



City of Bellevue  
 Utilities Department  
**ESC 2019-2020 Budget &  
 Rates Recommendation**  
 Environmental Services Commission  
 November 1, 2018

**CITY OF BELLEVUE  
 GREEN LIVING CHALLENGE**  
 We are working to complete the City of Bellevue's challenge.

<b>WEEK 1</b>	→	Waste Reduction, Recycling and Compost
<b>WEEK 2</b>	→	Water Conservation
<b>WEEK 3</b>	→	Waste Water Re-use
<b>WEEK 4</b>	→	Energy Efficiency

# Purpose of Tonight's Meeting

- ESC 2019-2020 budget and rates recommendation to City Council

## Next Steps:

### November 13

- Utilities Department briefs City Council on proposed budget and rates
- Chair Strom presents ESC budget and rates recommendation to Council

### December 3

- Anticipated budget and rates adoption

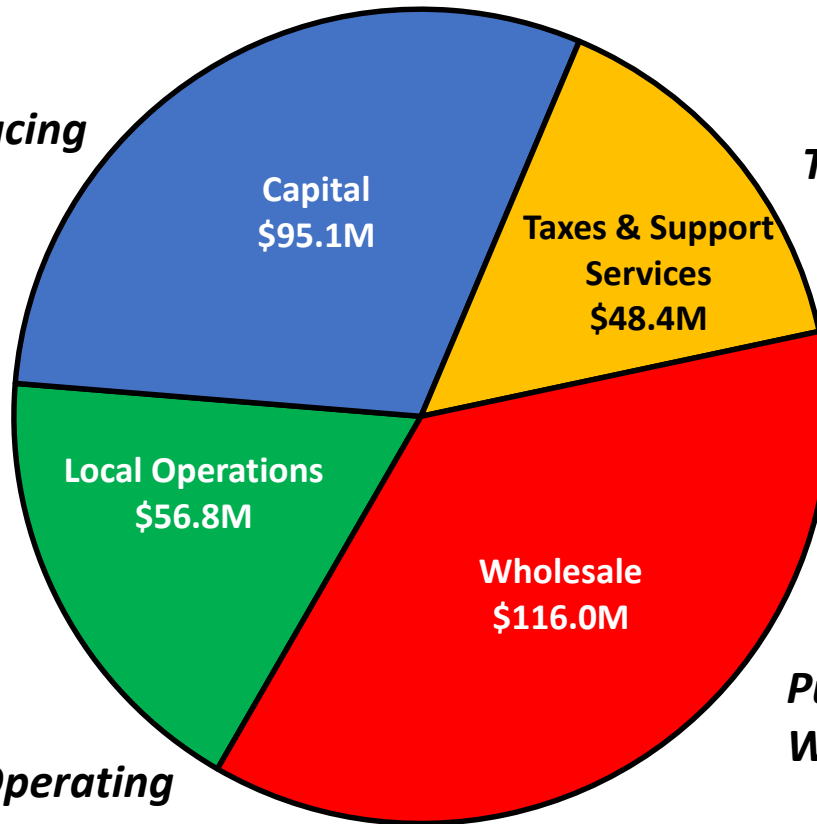




# Proposed 2019-2020 Utilities Operating Budget \$316.3M

**30%**  
*Renewing & Replacing  
Infrastructure*

**15%**  
*Taxes / Support Services*

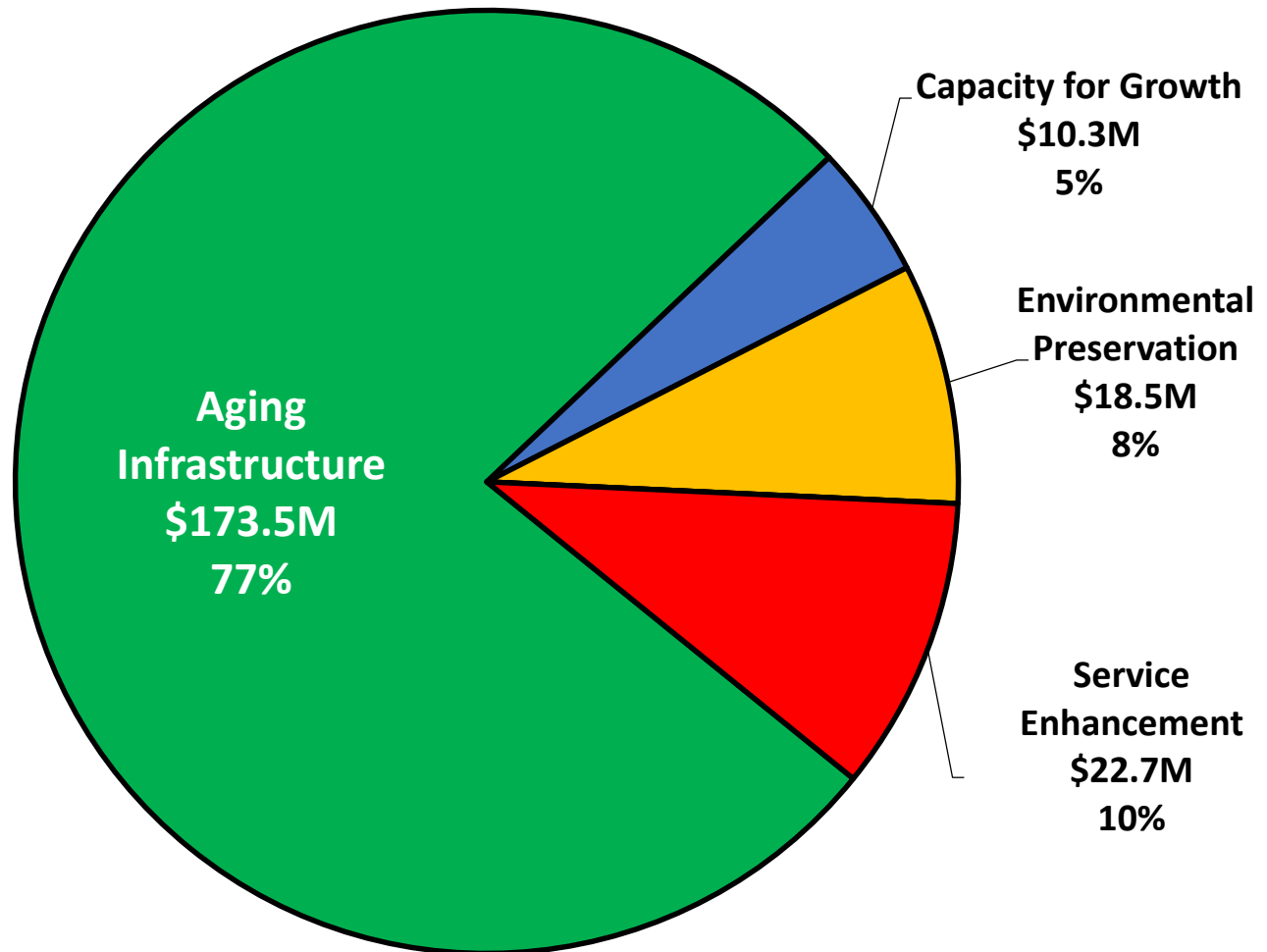


**18%**  
*Maintaining and Operating  
the Utility*

**37%**  
*Purchased Water  
Wastewater Treatment*

Excludes operating reserves

# Proposed 2019-2025 Utilities CIP Budget – \$225.0M



# 2019-2020 Proposed Utility Rates

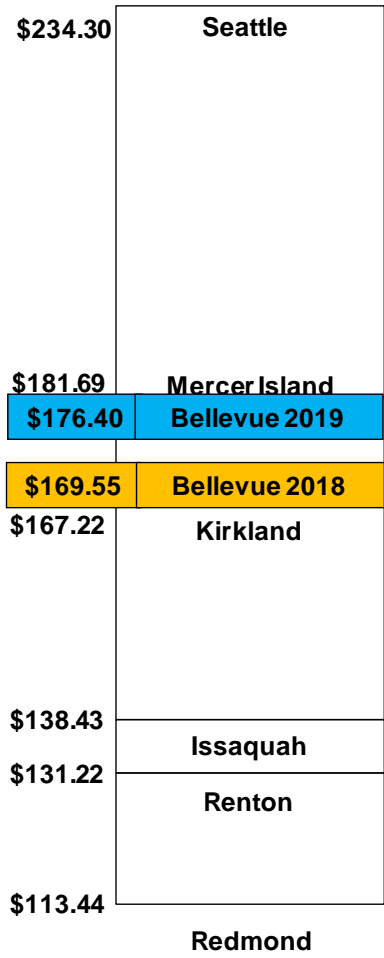
	2019	2020
<b>Water</b>		
Wholesale	1.4%	2.0%
Local	<u>2.3%</u>	<u>3.0%</u>
Total	3.7%	5.0%
<b>Sewer</b>		
Wholesale	1.8%	-
Local	<u>2.1%</u>	<u>2.3%</u>
Total	3.9%	2.3%
<b>Storm</b>		
Wholesale	-	-
Local	<u>5.4%</u>	<u>5.4%</u>
Total	5.4%	5.4%
<b>Combined</b>		
Wholesale	1.4%	0.8%
Local	<u>2.6%</u>	<u>3.0%</u>
Total	4.0%	3.8%



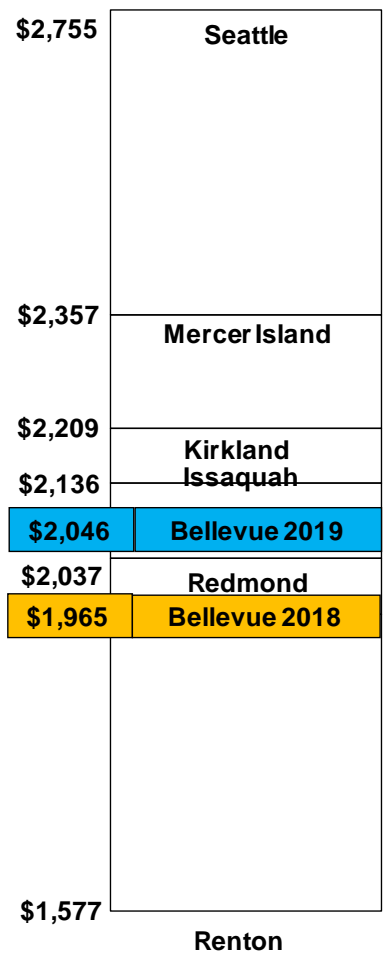
# Competitive Utility Rates with our Neighbors – 2018 Combined Water, Sewer & Storm Monthly Bill (Proposed 2019 Bill for Bellevue Only)



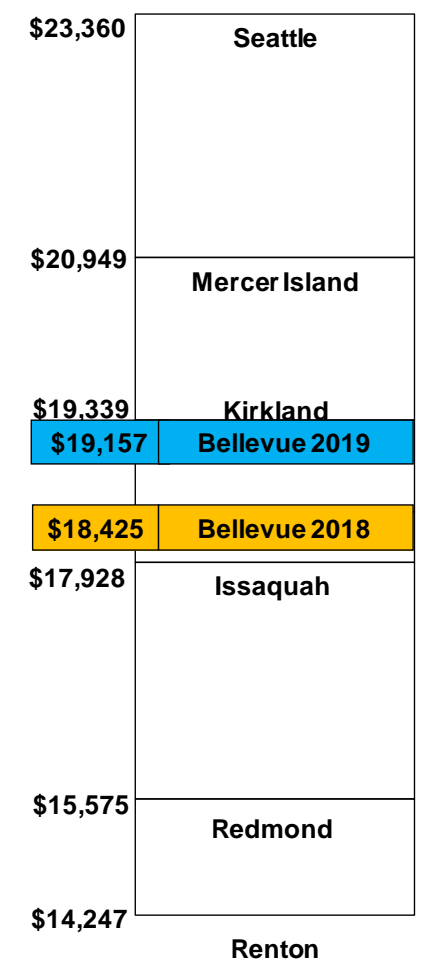
## Residential



## Multi-Family



## Commercial





# ESC Recommendation



# Water Distribution System Seismic Vulnerability Assessment

Doug Lane, P.E.

Bellevue Utilities Department



# Agenda

- Project Scope
- Guiding Principles

## Feedback Requested:

- Scope questions
- Feedback on Guiding Principles



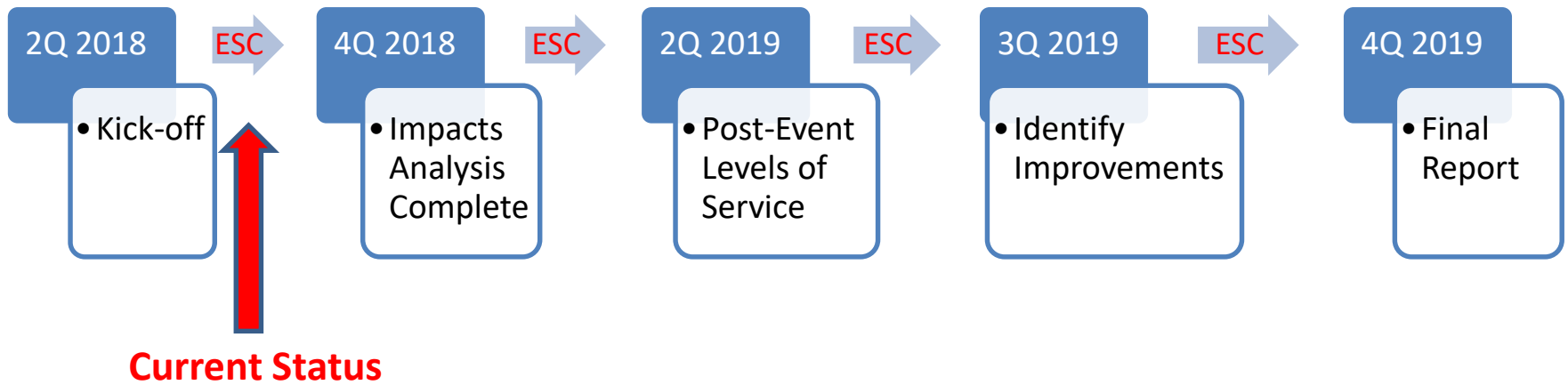
San Fernando, CA  
1971

Loma Prieta, CA  
1989



Kobe, Japan  
1995

# Schedule





# Project Scope Summary

- Level of Service Development
- Geotechnical Data Refinement
- Vulnerability Evaluation
- Consequence of Failure
- Service Restoration Timelines
- Develop recommendations to meet levels of service

# Level of Service Development



## Post Earthquake Level of Service Goal Considerations

Emergency  
response and  
priority services

Regional  
factors and  
other impacts

Community  
priorities

Affordability,  
prioritization,  
implementation

Utility  
benchmarking  
and trends

Other....

# Level of Service Development



System Function	Event Occurs	0-24 Hours	1-3 Days	3-7 Days
Potable water available at supply source		●	●	
Main transmission facilities, pipes, pump stations, and reservoir operational		●		
Water supply to critical facilities available		●	●	
Water for fire suppression at key supply points		●		
Water for fire suppression at fire hydrants				●
Water available at community distribution centers/points			●	●
Distribution system operational			●	●

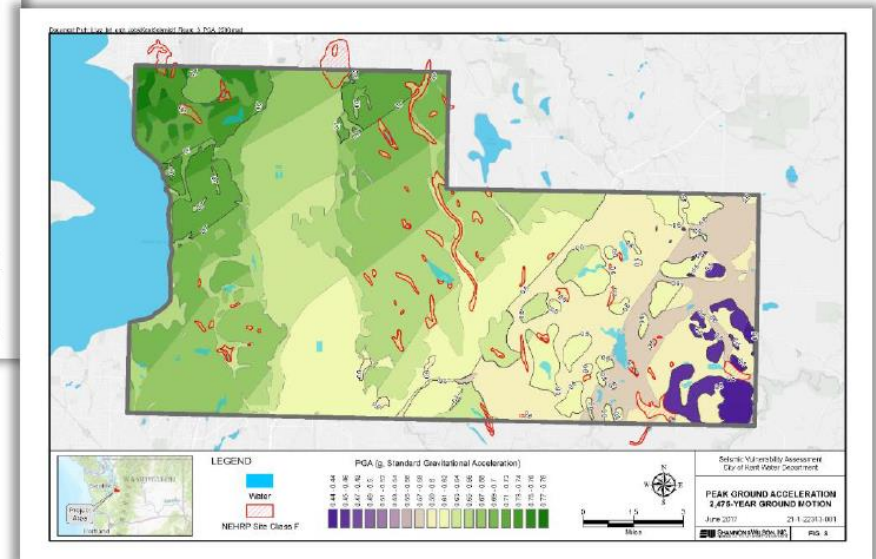
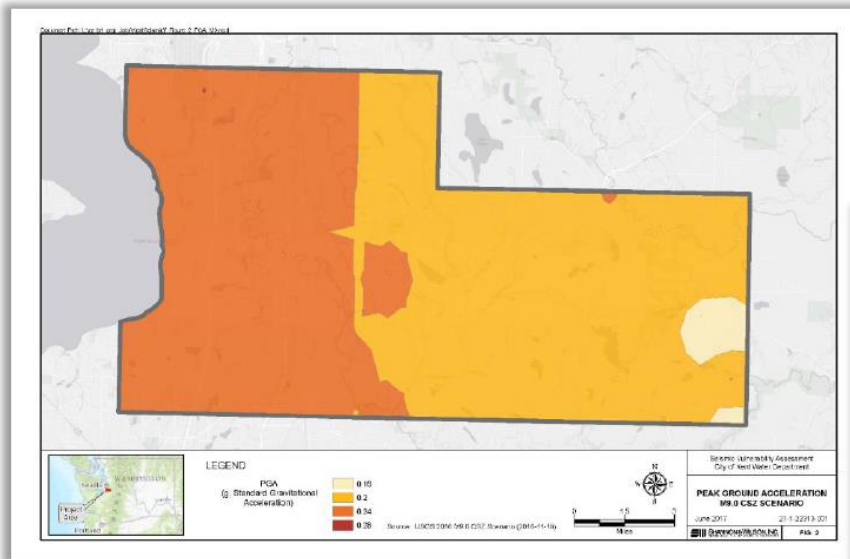
  

●	Desired time to restore component to 80-90% operational	●	Desired time to restore component to 50-60% operational	●	Desired time to restore component to 20-30% operational
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# Geotechnical Data Refinement

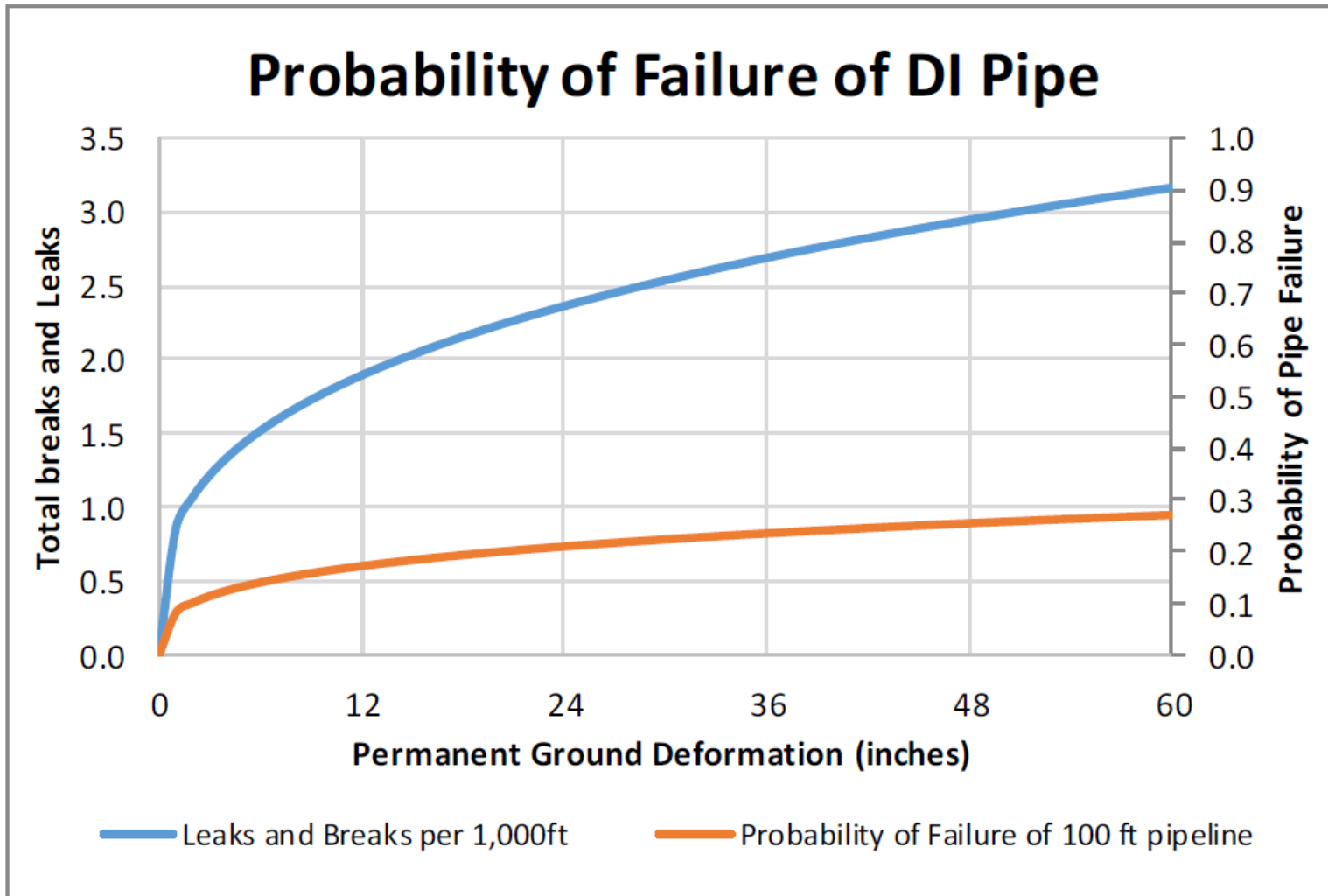


Ground motions will be adjusted for near surface geology

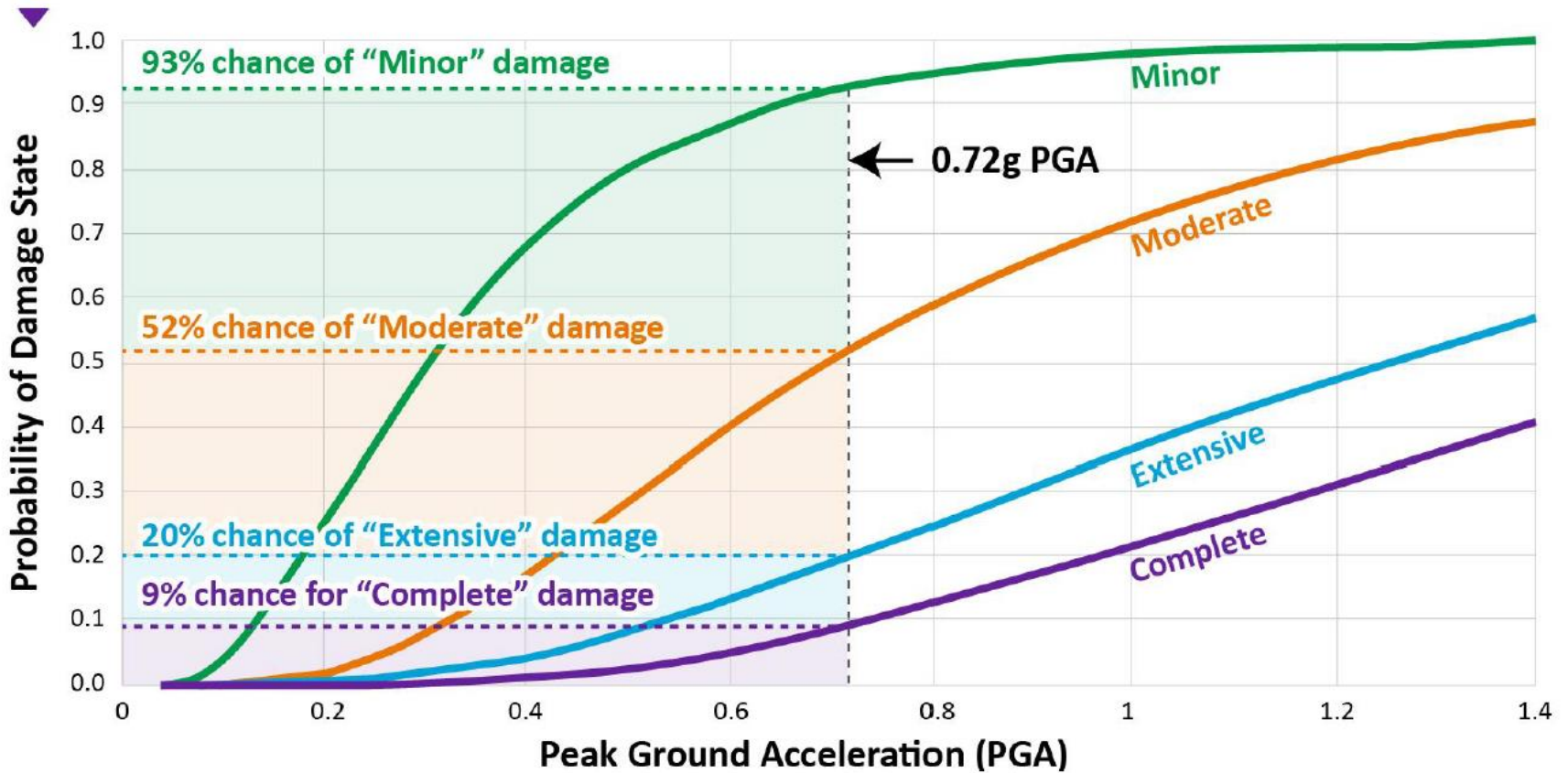


No numerical modeling of site-specific geotechnical conditions

# Vulnerability Evaluation



# Vulnerability Evaluation





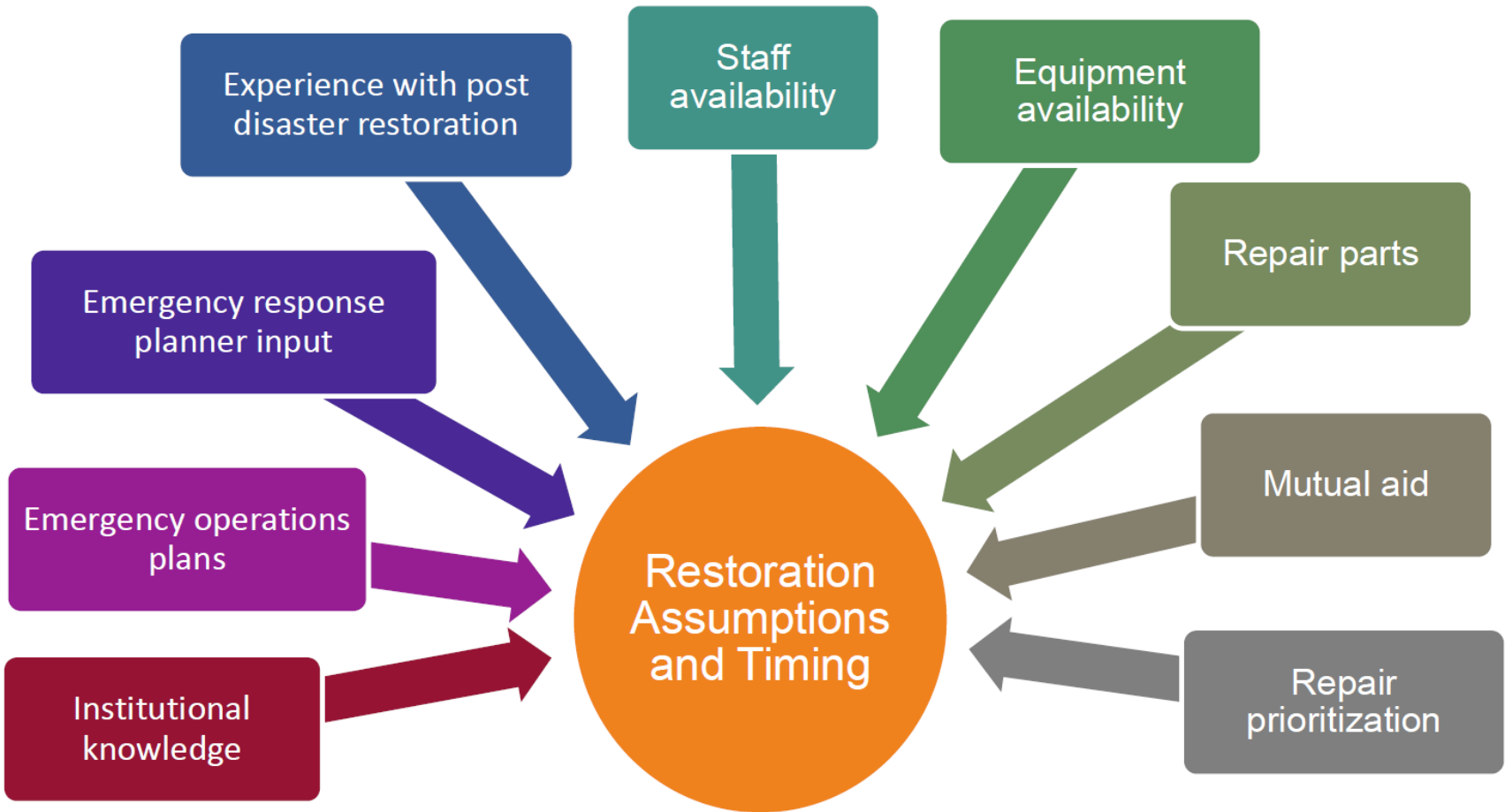
# Consequence of Failure



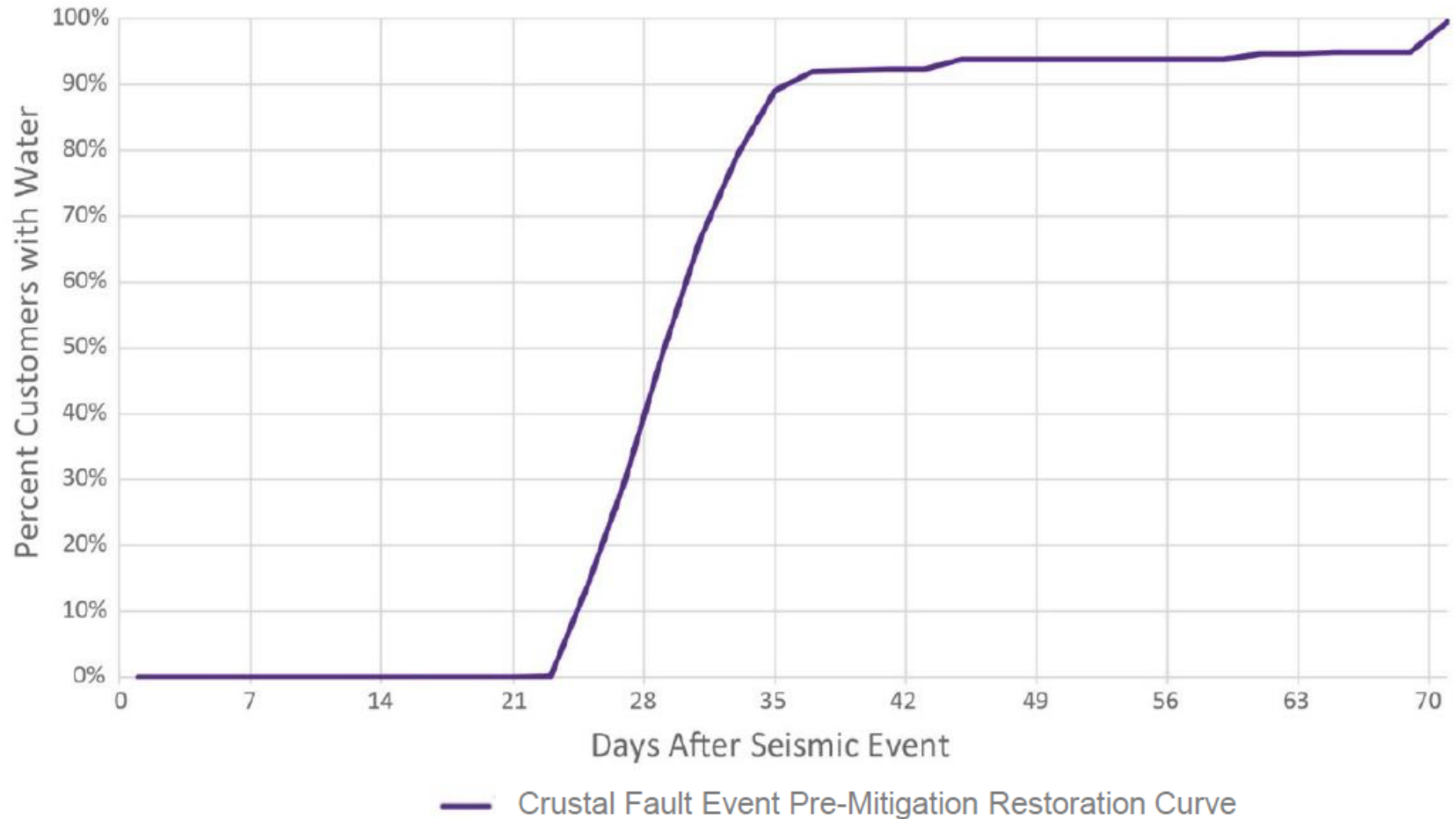
- Systematically break every pipe
  - Establish criticality based on customer impacts
- Repeat for multi-break analysis
  - Better reflect regional event scenario



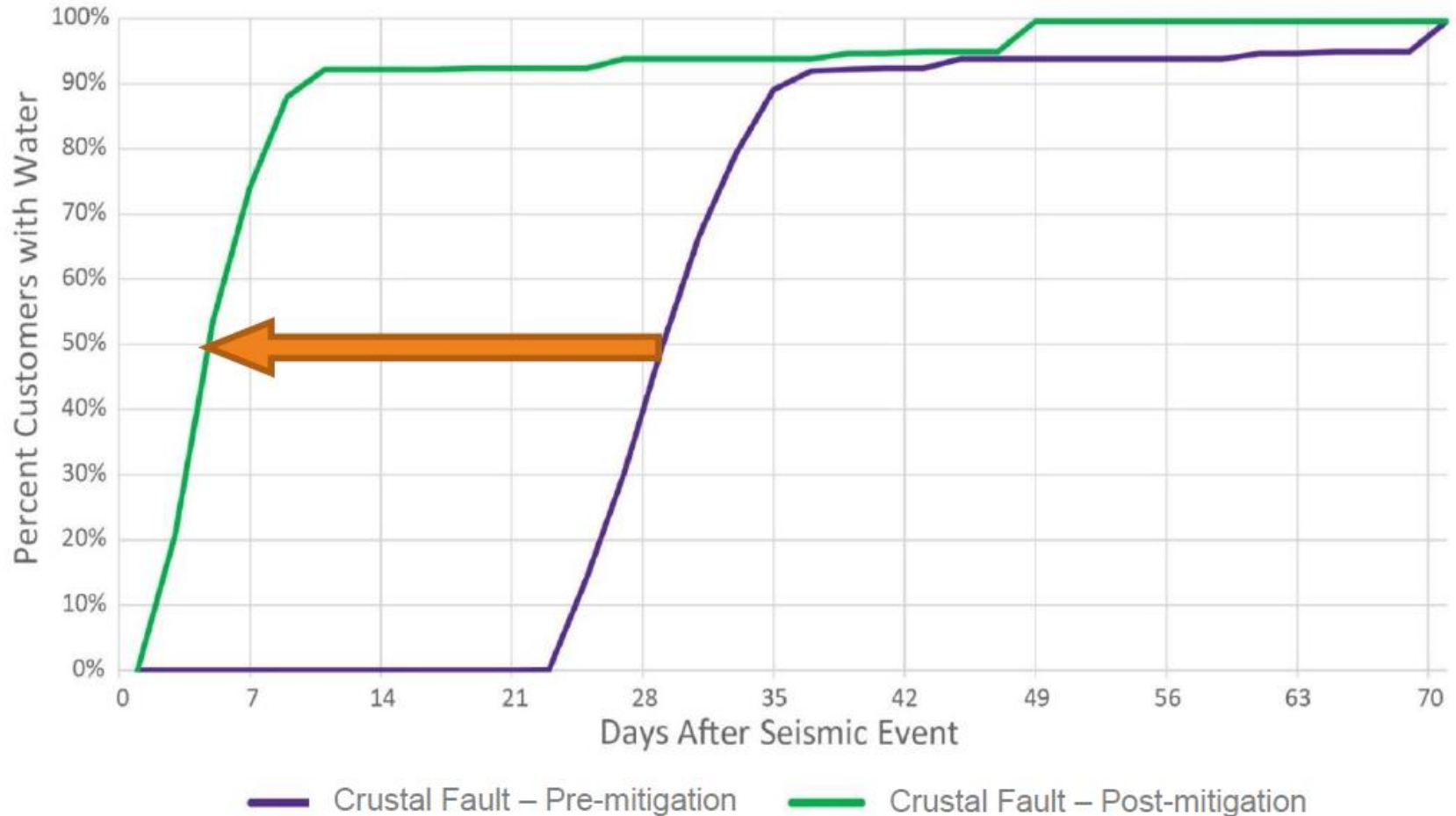
# Service Restoration Timelines



# Service Restoration Timelines



# Service Restoration Timelines



# Potential Recommendations



## Capital

- Main replacements, restrained and earthquake resistant joint upgrades
- Facility upgrades and replacements
- Emergency water supply opportunities

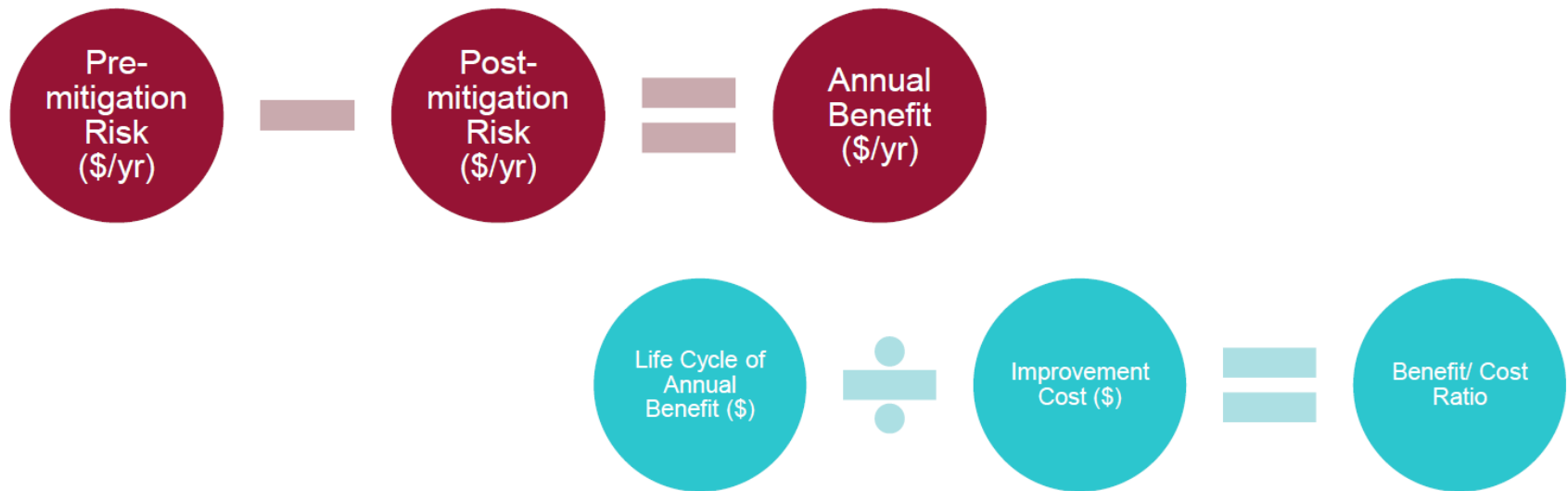
## Operational

- Instrumentation, telemetry, and controls adjustments
- Materials and spare parts inventories
- Staff training opportunities
- Staff response and travel time impacts
- Mutual aid, interlocal coordination
- Community Emergency Response Teams

# Potential Recommendations



- 1) Does improved system meet Level of Service Goals
- 2) How much seismic risk is mitigated by proposed improvements?





# Guiding Principles

- Establish overall purpose
- May affect scoring or prioritization of proposed improvements
- Demonstrate consistency with adopted policies

# Guiding Principles



Feedback requested on proposed principles:

- Public Safety (N-2, N-3)
- Social Equity (CE-12, CF-20, HS-6)
- Economic Vitality (ED-1, ED-32, ED-33)
- Regional Preparedness (UT-20, UT-42, EN-11)
- Value (UT-10, AWWA J-100)
- Resilience (N-4, CF-8, CF-12, UT-2, UT-41, EN-7)





# ESC in 2019

- Discuss results of customer impact analysis
- Discuss Level of Service
- Discuss improvements and potential costs

2020

- Council recommendation?



# Questions?

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