



Protecting Seattle's Waterways

Seattle's CSO Program Consent Decree

NACWA Law Seminar
November 14, 2012

Agenda

- Background
- Know your strategy
- Innovations
 - Integrated Plan
 - CMOM

Seattle Combined Sewer Overflows (CSOs)

- 90 Permitted CSO outfalls
- 100 million gallons CSO discharge annually
- 276 CSO discharge events annually



Know you Strategy

- Evaluate your risks in detail
- Understand the benefits and costs of consent decrees v. administrative orders
- Understand your bottom lines – what you really care about; what you will and will not do.
- Communicate, communicate, communicate = Relationship, relationship, relationship



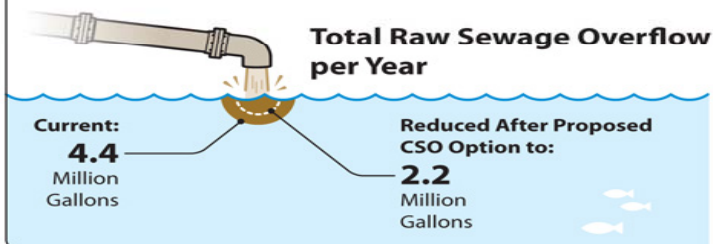
Protecting Seattle's Waterways

Integrated Plan

For each \$M spent, SPU can remove multiple pollutants from CSO and stormwater discharges

CSO Storage Option

4.2 million gallons of raw sewage mixed with stormwater overflow from the Leschi sewer system into Lake Washington each year. Constructing \$44.3 million of sewage storage tanks in Leschi would reduce the annual overflow volume down to 2.2 MG.



Building sewage storage tanks in Leschi would cost...

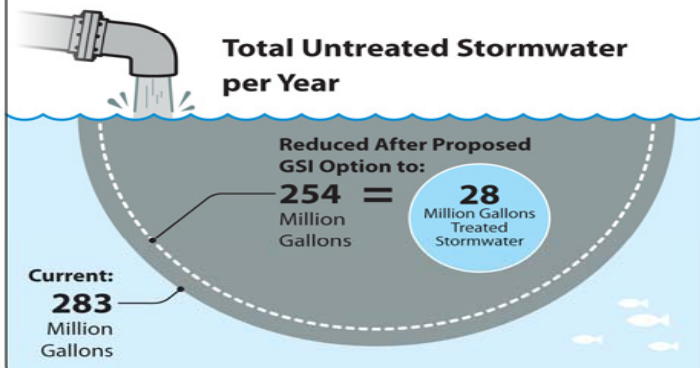
\$44.3 Million

The project would remove...

479 lbs Total Suspended Solids Removed		
0.2 lbs Copper Removed		
0.7 lbs Zinc Removed		
5,000 Billion Cells Fecal Coliform Removed		

Green Stormwater Infrastructure Option

283 million gallons of untreated stormwater flows from the Leschi separated stormwater system into Lake Washington each year. Constructing \$20 million of green stormwater infrastructure in Leschi would treat 28 million gallons of stormwater annually.



Building green stormwater infrastructure in Leschi would cost...

\$20 Million

The project would remove...

10,000 lbs Total Suspended Solids Removed		
2,600 lbs Copper Removed		
14,000 lbs Zinc Removed		
750 Billion Cells Fecal Coliform Removed		

Integrated Plan Objective

- Proposes stormwater projects to be completed by 2025 that will provide greater water quality benefits compared to the Long Term Control CSO projects
- Identifies CSO projects to be deferred (i.e., completed after 2025). Note that all LTCP projects must be completed.
- The goal of the Integrated Plan is to defer CSO projects past 2025 to focus resources on stormwater projects that will provide greater benefits to the receiving water body and the public.

TASK 1

RANK WATER BODIES & DRAINAGE BASINS

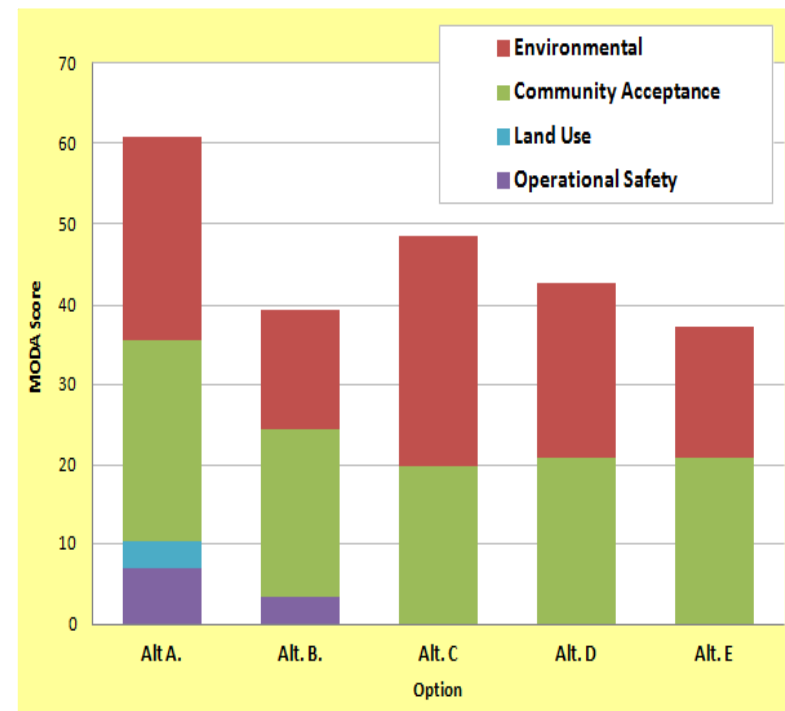
- ✓ Rank based on:
 - Consent Decree requirements:
 - 303(d) Impaired Waters
 - CERCLA
 - Specialized Circumstances
 - Other Considerations:
 - Total Suspended Solids (TSS)
 - Flow



TASK 2

DEVELOP SW OPPORTUNITY CRITERIA

- ✓ Develop criteria that identify appropriate/ applicable stormwater projects/ programs for the ranked receiving water bodies and corresponding drainage basins



TASK 3

IDENTIFY STORMWATER ALTERNATIVES

- ✓ Identify stormwater projects/ programs based on receiving water body ranking
- ✓ Expect to reflect a range of opportunities
 - Stormwater Treatment Facilities
 - Programmatic (Street Sweeping)
 - Green Stormwater Infrastructure (GSI)
 - Joint Treatment with King County



TASK 4 / 5

RATE & RANK STORMWATER ALTERNATIVES / IDENTIFY CSO DEFERMENTS

- ✓ Develop stormwater alternatives
 - Preliminary design criteria and cost estimates
 - Preliminary pollutant load reduction analyses and
 - Preliminary environmental benefit analysis
- ✓ Screen and rank stormwater alternatives
- ✓ Identify CSO projects to defer

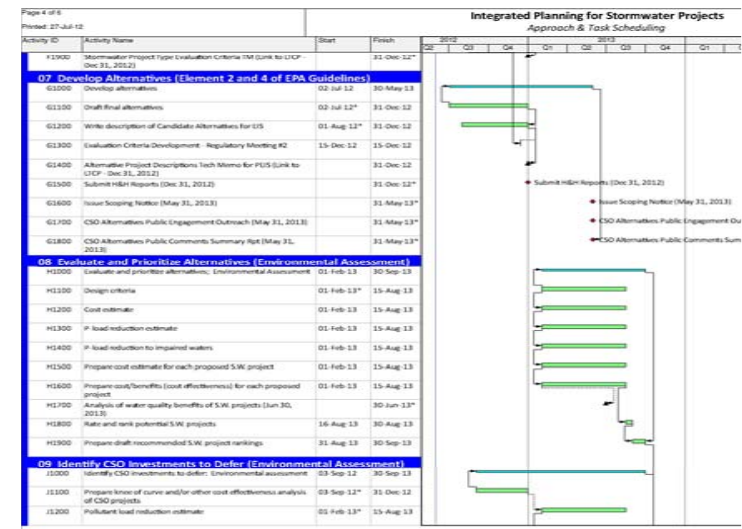


Performance Measure Scoring for Planning Area 2 – By SPU

Environmental Performance Measures	Scores - Planning Area 2			
	Joint CSO Storage		SPU Independent	
	Joint KC: Practical Green	Joint KC: Max Green	SPU Independent: Practical Green	SPU Independent: Max Green
Flexibility to meet regulatory requirements/changes over time	2	3	1	2
Minimize impact to surrounding	2	2	1	2

TASK 6 PREPARE INTEGRATED PLAN

- ✓ Submit IP with LTCP
 - Final design criteria and cost estimates
 - Final pollutant load reduction analyses
 - Final environmental benefits analysis
- ✓ Prepare final stormwater and deferred CSO project alternatives
 - Design, construction, implementation schedule
 - Post Construction Monitoring
 - Financial plan





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CMOM –

Capacity Management, Operations & Maintenance

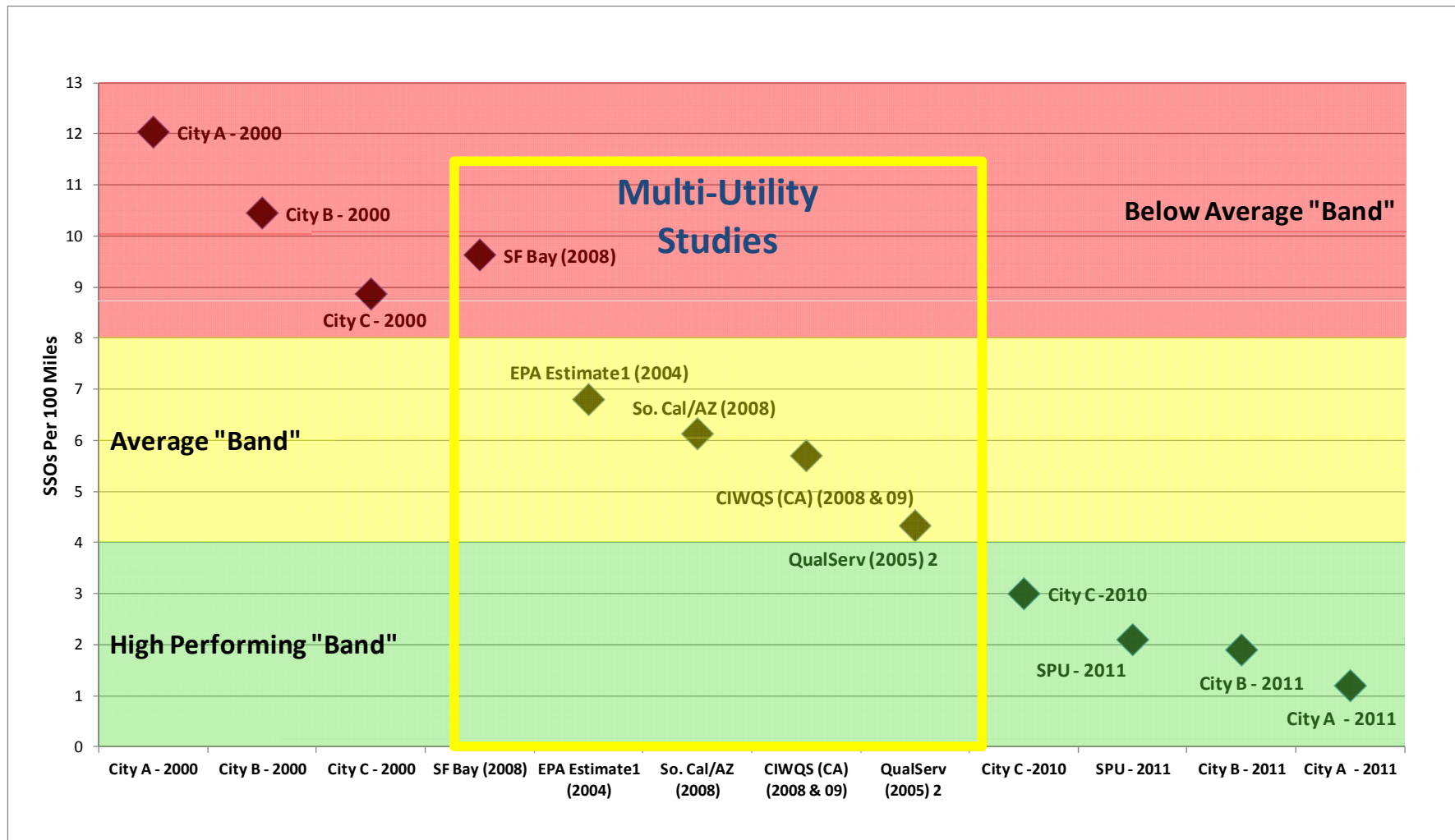
Performance vs. Prescriptive

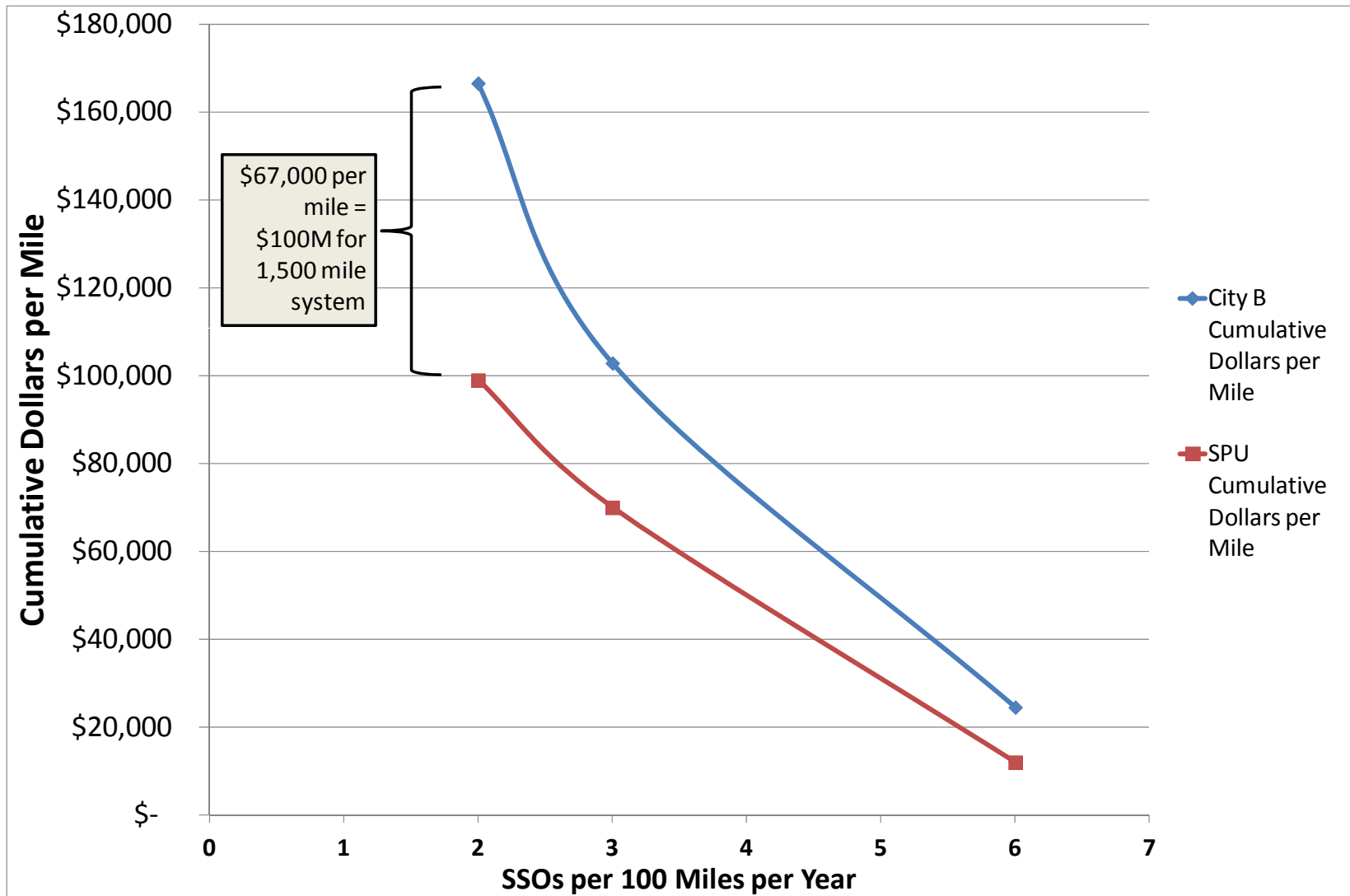
Seattles CMOM Goals

The **RIGHT** work,
at the **RIGHT** time,
at the **RIGHT** cost.

- Understand the system, **its performance**, and its risks
- Implement Programs to manage risk
- Cost Effectiveness for rate payers
- **Continuous improvement**

State of Utility Performance





CMOM Proposal

- SPU retains adaptive asset management approach as long as it operates within the high performance service band
- If it does not operate within the high performance service band, corrective action plan will be submitted

Q&A