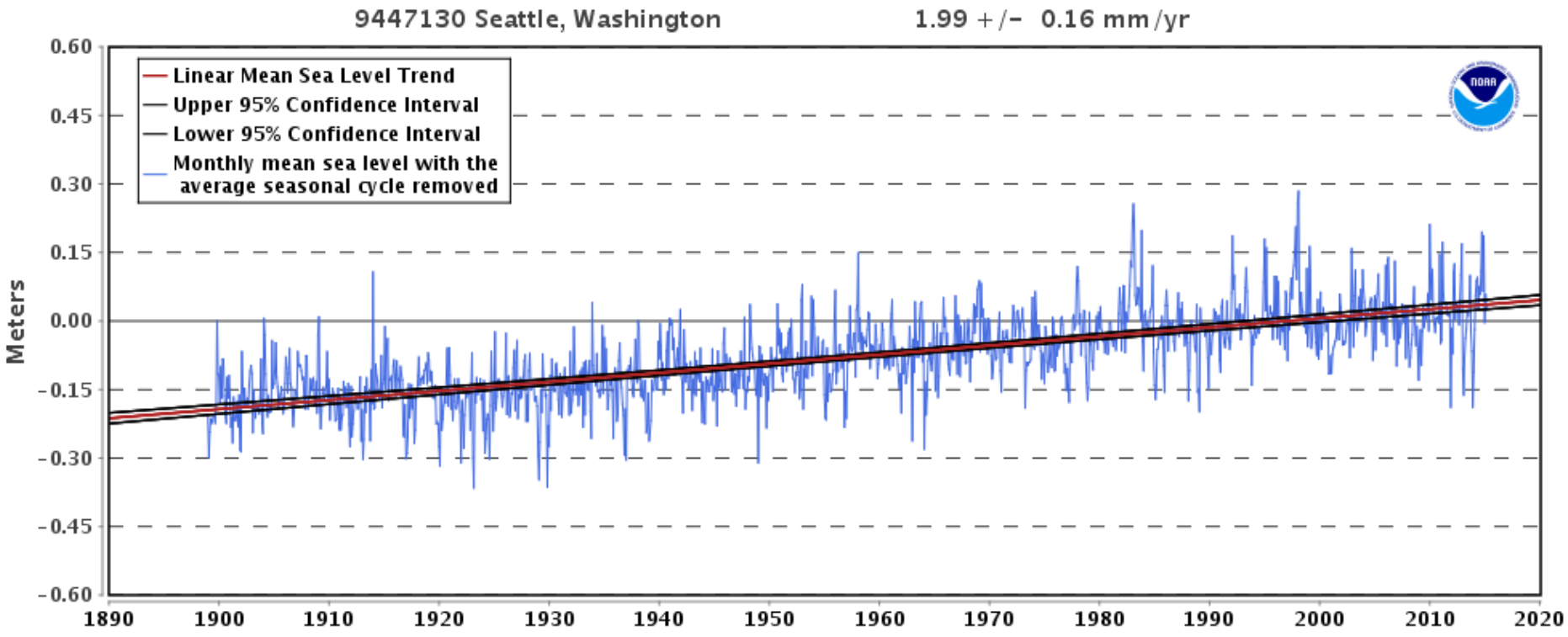
Developing a Comprehensive Strategy for Preparing for Sea Level Rise in King County

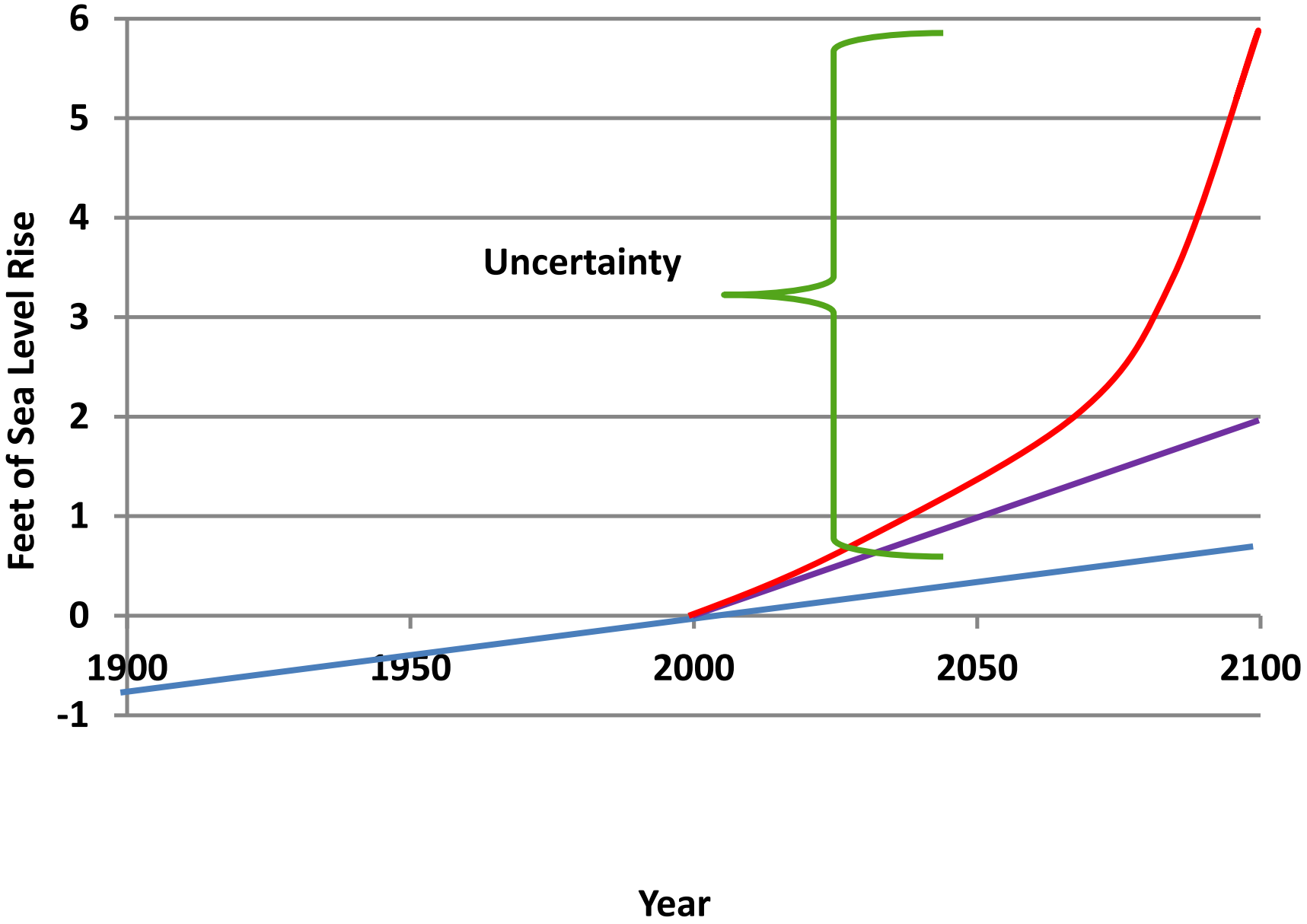
Jim Simmonds

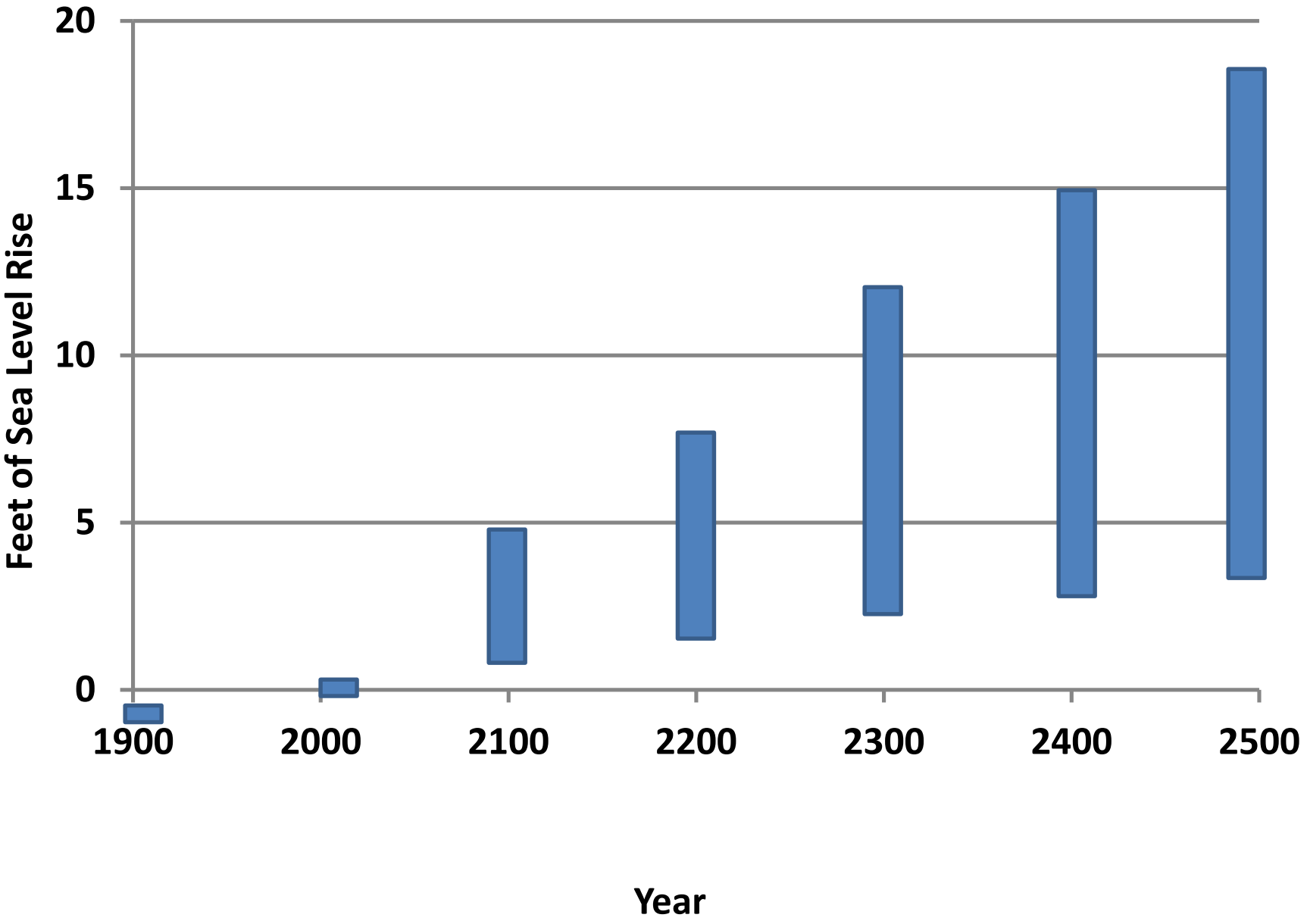
King County Water and Land Resources Division

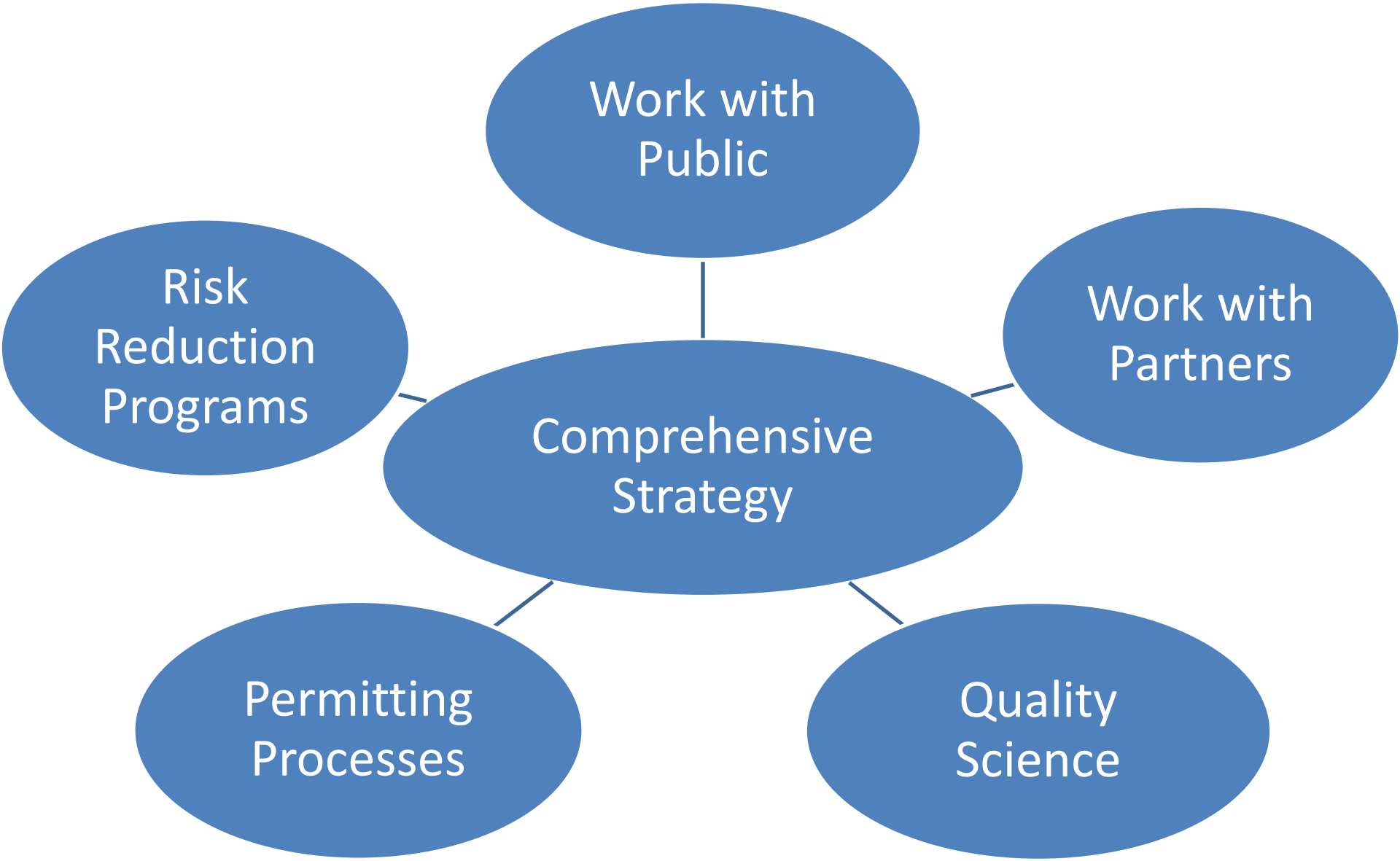
The Water and Land Resources Division will prepare a comprehensive strategy to reduce risks to Puget Sound shoreline homes and businesses at increasing risk of flooding and coastal erosion due to sea level rise



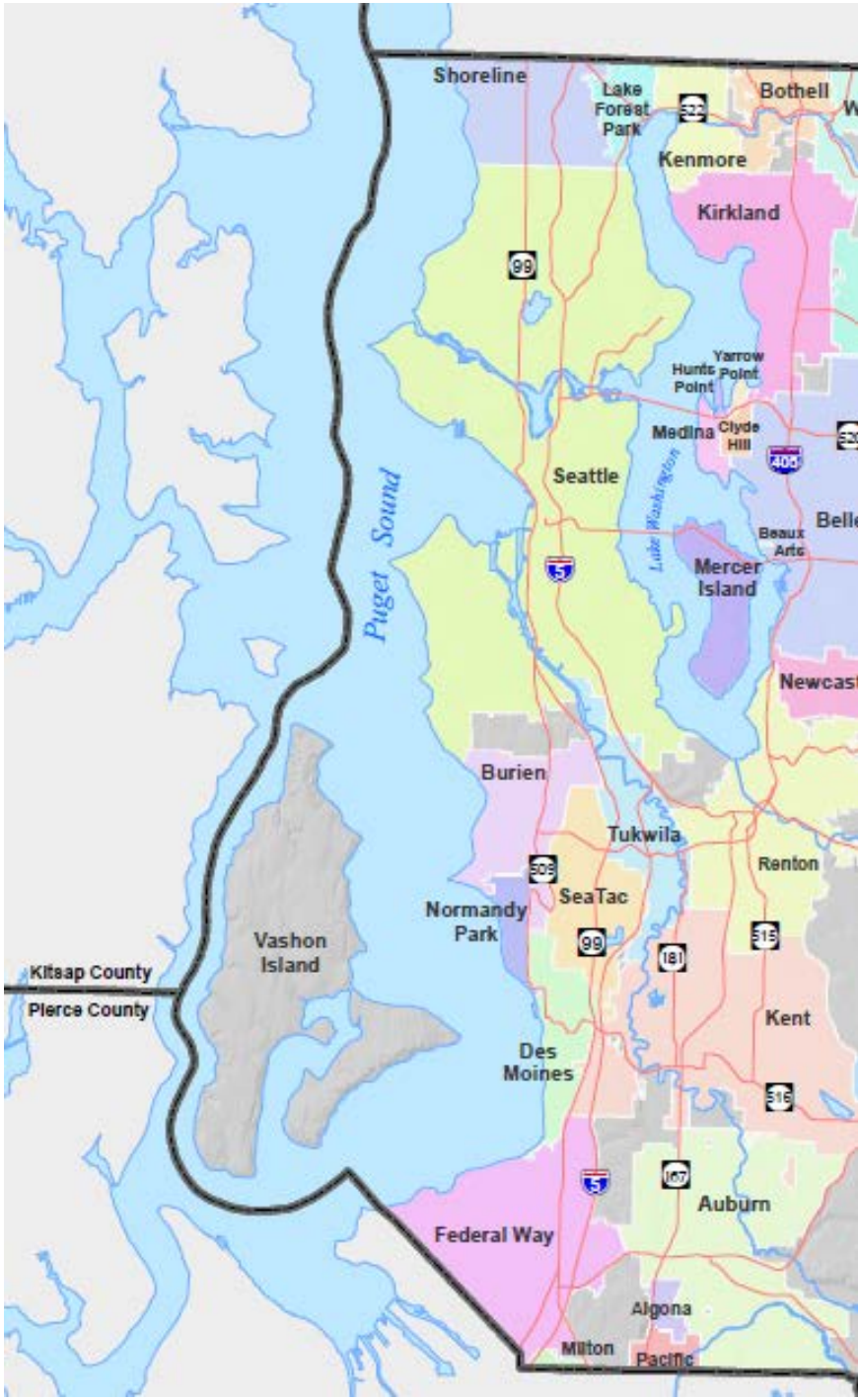
- Seattle Tide Gage
- 8 inches in 100 yrs
- From NOAA.gov


6
5
4
3
2
1
0
-1
Feet of Sea Level Rise
Uncertainty
1900
1950
2000
2050
2100
Year


20
15
10
5
0
Feet of Sea Level Rise
1900
2000
2100
2200
2300
2400
2500
Year

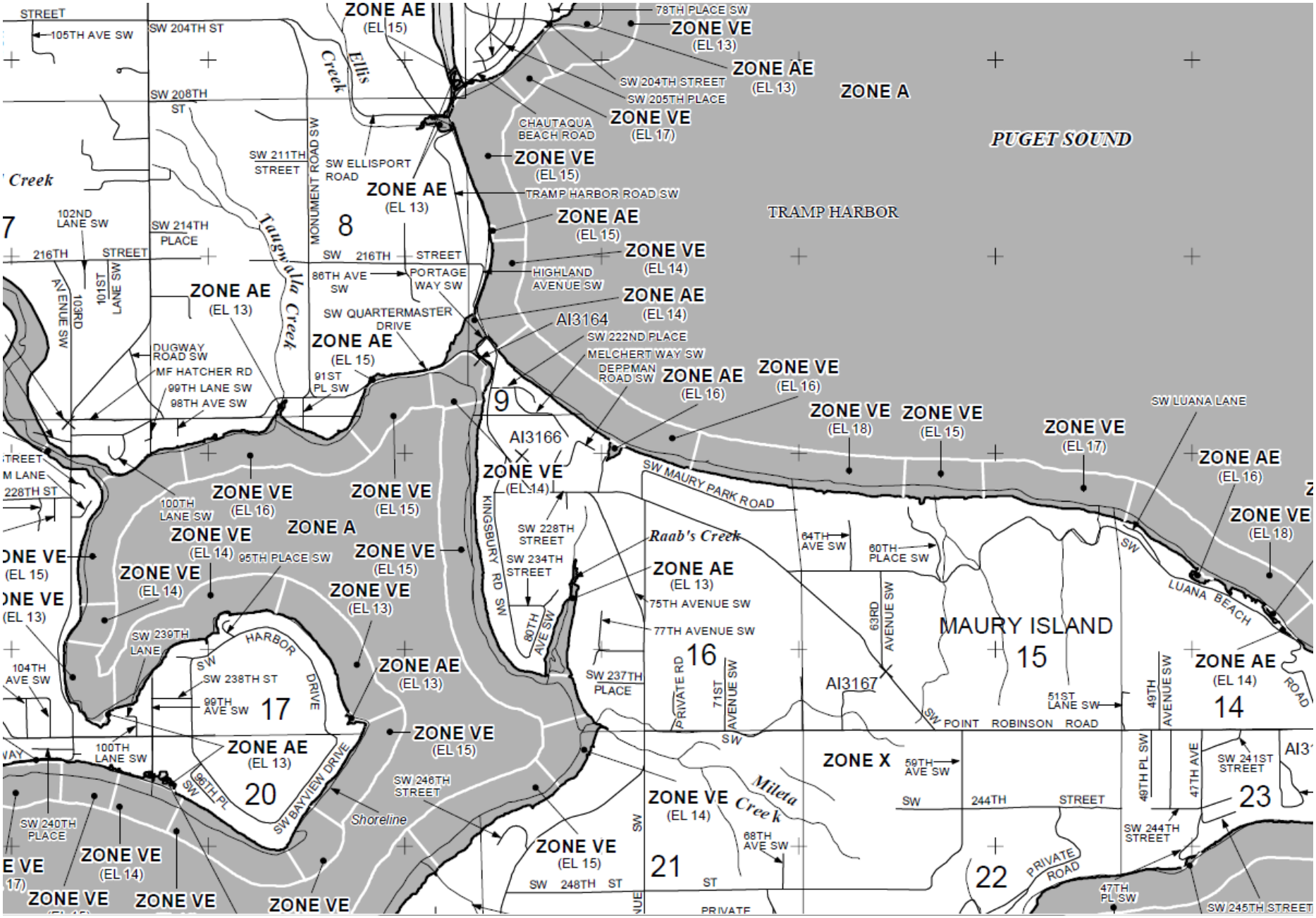

Work with Public
Risk Reduction Programs
Work with Partners
Comprehensive Strategy
Permitting Processes
Quality Science

- 7 Cities
- Port of Seattle
- BNSF / Sound Transit / Amtrak
- King County Flood Control District
- Washington State
- USACOE
- King Conservation District
- Washington Sea Grant



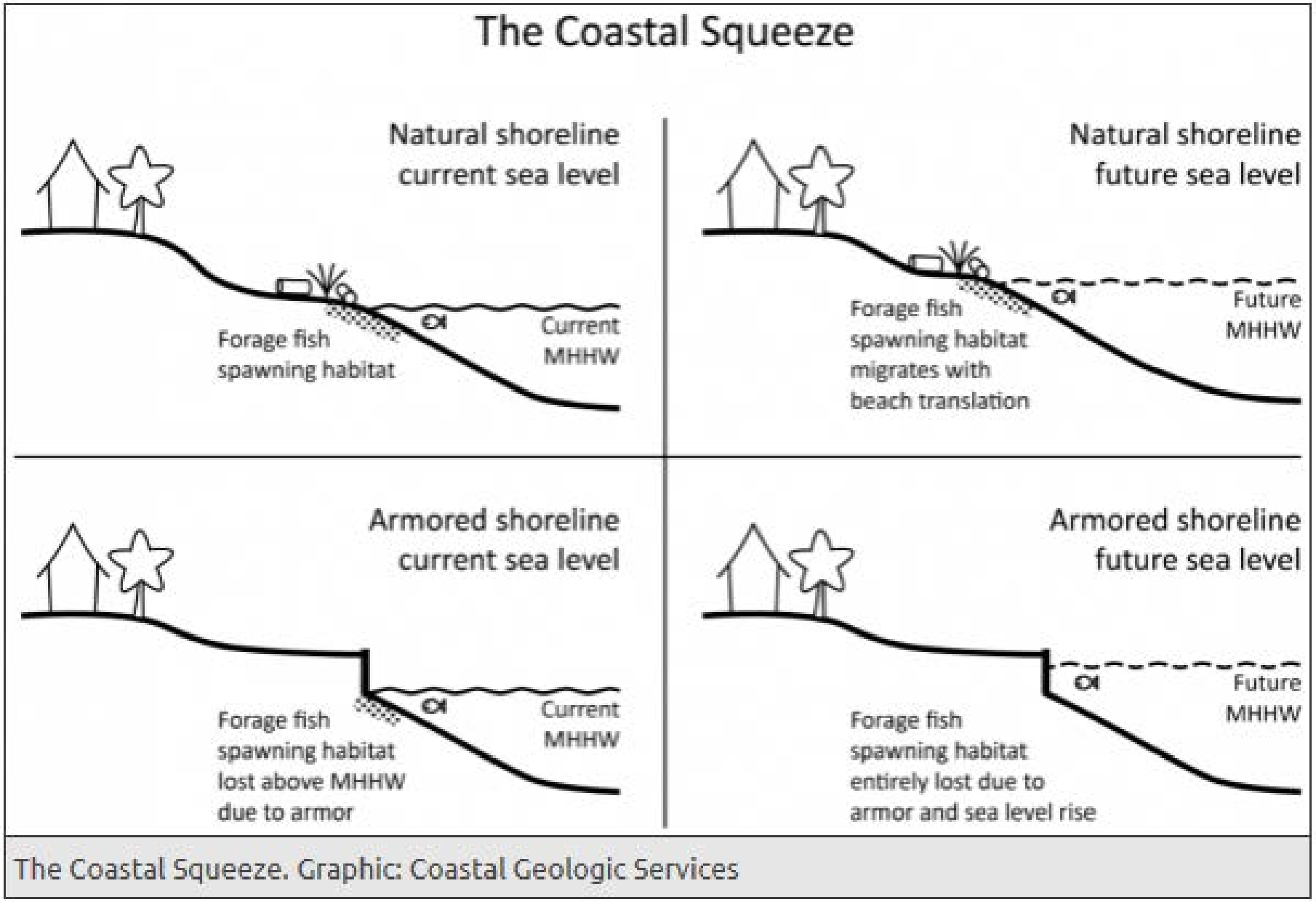
Unincorporated King County Permits

- *Advise* that permittees account for sea level rise for all remodel/redevelopment projects
- *Advise* that permittees account for sea level rise for all new construction projects
- *Require* that sea level rise be accounted for in KC infrastructure and all habitat improvement project permits
- *Require* 3-foot freeboard above 100-year floodplain


STREET
105TH AVE SW
SW 204TH ST
ZONE AE
(EL 15)
78TH PLACE SW
ZONE VE
(EL 13)
ZONE AE
(EL 13)
SW 204TH STREET
SW 205TH PLACE
ZONE A
ZONE VE
(EL 17)
CHAUTAQUA
BEACH ROAD
PUGET SOUND
SW 208TH
ST
Ellis
Creek
SW 211TH
STREET
SW ELLISPORT
ROAD
MONUMENT ROAD SW
ZONE VE
(EL 15)
TRAMP HARBOR ROAD SW
ZONE AE
(EL 13)
TRAMP HARBOR
ZONE AE
(EL 15)
102ND
LANE SW
SW 214TH
PLACE
216TH
STREET
SW
216TH
STREET
8
ZONE VE
(EL 14)
86TH AVE
SW
PORTAGE
WAY SW
HIGHLAND
AVENUE SW
ZONE AE
(EL 14)
ZONE AE
(EL 13)
SW QUARTERMASTER
DRIVE
AI3164
ZONE AE
(EL 15)
SW 222ND PLACE
MELCHERT WAY SW
DEPPMAN
ROAD SW
ZONE AE
(EL 16)
ZONE VE
(EL 16)
ZONE VE
(EL 18)
ZONE VE
(EL 15)
ZONE VE
(EL 17)
SW LUANA LANE
ZONE AE
(EL 16)
ZONE VE
(EL 18)
DUGWAY
ROAD SW
MF HATCHER RD
99TH LANE SW
98TH AVE SW
91ST
PL SW
9
AI3166
ZONE VE
(EL 14)
SW MAURY PARK ROAD
ZONE VE
(EL 16)
ZONE VE
(EL 15)
100TH
LANE SW
ZONE A
ZONE VE
(EL 14)
95TH PLACE SW
ZONE VE
(EL 15)
ZONE VE
(EL 14)
ZONE VE
(EL 13)
SW 228TH
STREET
SW 234TH
STREET
KINGSBURY RD SW
80TH
AVE SW
Raab's Creek
ZONE AE
(EL 13)
75TH AVENUE SW
77TH AVENUE SW
64TH
AVE SW
60TH
PLACE SW
63RD
AVENUE SW
MAURY ISLAND
15
SW
LUANA BEACH
ROAD
ZONE AE
(EL 14)
14
SW 239TH
LANE
HARBOR
DRIVE
SW
SW 238TH ST
99TH
AVE SW
17
ZONE AE
(EL 13)
ZONE VE
(EL 15)
SW 237TH
PLACE
16
PRIVATE RD
71ST
AVENUE SW
AI3167
51ST
LANE SW
49TH
AVENUE SW
SW POINT ROBINSON ROAD
104TH
AVE SW
100TH
LANE SW
ZONE AE
(EL 13)
20
98TH PL
SW
SW BAYVIEW DRIVE
SW 246TH
STREET
Shoreline
ZONE X
59TH
AVE SW
SW
244TH
STREET
49TH PL SW
47TH AVE
SW 241ST
STREET
23
SW 240TH
PLACE
ZONE VE
(EL 14)
ZONE VE
(EL 14)
Mileta
Creek
68TH
AVE SW
SW 244TH
STREET
ZONE VE
(EL 15)
SW 248TH ST
21
22
PRIVATE
ROAD
47TH
PL SW
SW 245TH STREET
ZONE VE
ZONE VE
ZONE VE

http://www.ecy.wa.gov/programs/sea/landslides/show/rollingbay.html

http://www.kingcounty.gov/environment/animals-and-plants/biodiversity/threats/ClimateChange.aspx



The Coastal Squeeze. Graphic: Coastal Geologic Services

https://www.eopugetsound.org/magazine/armoring-sanjuans

http://www.kingcounty.gov/services/environment/water-and-land/flooding/buyout.aspx

FTA RESEARCH

Sound Transit
Climate Risk Reduction Project

SEPTEMBER 2013

FTA Report No. 0075
Federal Transit Administration

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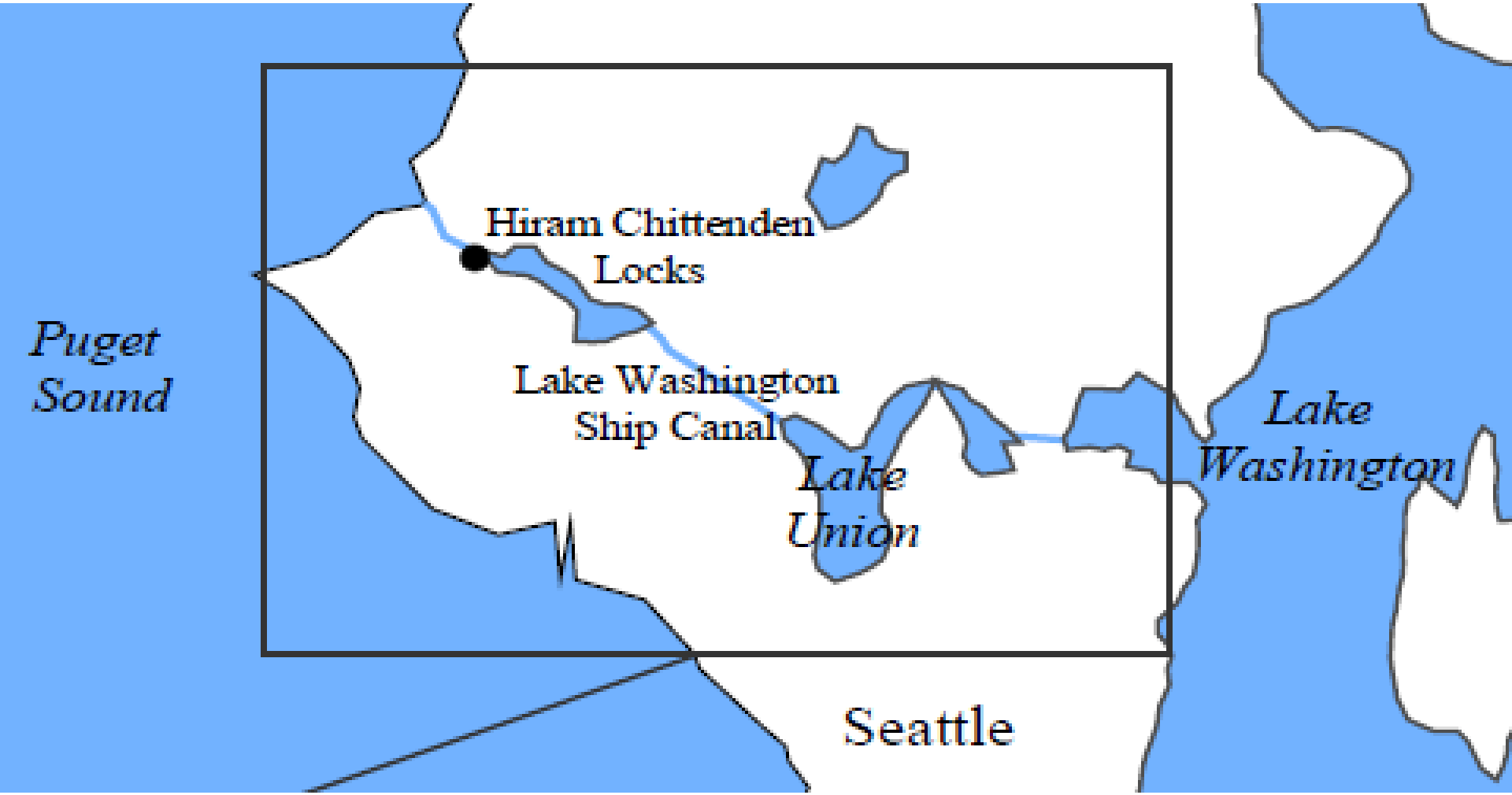
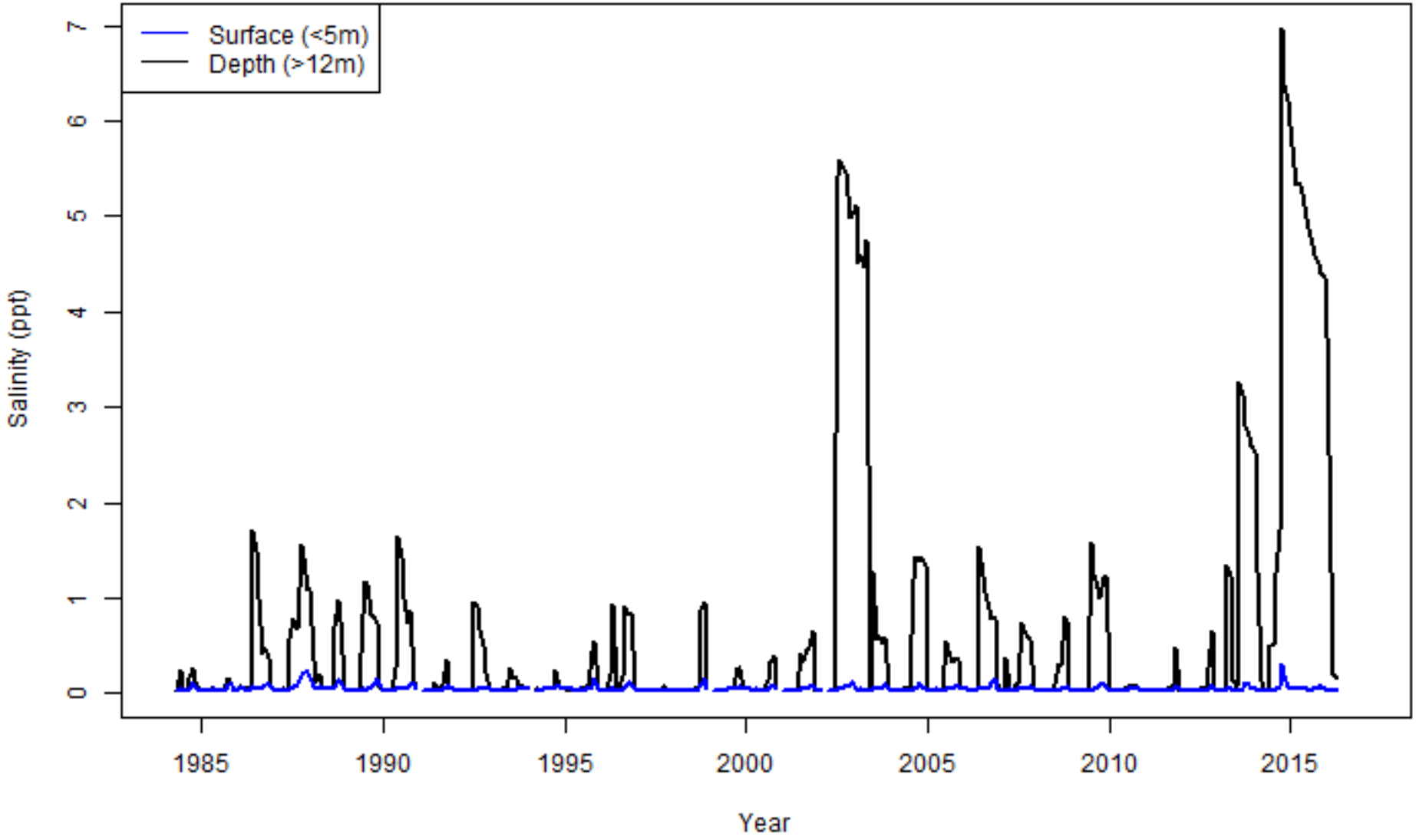
U.S. Department of Transportation
Federal Transit Administration


Hiram Chittenden
Locks
Puget
Sound
Lake Washington
Ship Canal
Lake
Union
Lake
Washington
Seattle

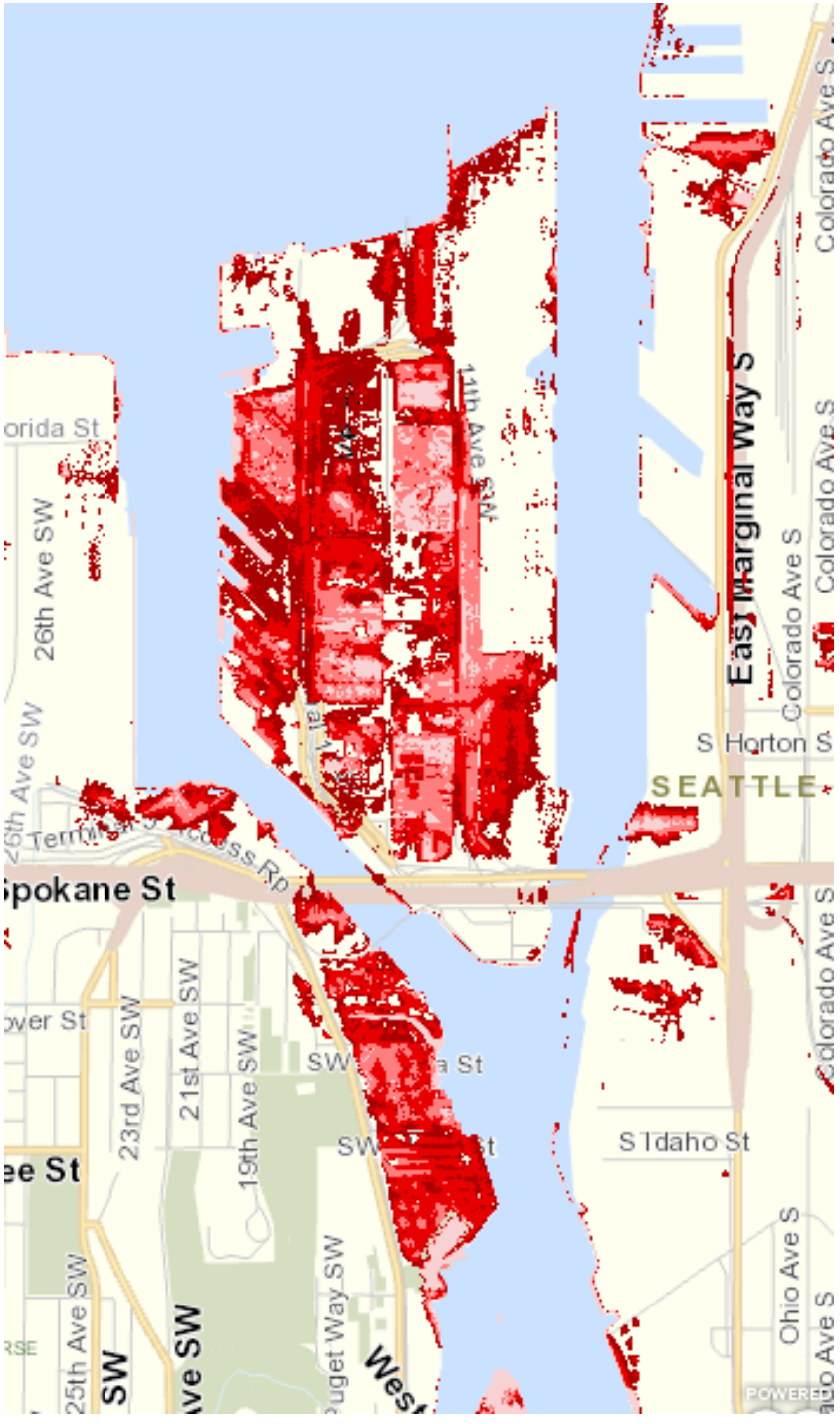
Lake Union Salinity



HYUNDAI

From City of Seattle

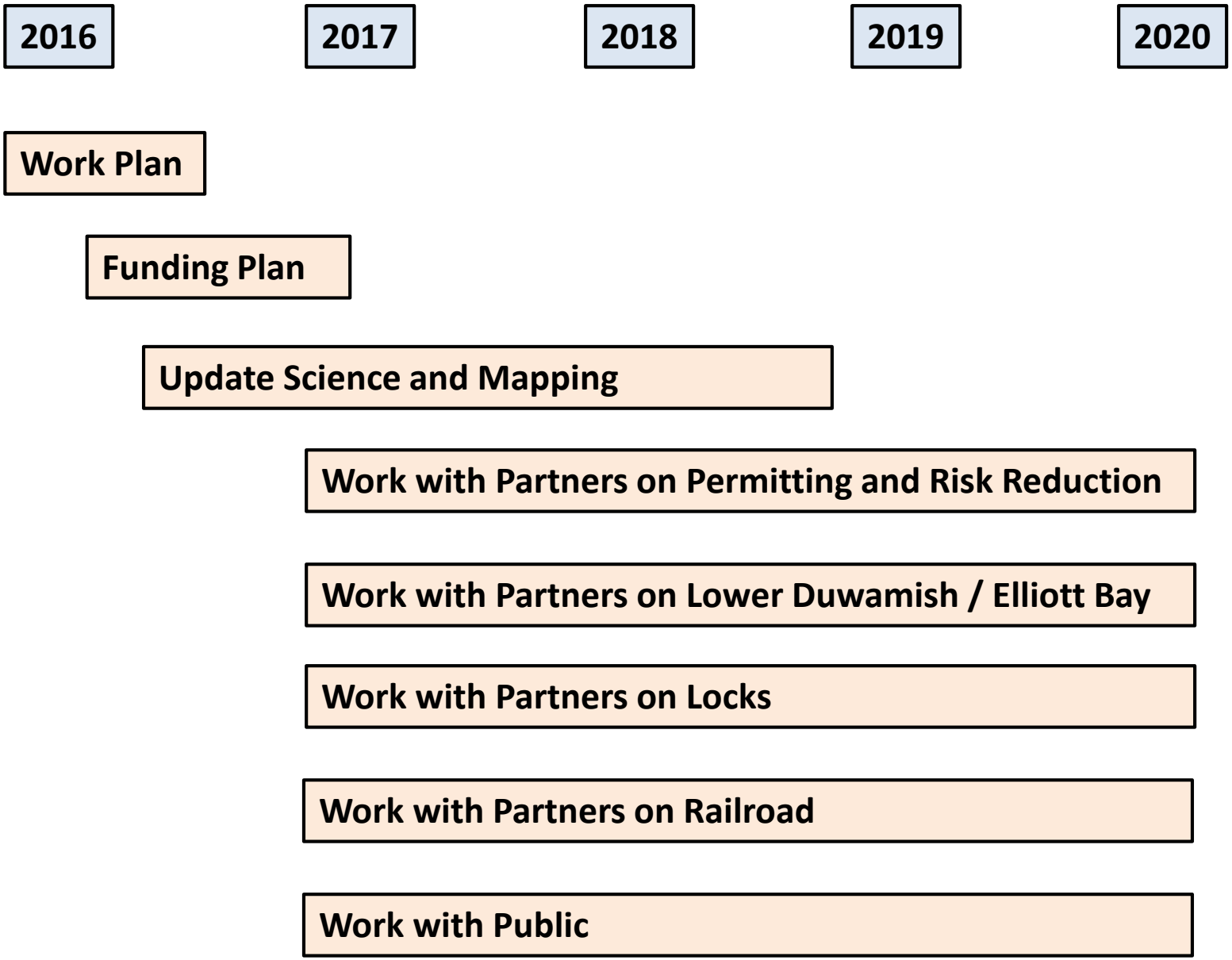
http://www.seattle.gov/util/EnvironmentConservation/ClimateChangeProgram/ProjectedChanges/Sea-LevelRiseMap/index.htm



PREPARING FOR CLIMATE CHANGE

Seattle
Office of Sustainability
& Environment

PUBLIC COMMENT DRAFT
August 2016


2016
2017
2018
2019
2020
Work Plan
Funding Plan
Update Science and Mapping
Work with Partners on Permitting and Risk Reduction
Work with Partners on Lower Duwamish / Elliott Bay
Work with Partners on Locks
Work with Partners on Railroad
Work with Public

QUESTIONS?