



King County

Protecting Our Waters

Doing our part on rainy days

King County CSO Long Term Control Plan

2015 Science Seminar

November 5, 2015



Overview

- **King County CSO Control Program**
- **CSO Regulations**
- **CSO Planning and the current Long term Control Plan**
- **SPU-WTD Coordination**
- **2018 Long term Control Plan Update**



King County CSOs

38 CSOs

- 19 controlled
- 5 projects under construction or recently completed
- 14 uncontrolled
- 4 CSO treatment plants

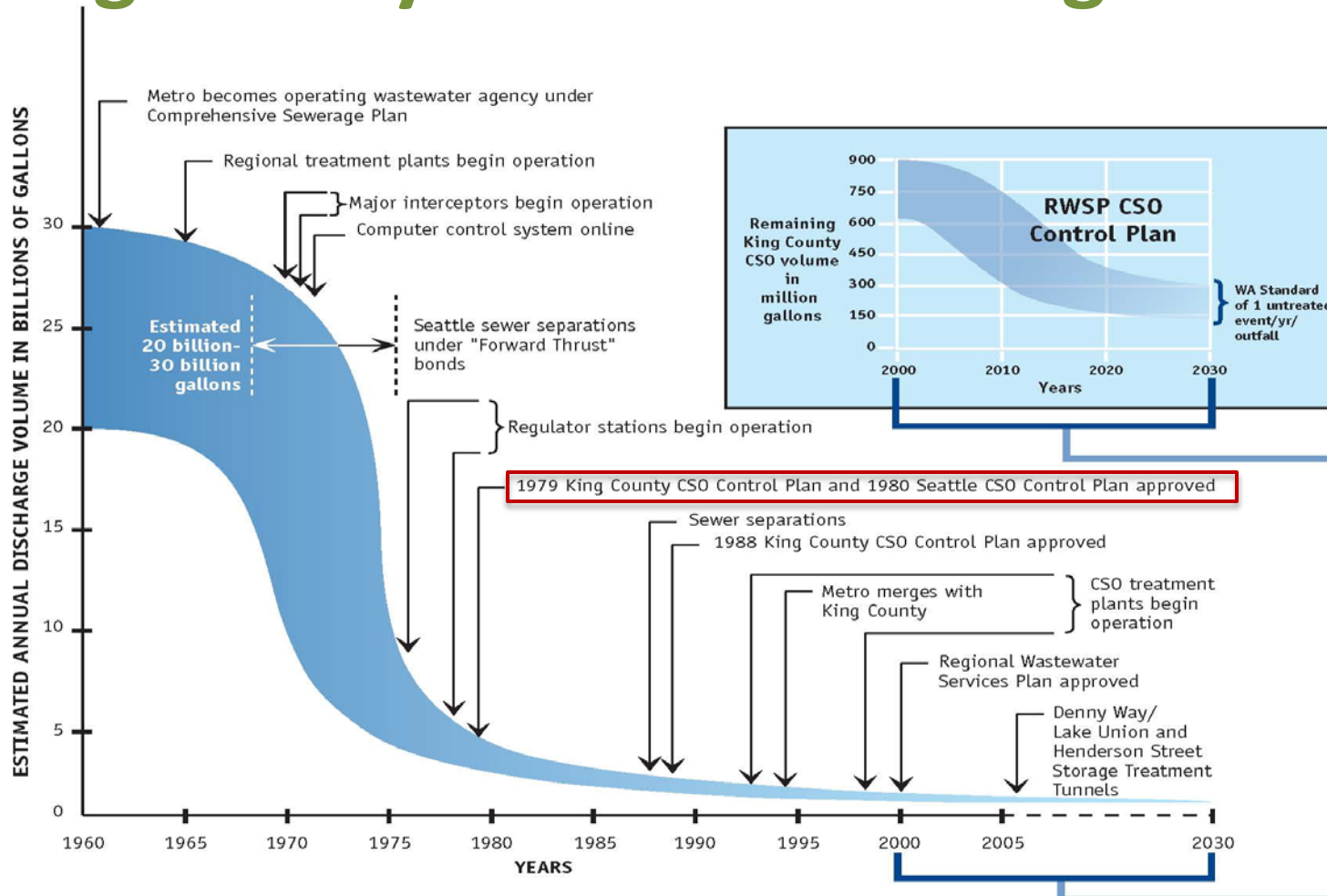


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King County CSO Control Progress



King County

Department of Natural Resources and Parks

Wastewater Treatment Division



King County CSO Regulations

- **WA State Ecology Regulations**
 - CSO Control Target
- **Consent Decree**
 - “Implement only”



CSO Control Target

WA State Ecology Regulations (WAC 173-245)

- One untreated event per outfall 20-year moving average
- or CSO Treatment
 - ✓ 50% reduction of TSS (annual average)
 - ✓ 0.3 mg/L/hr Settleable solids (annual average)
 - ✓ Chlorination and dechlorination (maximum daily)
 - ✓ pH 6.0-9.0 (instantaneous minimum and maximum monthly)
 - ✓ Fecal Coliform limits (monthly geometric mean) 400 colonies per 100 mL
- Meet ambient water quality standards
- Be protective of sediment quality



Consent Decree

Project	CSO Control Measure(s) and Description	Design Criteria*	Performance Criteria	Critical Milestones
Hanford #1	Increased conveyance and storage tank: increased conveyance to the Bayview Tunnel and storage tank near Rainier Avenue	0.34 MG of peak CSO storage with conveyance *may allow parameters to change by defined %	Reduce to one overflow event per year on a 20-year moving average	Facilities Plan Dec. 31, 2014 Bidding (NTP for Construction) Dec. 31, 2016 Construction completion Dec. 31, 2019

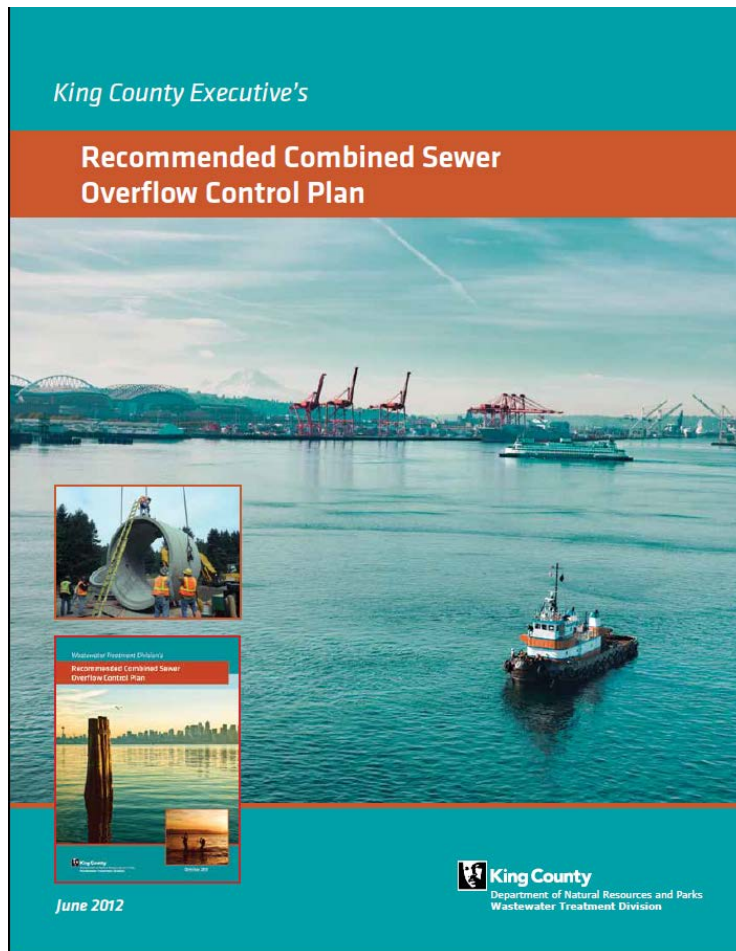


King County CSO Long Term Control Plans

- **Review LTCP on 5-year cycle w/ NPDES Permit**
 - New technology, changes in flows and regs
 - Uncontrolled basins
- **Council approved update of LTCP (budget)**
- **Control of all remaining CSOs by 2030**
- **2012 last update**
- **Now-2019: 2018 LTCP Update occurring**



2012 LTCP



- **Nov 2012 – Council approved Plan**
- **March 2013 – EPA approved as a LTCP**
- **Nov 2013 – WA Dept of Ecology approved LTCP**
- **July 2013 – King County entered into Consent Decree**



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2012 LTCP

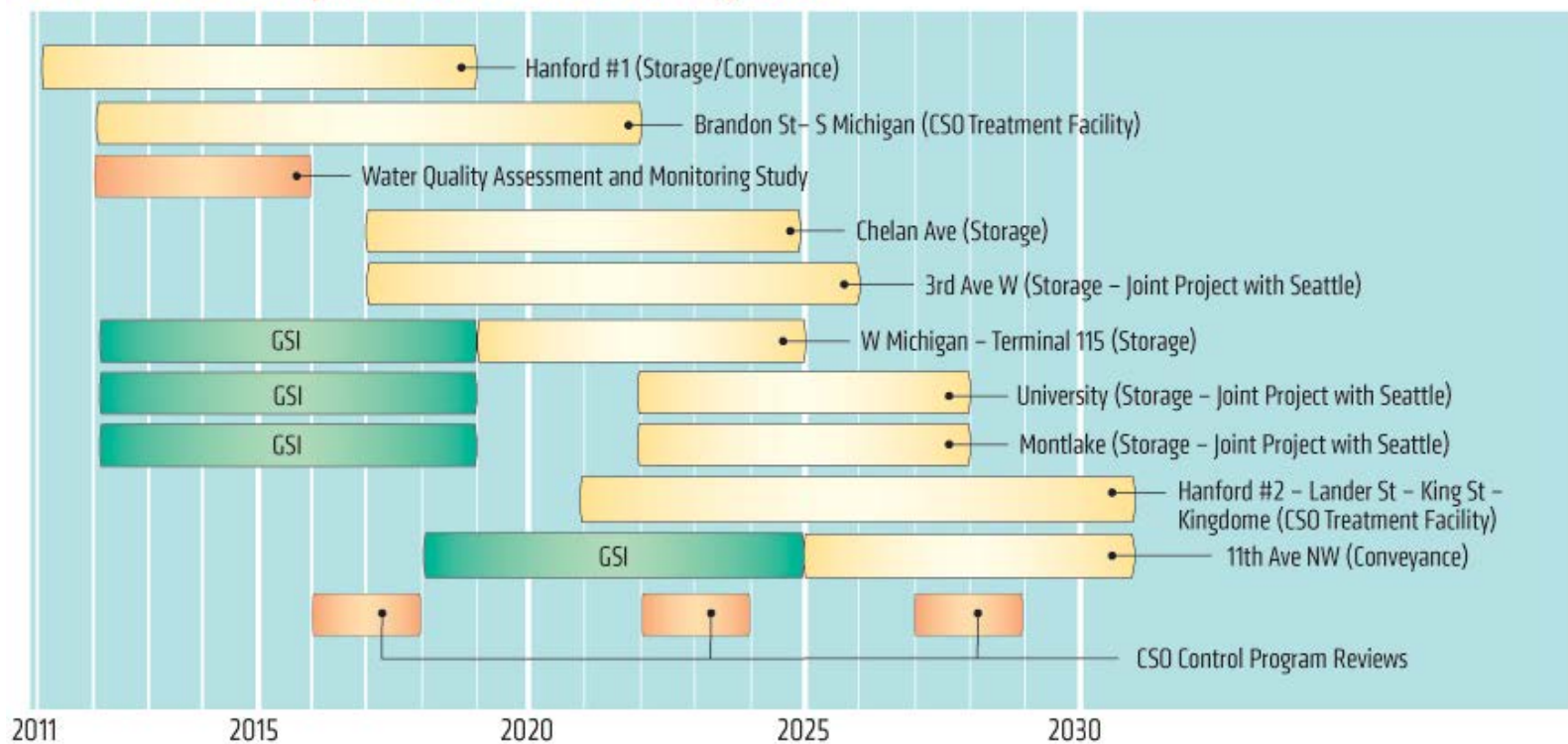
- 9 projects to control remaining 14 uncontrolled CSOs by 2030
- Incorporate GSI where cost-effective
- Collaborate with City of Seattle CSO
- Complete water quality assessment to reduce project costs and maximize environmental benefits





Approved Schedule of CSO Projects

Schedule to Complete CSO Control Plan by 2030



Note: All project timelines include planning, design, and construction phases.



Overview of 2018 CSO LTCP Update

For 11 remaining uncontrolled CSO locations:

- **Assemble background information**
- **Develop and analyze alternatives**
- **Make recommendations and prepare 2018 LTCP Update**
- **Public Involvement throughout**
- **Consider Integrated Plan option**



Overview of 2018 CSO LTCP Update (cont.)

Alternative Analysis – Two Parallel Tasks:

1. Detailed evaluation of projects identified in 2012 LTCP

- Bottom-of-basin storage and treatment

2. Develop alternative ‘packages’ of control options

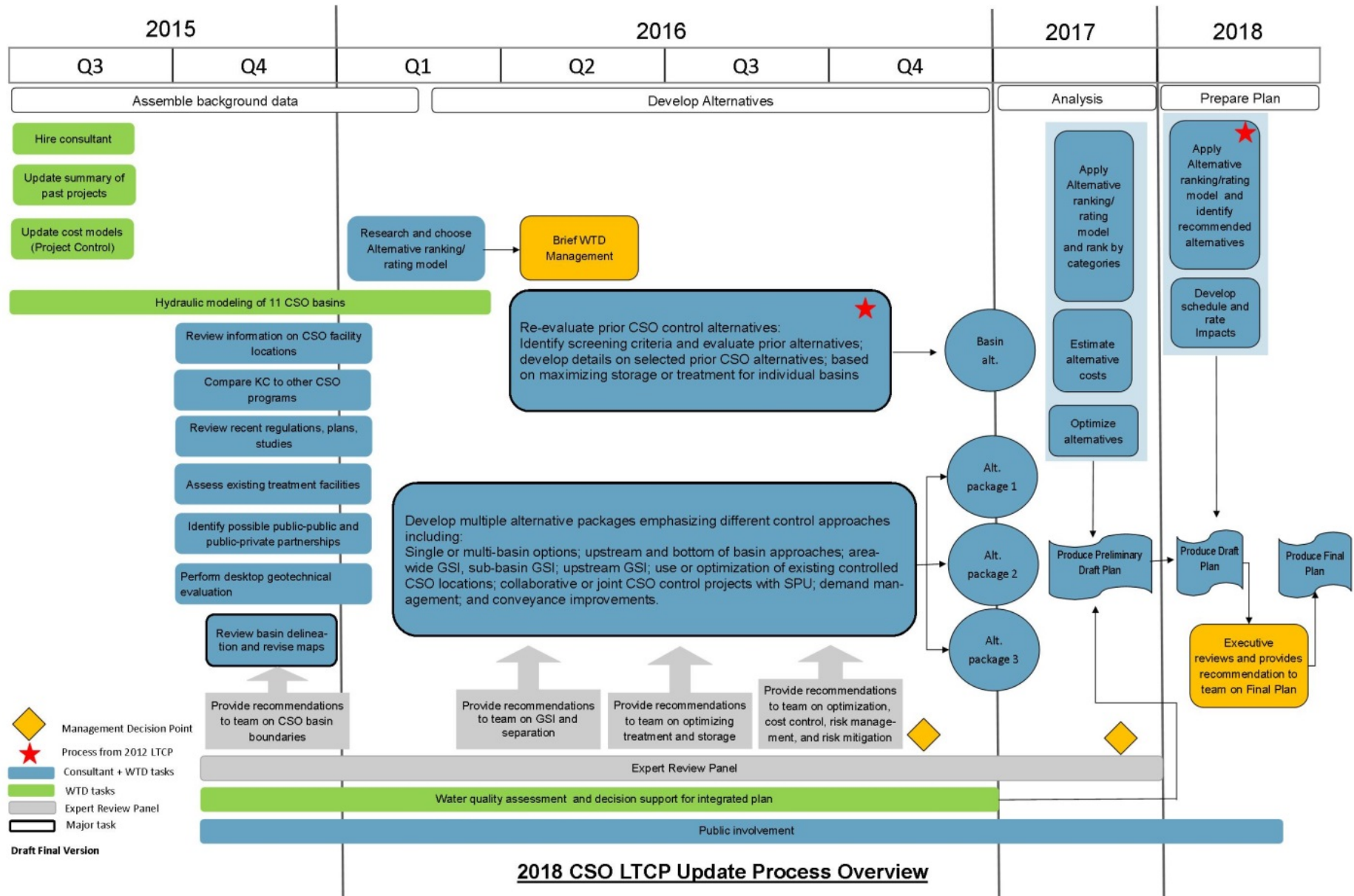
- Multiple options and approaches: single or multi-basin; upstream and bottom of basin; area-wide GSI; sub-basin GSI; upstream GSI; in-line or offline storage, conveyance, treatment; optimization of existing controlled CSO locations; collaborative or joint projects with SPU; demand management; conveyance improvements; and sewer separation



Using WQA Results

- Understand current water quality conditions-benchmark for future compliance
- Prioritize the order and sequence of CSO projects given other regional projects, economics, SPU projects, etc.
- Look at partnerships during CSO implementation
- Influence regional discussion on non-CSO efforts to improve water quality

2018 LTCP Update





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Questions?

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