



# Surface Water Comp Plan Briefing

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Presented By:

Don Robinett

Stormwater Compliance Manager

&

Rebecca Dugopolski, Project Engineer

Herrera Environmental

# Pending Name Change

- From: Surface Water Comprehensive Plan
- To: Surface Water Plan
- Reason: Eliminate confusion with SeaTac Comprehensive Plan

# Surface Water 101

- Surface Water Utility - Created in 1992 (SMC 12.30)
  - To establish and implement a comprehensive approach to surface and stormwater problems (SMC 12.10.220)
- Responsible for maintenance, repair and replacement of existing assets (> \$26.9 million in assets)
- Utility provides a broad range of services and programs
  - Some mandated by federal municipal stormwater permit
    - National Pollutant Discharge Elimination System (NPDES) Phase II Permit
  - Others needed to provide the essential services of the utility (e.g. CIP & asset management)

# Background

- Last surface water plan published in 1997
- Significant changes since last plan was developed
  - Significant Drainage Improvements
    - Des Moines Creek Basin Plan benefits
  - Transitioning utility needs
  - NPDES Phase II Permit
    - Expansion of Illicit Discharge Detection and Elimination Program requirements
    - Expansion of Operations & Maintenance requirements
    - LID Mandate Impacts on Inspections and Enforcement

# What is a Surface Water Plan?

- Strategic guide for the Surface Water Utility programs
- Evaluates existing programs
- Identifies future program needs based on:
  - Community and infrastructure needs
  - NPDES Permit requirements
    - Coalition for Appeal
    - Presentation Pending on Affects Land Use and Development
- Makes recommendations on how to respond to these needs
- Provides ground work for rate study
  - Scheduled for completion in Fall of 2013

# Public Involvement

- Internal survey
- Public survey to identify community needs
  - Including survey booth at YMCA
  - Use of web page and articles to solicit input
  - Comments range from private drainage issues to small localized flooding to pet waste concerns
- Draft plan currently out for public review
- Email notifications to stakeholders

# Components of the Plan

- Chapter 1: Introduction – How the plan was developed and organized
- Chapter 2: Utility History and Goals
- Chapter 3: Study Area and Applicable Regulations
- Chapter 4: Program Evaluation and Recommendations
- Chapter 5: Drainage and Water Quality Issues and Recommendations – Identifies four potential CIPs



# Components of the Plan

- Chapter 6: Plan Implementation – Potential schedule
- Chapter 7: Conclusion and Recommendations
- Appendices – Contains NPDES Permit Conditions and CIP details
  - Public Comments (coming soon)



# Key Recommendations for the Utility

- Needs identified for pending NPDES requirements
  - Public education
    - Measure understanding and adoption of behaviors
  - Public education recommendations – expand program
    - Expand educational topics (dumpsters, home & mobile businesses)
    - Consider translating educational materials into Spanish
    - Evaluate staffing levels
  - Update Illicit Discharge Detection and Elimination Program
    - Expand Field Screening Program (underway)
    - Identifies codes and procedures which need updates

# Key Recommendations

- NPDES Needs continued...
  - Update Operations and Maintenance Program
    - Update manuals and standards to include LID
    - Train staff on LID inspection and maintenance standards
    - Obtain necessary tools to inspect and maintain LID
    - Implement in-house catch basin inspection and street sweeping programs (in process)
    - Evaluate staffing needs in rate study
      - Increased complexity of maintenance, increased number of inspections and enforcements

# Key Recommendations

## Other Utility Programs

- Asset Management - Background
  - City stormwater assets include, but are not limited to:
    - 72 miles of drainage pipe
    - 3916 catch basins
    - 32 stormwater treatment and flow control facilities
  - City stormwater assets are valued at over \$26.9 million
  - City is responsible for maintenance, repair and replacement of assets
  - Many utility assets are hidden/underground
    - Not noticed until they fail

# Key Recommendations

- Asset Management - Background Continued
  - Existing infrastructure is aging
    - Some areas already beyond designed life expectancy
  - Needs of Surface Water Utility are transitioning
    - From maintenance and repair of facilities
    - To replacement of existing
  - Existing approach is primarily reactive
    - Wait for problems to occur
      - Except in areas adjacent to Transportation CIPs
    - Risks associated with approach
      1. Increased construction costs for damages from failure
      2. Property damage (vehicles, structures)
      3. Public safety/personal injury

# Key Recommendations

- Develop Proactive Asset Management Program
  - Inspect, Assess and Evaluate Infrastructure
    - Requires video inspection & software
    - In-house program vs. outsourcing – evaluate in rate study
  - Prioritize repair and replacement schedule based on:
    - Condition of structure/risk of failure
    - Life cycle costs
  - Integrate repair and replacement needs into a Stormwater Capital Improvement Program

# Key Recommendations

- Develop Stormwater CIP Program
  - Need an active project list
  - Inputs driven by new Asset Management Program, staff and community
  - Public storm system issues evaluated in the Plan
  - Four small projects identified
    - 204<sup>th</sup> Pond – Evaluate expanding utilization of pond to increase detention and treatment of bypass flows
    - Des Moines Memorial Drive Manhole
      - Temporary fix in place – need to replace prior to failure
    - S 182<sup>nd</sup> Catch Basins – Replace existing CBs and a second CB
    - S 138<sup>th</sup> Street Pipe - Abandon partially blocked pipe and replace with new pipe and structure downstream

# Key Recommendations

- Develop Stormwater CIP Program - Continued
  - Initial Cost Estimates
    - 204<sup>th</sup> Pond – \$270 ,000
    - Des Moines Memorial Drive Manhole - \$270,000
    - S 182<sup>nd</sup> Catch Basins – \$13,000
    - S 138<sup>th</sup> Street Pipe - \$140,000



# Key Recommendations

- Develop Stormwater CIP Program - Continued
  - Remaining Steps for identified projects
    - Continue investigations
    - Seek opportunities to integrate with existing road projects
    - Prioritize and update budget estimates
    - Develop Stormwater CIP for 2015-2016 Budget

# Key Recommendations

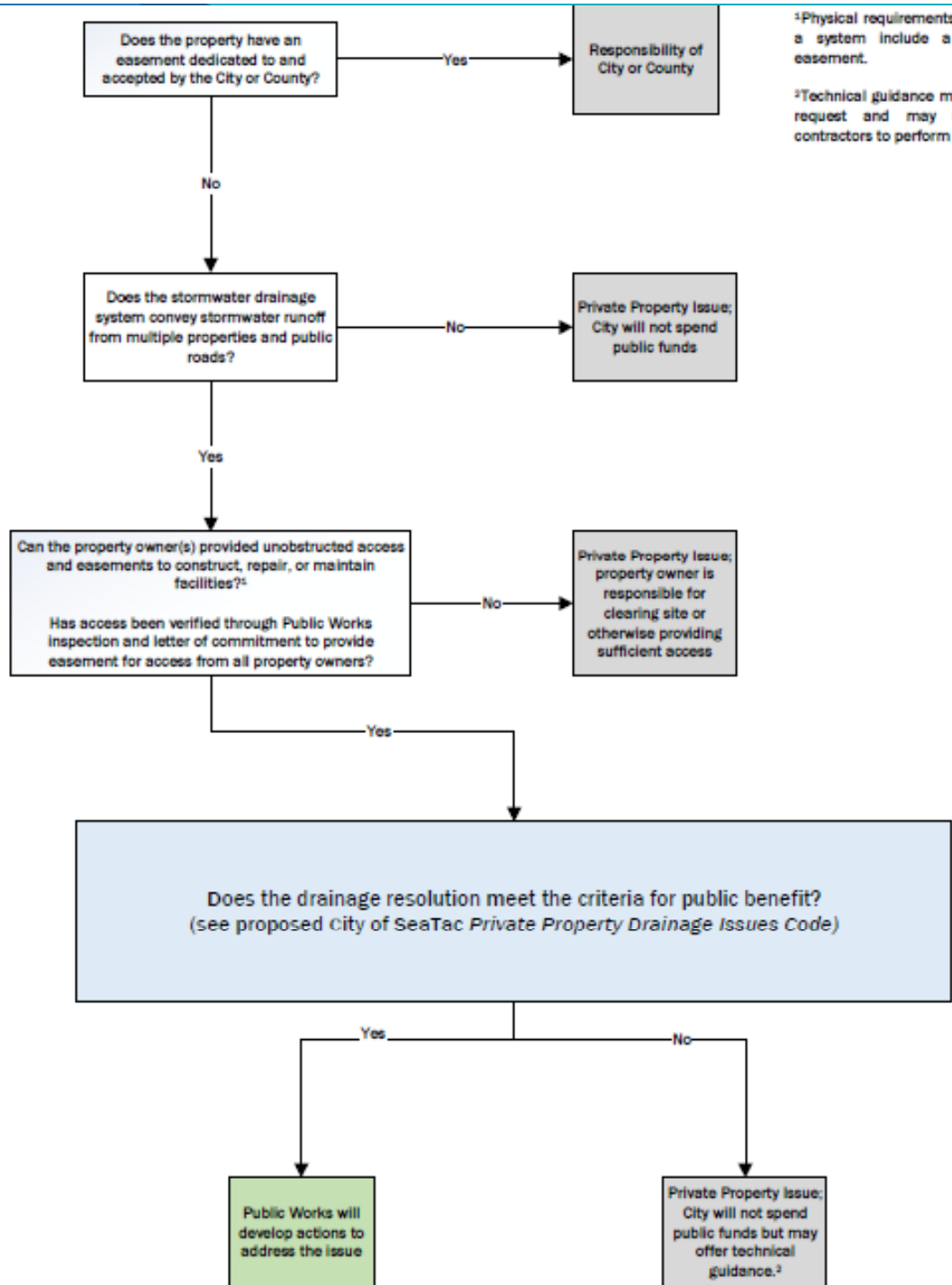
- Evaluate funding of stormwater portions of Transportation CIP improvements with Surface Water Utility funds
  - Currently funded out of the roads fund
  - Costs and benefits to be evaluated in rate study

# Key Recommendations

- Develop Private Property Drainage Policy
  - Issue raised by staff and through public involvement
  - No existing written policy
  - Need clear policy so staff can be consistent with customers
  - Evaluated codes and policies of other jurisdictions in the region
  - Existing Limitations
    - City cannot spend utility funds on private property, unless there is a clear public benefit (SMC 12.10.160)
    - City can only take over maintenance of private drainage systems for subdivisions, only if specific conditions are met (SMC 12.10.160)
    - Limited funding available – must focus on projects with greatest public benefit
  - Recommends approach derived from Pierce County and City of Shoreline

# Example Policy Flow Chart

(See attachment)



<sup>1</sup>Physical requirements for maintenance of a system include a 15-foot minimum easement.

<sup>2</sup>Technical guidance may be provided upon request and may include a list of contractors to perform maintenance.

<sup>3</sup>

# Key Recommendations

- Develop Private Property Drainage Policy - Continued
  - Next steps
    - Bring draft code changes to CSS and RCM
      - Winter of 2013

# Remaining Steps for Plan

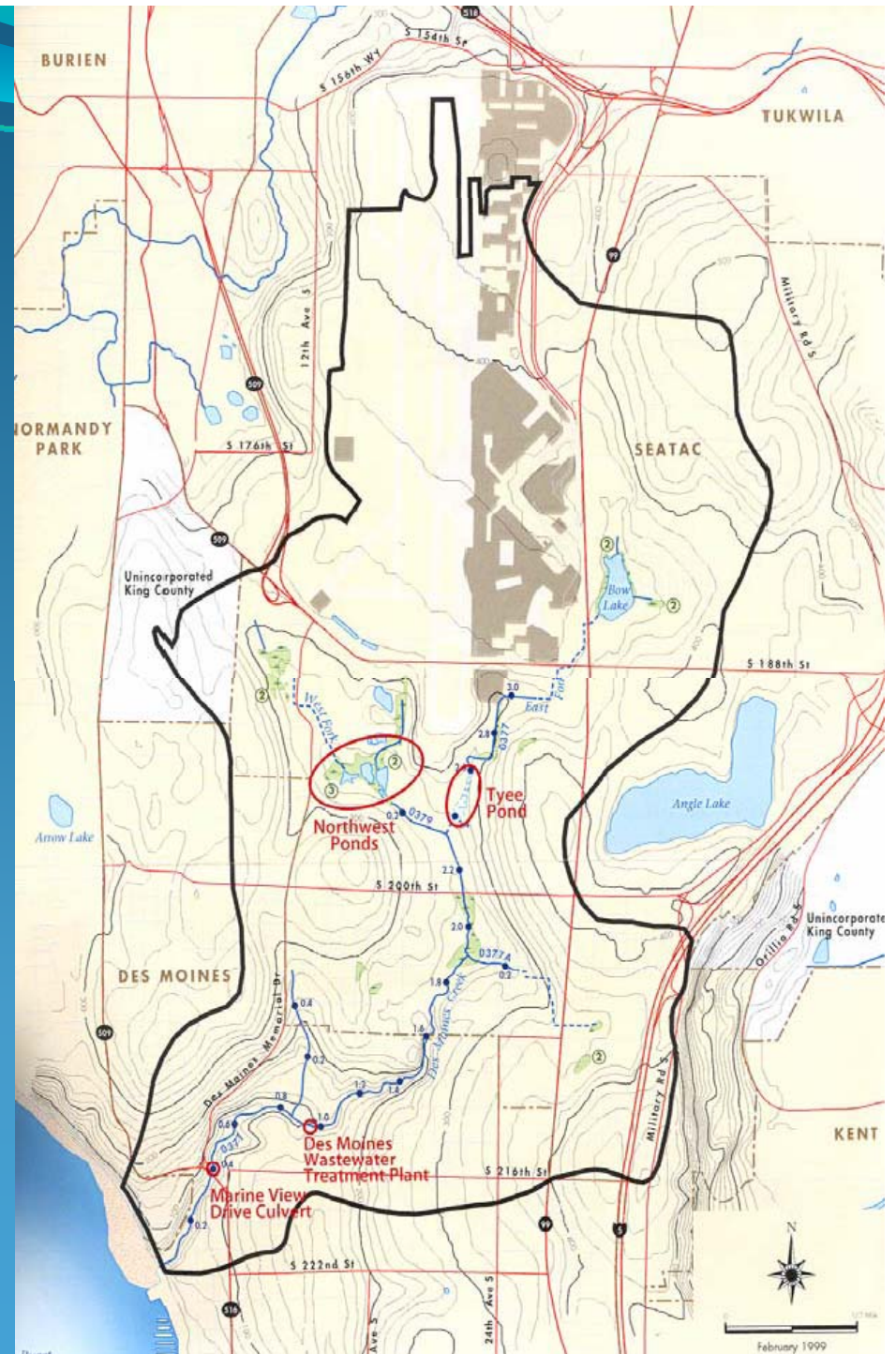
- June 25, 2013 Presentation to Council Study Session
- July 9, 2013 Presentation to Council Study Session
- July 23, 2013 Motion to Accept at Regular Council Meeting



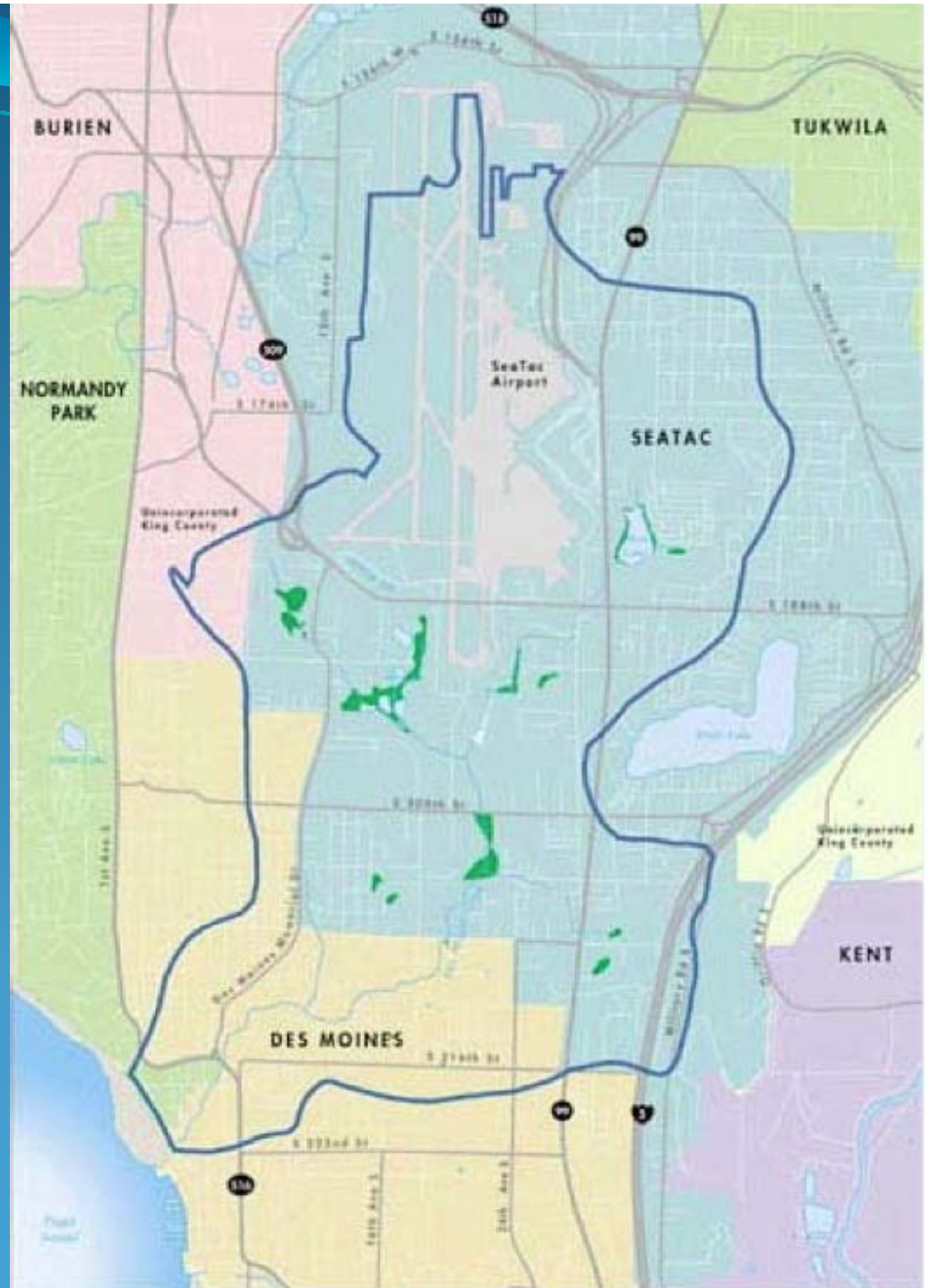
# Questions



# Des Moines Creek Basin

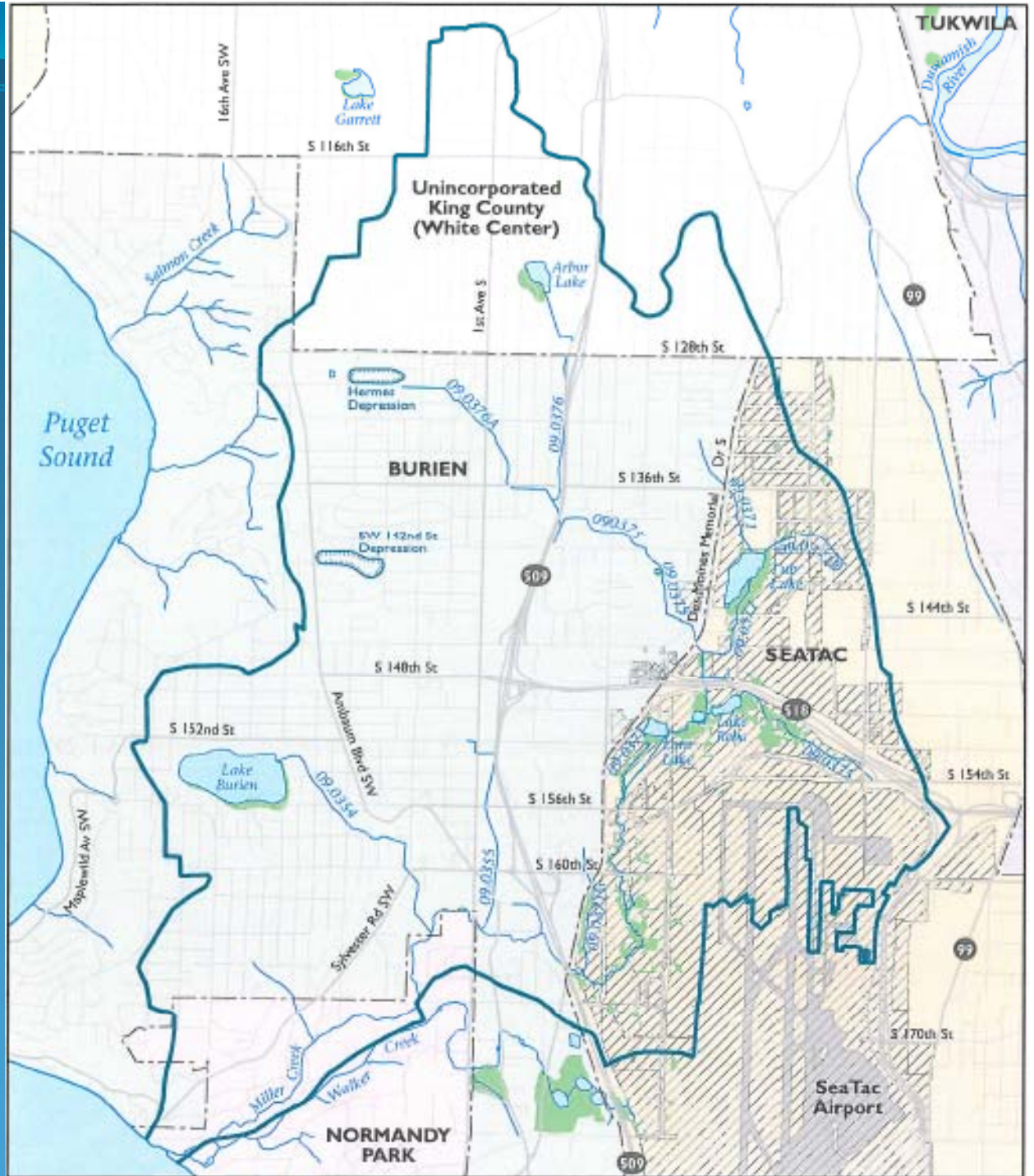


# Des Moines Creek Basin

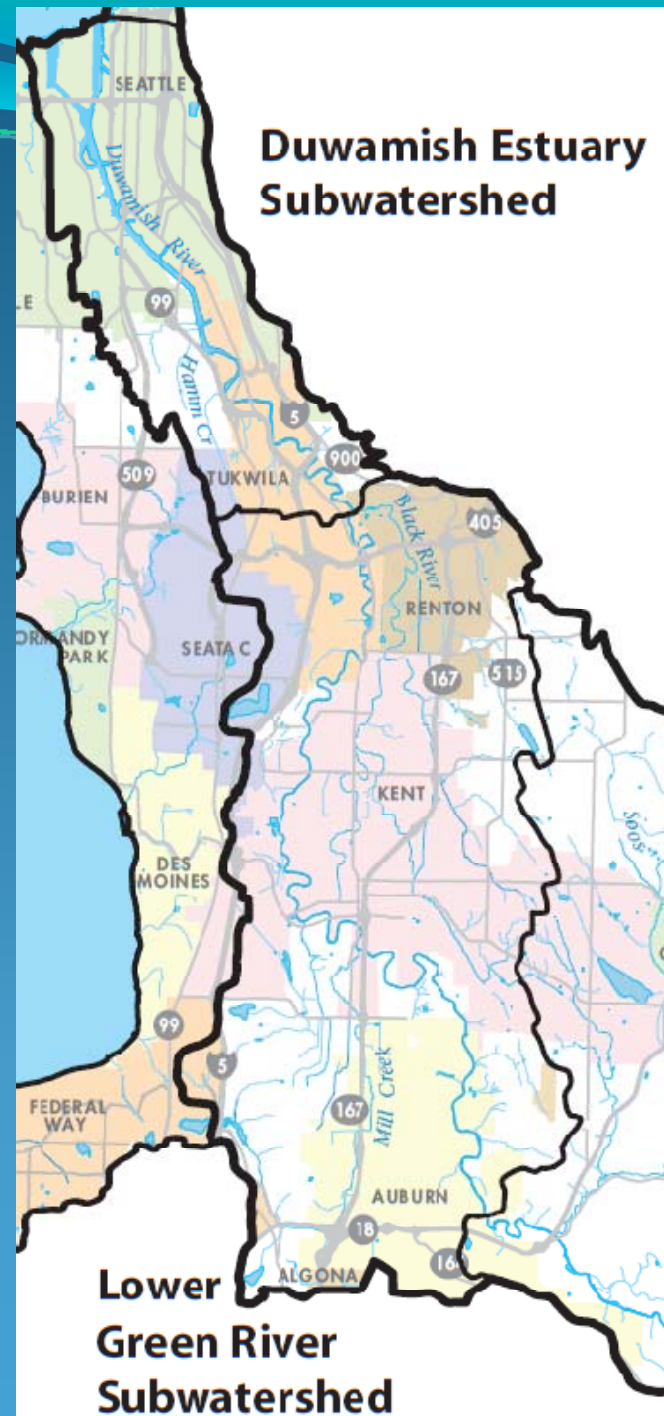




# Miller/ Walker Creek Basin



# Green/Duwamish Subwatersheds



# It Does Not Set Regulations

- It provides recommendations on how to respond to them
- It identifies existing goals, does not set new goals
- It makes recommendations to address other utility needs
- Acceptance of this plan does not mean programs are adopted for implementation