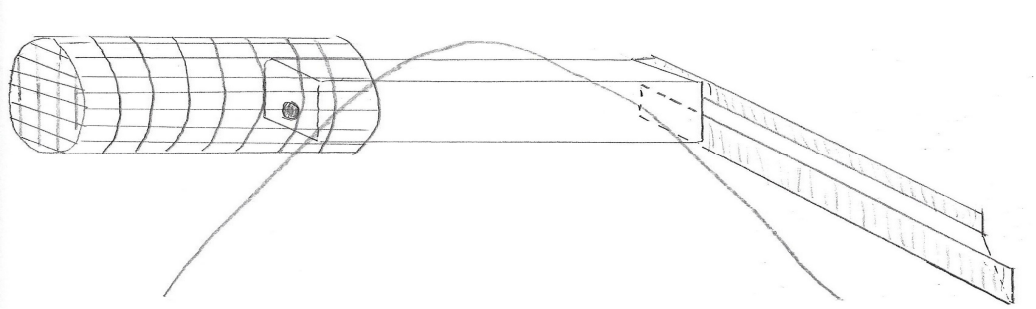
# *Juvenile Salmonid Fishway (JSF) – Prototype*

## Concern
Do Pond Leveler pipes decrease juvenile salmonid movement over beaver dams at low stream flows?

## Solution
If yes, also install a juvenile salmonid passage device through the piped beaver dam.

## JSF Diagram



## Details
Protect intake end from beaver damming with fencing
Outflow ramp with sides allows salmonid access in and out of pipe
Partial cap at ramp creates a dam to back-flood the JSF and decrease water velocity
JSF intake cap with a hole (2"w x 4"h) reduces water flow and velocity inside tube
JSF is set lower than the Pond Leveler pipe to ensure continuous flow at low summer flows.
Round all corners to promote eel passage also.

## Ideas
Passage to mimic natural passage as much as possible.
Less trauma and energy expenditure for salmonid crossing over dam in both directions
JSF maintains juvenile movement despite low stream flows
JSF helps compensate for water diversions and climate change droughts.

## Research
Do Pond Leveler pipes decrease juvenile salmonid movement over beaver dams at low stream flows?
Need PIT data to learn if juveniles use the JSF, the adult Snohomish Pond Leveler, or go over the beaver dam?

## Materials
6 foot long, 8" square wooden box (or 8" pipe dia.) with cap
Cylindrical intake fence
Wooden fishway ramp
Posts for support, Foam and Caulk sealants, Screws

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