

2017 Pacific Northwest Fish Screening & Passage Workshop

Site Visits

- ◎ **Big Creek Hatchery Screen**
- ◎ **Klaskanine**
- ◎ **CEDC**
- ◎ **McDonald Slough**
- ◎ **Jetty Creek**

Big Creek Hatchery Screen

- ◉ Flat panel, single wiper screen
- ◉ Designed by Joel Watts, ODFW
- ◉ Fabrication & construction completed by ODFW The Dalles Screen Shop
- ◉ Used existing civil works for the new screen components

Big Creek Hatchery Screen

- **Cost: \$235,000**
- **Fish presence and listing status and value: Chum salmon, fall Chinook, spring Chinook, coho, and winter steelhead**
- **Challenges/Benefit: Anytime you use existing civil works there is a challenge to get everything to fit correctly. But, overall everything fit in the civil works really well.**
- **Modifications: Work on the top opening headgate and the bottom opening headgate to sluice floating debris away.**
- **47 cfs, but standard use of 30 cfs used for fish culture.**

Big Creek Hatchery Screen Post Construction



Klaskanine Hatchery Screen

- ◎ FCA Screen
- ◎ Screen designed by FCA
- ◎ Passage designed by Ryan McCormick, ODFW
- ◎ Installation completed by ODFW The Dalles Screen Shop
- ◎ Cost: \$161,949

Klaskanine Hatchery Screen

- ◉ The hatchery is currently used for adult collection, spawning, egg incubation, and rearing of fall Chinook and as a rearing facility for winter steelhead. There are coastal cutthroat, fall coho, winter steelhead and Pacific lamprey present in the North Fork of North Fork Klaskanine River these are sensitive and threatened species.
- ◉ Screen challenges: The exit flume bypass water exit made a big 90 degree turn and the pipe was undersized, backwatering the screen, but it is now fixed. High sedimentation area required modification of the debris management tubes.
- ◉ 15 cfs used for fish culture

Klaskanine Hatchery Screen Pre-Construction



Klaskanine Hatchery FCA Screen Post Construction



Clatsop Economic Development Council (CEDC) Screen

- ◉ Screen type: Flat panel wiper with a gang brush wiper
- ◉ Designed by Ryan McCormick, ODFW
- ◉ Construction by Bergerson Construction of Astoria
- ◉ Fabrication by ODFW The Dalles Screen Shop
- ◉ Cost: \$106,000
- ◉ Fish presence: Chinook mixed, coho
- ◉ Challenges, modifications, maintenance needs: Bob Edwards discussed during Tuesday's presentation.
- ◉ Water user amount: 15 cfs for fish culture
- ◉ Partner: Clatsop County Fisheries and Bergerson Construction

CEDC Screen – Post Construction



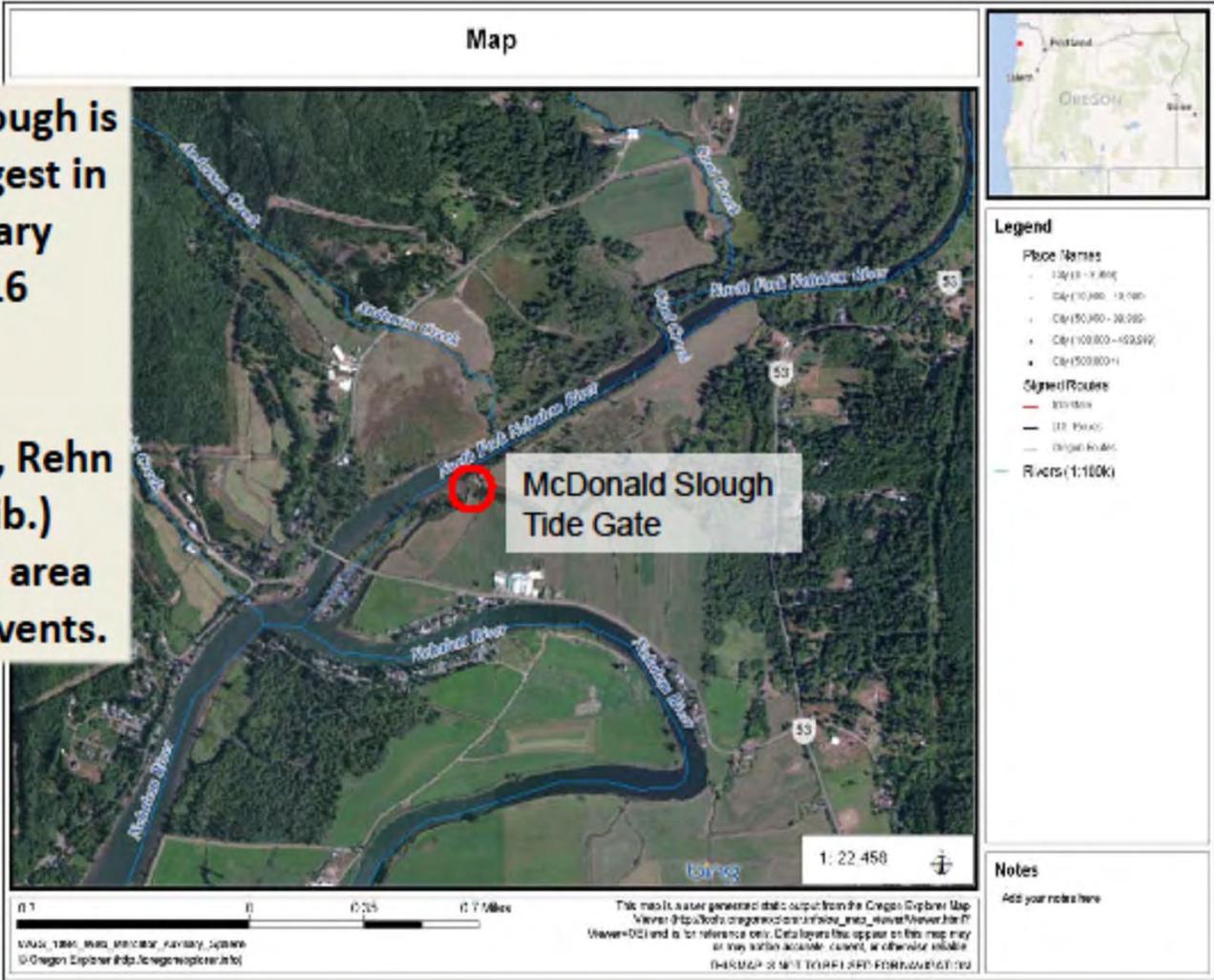
McDonald Slough Tide gate

- Tide gate designed by Nehalem Marine (Leo Kuntz)
- ODFW provided pre-project planning, design review, passage approval and technical oversight
- Fish presence: Very high value coho winter rearing as well as adult production in tributaries feeding into the estuary, important for winter rearing for outmigrating juveniles from the North Fork Nehalem, Mosier and Rehn Creeks, but most important for migrants coming from North Nehalem River as well as the Mainstem Nehalem River.
- Challenges: ESA permitting was a tremendous hurdle that created nearly two years of project delay.
- Water User is a private landowner, Steve Nearing Water use: Dairy
- Partners: Steve Nearing, Lower Nehalem River Watershed Council

McDonald Slough

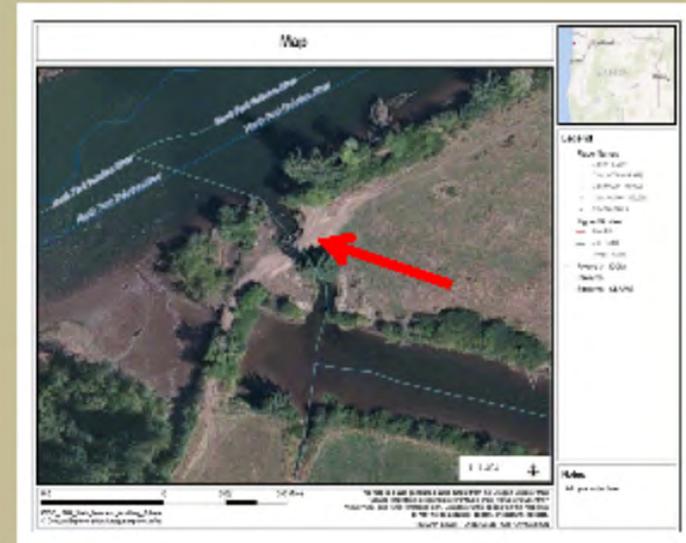
• Location:

- McDonald Slough is one of the largest in Nehalem estuary (area of over 16 acres).
- 3 tributaries (Mosier Creek, Rehn Creek, & N. Trib.)
- Key drainage area during flood events.



McDonald Slough

Tide Gate



- Two 5' diameter tide gates
- Gates equipped with 1 wood & 1 aluminum lid
- Rated at 150 cfs fully opened

McDonald Slough Tide Gate Pre-Treatment



McDonald Slough Tide Gate Post Treatment



McDonald Slough Tide Gate Post Treatment



McDonald Slough Tide Gate Post Treatment



Jetty Creek Screen & Passage

- Screen designed by Joel Watts, ODFW
- Passage designed by HBH Consulting
- Fabrication and construction of the screen completed by ODFW The Dalles
- Passage installation completed by Big River Construction of Astoria
- The project was essentially wrapped up on 9/17/17, but is still an active construction site.
- Cost: \$65,000, not all of the expenses are in yet because we are just wrapping up, but we expect it to come in under \$70,000.
- Fish presence: Winter steelhead, coho, Pacific lamprey, coastal cutthroat
- High priority within North Coast District and high habitat quality this is the first freshwater tributary that comes into the Nehalem River it is within $\frac{1}{4}$ mile of the ocean.
- Concerns: We are waiting to go through our first high water event to see how everything flushes out with the screen alignment and the new creek channel realignment project.
- Water user amount: 2 cfs municipal use
- Partner: City of Rockaway Beach, Lower Nehalem Watershed Council

Jetty Creek Passage

Lower Nehalem Watershed Council/City of Rockaway Beach/OR Dept Fish and Wildlife Fish Passage Improvement Project for Jetty Creek



Photo 1: City of Rockaway Beach water intake, dam (9/2015)



Photo 2: Diversion dam and fish ladder (9/2015)



Photo 3: Upstream view, drinking water impoundment/Jetty Crk



Photo 4: Downstream view, drinking water impoundment/Jetty Crk

Jetty Creek Screen Post Construction

