



# Surface Water Plan

Agenda Bill # 3523

July 9, 2013 C.S.S.

Presented By:

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&

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# Recap

- 3<sup>rd</sup> in a Series of 3 Presentations to Council
- Previous Presentations
  - June 11<sup>th</sup> - Surface Water Plan Briefing
  - June 23<sup>rd</sup> – Surface Water Plan Background
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# 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, CIP sheets and details on Public Involvement

# 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
    - Military Road ( S 150th to 152<sup>nd</sup>) - \$750,000

# 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

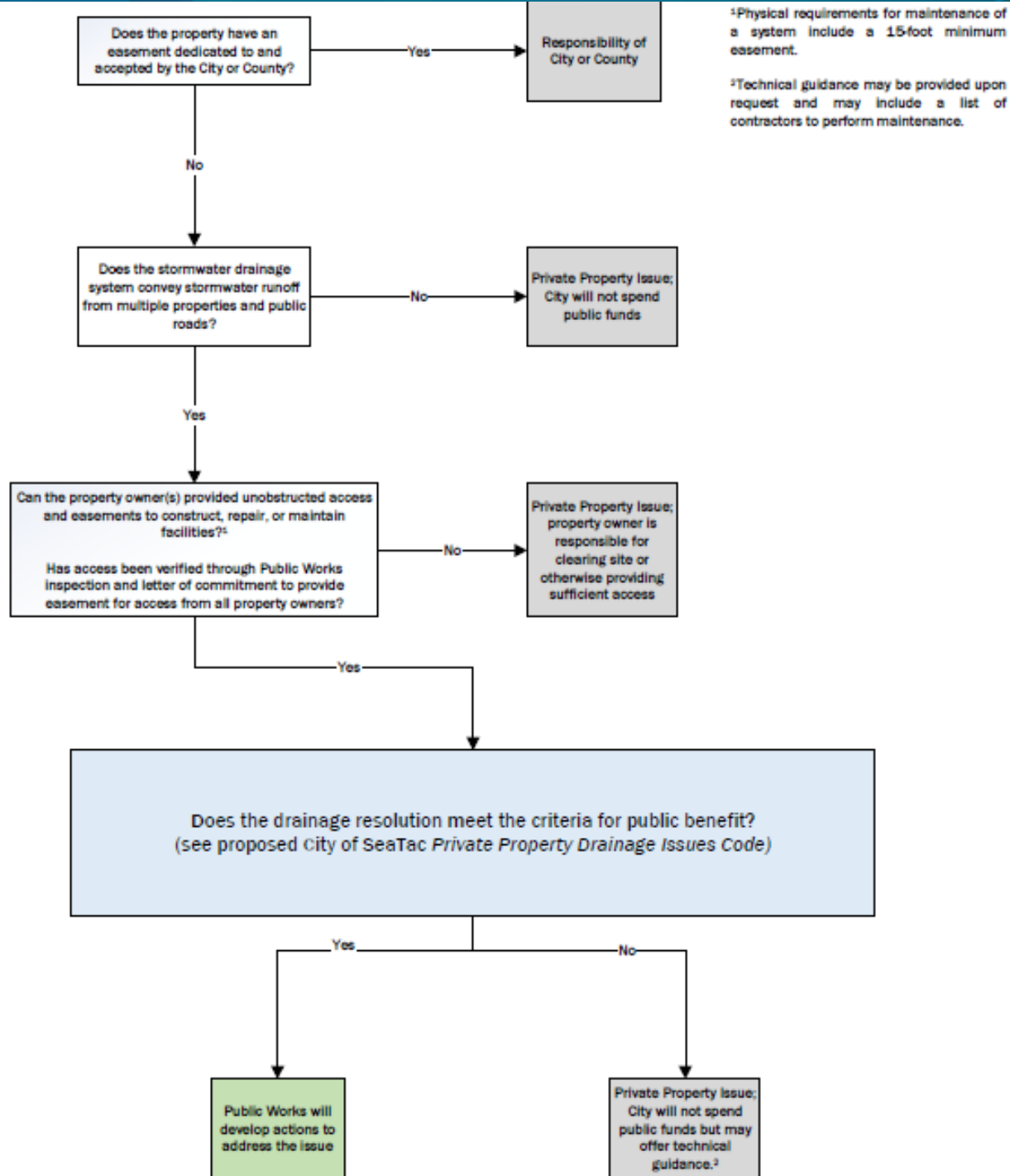
- Evaluate funding of stormwater portions of Transportation CIP improvements with Surface Water Utility funds
  - Currently funded out of the roads fund
  - Costs and benefits to be evaluated in rate study

# 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)
    - City code (SMC 12.10.170) requires property owners to maintain or repair private stormwater systems that are adversely affecting other properties
    - 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)





# Key Recommendations

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





# Remaining Steps for Plan

- July 23, 2013 Motion to Accept at Regular Council Meeting

# Questions