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Problem:

• No required stormwater controls prior to 1990’s

• Which is one of the most significant issues preventing Puget Sound recovery

• Current stormwater infrastructure is undersized relative to current standards
Accelerates erosion

Degrades water quality

Increases Flooding
Project Overview:

• 2 regional climate model projections - RCP 4.5 and 8.5

• Evaluate changes in precipitation

• Synthesize projects for stormwater facility design
Types of Stormwater Facilities Evaluated:

- Detention Ponds
- Infiltration Ponds
- Water Quality Wetponds
- Sand Filters
- Bioswales
- Bioretention
- Using **1** Location
- 2 Land Cover Scenarios
- 7 BMPs
- 2 Soil Types

= **140 BMPs Designed & Evaluated**
Results:

• Extreme Rainfall Intensities Increase Overall

• Till Soils – BMPs Generally Increase 20-40%

• Outwash Soils – BMPs Generally Increase 50-200%
WHAT NOW?
Implementing Change:

• Impacts to new development design standards

• Considerations for retrofits

• Incentivize retrofits and new designs
Change of Direction

- Planning
- Section Structure
- Stormwater Management
THANK YOU!

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