# Black River Pump Station Improvements

# **King County Flood Control District Executive Committee Meeting**

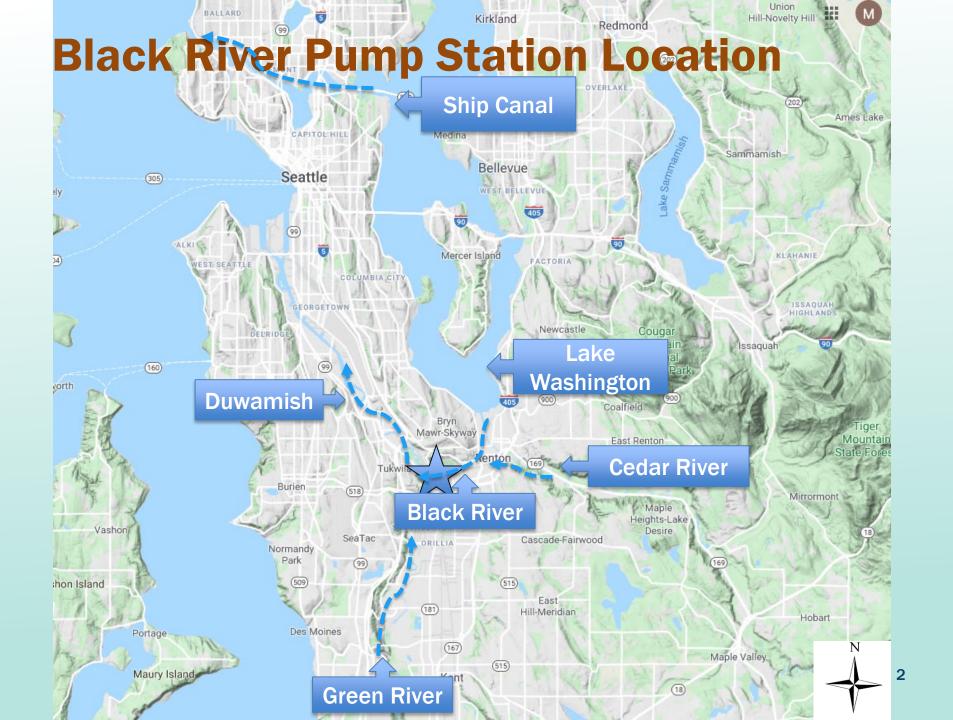
Mark Ruebel PE
Supervisor - Capital Strike Team
September 16, 2020

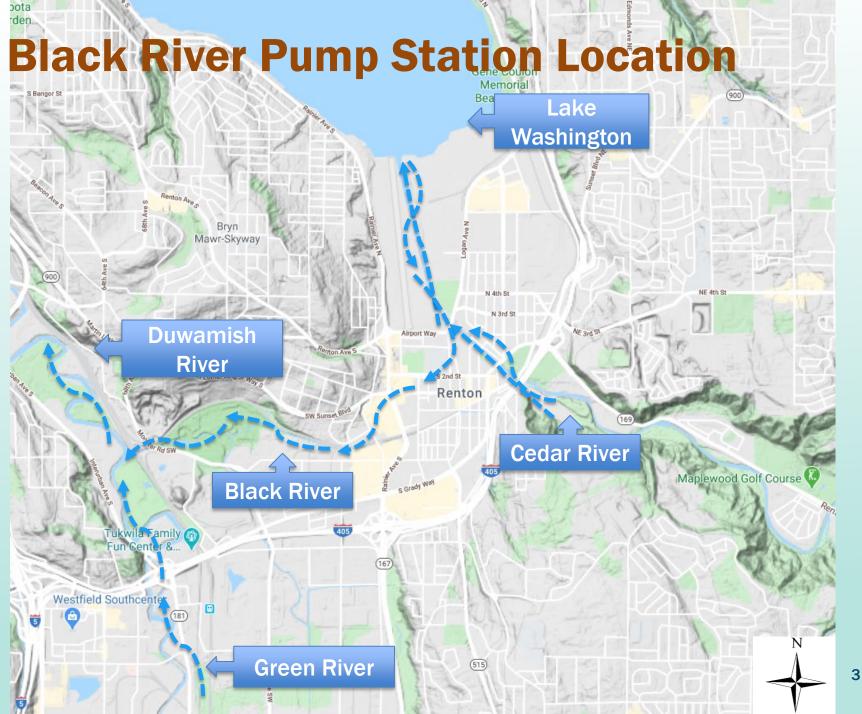
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section

Service provider to the King County Flood Control District

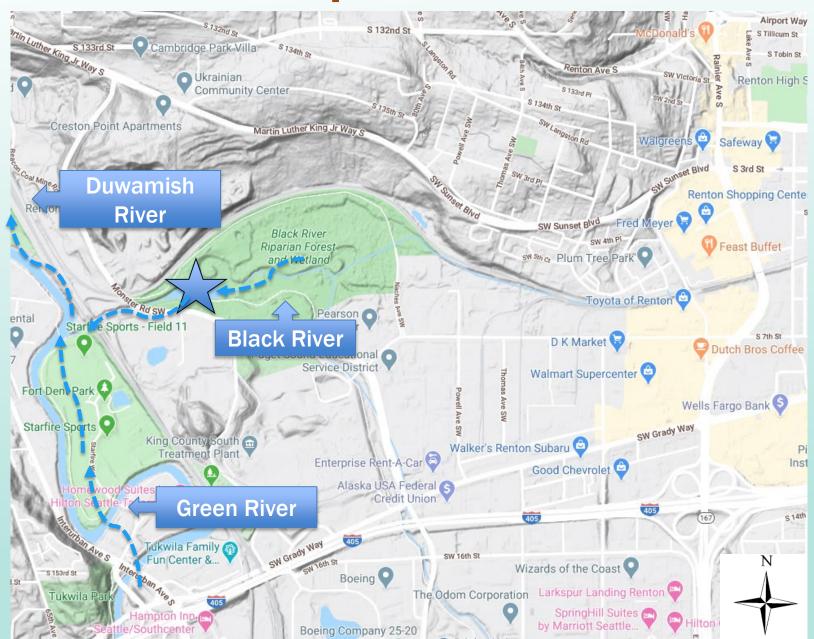


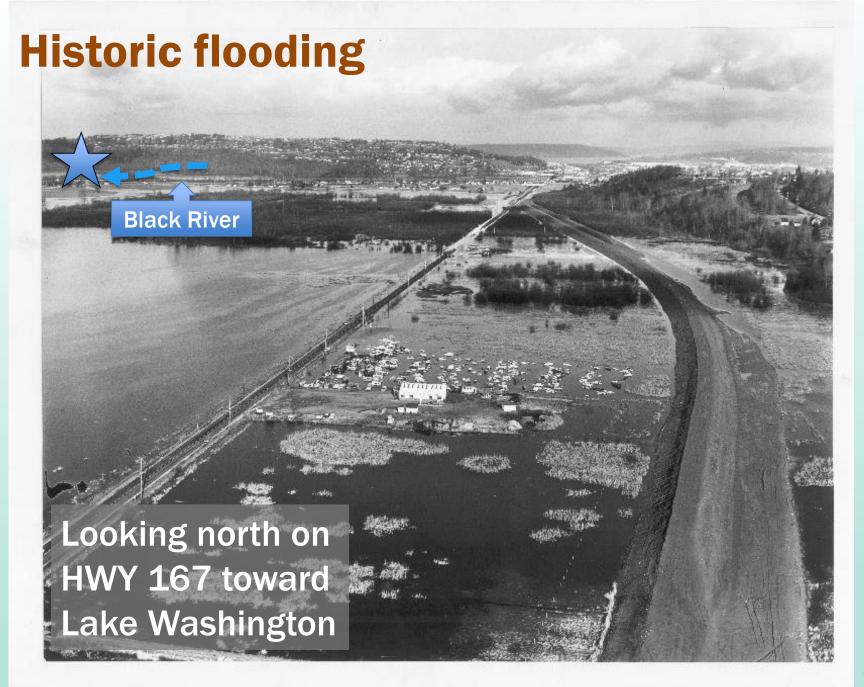




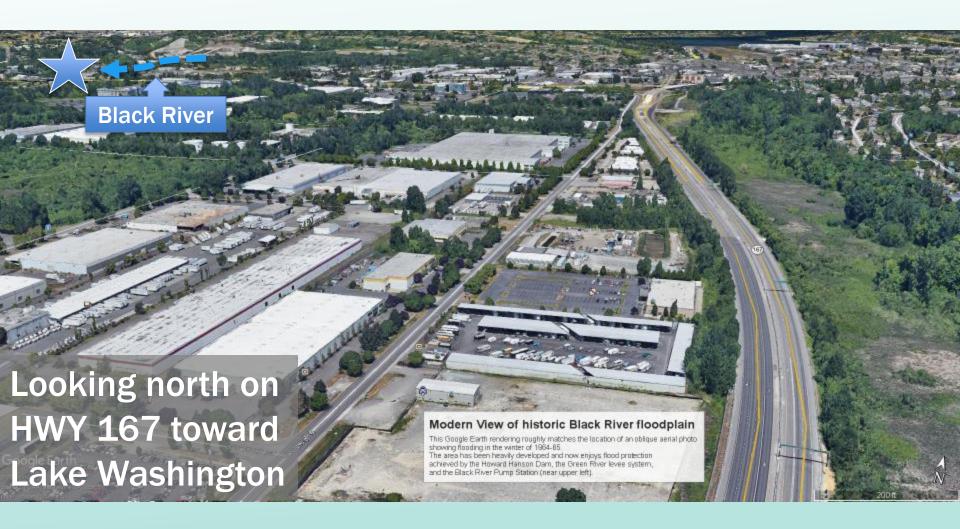


## **Black River Pump Station Location**



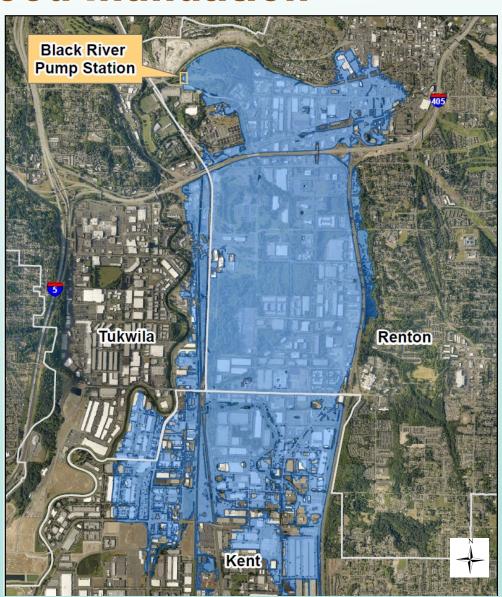


## Land use change



#### **Protection from Flood Inundation**

- 0.2% Annual Exceedance Probability (aka 500year flood)
  - Results in WSE of 27.5 feet (NAVD 88)
- \$4.4 billion improvements inundated including:
  - 2,800 acres
  - 640 buildings
  - FAA, KC Elections
     Boeing, Ikea, Fred
     Meyer, Walmart
  - Portions of Renton
     Kent and Tukwila



### **Capital Needs**

- Replace High-Use Pump Engines
- Replace Control Building
- Mechanical System Upgrades
- Fish Passage and Exclusion Improvements
- Seismic and Structural Retrofits
- Replace Large Pump Engines
- Implementation 2020-2027

# **Replace High-Use Pump Engines**





# **Replace Control Building**



#### Fish Passage and Exclusion Improvements

Denil (Alaska Steeppass) for Upstream Passage

Airlift for Downstream Passage





#### **Seismic and Structural Retrofits**



# **Replace Large Pump Engines**



### **Questions?**

