Delivering high quality transportation AND efficient and forward-looking utility services to Seattle

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CDWAC/WSAC Joint Meeting

1/11/2017

Objectives of presentation

Create a better understanding of:

- the nexus of transportation and public utilities
- why this is important to SPU now
- what are SDOT and SPU doing jointly to deliver their respective missions
- What specifically is SPU doing to meet the demands of transportation projects and continue to fulfill it's promise to it's customers and keep rates affordable

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Utilities and transportation

- A lot of utility infrastructure is in the right of way
- Aging infrastructure
- Transportation facility construction may require relocation of utility infrastructure
- Construction may damage utility infrastructure

Regulatory requirements for utilities on transportation projects

Seattle Municipal Code

15.04.035 - The paramount purpose of streets is for travel and transportation

15.32.120 - Displacement for public use. Anyone upon order of the authorizing official *shall upon ten (10) days' notice, at his, her or its own cost and expense, move any underground, surface or overhead facilities which interfere* with any local improvement district work or *with any construction for street or transportation purposes authorized or ordered by the City*.

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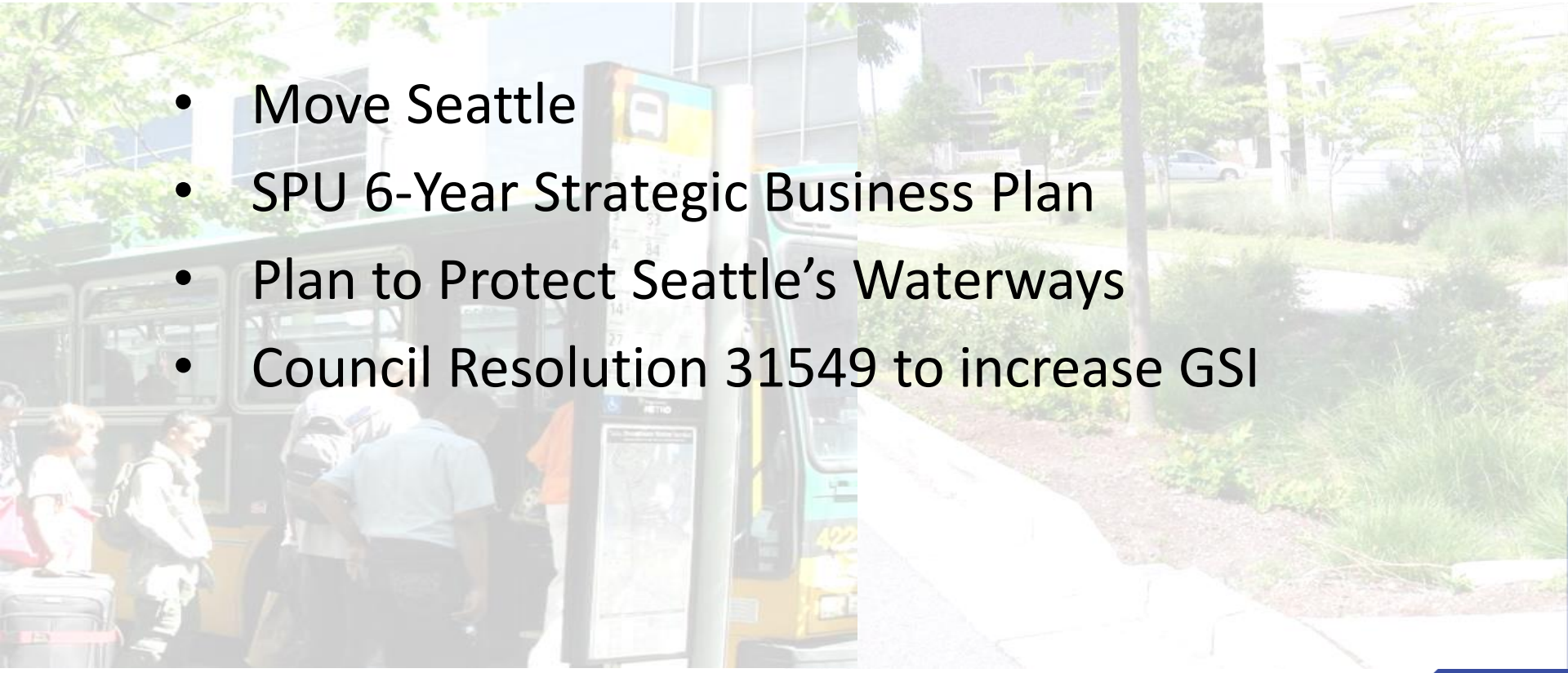
Current and future challenges

SPU and SDOT key initiatives



- Move Seattle
- SPU 6-Year Strategic Business Plan
- Plan to Protect Seattle's Waterways
- Council Resolution 31549 to increase GSI

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Move Seattle

Nine-year $930M levy approved in November 2015 for:

- Safe routes
- Congestion relief
- Maintenance and preservation

Levy provides about 30% of the City's transportation budget

Replaces the previous $365M levy

Move Seattle overview

- 7 multimodal corridors
- 180 lane miles of paving
- 17 bridges (1 new, 16 seismic retrofits)
- 250 blocks of new sidewalks
- Improved bike facilities
- South Park and Broadview partnership projects

Other major transportation projects

- SR 99 tunnel
- Seawall
- Waterfront
- Center City Connector Streetcar
- Broadway Streetcar Extension
- SR 520
- SR 99 paving
- Sound Transit North Link

SPU and SDOT collaboration

- Created interdepartmental coordination lead position
- Shared information on Move Seattle projects before the levy passage
- Established One City Principles
- Created a Public Asset Protection and Cost Sharing Agreement
- Identified and started joint/partnership projects
- Engaged in problem solving on specific cross department issues.

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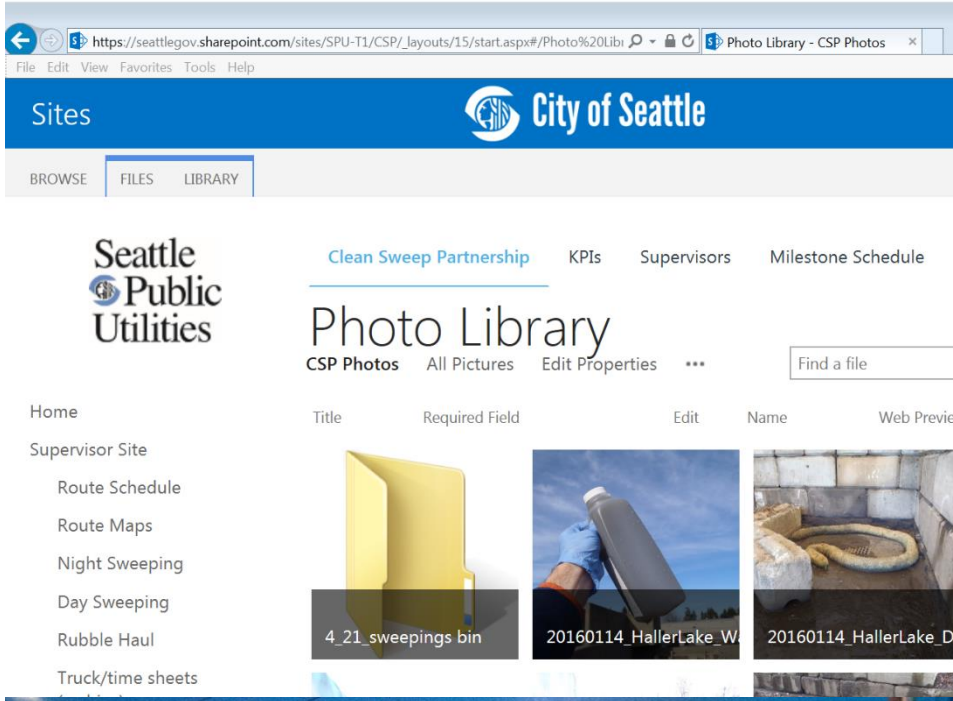
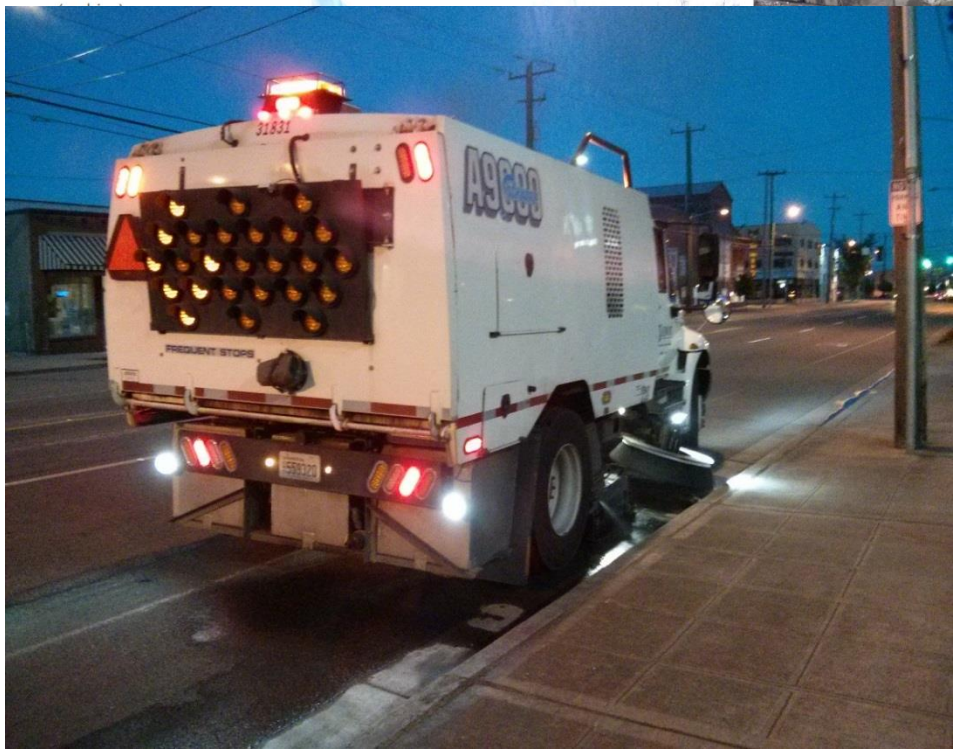
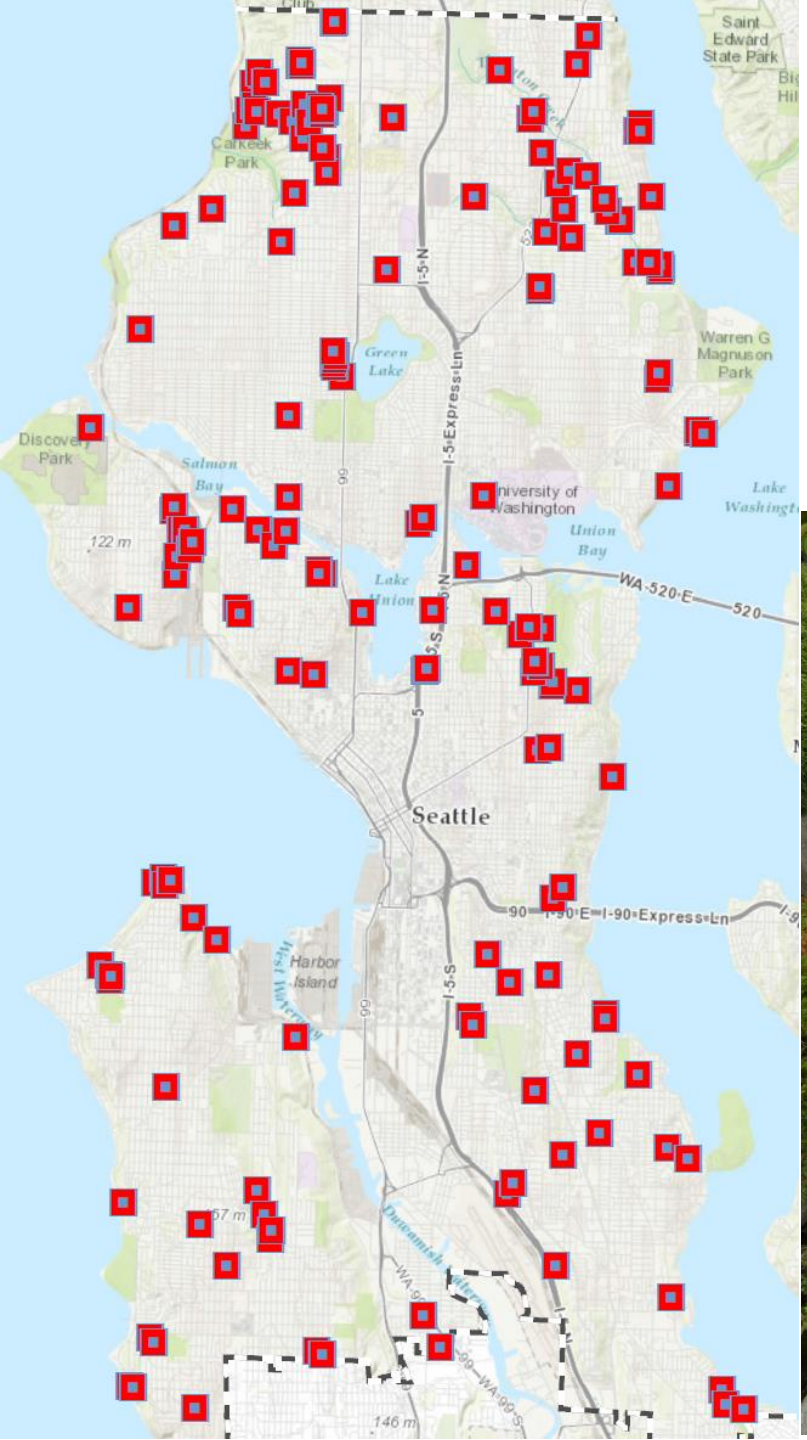
Inter-departmental initiatives

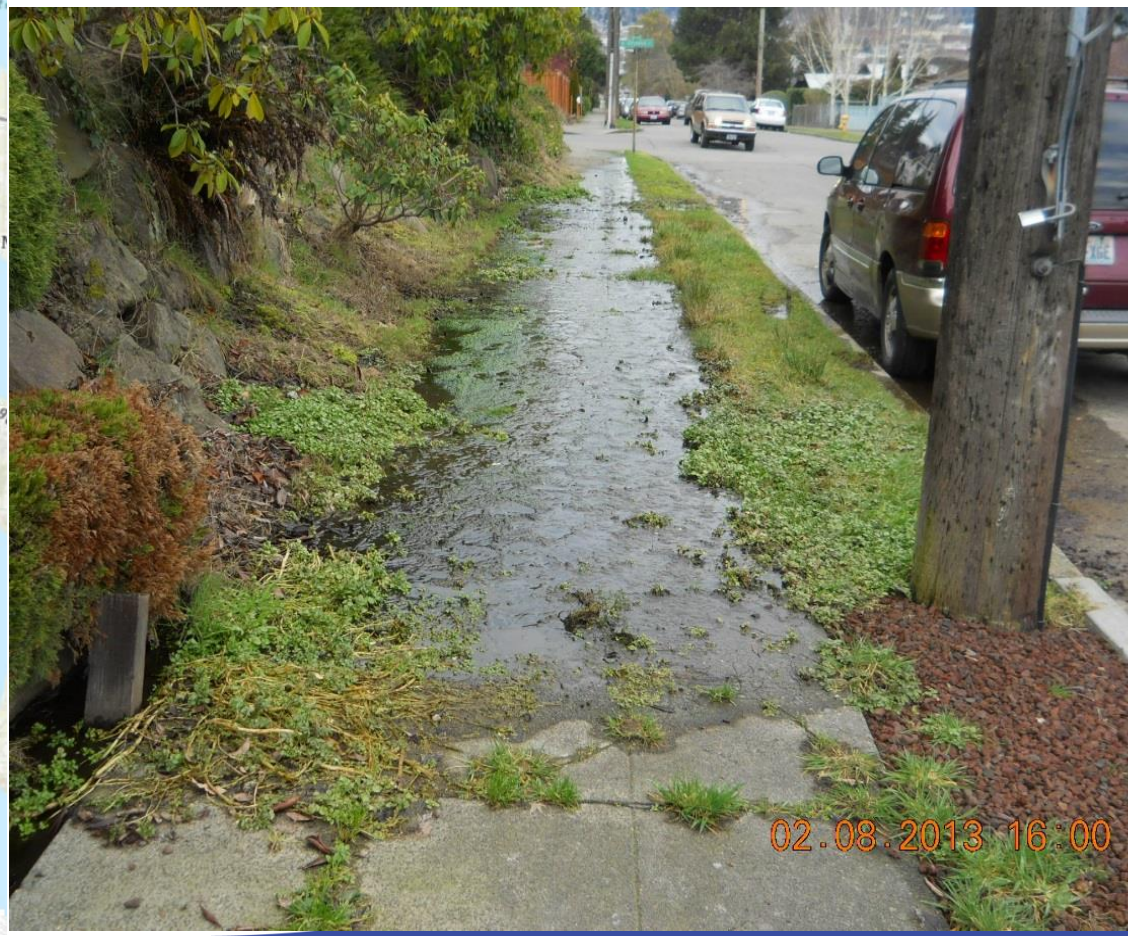
- Street sweeping program
- Surfacing groundwater project
- GSI greenway partnership projects
- Emphasis on GSI in Right of Way Improvement Manual





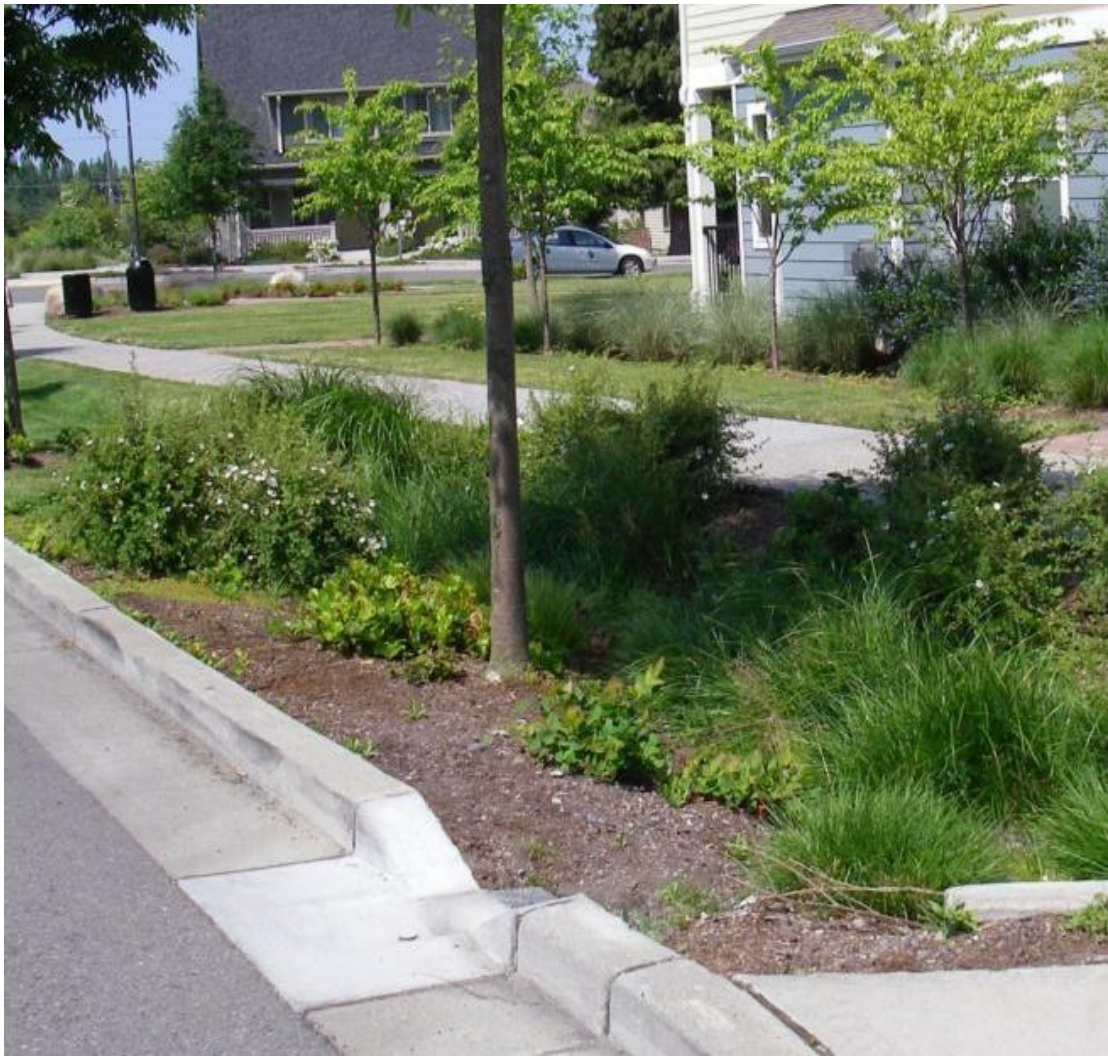
Surfacing groundwater



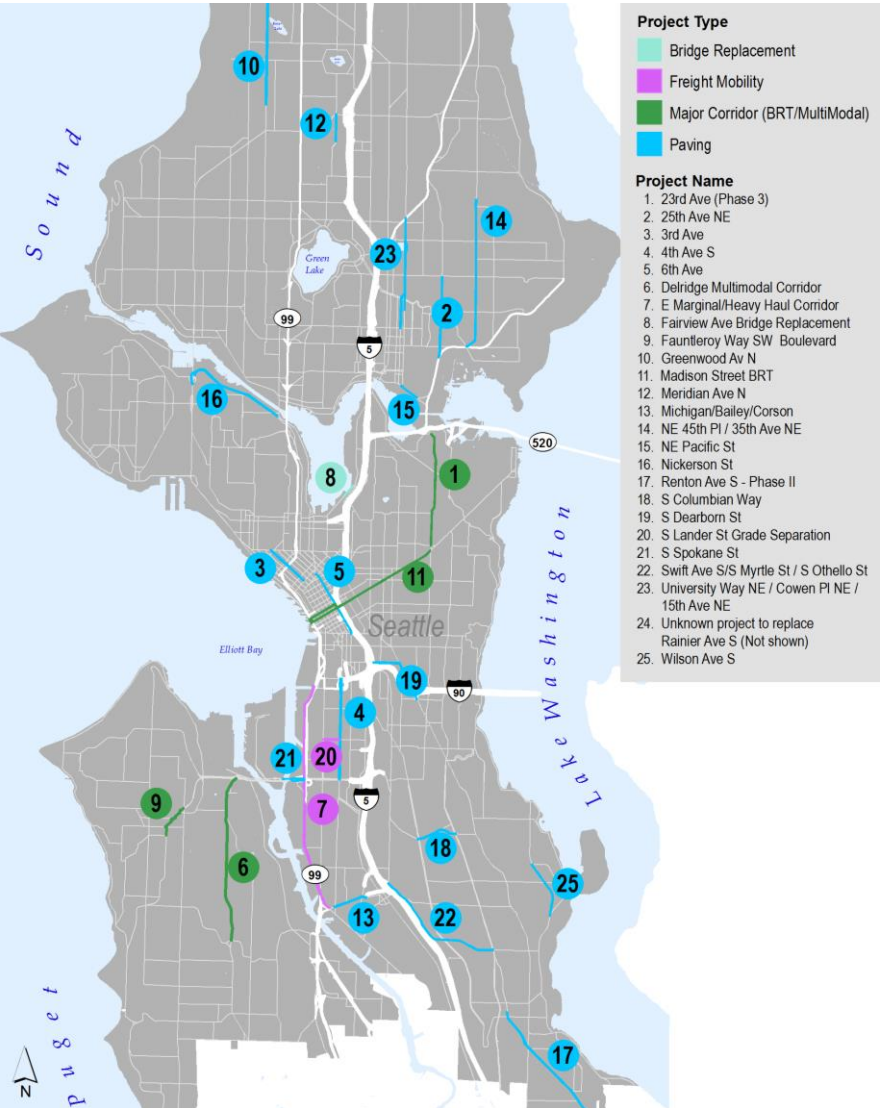


Interdepartmental work in progress

- South Park
- Broadview
- Consistent early project coordination
- Sidewalk/GSI cost sharing



SPU Move Seattle projects 2016-2018



- 25 Move Seattle projects
  - 1 bridge
  - 2 corridors
  - 20 paving
  - Madison BRT
  - Lander Grade Separation
- Many more projects than previous levy

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SPU objectives for Move Seattle

Be Efficient:

- Partner with SDOT to reduce customer impacts
- Create consistent and timely processes to complete projects

Be Forward Looking:

- Proactively maintain, repair, and replace assets

Keep Seattle the best place to live:

- Protect and improve our systems and identify opportunities to improve service
- Plan and budget in advance to inform potential rate path implications

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Planning for Move Seattle

- Regularly communicate on Move Seattle planning, programming documents with SDOT
- Develop rolling 3- to 5-year cost estimates for SPU Move Seattle expenditures
- Develop a consistent process for early coordination with SDOT
- Coordinate design for both SPU and SDOT infrastructure

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What are “must-do” and opportunity projects

Must-do projects:

- Utility needs to move
- Utility infrastructure is in poor condition
- Standards have changed
- Construction will damage utility infrastructure

Opportunity projects:

- Improve service
- Rehabilitate or replace aging infrastructure

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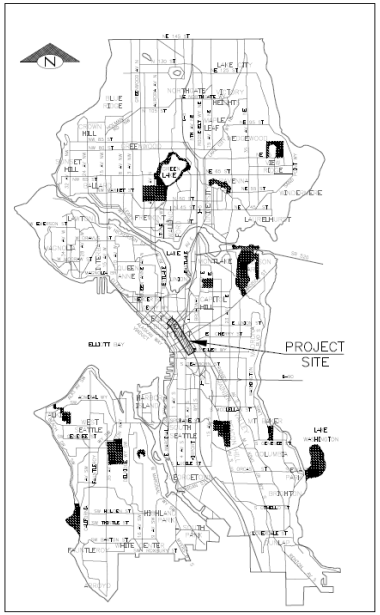
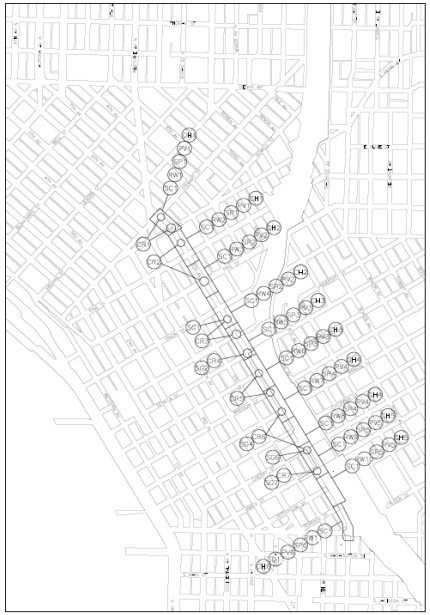
Must-do project requirements

- Review plans
- Protect assets
- Survey and replace worn or damaged infrastructure



VICINITY MAP

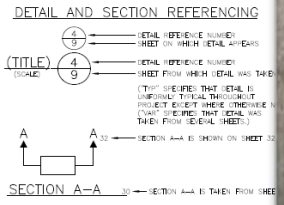


SHEET LOCATION MAP

SHEET INDEX

SHEET	DRAWING	SHEET DESCRIPTION
1	CV1	COVER
2	NT1	NOTES
3	SV1	SURVEY CONTROL
5–15	RW1–RW11	RIGHT–OF–WAY PLANS
16–21	SP1–SP6	SITE PREPARATION
22–27	PV1–PV6	PAVING PLAN
28–34	CR1–CR7	CURB RAMP PLAN
35–36	RS1–RS2	ROADWAY SECTIONS
37–43	SS1–SS7	SIGNAL PLAN
44–48	CH1–CH5	CHANNELIZATION AND SIGNING PLAN

DETAIL AND SECTION REFERENCING



% SUBMITTAL NOT FOR CONSTRUCTION
CTOBER 2016

ALL 2 WORKING DAYS
BEFORE YOU DIG

APPROVED FOR ADVERTISING
NANCY LOCKE
DEPARTMENT OF FINANCE & ADMINISTRATIVE SERVICES
SEATTLE, WASHINGTON

City of Seattle
Seattle Department of Transportation

2017 ARTERIAL ASPHALT AND CONCRETE

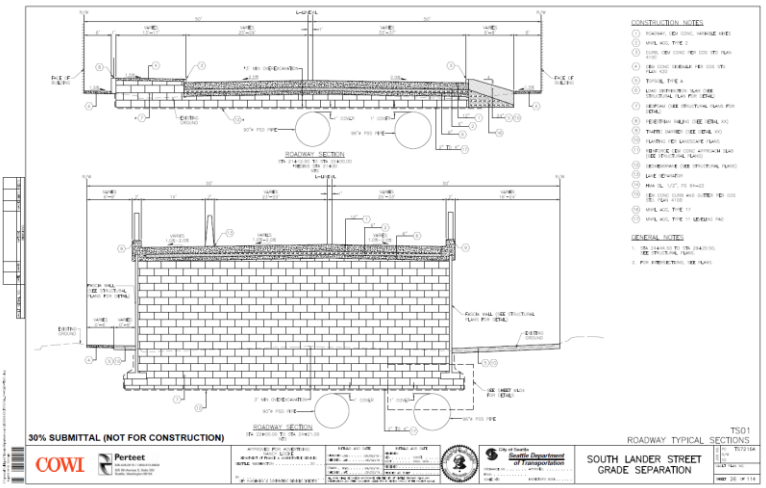
Completed must-do project 23rd Avenue – Phase 1

- Existing 6” cast iron, lead-joint water main under old trolley ballast (thick concrete with old railroad ties)
- 6” water main not expected to survive ballast removal
- 6” water main replaced with 12” ductile iron water main

Move Seattle must-do project DWW Madison Bus Rapid Transit

- Upgrade inlet to standard size
- Replace deteriorated pipes
- Pipe “spot repair”, replace damaged section of pipe.

Move Seattle must-do project Water Madison BRT



- Concrete pavement removal
- Streetcar track removal
- Other must do example - bridge

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Opportunity projects

Criteria:

- Reduce project cost by combining with transportation project
- Reduce risk of failure
- Add capacity to provide adequate service
- Reduce impact of construction to public

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Completed opportunity project 1st Ave S & S Spokane

SDOT

- Reconstruction of S Spokane St (2010)

SPU

- Replaced seismically vulnerable water main

Opportunity project Move Seattle E Marginal Way

Drainage and Wastewater opportunity

- Increase capacity
- Reduce sewer overflows and flooding

Water opportunity

- Replace seismically vulnerable water main
- Improve system for firefighting post earthquake

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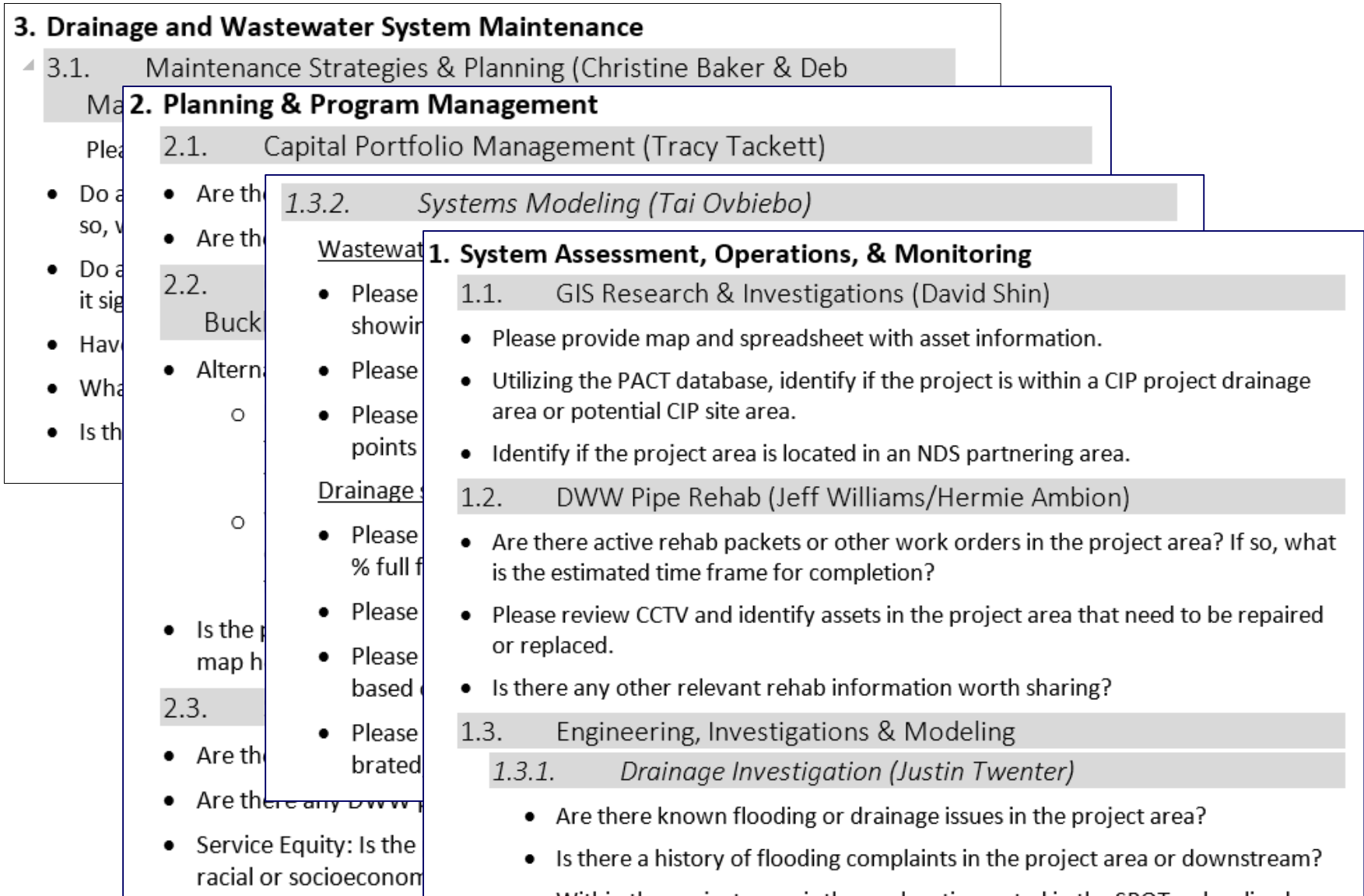
Identifying “must do” and opportunity projects – DWW



Identifying “must do” and opportunity projects - Water

Type of Impact	Recommended SPU Action: Replace	Evaluate	Protect in Place[1]
Unavoidable Conflict			

Condition	Recommended SPU Action: Replace	Evaluate[1]	Protect in
Water Main Material			

O&M Cost Impacts	Recommended SPU Action: Replace Main	Selective Upgrades	Joint Clamping	Protect in Place
Transportation Factors				

System Performance Improvements	Recommended: Replace Main	Selective Upgrades	Cl
System Flexibility Factors			
Excessive shutdown block size		✓	
Poor dewatering/refill conditions		✓	
Poor valve access		✓	
Grid junction configuration is OK now			
System Renewal Factors			
Undersized main in the intersection	✓		
Future grid connections at intersection	✓	✓	
Pressure zone boundary shift needed	✓	✓	

Typical joint leak potential				✓
Elevated joint leak potential – PSI/diameter/soils			✓	

Early Move Seattle cost estimates DWW

- 21 “must do” projects
- 4 opportunity projects

Total cost estimates for projects starting in 2016 - 2018

$37.2 M - $79.8 M

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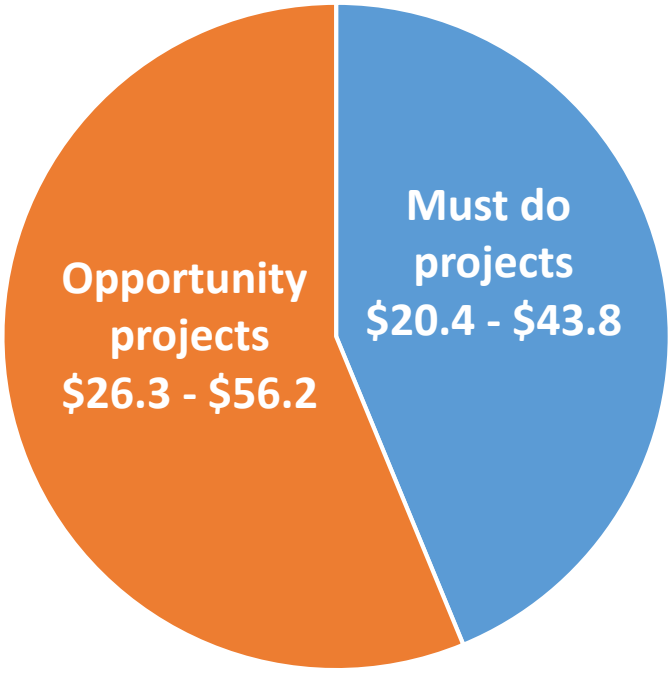
Early Move Seattle cost estimates Water

- 22 “must do” projects
- 2 opportunity projects



Total cost estimates for projects starting in 2016 – 2018

$46.7 M - $100.0 M

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Looking forward

- SPU will continue to have a vital role in transportation projects to support a growing population.
- SPU and SDOT are committed to continuous improvement and coordination to deliver high quality transportation and forward-looking utility services.

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