

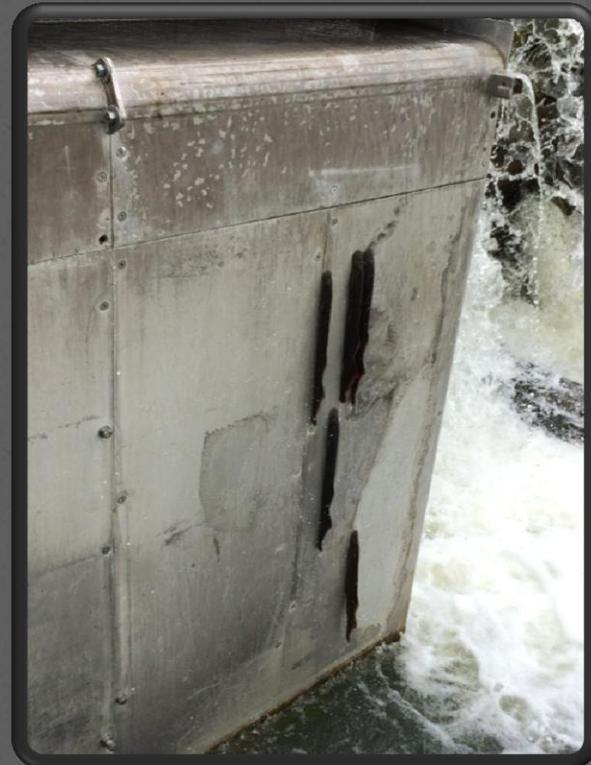
# Improving Lamprey Passage

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# What can we do during construction?

- o Provide smooth surfaces for lamprey attachment
- o Round edges on weirs and dam boards
- o Provide avenues of passage near the bottom of the fishway
- o Include ramps when possible



# Shearers Falls

- o Natural Falls located on the Deschutes River, tributary to the Columbia River.
- o The side channel ladder was constructed in the early 1900's to aid in passage for salmon and steelhead around Shearers Falls
- o Original design did not incorporate smooth or rounded edges which made it difficult for lamprey passage
- o Provides passage for salmon, steelhead, lamprey and resident fish species during high water flow events



# High Water Ladder

- o In 2016 ODFW partnered with the Confederated Tribe of Warm Springs to improve fish passage at this aging structure which had not seen any significant repairs for nearly 100 years.
- o This construction project improved fish ladder usability for salmon, steelhead, resident trout, and lamprey
- o Rounded edges and smooth surfaces were installed during construction so lamprey could attach and maneuver throughout the ladder
- o Angled ramps were connected to the new and existing weir walls to direct water flow when water is low for maximum lamprey usability



# Construction



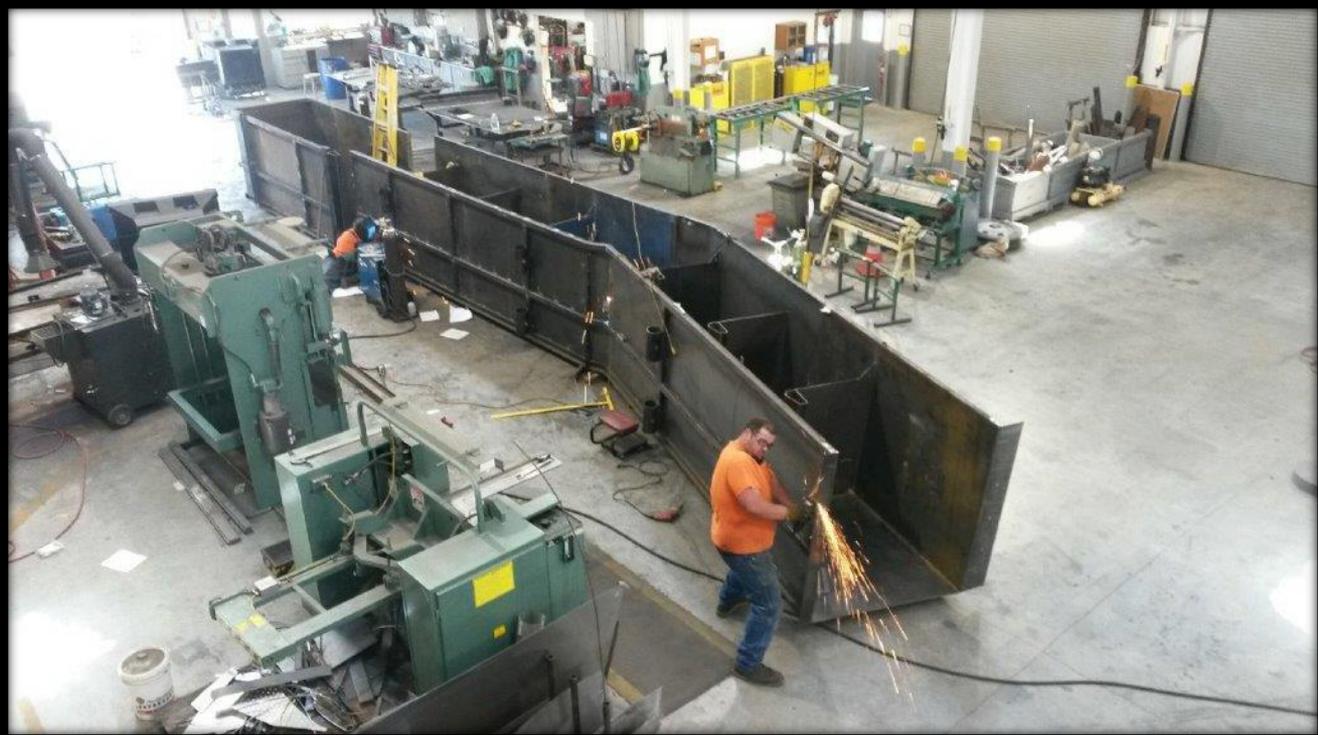
# Construction



# With a little help, the lamprey WIN

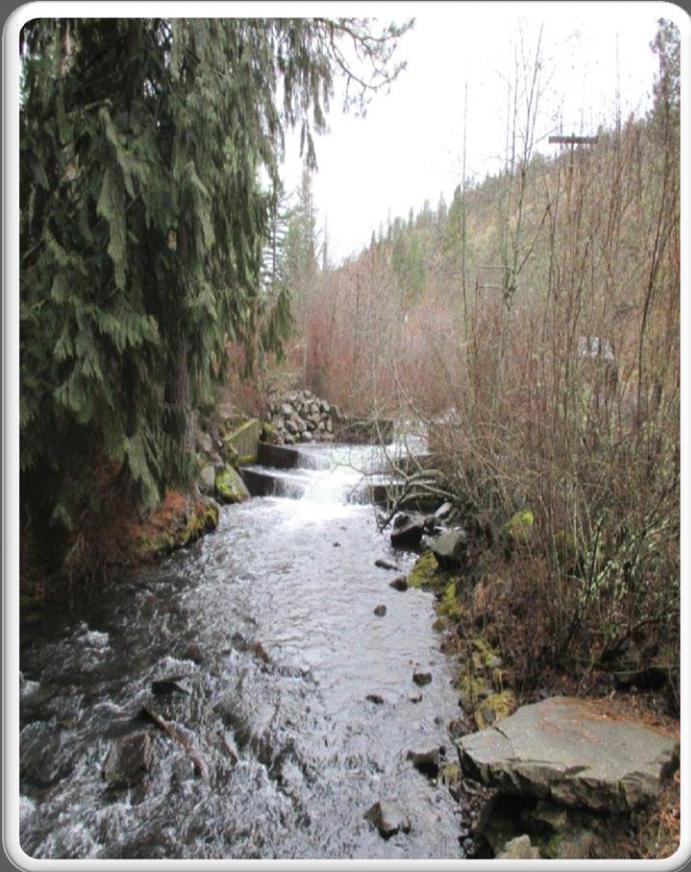


However, protecting lamprey  
isn't always a cake walk



# City of Dufur Fish Ladder

- o Located in 15 Mile Creek a tributary of the Columbia River
- o Original ladder was installed in the mid 1980's with no thought of lamprey passage
- o Reason for installation of the new ladder is to improve upstream juvenile passage
- o ODFW wanted to take this opportunity to not only help improve upstream passage for juvenile salmon/steelhead but also lamprey
- o Very easy to incorporate special lamprey cutouts during fabrication



# City of Dufur Fish Ladder



# Sandy Hatchery Lamprey Ramp

- o The Sandy River is a tributary to the Columbia River in northwestern Oregon
- o In 2013 we worked with hatchery staff to provide a passage solution for lamprey at this facility. The hatchery installs this seasonal check dam each year for brood stock collection.
- o ODFW constructed an aluminum ramp with water flowing through it. The water is supplied by a screened auxiliary pump which provides the necessary water for Lamprey passage.



# Lamprey Ramp

Lamprey flume entrance



Lamprey flume mid section



# Sandy Lamprey Ramp

Screened water source



Lamprey exit



# Sandy Lamprey Ramp



# Tenold Dam

- o This site is located on 15 Mile Creek, which is a tributary to the Columbia River located near The Dalles Oregon
- o Seasonal check board dam in 15 Mile Creek used for irrigation purposes.
- o Limited upstream passage for lamprey or other species at this site.
- o The solution was a simple, low cost, ramp which was installed to improve lamprey passage



# Cory's final thought

- o As we're building new projects in the future not only do we want to protect salmon and steelhead, but we also want to protect our little wiggly lamprey friends. Lamprey are a very important cultural resource and an environmental indicator. If we can take a few minutes out of our day and think about lamprey it will make the world a much better place! So remember take care of yourselves and each other, and as any good little hulkamaniac knows-- say your prayers, take your vitamins, and everything will be OK. GIDDY UP!

