



October 2017  
PNW Climate  
Conference

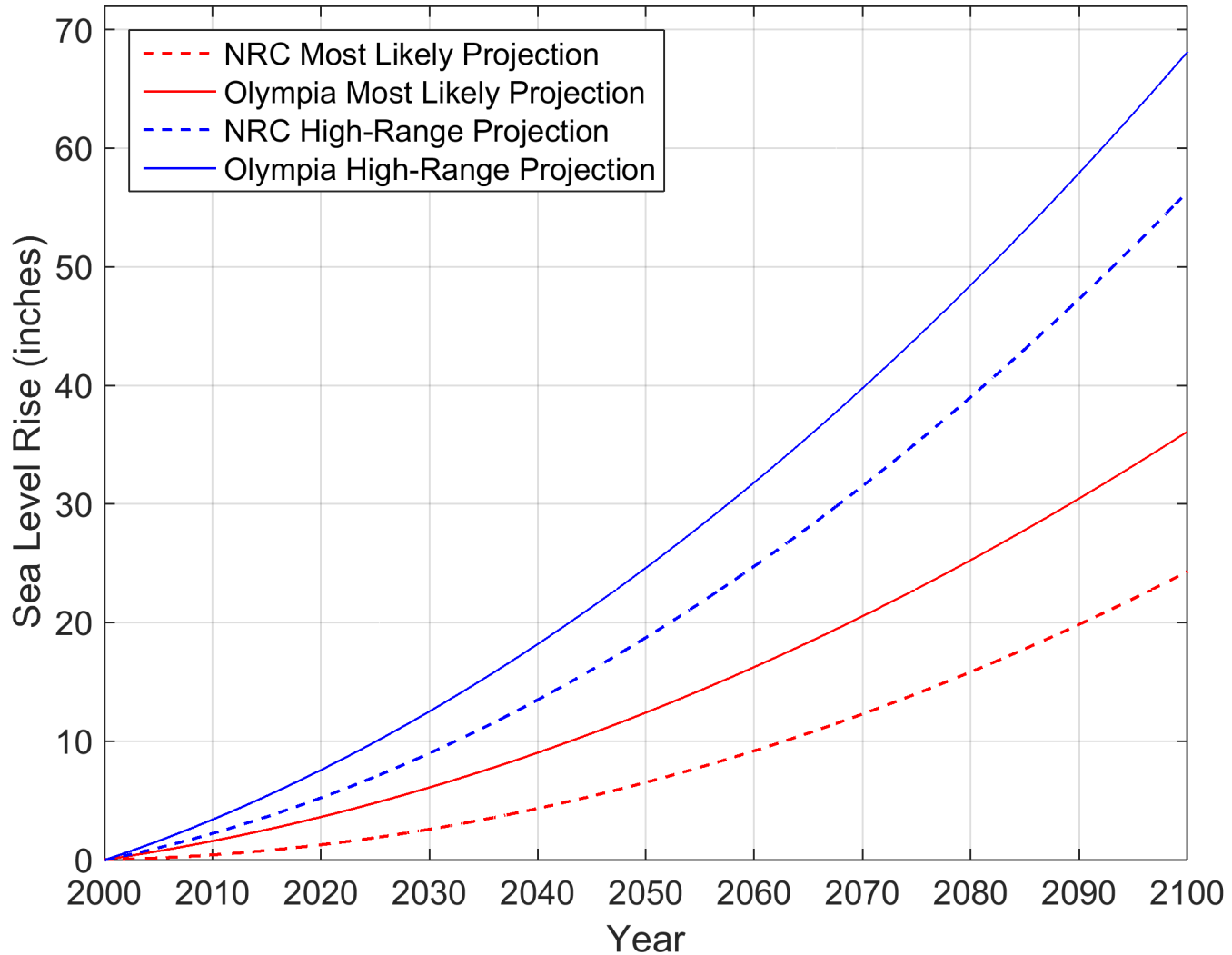
# Olympia's Sea Level Rise Response Plan



# Developing a Response Plan

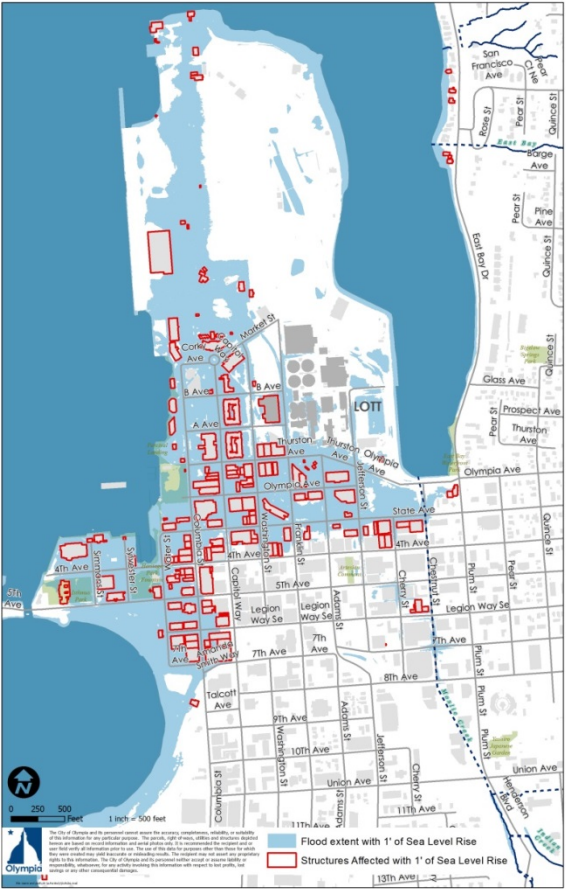


# Sea Rise Projections

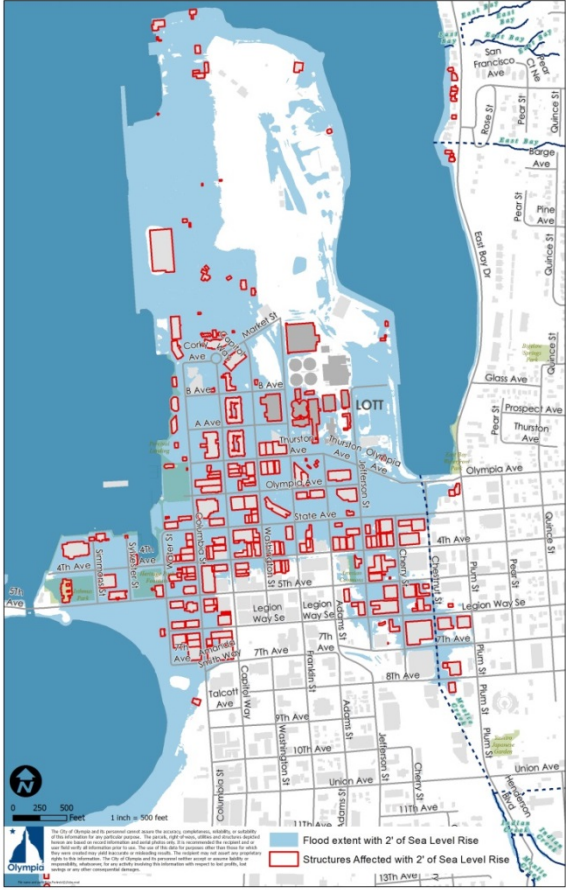


# Olympia's Vulnerability

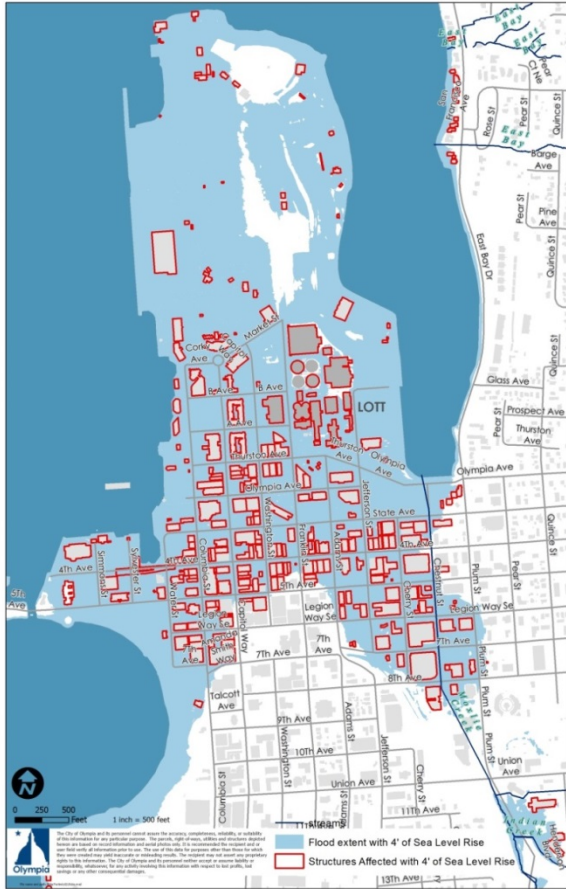
1 foot



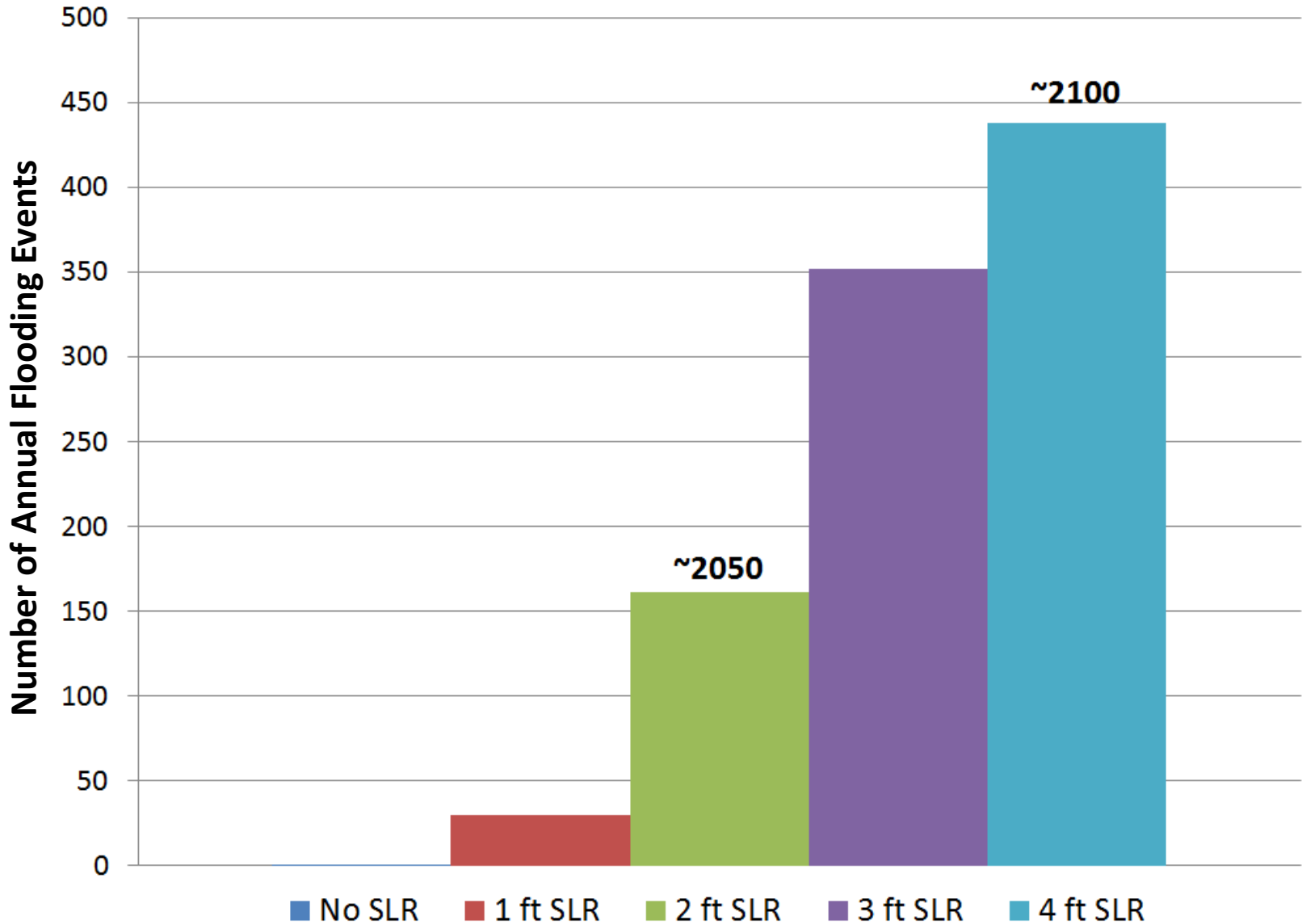
2 feet



4 feet



# Frequency of Downtown Flooding



# The Plan

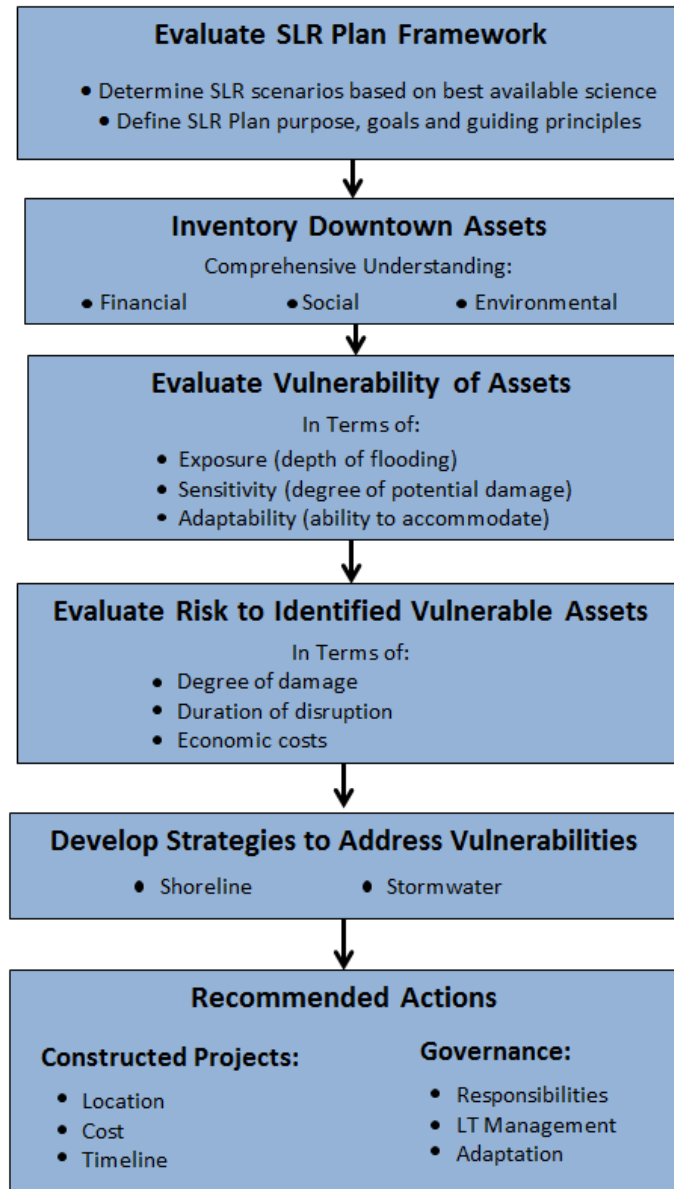
**Goal:** Develop a formal community plan that prioritizes strategies and investments for best responding to sea rise, while protecting downtown's economic, social and environmental values.

The plan will identify:

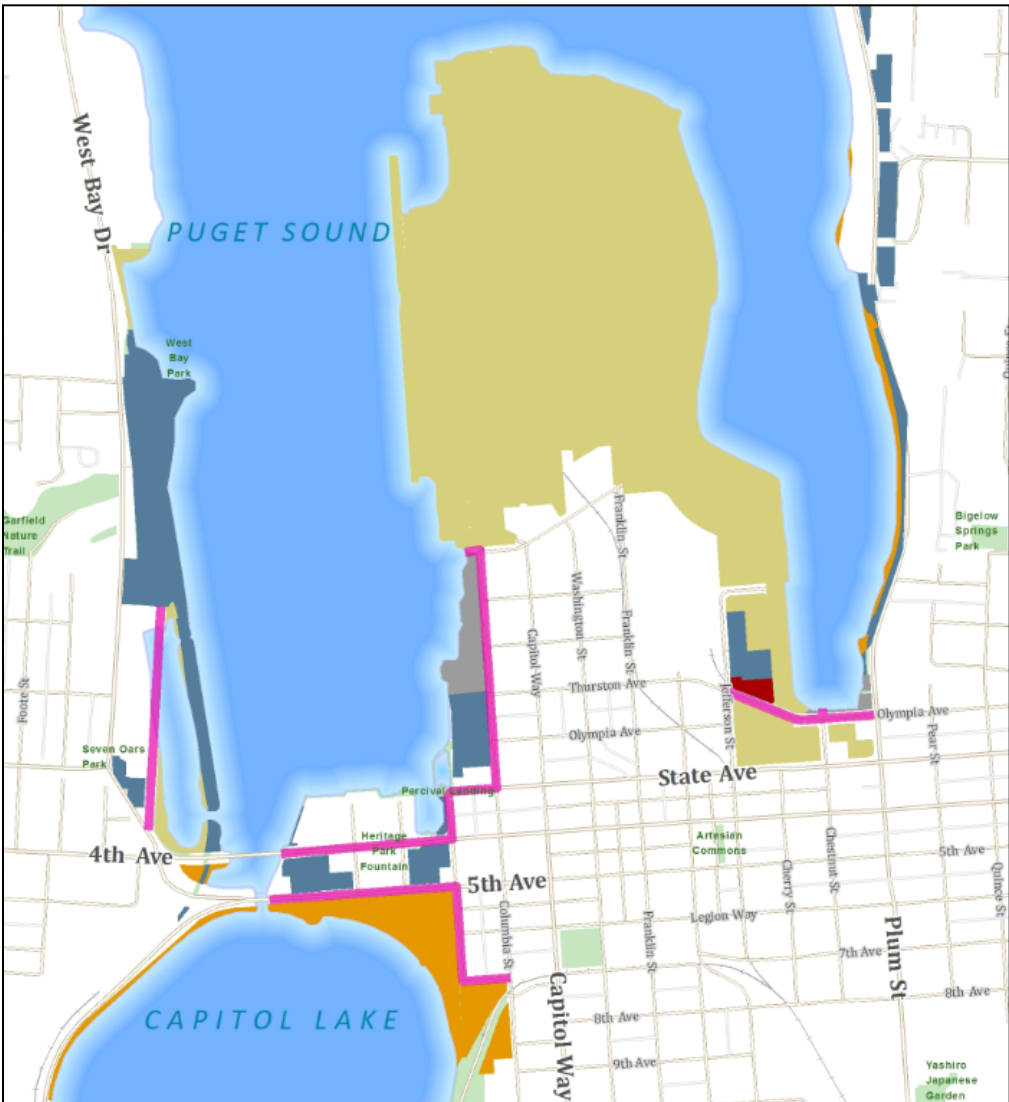
- needed actions
- estimated costs and resources
- implementation schedules
- responsibilities



# The Planning Approach



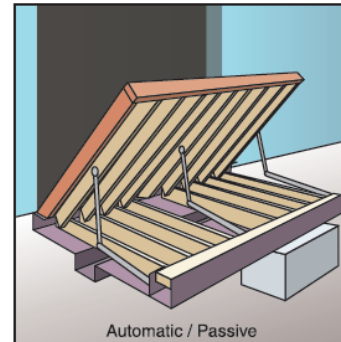
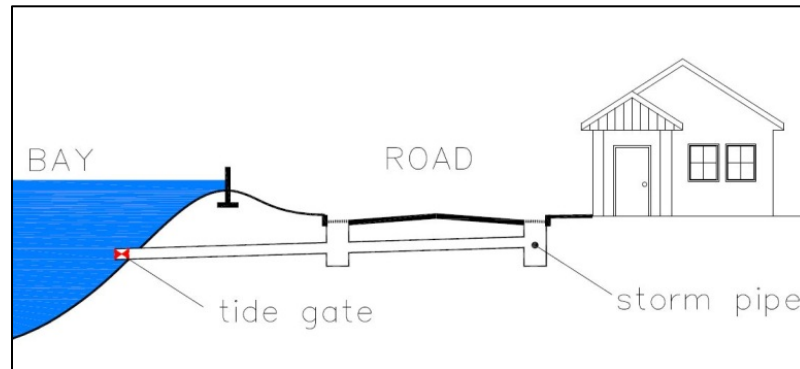
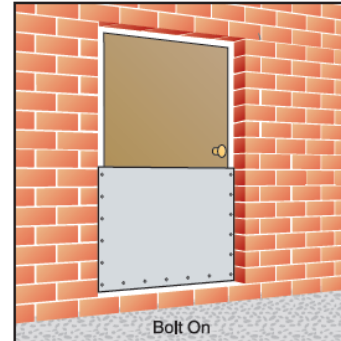
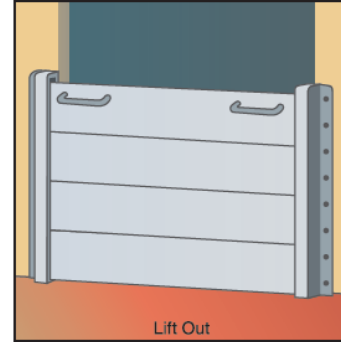
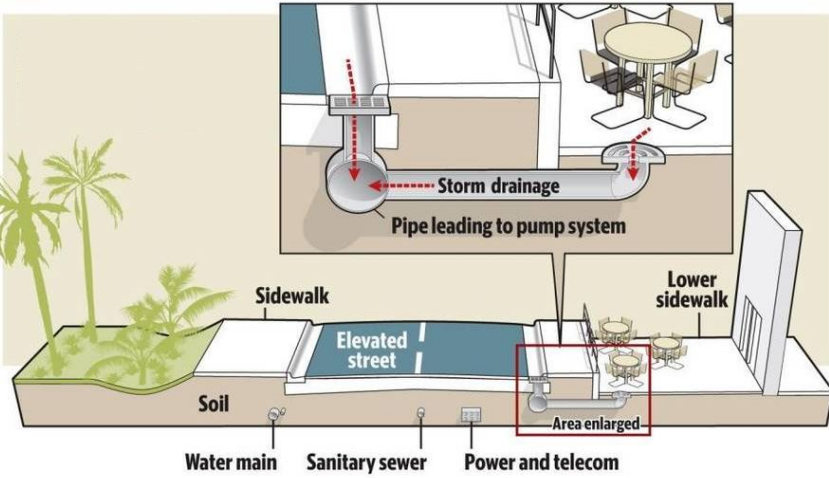
# Shoreline Ownership



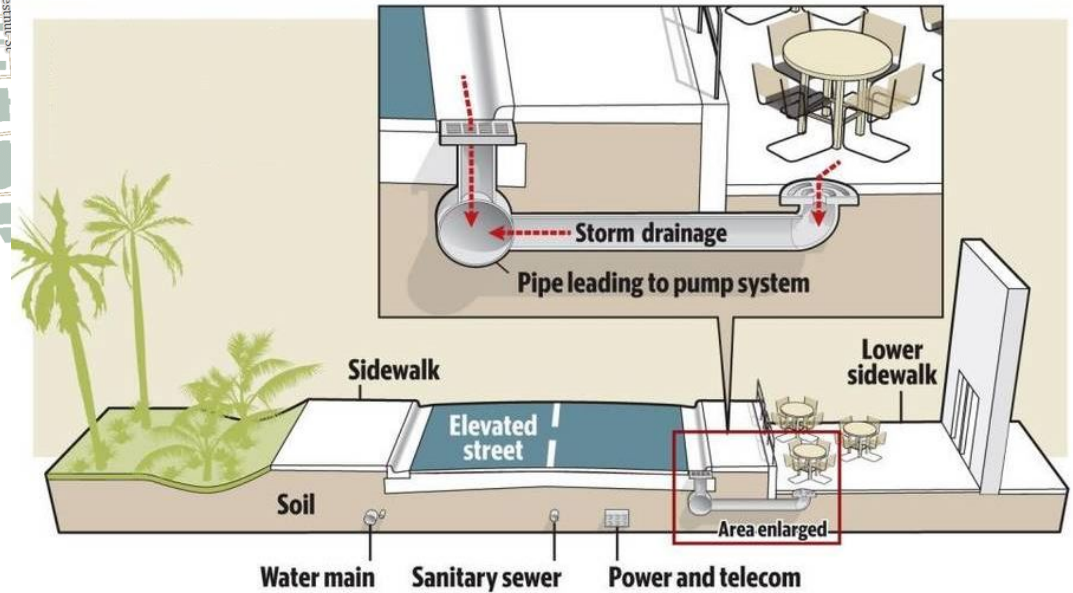
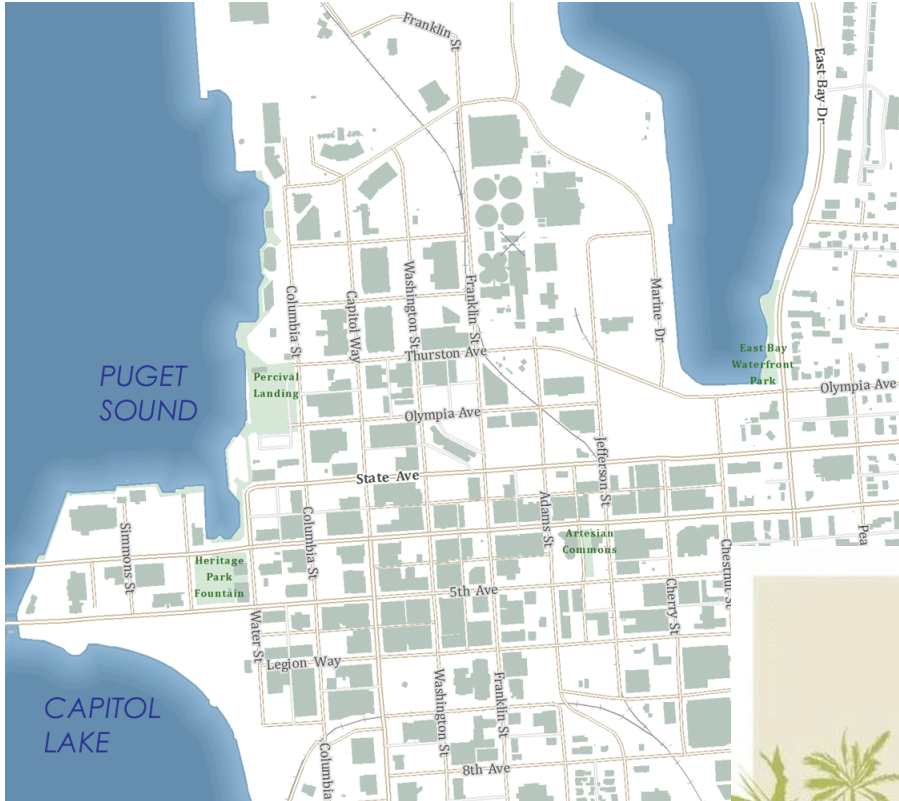
- Right of Way
- Port of Olympia
- City of Olympia
- LOTT
- Washington DNR
- Washington DES



# Physical Strategies



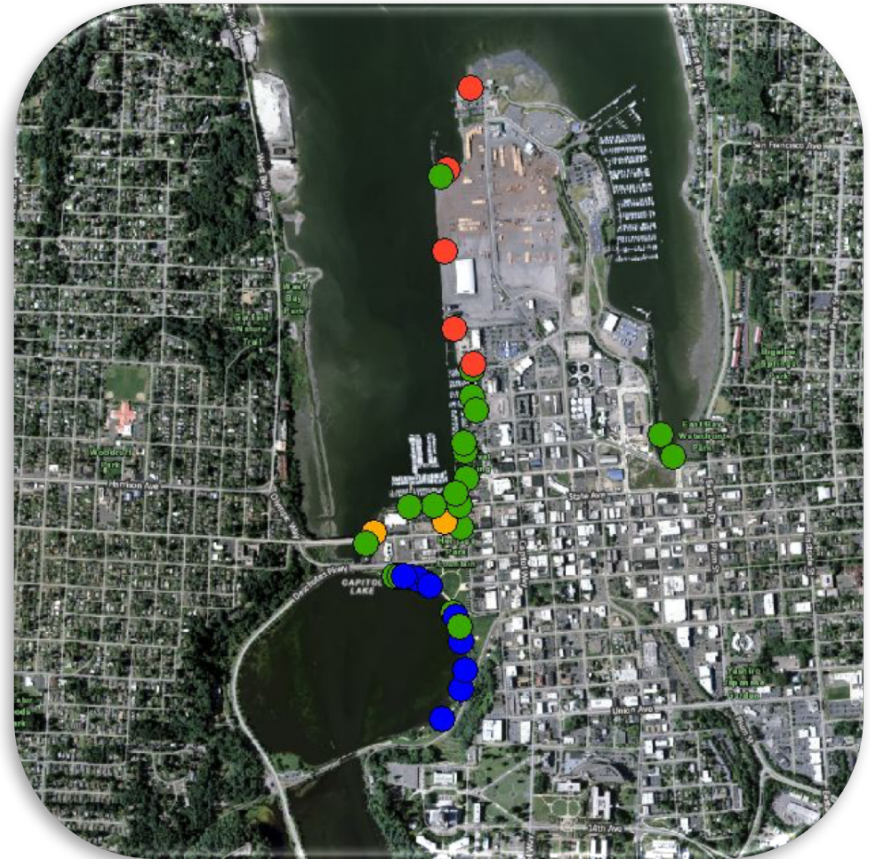
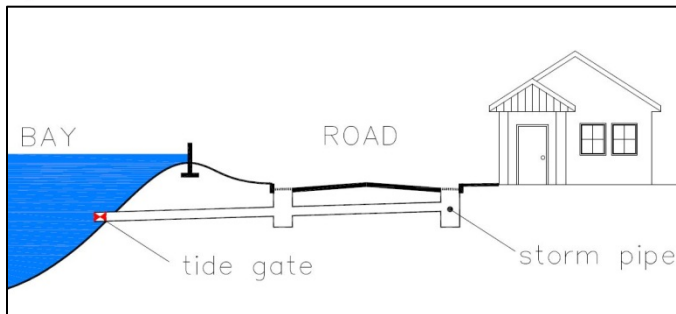
# Elevated Roadways



# Storm Drainage System

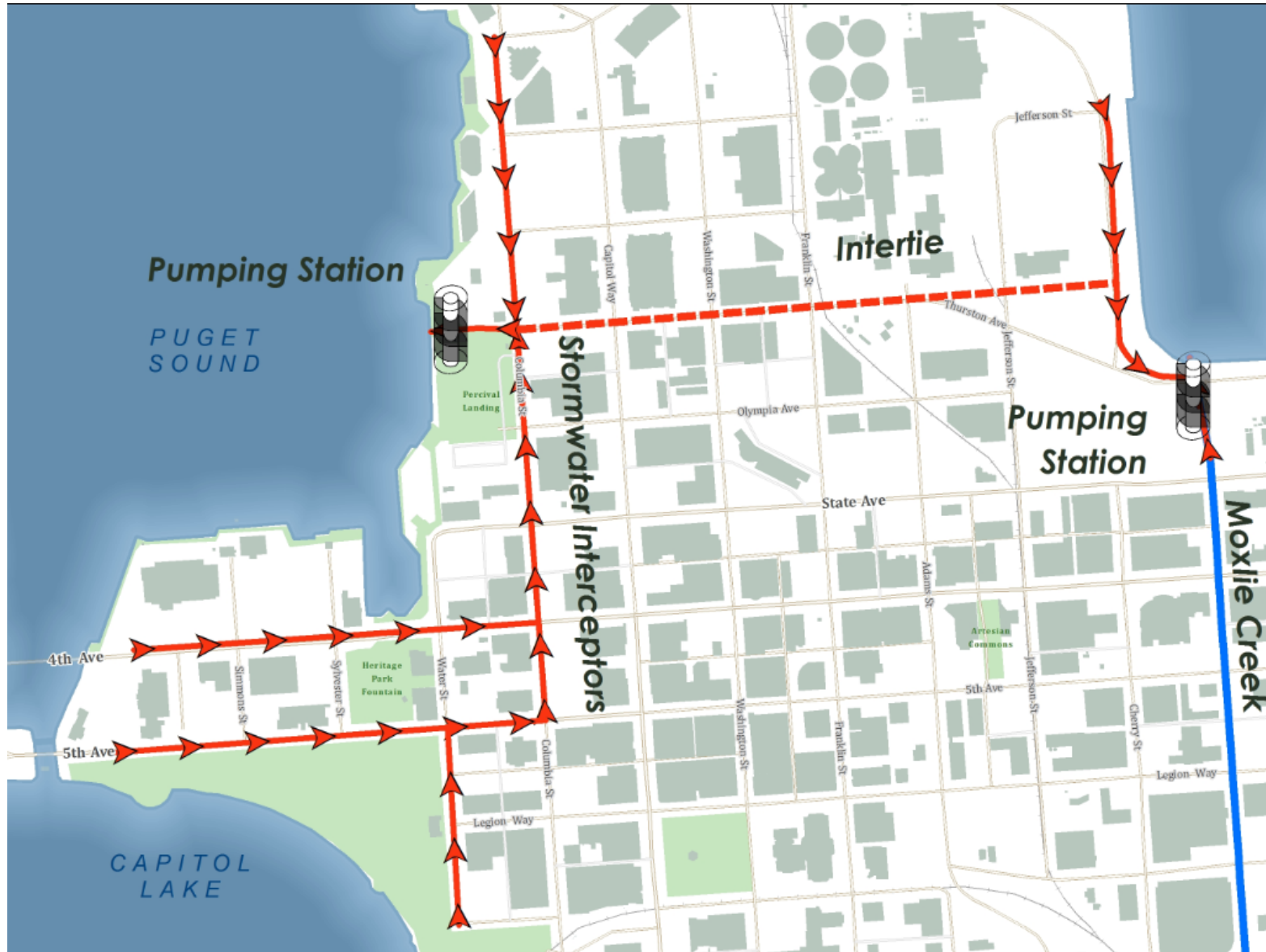


Backflow flooding at Budd Bay Cafe



Stormwater Outfalls

# Storm System Modification



# Ongoing Community Dialogue

- How do we best engage the community in decision-making?
  - Difficult long-term issues
- What is the community's tolerance for flooding?
  - Drives our response timeline
- As we respond, are there opportunities for downtown?
  - Improved public access, streetscape
- Protect or retreat?
  - Current policy is to protect
- How will infrastructure needs be financed?



Percival  
Landing Park

Harbor House

**Current Annual Flood**  
**13 feet NAVD88 / 17 feet MLLW**  
**(Could occur once per year)**



Harbor House

Percival  
Landing Park

**Current 100-Year Flood  
14 feet NAVD88 / 18 feet MLLW  
(1% chance of happening in any year)**



Annual Flood: With 4 feet Sea Level Rise  
17 feet NAVD88 / 21 feet MLLW  
(Could occur once per year)

Harbor House

Percival  
Landing Park

Google



City of Olympia



## Rising Sea Levels

### One Foot

Low Projected Year: 2072 / Projection:  
2053 / High Projected Year: 2031



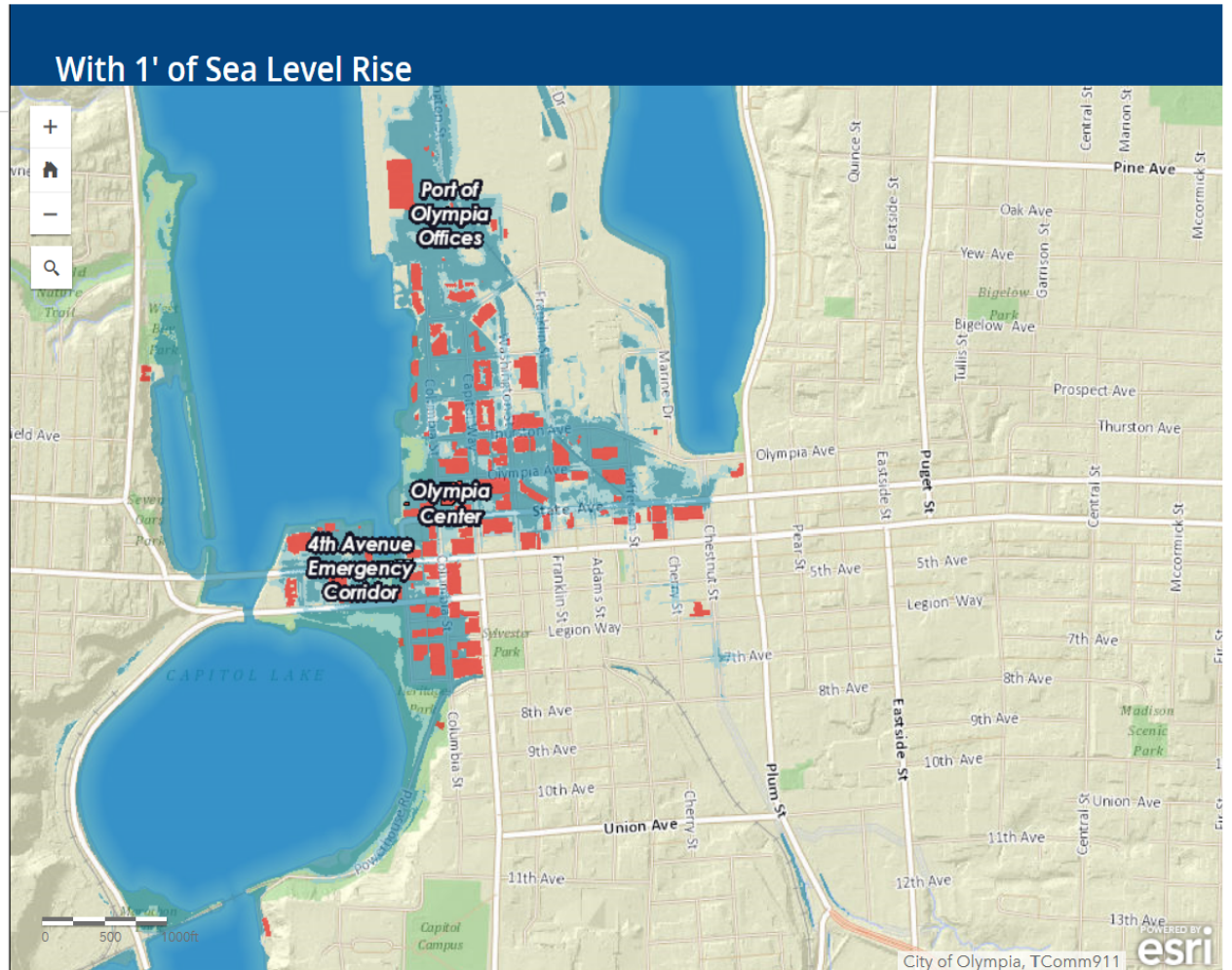
Olympia's Farmers Market

- Key Public Structures Affected
- Buildings Affected

in an Annual Flood  
Elevation is 14 feet NAVD88 / 18 feet MLLW

# Parcels Affected: 46  
Acres Inundated: 55  
Value of Buildings Affected: \$71,446,241  
Value of Properties Inundated: \$86,588,400  
Miles of Road Inundated: 4.1

in a 100-year Flood  
Elevation is 15 feet NAVD88 / 19 feet MLLW





# Response Planning for Sea Level Rise



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