

## Investments That Work: Montesano Wastewater Treatment Plant Protection Project

Bioengineering solutions to protect communities from flood damage

## **The Problem**

Flooding and erosion put public health, safety, and environment at risk

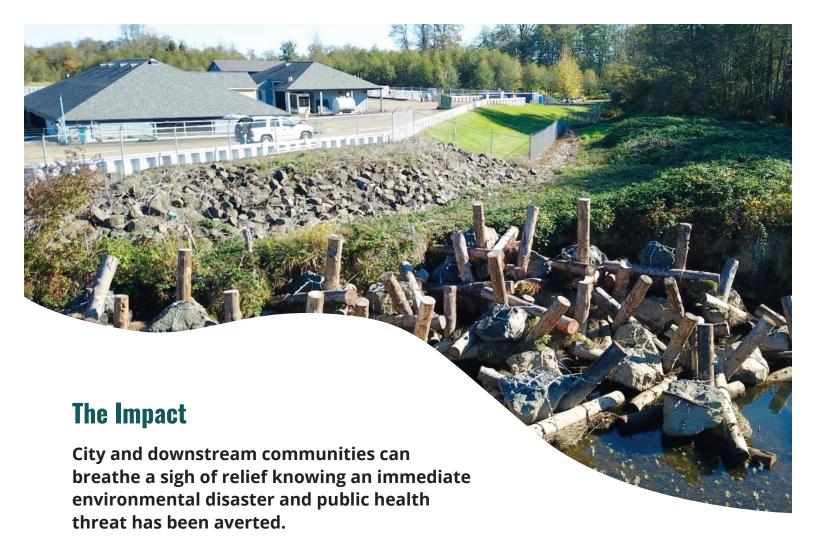
Chehalis Basin residents risked being exposed to millions of gallons of raw sewage because of riverbank erosion threatening the Wastewater Treatment Plant in Montesano, WA.



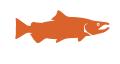
## **The Solution**

## Bioengineered protections to slow erosion and protect from flood damage

- 220+ river log jacks were installed in 2018-2019
- Collaboration between local, state, federal and tribal agencies was timely and cost-efficient
- Natural processes were mimicked to protect streambanks by deflecting energy and depositing sediment
- Aquatic habitat was enhanced and channel complexity was improved



- Previously encroaching river is moving away and riverbanks are growing
- Habitat complexity has increased with more nooks and crannies for juvenile fish, river otters, vegetation, and sediment deposition
- Huge return on investment
  - Relatively small cost (approx. \$2 million)
  - Millions of dollars in emergency, cleanup and replacement measures have been averted (upwards of approx. \$40 million)





Thank you to the Chehalis River Basin Flood Authority,
Office of Chehalis Basin, the City of Montesano, Parametrix,
Northwest Hydraulic Consultants, and all local, state, federal and tribal
agencies who rolled up their sleeves to help!





