



Fish Passage Mitigation

Design & Development

Structure Types

- Road culverts
- Vertical culverts
- Tide-gates
- Weirs – including fords and bridge-pile protection
- Hydro dams
- Pump Stations

Installation considerations

- In-house staff
- Students
- Contractors – hourly rate or fixed price?
- Pre-fab
- Site-build

Scope

Primary Considerations:

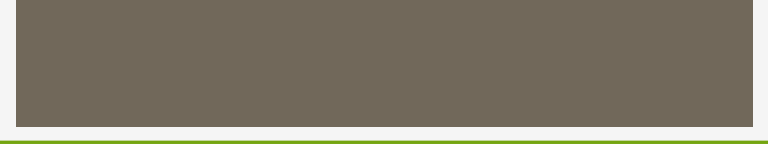
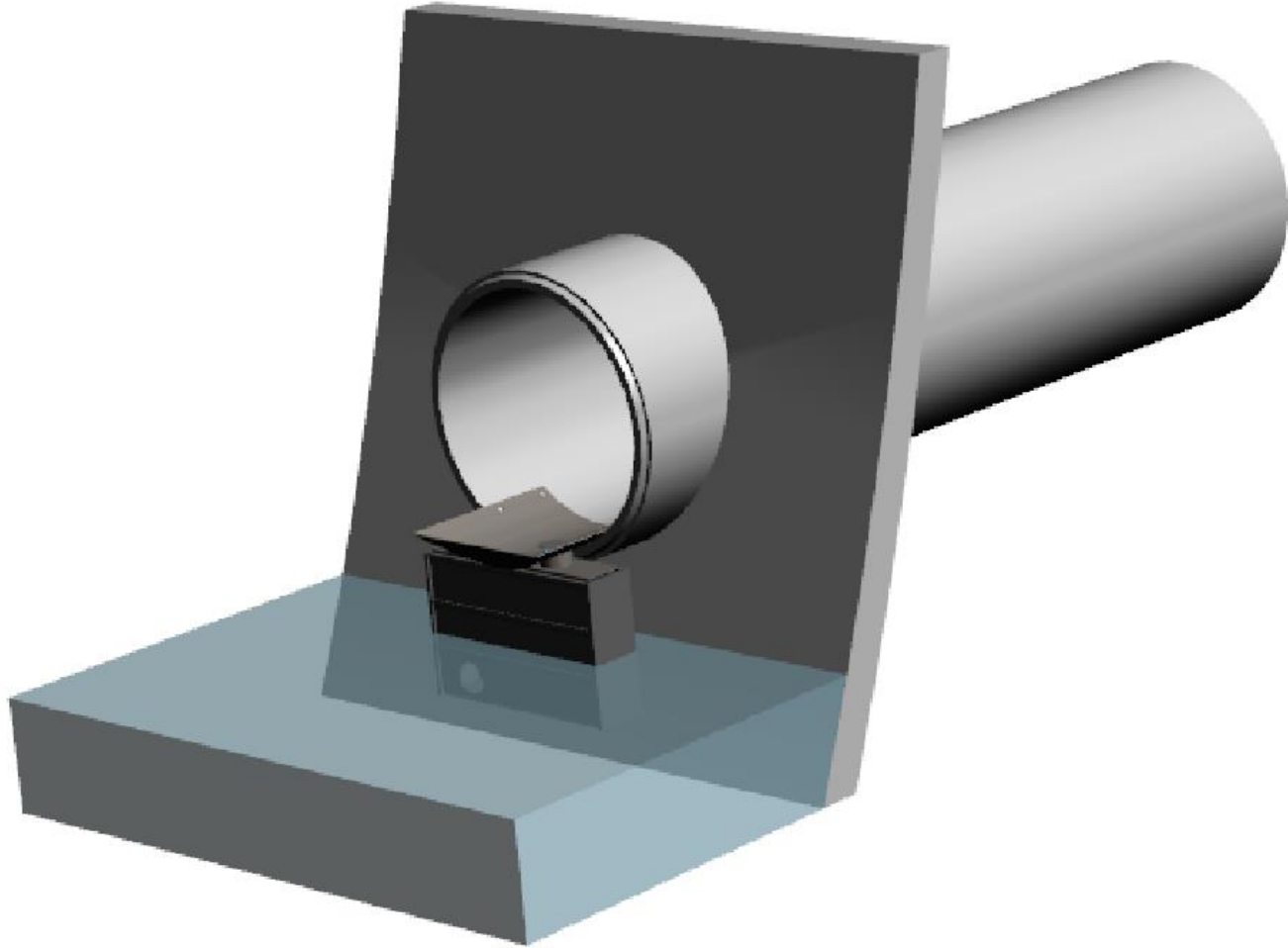
- Functionality for fish
- Function of the structure
- Material Cost

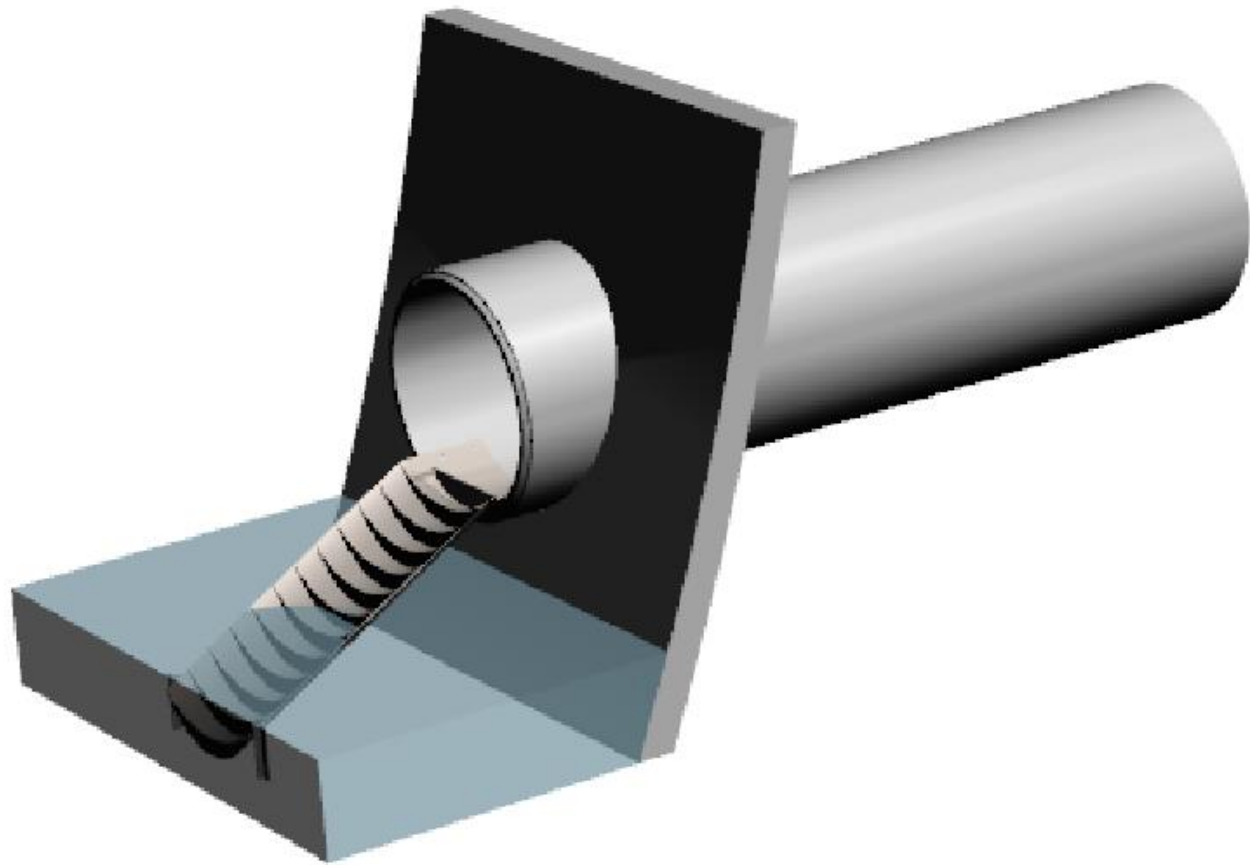
Other considerations:

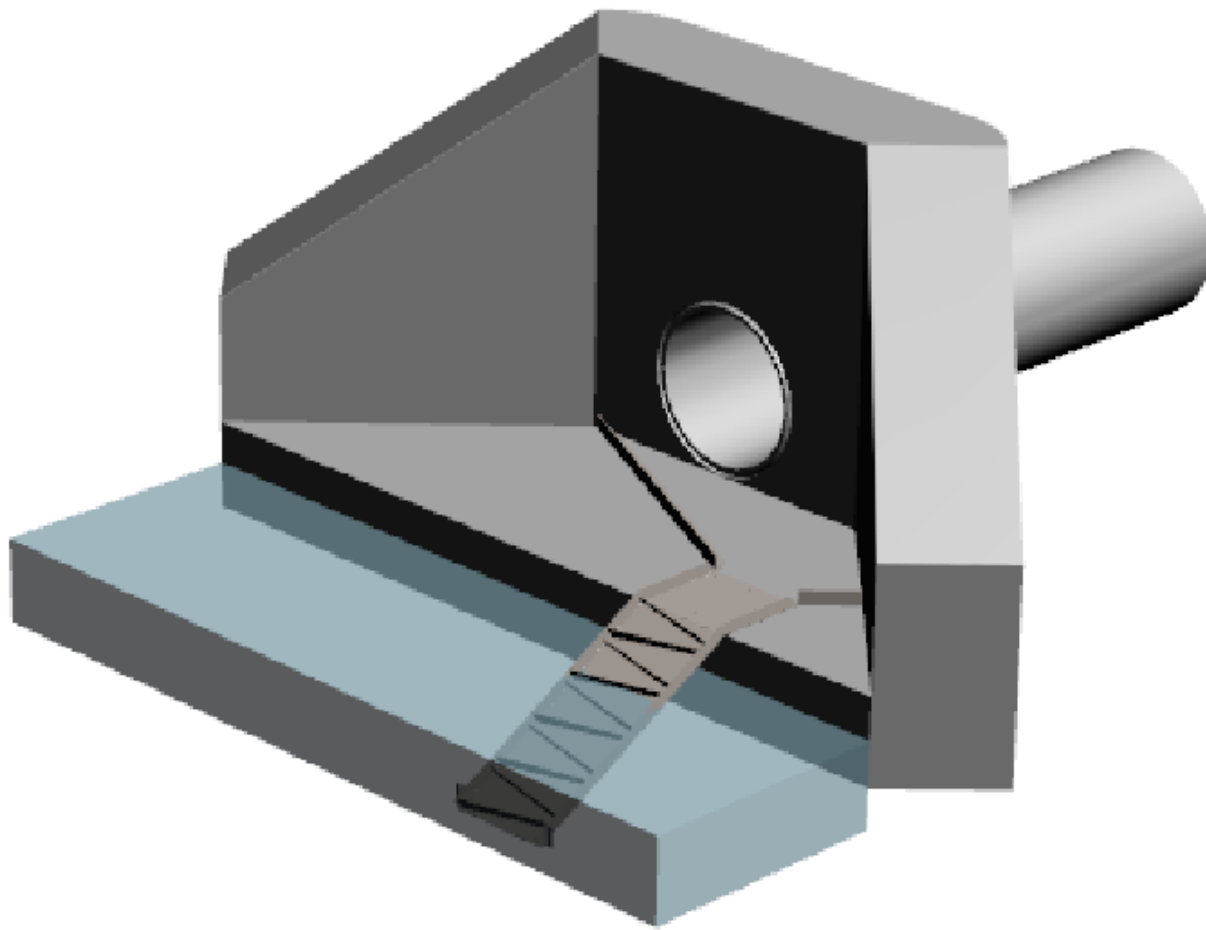
- Installation – cost/skill set required
- Life expectancy
- Aesthetics
- Carbon footprint – recycled materials?

Development

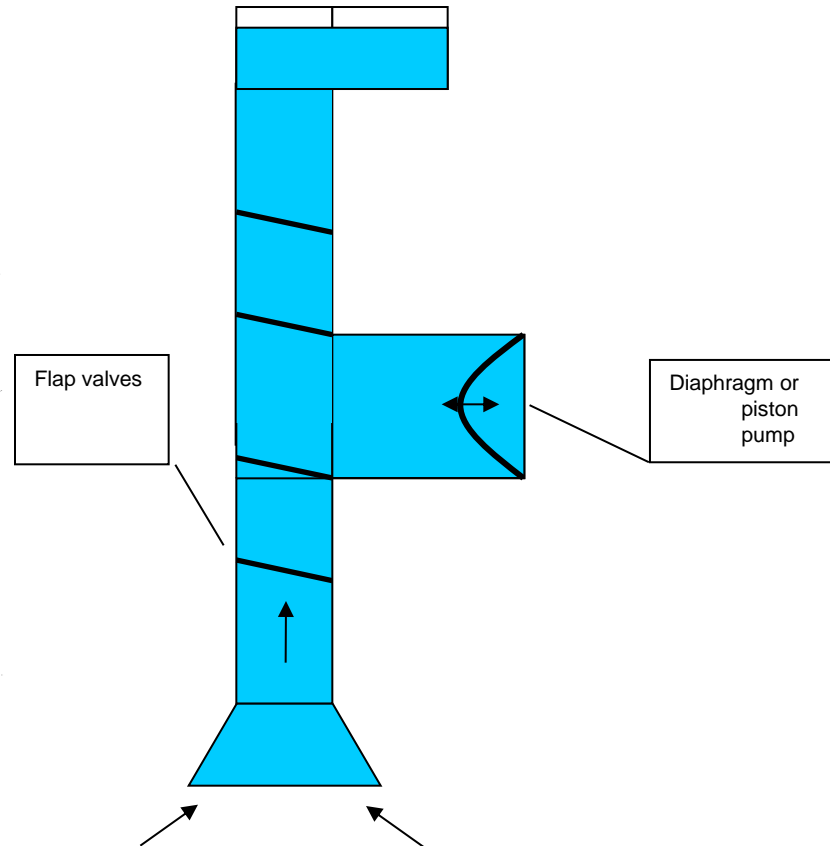
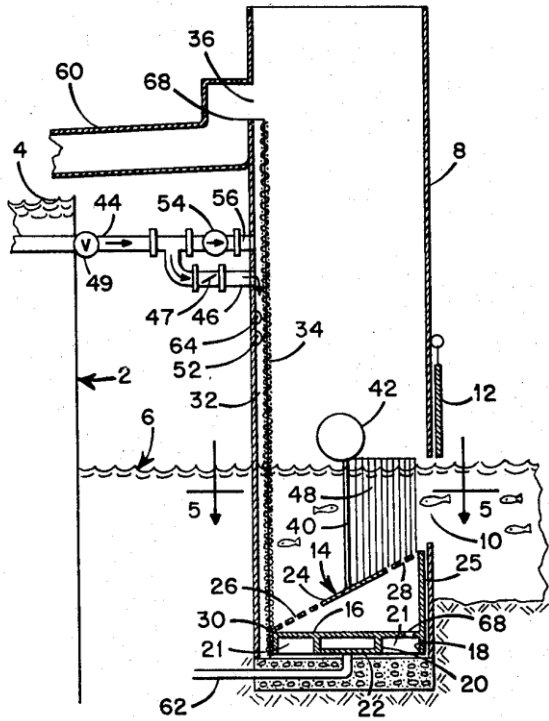
- Targeting longer ramps and culverts too small to work in i.e. <900mm
- Swimming species up ramps
- Vertical culverts
- Fish lifts at pump stations























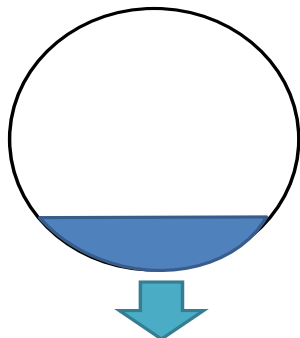
Fish Passage Workshop Exercise

Name: _____

Organisation: _____

Contact details: _____

Do you wish to discuss this further? Yes/no



Order of your priorities?

Fish Passage/Culvert capacity/Substrate retention/Cost/Aesthetics

- 1.
- 2.
- 3.
- 4.
- 5.

Baffle Layout Considerations

Reduce velocity

Increase depth

Disrupt lamina flow

Refuges

Choices for species

Avoid debris

Cost

Life span

Maintenance

Key:

X = small Baffle

Contact Information

ATS Environmental

Ph 0800 36 33 33

info@ats-environmental.com

www.ats-environmental.com