

Glen Canyon Dam Fish Exclusion: Project Overview

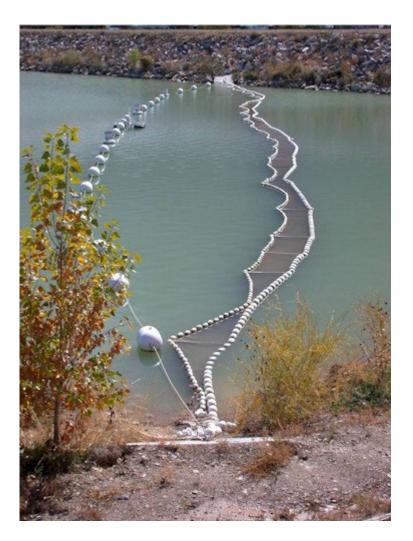
Clarence Fullard, Reclamation

Process

- Engineering team Reclamation TSC
- Develop Subject Matter Expert Panel
- Review exclusion report + other ideas
- Selection criteria:
 - 1) Demonstrated effectiveness
 - 2) Short deployment time
- Result: net and/or curtain barrier choses
- Next steps:
 - 1) Site visit
 - 2) Engineering design
 - 3) Work with contractor

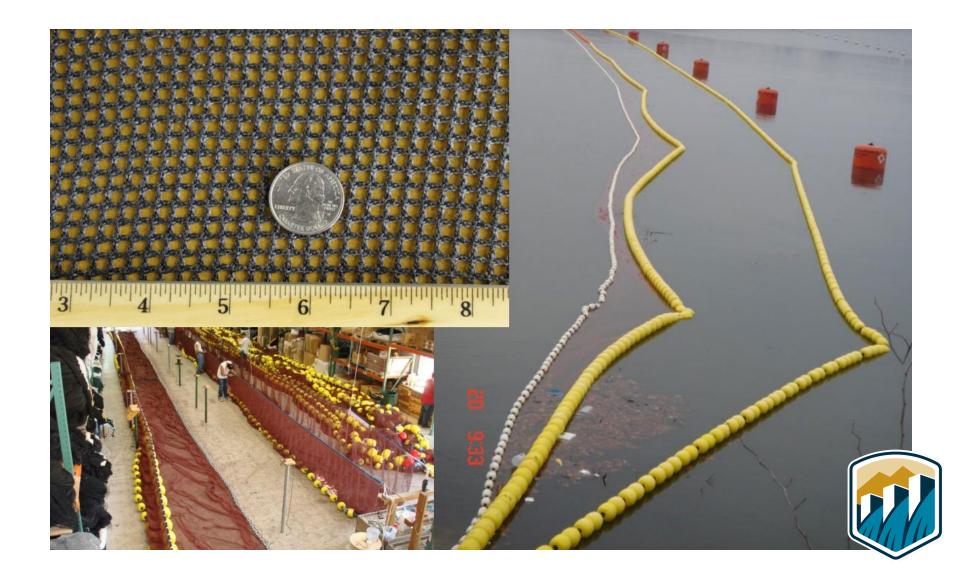


Net Barrier



Highline Lake spillway barrier net, 363' long, 20' deep.





Example: Ludington, MI Fish Barrier Net



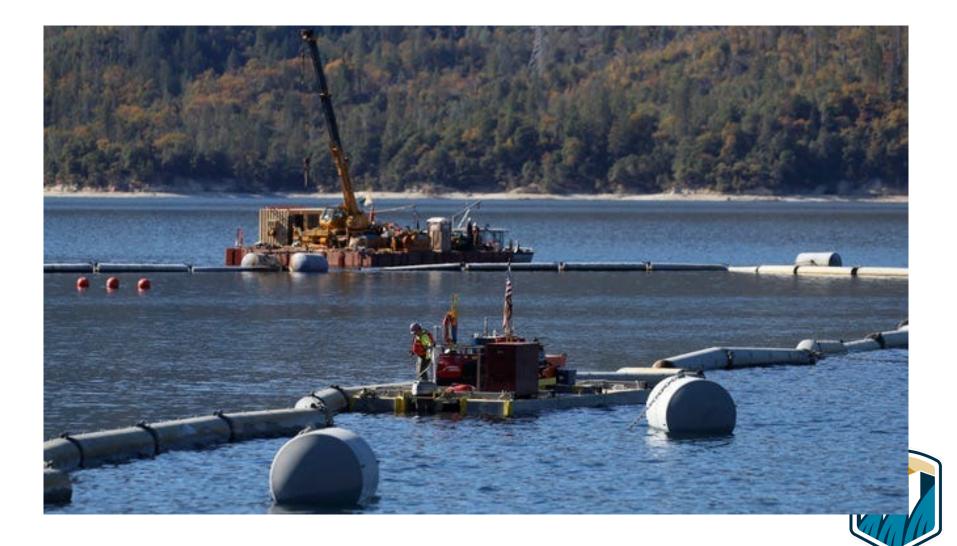
55' deep, ~3 miles long, installed/removed seasonally



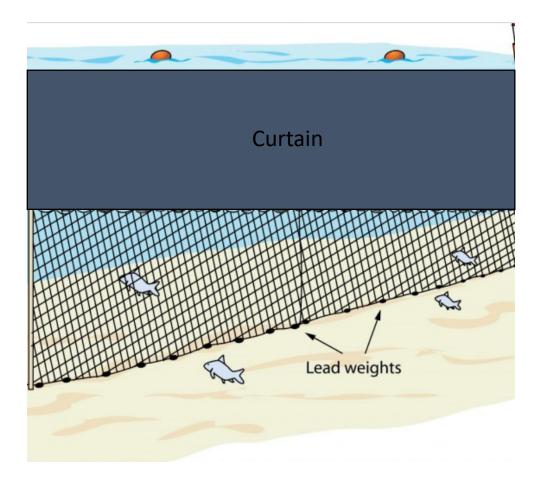
Thermal Curtain



Thermal Curtain



Concept





Net/Curtain Hybrid

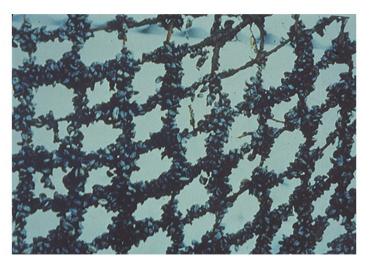
• Requirements:

- >1000' long
- Thermal curtain ~100' deep
- 1/4" mesh netting
- Seamless attachment to canyon wall
- Possible mid-reservoir support column and shore anchors



Engineering/Design Concerns

- Construction access
- Attachment to canyon wall
- Middle support
- Biofouling
- Other maintenance/cleaning
- Dam safety



Lake Huron – Ontario Hydro Block Net



Contact: cfullard@usbr.gov



— BUREAU OF — RECLAMATION