

# Flood Storage and Habitat Enhancement Master Plan

*Update and Request*

July 21, 2022



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# Project Background

Objective: Evaluate Flood Storage for 2-year and 100-year Flood.

## 2016 Design:

- 10-acres
- old WWTP site
- approximately 130,000 CF of storage

## 2019 Design:

- 130-acres
- between Louisiana Avenue, Golf Course, and Hwy 6 Bridge
- Approximately 1.4 million CF of storage

## 2020 Design:

- 130-acres
- Between Louisiana Avenue, Golf Course, and Hwy 6 Bridge
- 4 Design Modifications



SCALE IN FEET

PROJECT LIMITS

CHEHALIS RIVER

USGS GAGE 12025100  
CHEHALIS RIVER AT WWTP

SR-6 BRIDGE

NW FLORIDA AVE

NW RIVER STREET

NW ARIZONA AVE

NW AIRPORT ROAD

NW SHORELINE DR

I-5

I-5

WWTP ACCESS ROAD

CHEHALIS  
WASTEWATER  
TREATMENT  
PLANT

ABANDONED  
WASTEWATER  
TREATMENT PLANT

NW LOUISIANA AVE

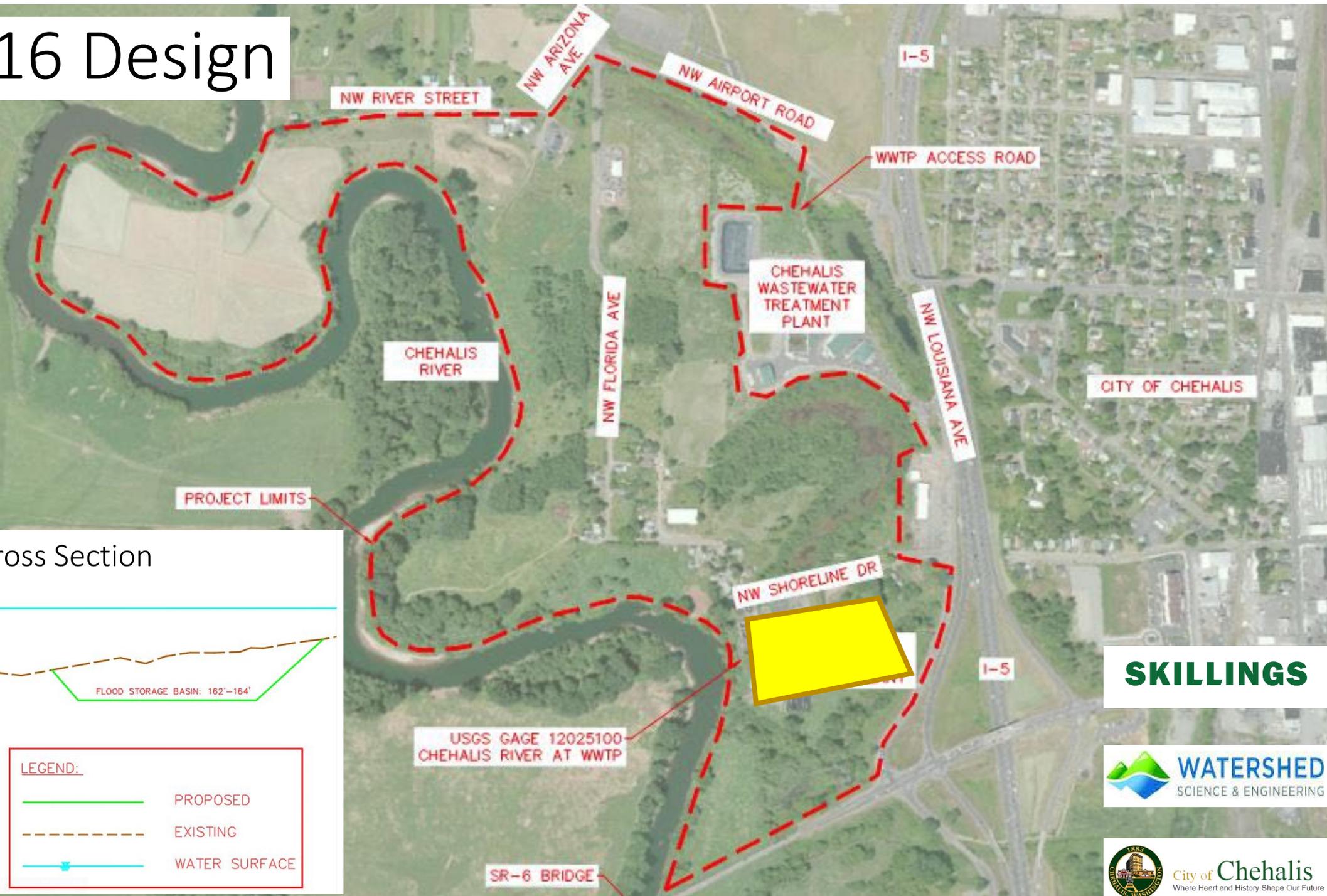
CITY OF CHEHALIS

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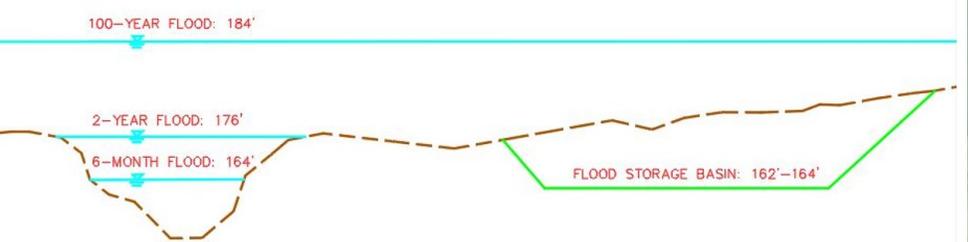
 **WATERSHED**  
SCIENCE & ENGINEERING

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# 2016 Design



## 2016 Cross Section



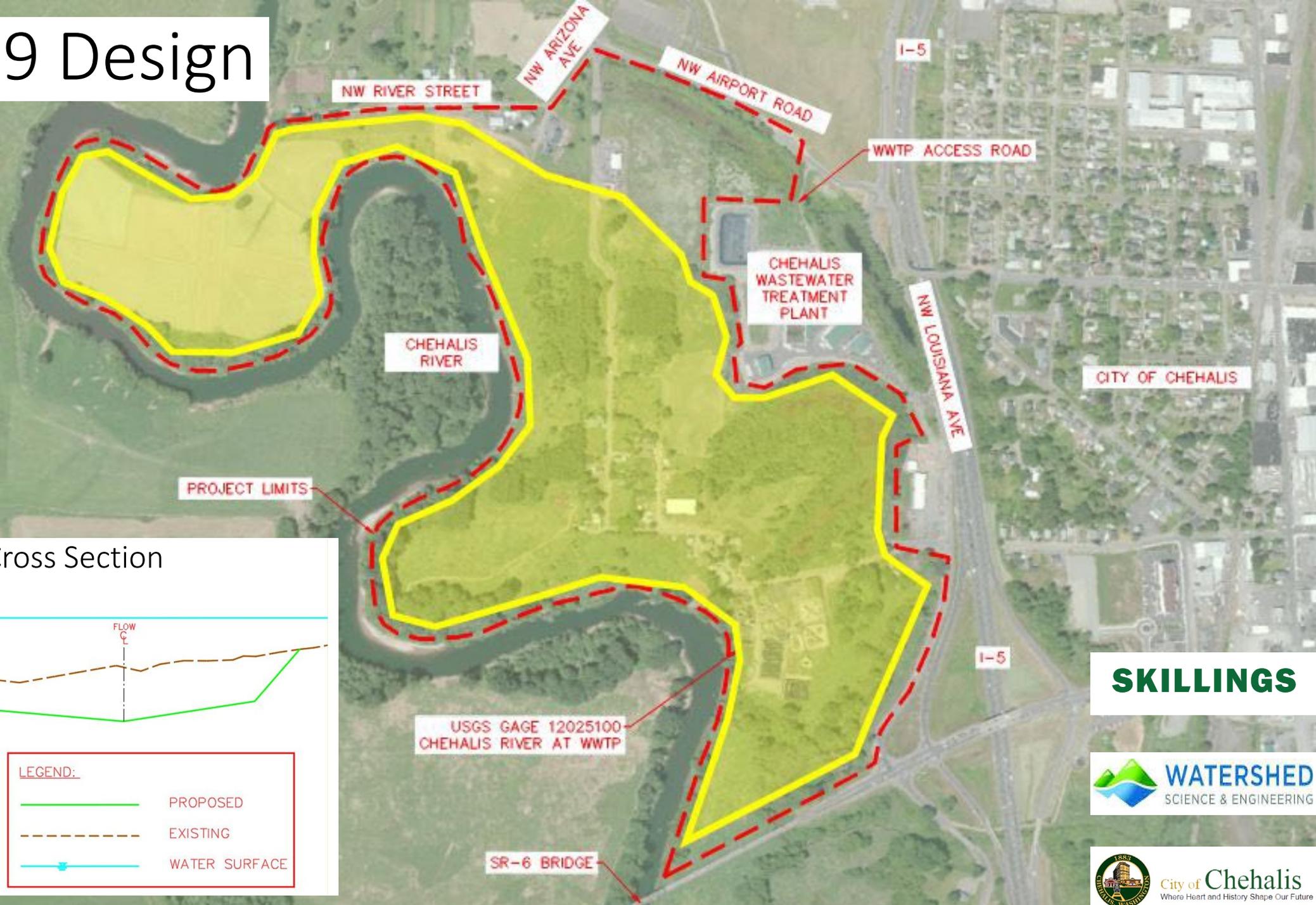
LEGEND:	
	PROPOSED
	EXISTING
	WATER SURFACE

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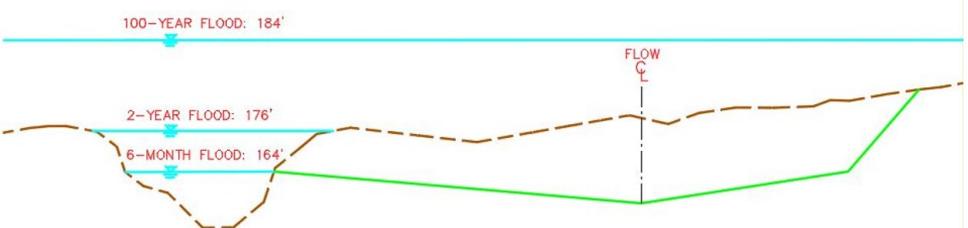
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# 2019 Design



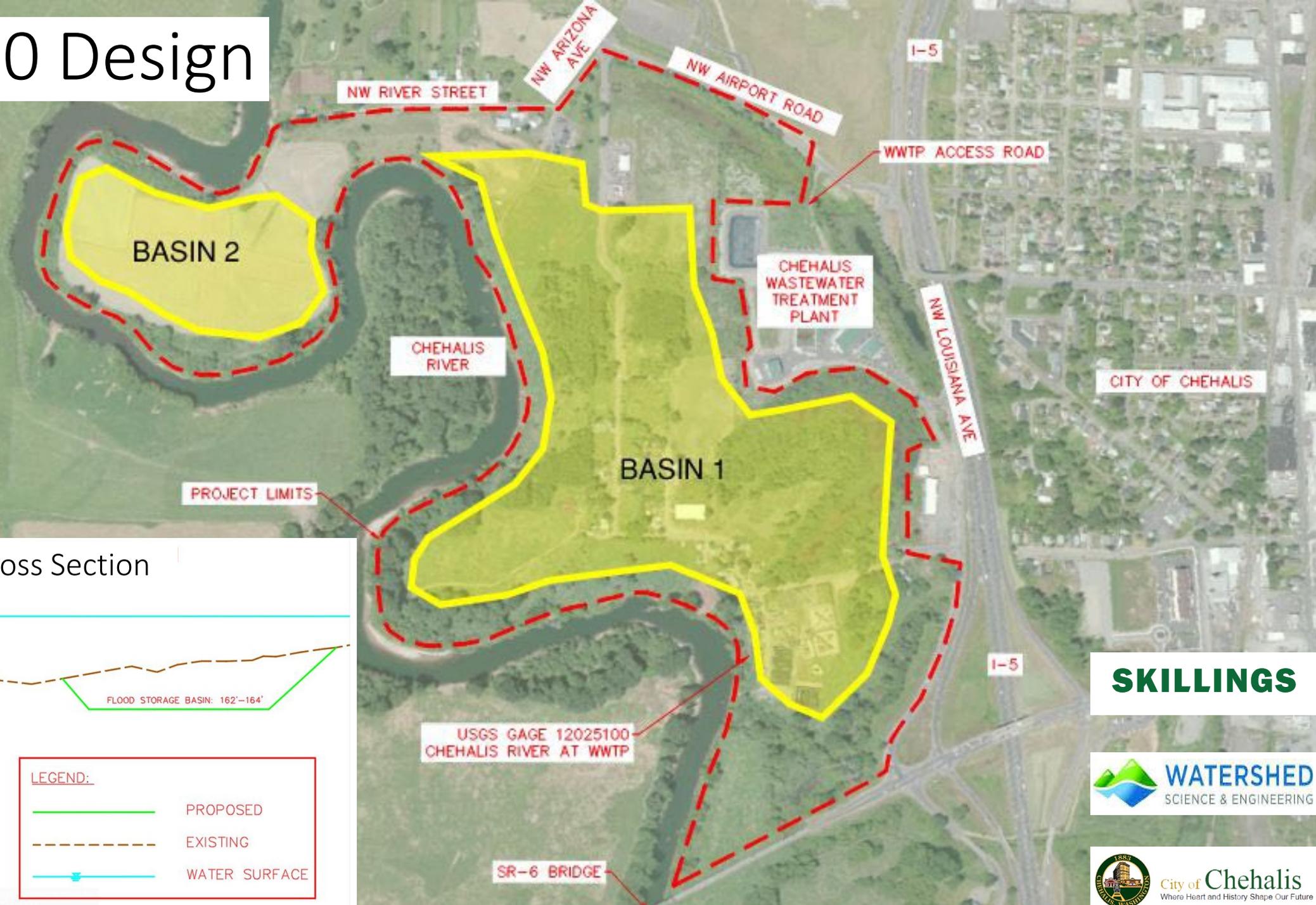
## 2019 Cross Section



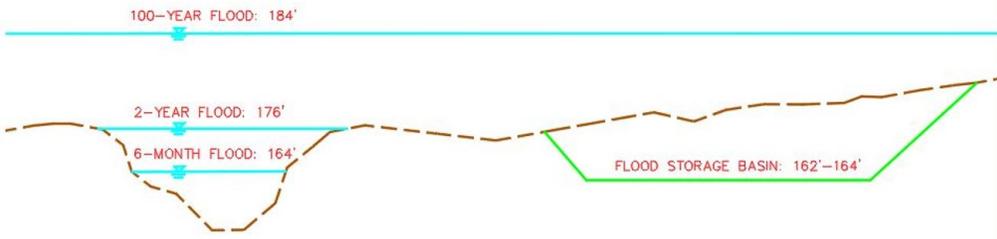
LEGEND:	
	PROPOSED
	EXISTING
	WATER SURFACE



# 2020 Design



## 2020 Cross Section



LEGEND:	
	PROPOSED
	EXISTING
	WATER SURFACE





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# Results

All proposed “Flood Storage” conceptual designs violate the City of Chehalis’ Zero Rise Ordinance:

2016 Design:

Rise (100-year Flood)

2019 Design:

Rise (2-year Flood), Reduction (100-year Flood)

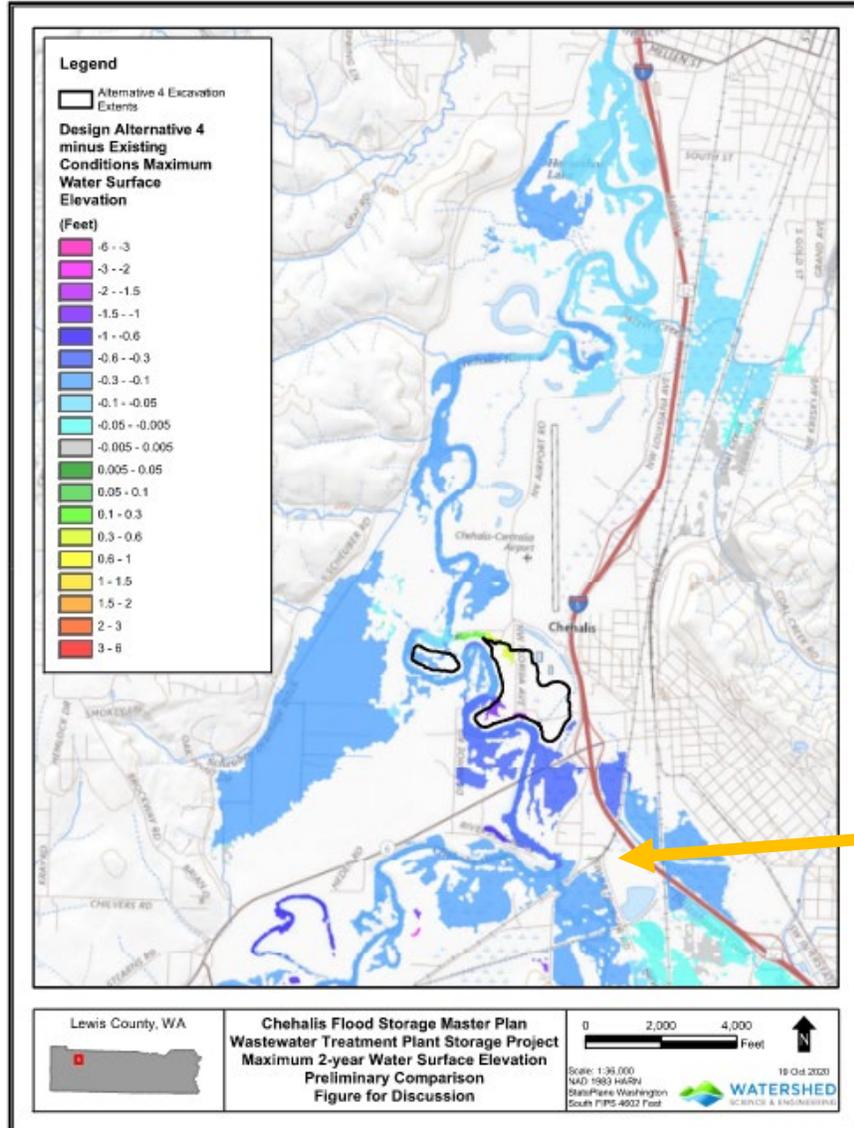
2020 Design: 4 Model Iterations (i.e. “refinements”)

Model A: Rise (2-year Flood), Rise (100-year Flood)

Model B: Rise (2-year Flood), Rise (100-year Flood)

Model C: Reduction (2-year Flood), Rise (100-year Flood)

Model D: Reduction (2-year Flood), Rise (100-year Flood)

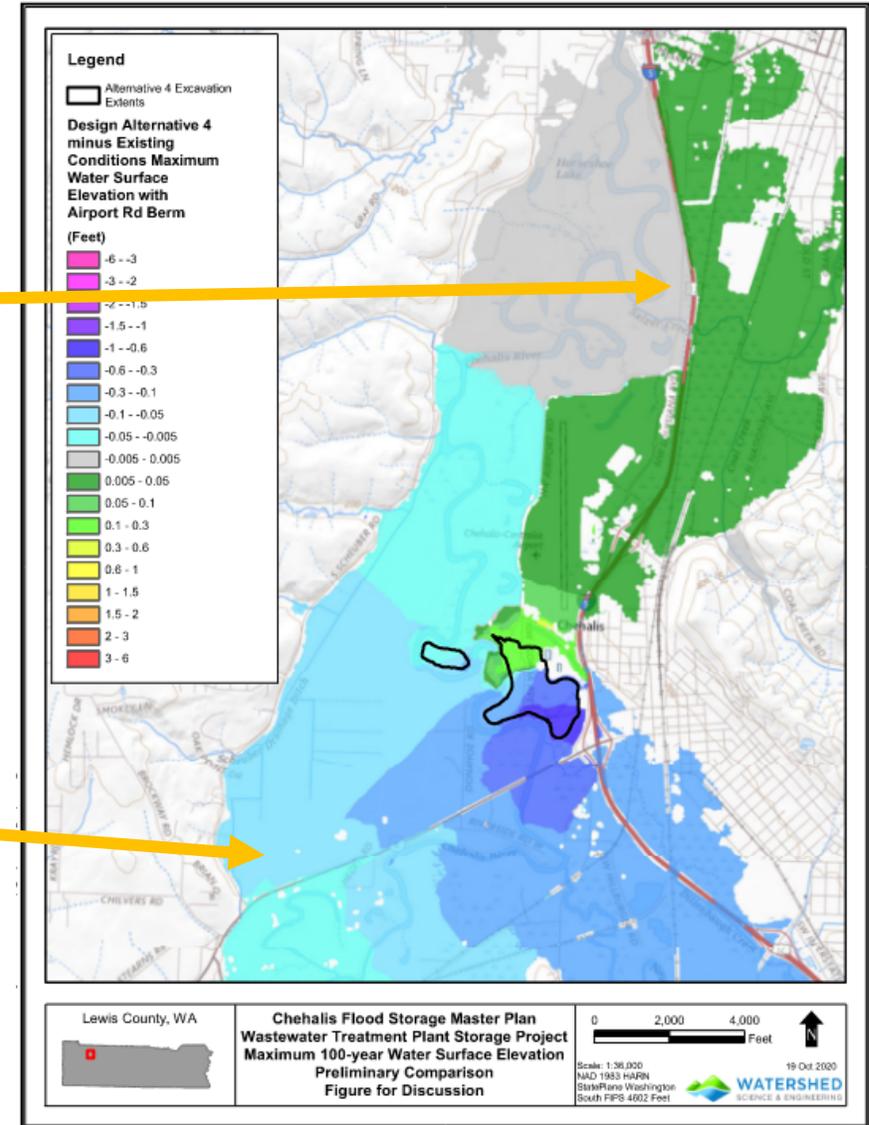


Results for 2-year Flood Event

Typical 2020 Results

Net Increase  
in Flooding

Net Decrease  
in Flooding



Results for 100-year Flood Event

# Proposed Scope Modification

## Develop Comprehensive Plan for the Region

- Advisory Group: City of Chehalis, Flood Authority, WSE, and Skillings
- 30-year Plan for Floodplain Management between Golf Course and Hwy 6
- Identify Priority Projects (e.g. Old WWTP Demo/Restore)
- Begin with City-owned Parcel Restoration
- Private Parcel Owner Relocation (Willing Seller, Willing Buyer)
- Zoning Changes



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# New Project Application

Project: Demo/Restore Old WWTP Site

- Benefits: City-owned property, Remove Old Infrastructure, Improve Water Quality.
- Prepare Engineering PS&E.
- Prepare Permitting Documents
- Provide Bid Support.



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# Shoreline Drive near Old Treatment Plant

