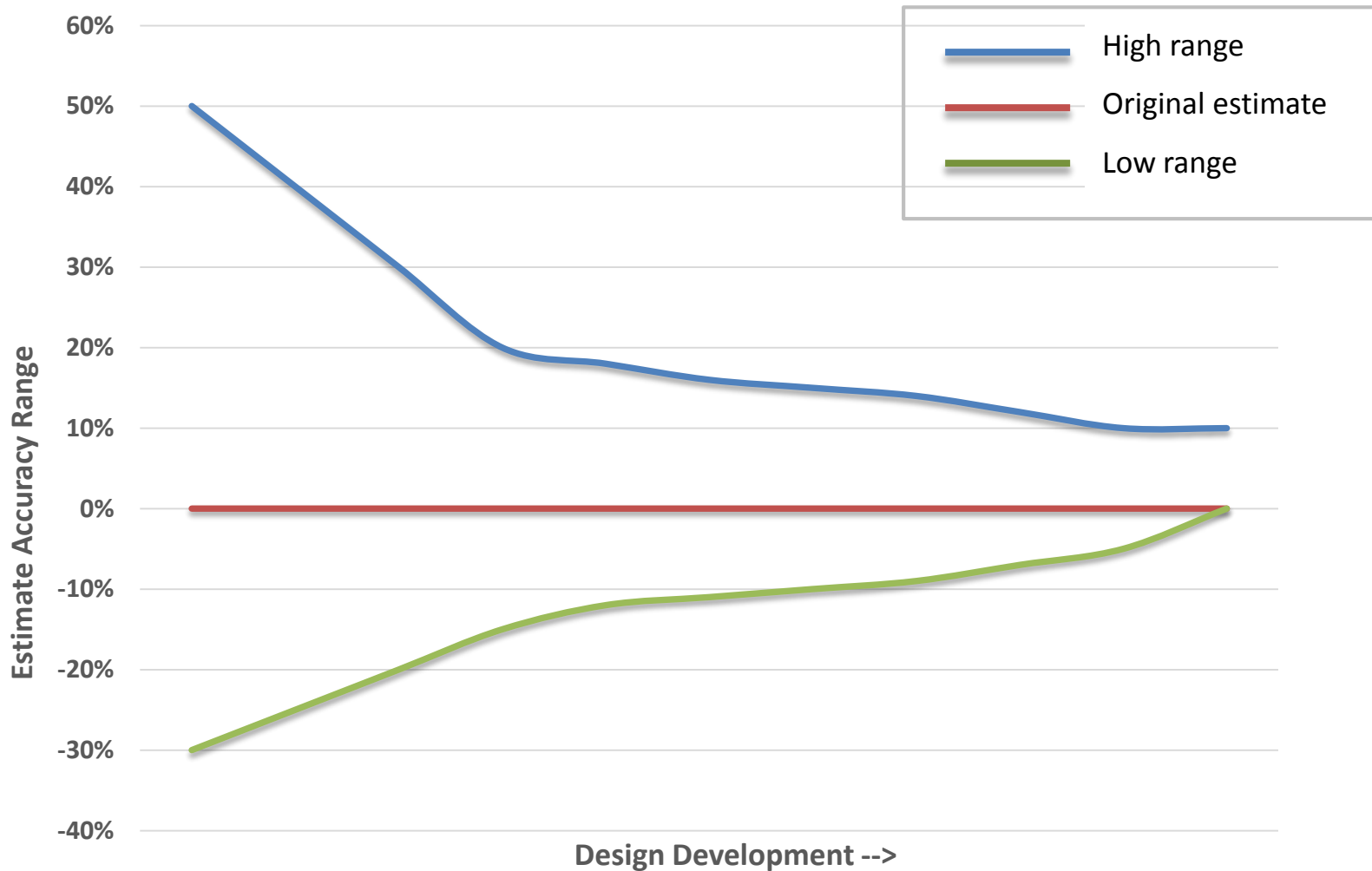
Typical Project Risks & Uncertainties

Scope, cost, and schedule uncertainty due to:

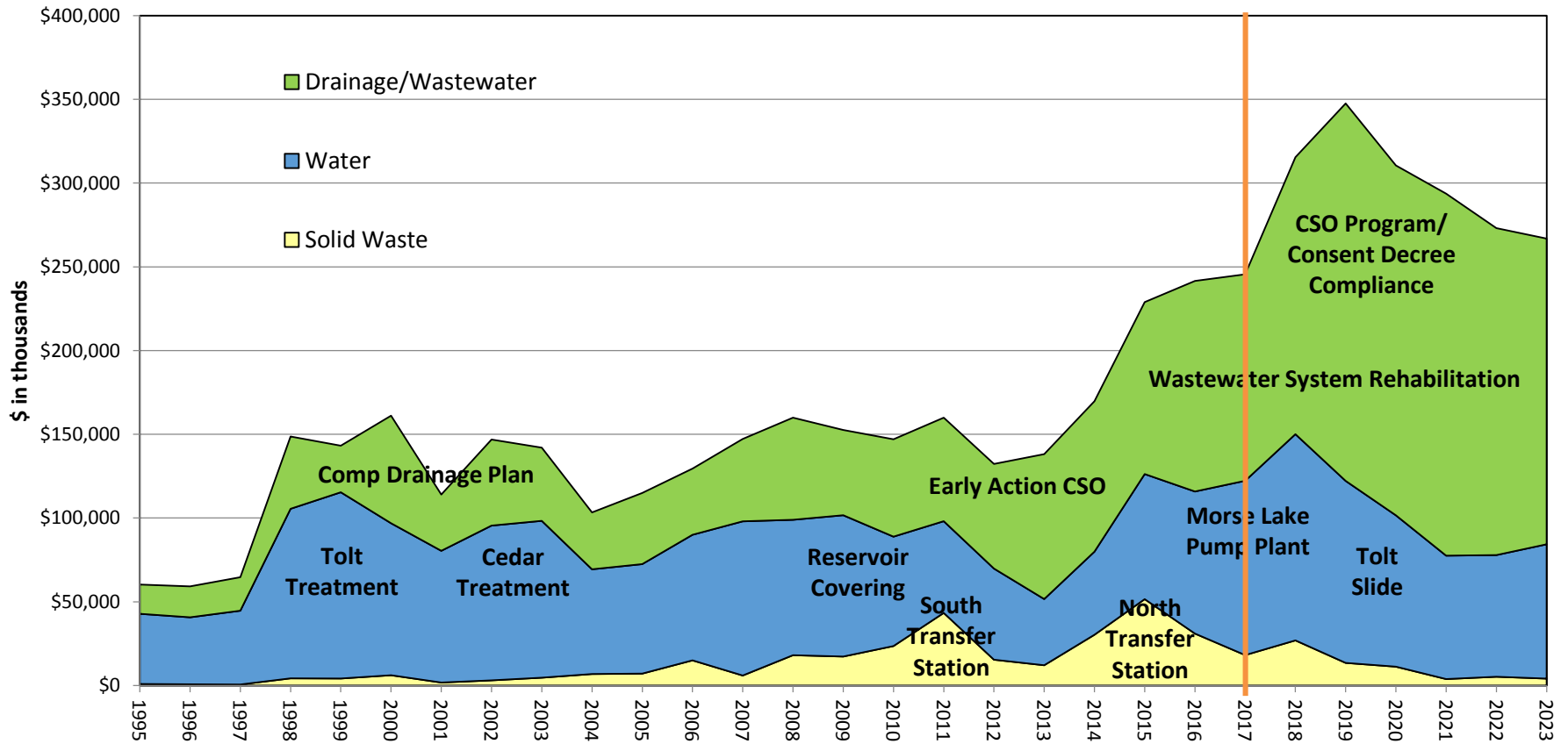
Environmental Conditions	Permitting & Property	Market Conditions	Stakeholders
<ul style="list-style-type: none">• Site access• Topography• Ground water• Climate• Weather• Subsurface	<ul style="list-style-type: none">• Site access• Permitting• Right-of-way• Property acquisition	<ul style="list-style-type: none">• Inflation• Escalation• Labor availability• Labor productivity	<ul style="list-style-type: none">• Community concerns• Regulatory changes

Cost Estimate Ranges

Cost uncertainty decreases over time.



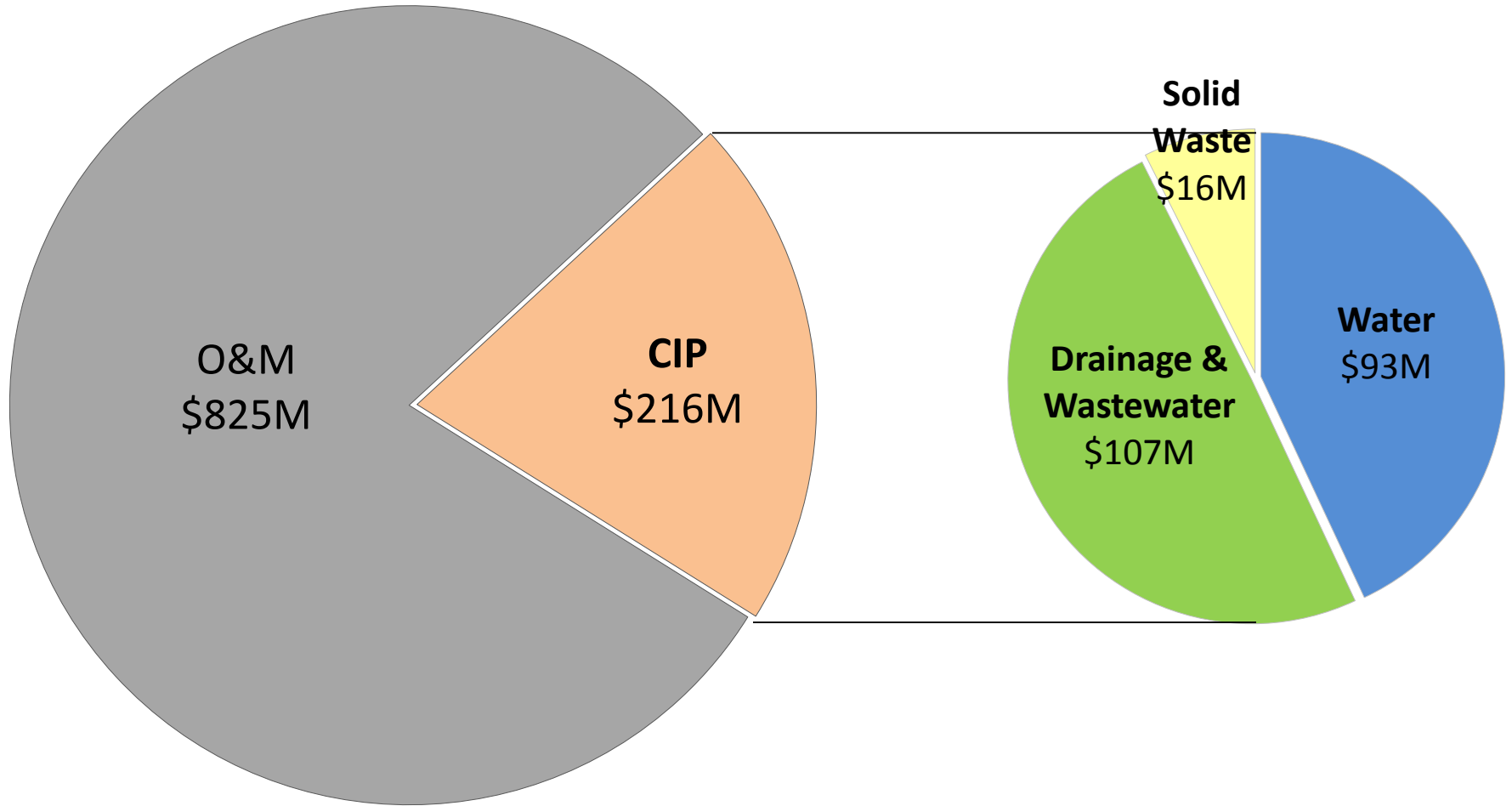
Capital Spending 1995-2023



Capital Program Trends

- Completed investments:
 - **Water:** Winding down an era of “discrete projects” such as reservoir covering, the Habitat Conservation Plan, and the Chester Morse Lake Pump Plant
 - **Solid Waste:** Rebuilt two transfer stations
- Investments in:
 - **Water:** Moving to “distributed projects,” such as aging transmission and distribution pipes, seismic-driven projects, and transportation-related projects
 - **Drainage & Wastewater:** Significant investments in the CSO Program, wastewater system rehabilitation, and performance requirements.
 - **All Funds:** Significant investments in facilities for staff and operations.

2017 Capital Spending



Prospective Projects

Capital program investments in SPU's Proposed 2018-2023 Strategic Business Plan:

- ***Environmental sustainability*** – Expand green stormwater infrastructure projects with a focus on urban villages to support densification while addressing stormwater management needs.
- ***Regulatory compliance and public health protection*** – Increase investments in sewer capacity, sewer rehabilitation and replacement, pump stations, and sewer overflow outfalls projects to prevent sewer overflows and back-ups.
- ***Infrastructure reliability*** – Replace infrastructure when transportation work necessitates digging up roadways.
- ***Workforce investments*** – Renovate and build additional space to address deficient work space conditions for crews and equipment.

Henderson North CSO



Reservoir Covering Program



*Beacon Reservoir &
Jefferson Park*



Major Capital Project Examples

Example projects from handout showing all SPU projects that are \$10M or more:

Project Size	Project Name	Product Development Phase	Total Project Cost, 2017 Adopted Budget ¹	2017 YTD thru May	2017 Projection
Above \$50M	Sediment Remediation Duwamish	Options Analysis	96,821,614	1,252,471	3,885,398
	Ship Canal WQ Project	Design	423,157,448	3,552,003	10,623,291
	Henderson North CSO Reduction	Closeout	63,237,565	2,189,785	3,266,431
\$30-49M	Reservoir Covering-Bitter Lake	Initiation	36,550,000	4,911	154,911
	DWW S Operations Complex (FAS)	Design	36,640,000	2,139,046	3,403,386
	Morse Lake Pump Plant ²	Closeout	46,436,438	1,165,537	1,419,169
\$10-\$29M	Reservoir Covering-Lake Forest Park	Options Analysis	12,235,000	52,044	173,091
	Capitol Hill Water Quality Improvements	Construction	10,809,390	28,663	271,509
	Cedar Falls Facilities Development	Construction	15,484,595	178,535	7,509,159

1. Includes carryforwards from 2016 Adopted Budget.
2. Projects that will request a supplemental during 2017.

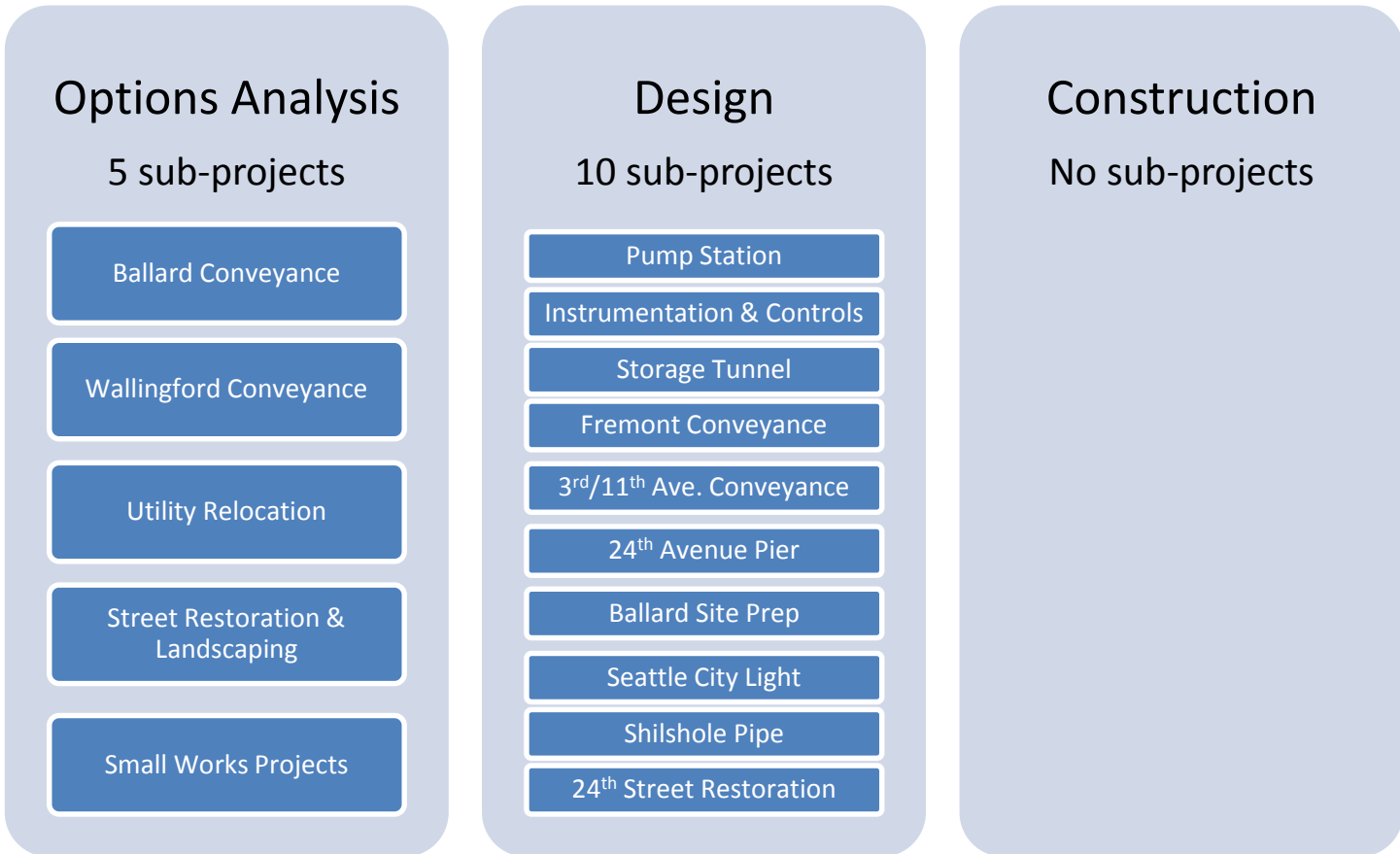
Ship Canal Water Quality Project



Joint project to keep about **60 million gallons** of combined sewage overflow out of the Ship Canal, Salmon Bay, and Lake Union **each year**.

Ship Canal Water Quality Project

Sub-projects and Project Phase

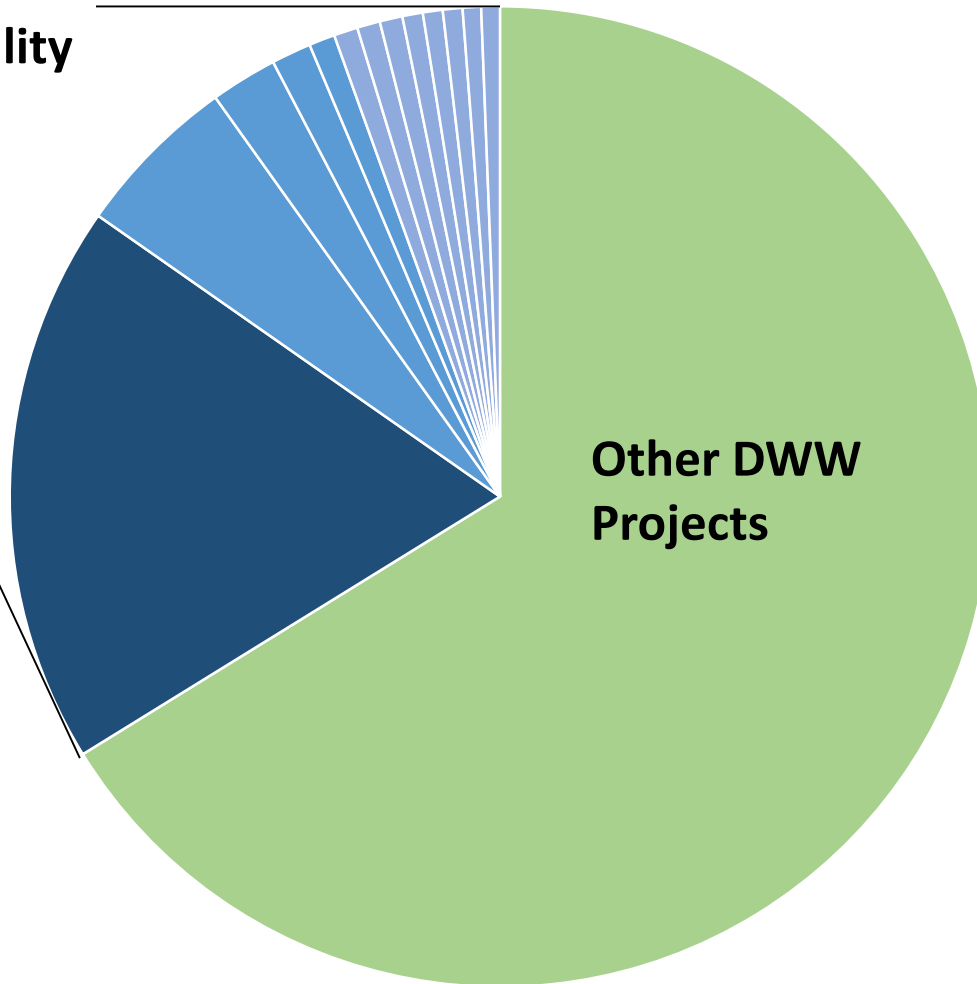
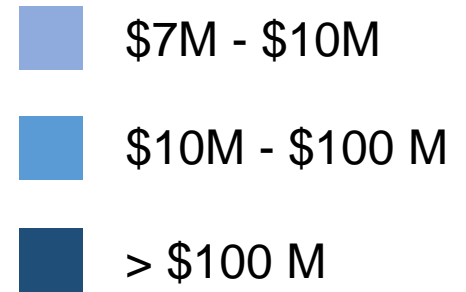


Increasing certainty

2017-2023 DWW Spending

**Ship Canal
Water Quality
Project**

Ship Canal Water
Quality Sub-Projects



**Other DWW
Projects**

Ship Canal Water Quality Project

Risk & Uncertainty Management

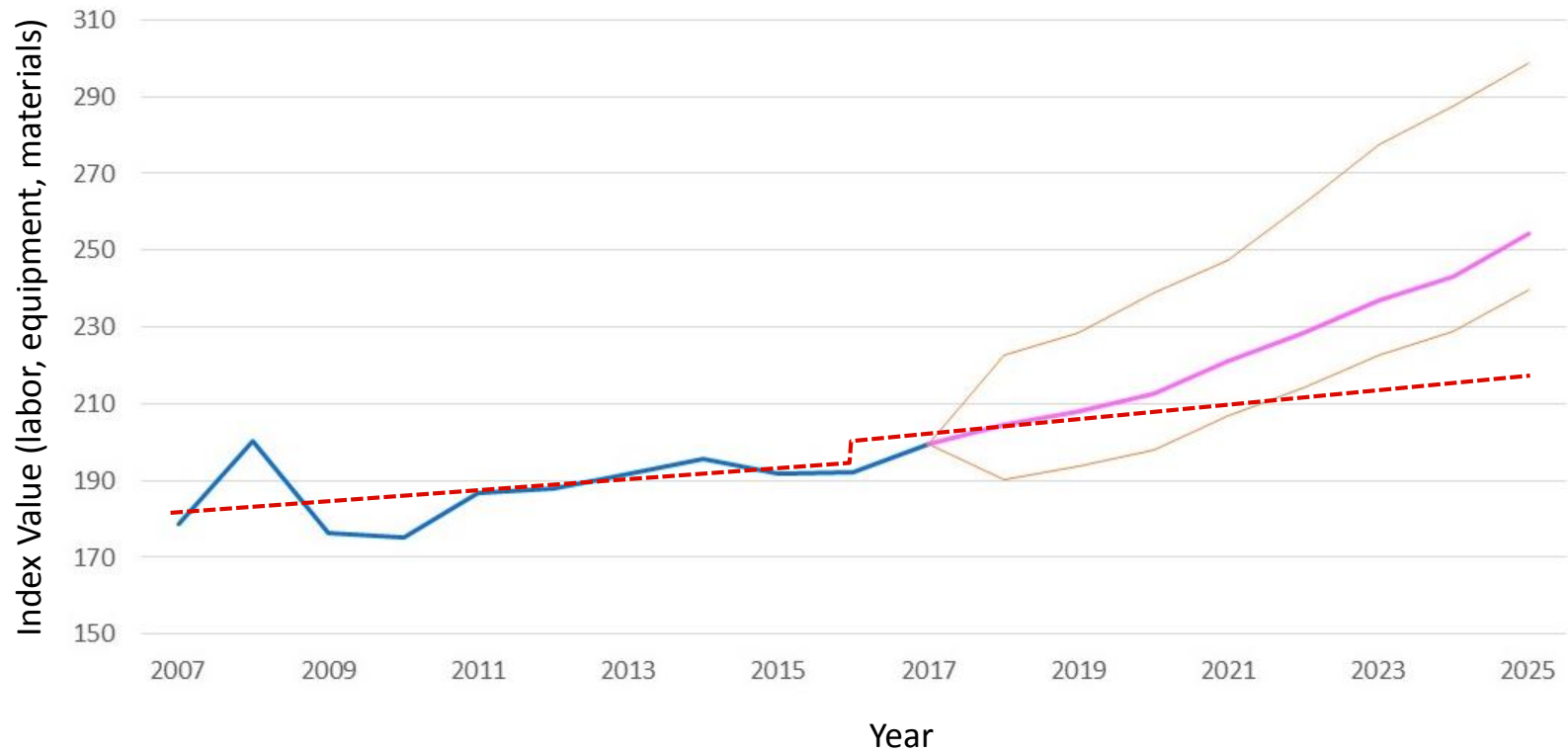
Strengths

- On schedule
- Technically sound
- Property acquisition

Risks

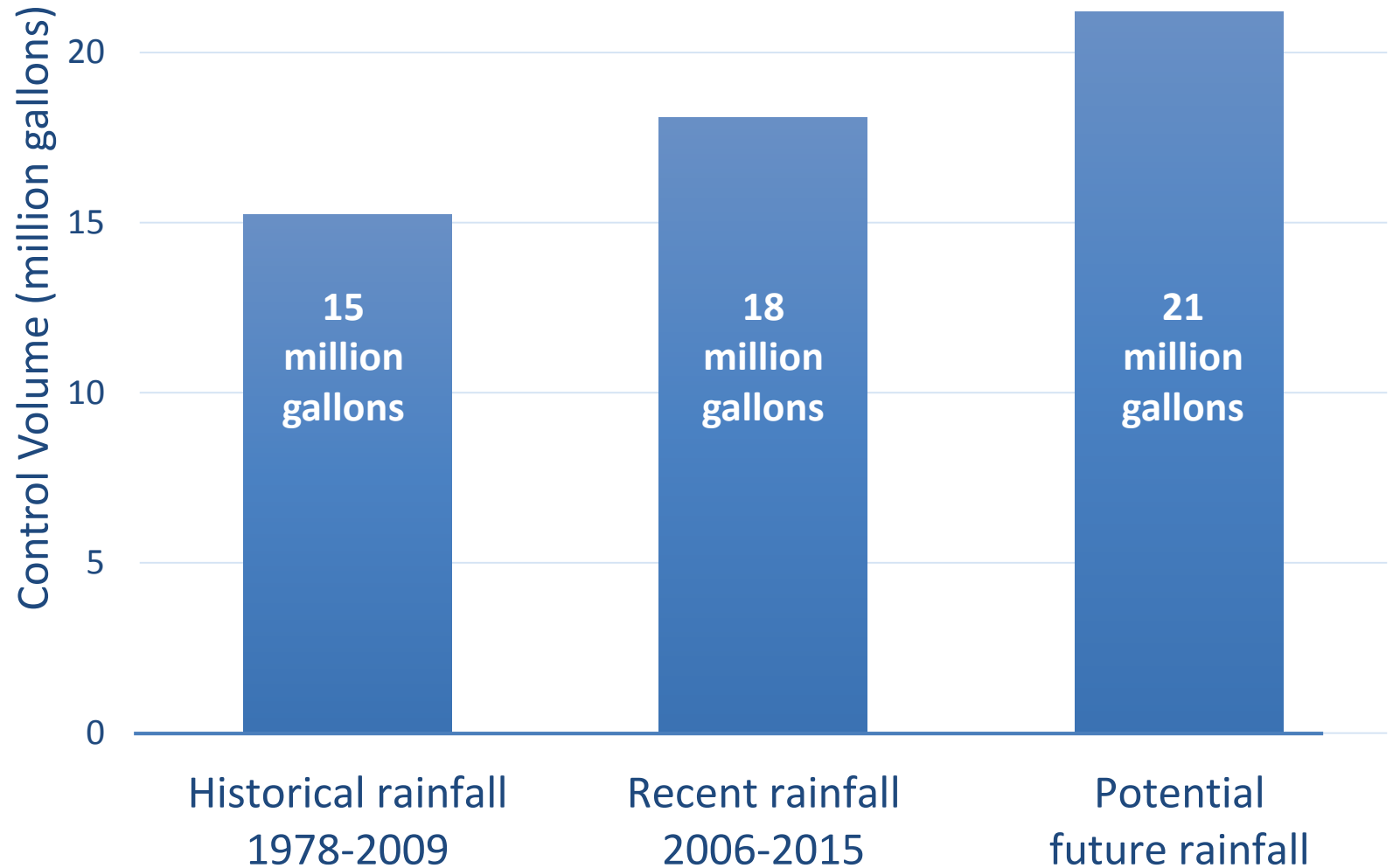
- Regional construction market conditions
- Rainfall impacts
- Subsurface project
- Cost estimate maturity

Regional Construction Market Conditions



Ship Canal Water Quality Project

Facility Sizing



Ship Canal Water Quality Project

Project Delivery & Oversight

- Strong leadership team
- Scope management
- Independent cost reviews
- Regional construction market model updates
- Facility sizing assessment

SPU CIP Portfolio

Looking Ahead

- Regional construction market conditions are the biggest point of uncertainty for Ship Canal Water Quality Project.
- Regional construction market conditions could significantly impact SPU's overall capital portfolio.
- On July 11 will discuss various approaches that will help us manage within our 2018-2023 proposed rate path.
- SPU will work with the Mayor's Office and Council staff to improve the quarterly CIP reports and other means of communicating with Council.