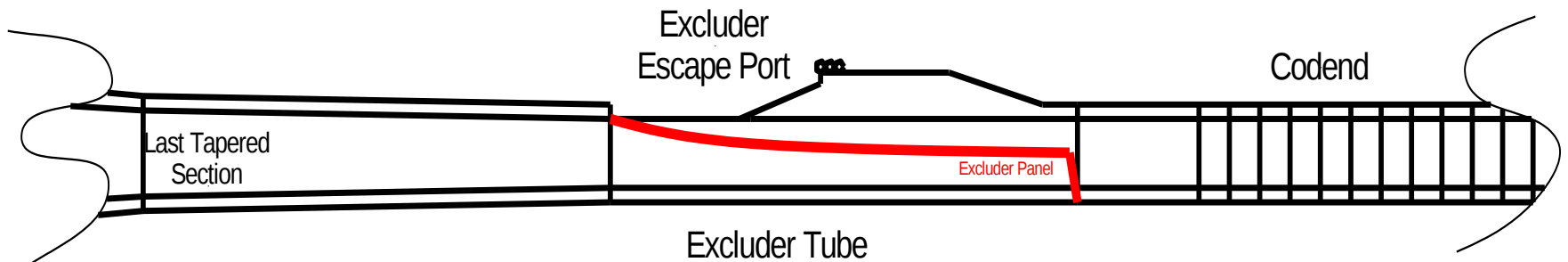
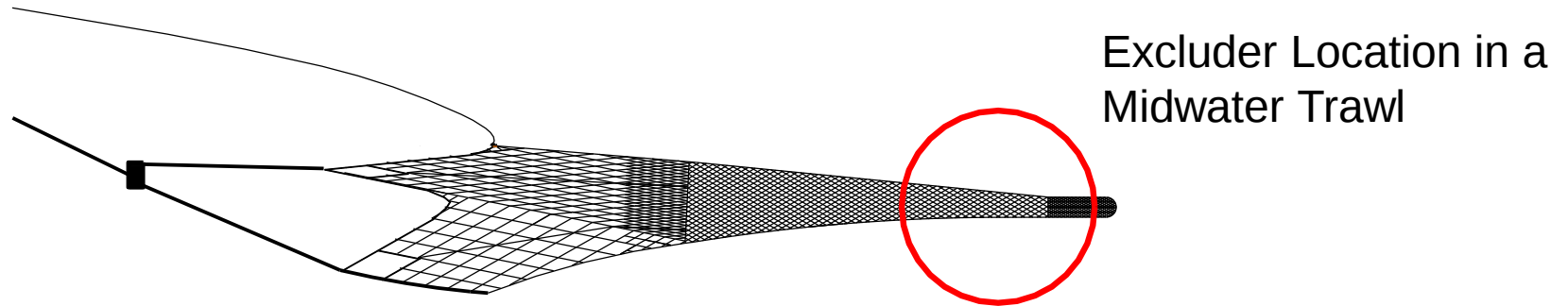


Salmon Excluder Update

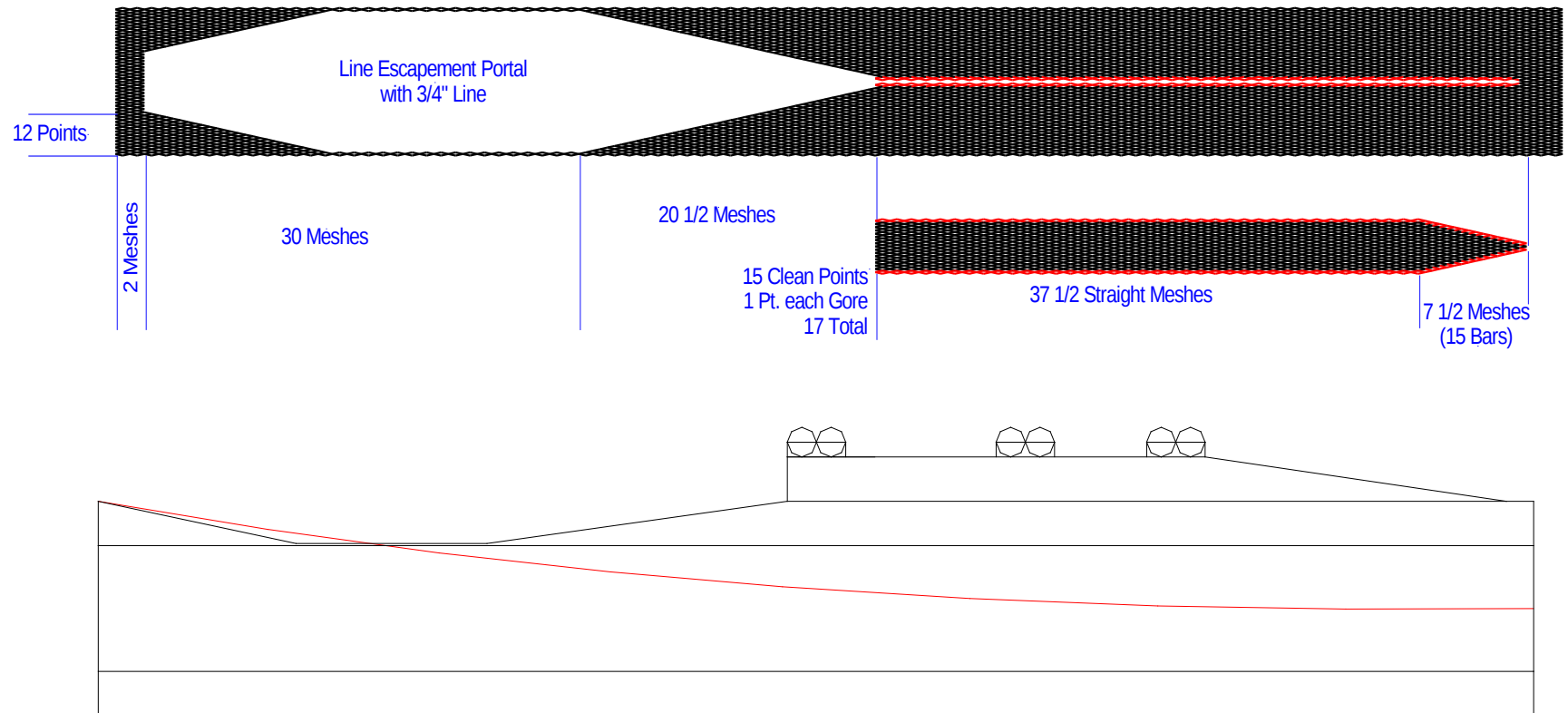
February 2013

Salmon Excluder



2010 EFP Excluder

Tube Excluder Section
100 Meshes Long by 46 Points Wide



Model of 2010 Excluder in Flume Tank



Results of excluder testing on Chinook Escapement; 2009 - 2010

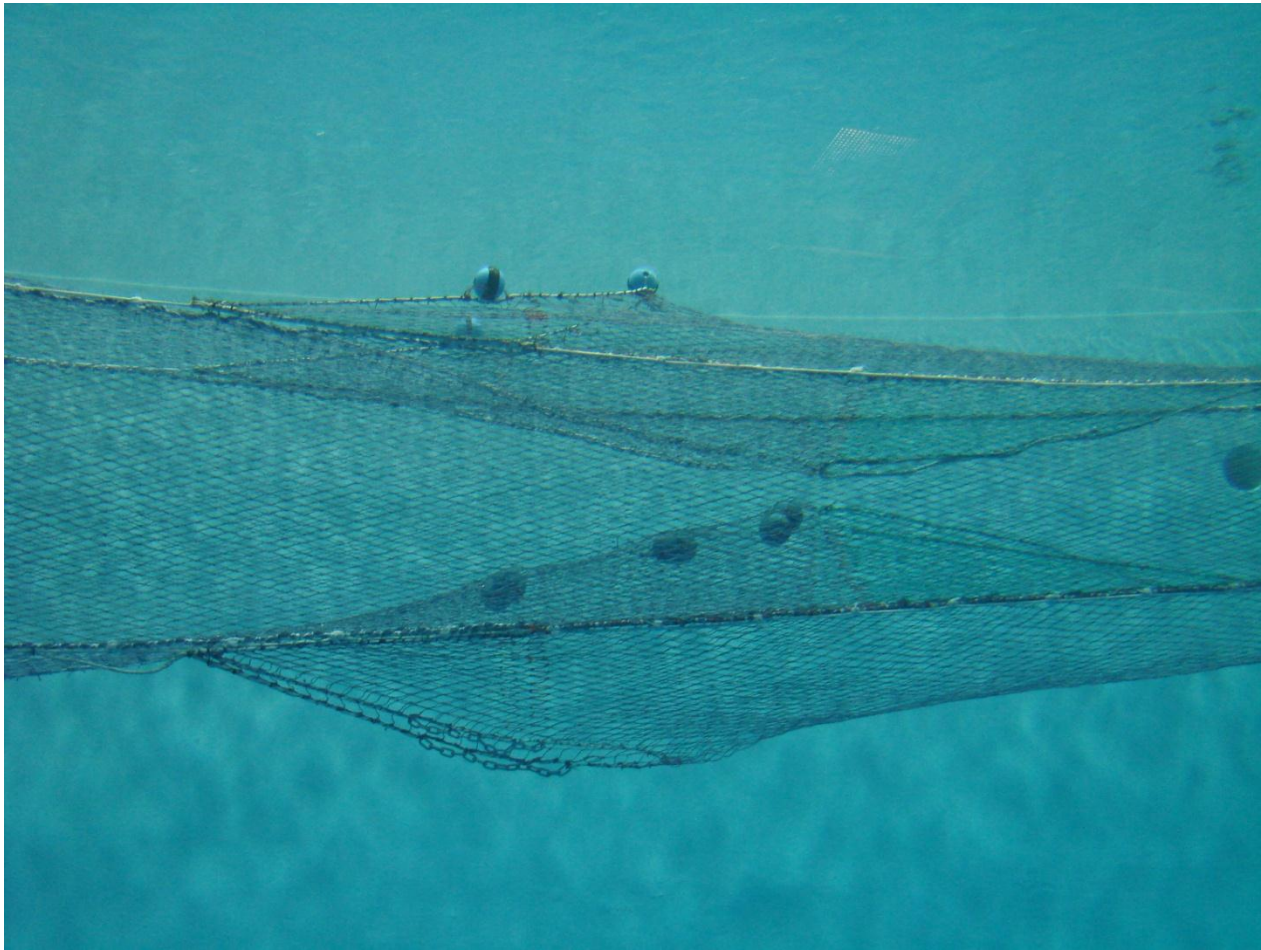
Test /date	Vessel	Codend salmon #	Recap salmon #	Salmon escape %
Winter 2009 P1	Pac Prince	726	91	11.1%
Winter 2009 P2	Pac Prince	1079	209	16.2%
Winter 2009	Starbound	720	70	8.9%
Fall 2009 P1 (chum)	Starbound	196	5	2.5%
Fall 2009 P2 (chum)	Starbound	643	34	5.0%
Winter 2010 P1	Pac Prince	122	62	33.7%
Winter 2010 P2	Pac Prince	37	25	40.3%
Winter 2010 P1	Starbound	150	49	24.6%
Winter 2010 P2	Starbound	38	21	35.6%

Future excluder design

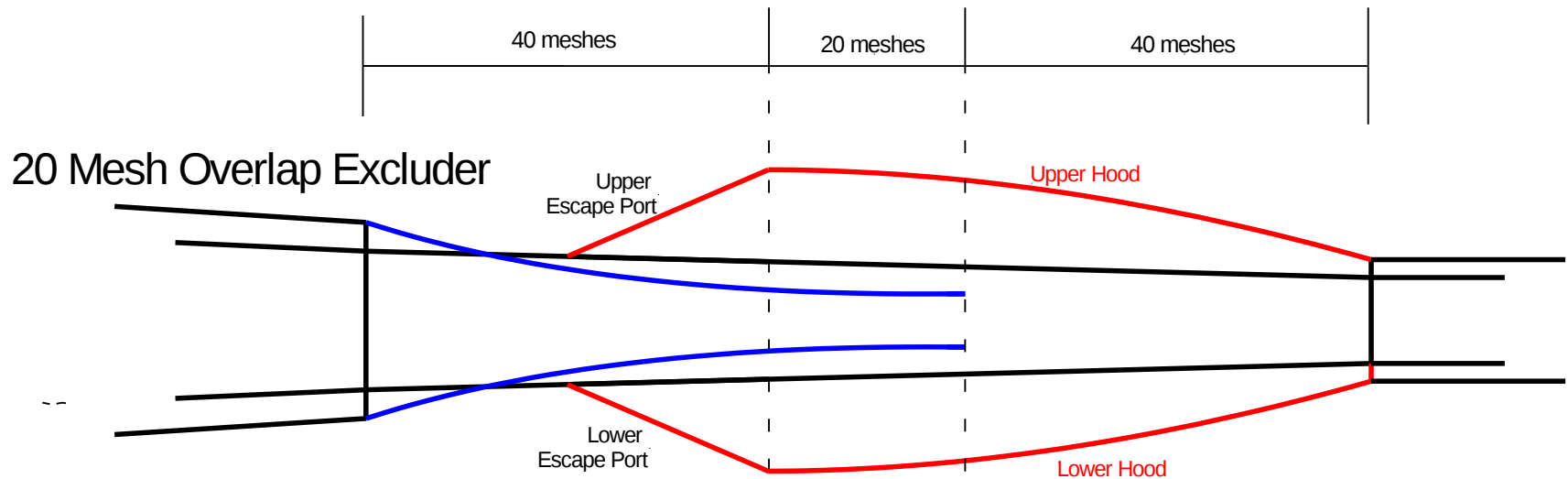
- Provide multiple escapement routes
- Increase both Chinook and chum salmon escapement rates
- Eliminate “touchy” excluder tuning issues
- Stabilize the design for wider horsepower ranges and fishing conditions.

Future excluder design – Over/Under Excluder Concept

Over/Under Excluder – 1:2 scale model in the flume tank.
October 2011..



Over/Under Excluder Development



Over/Under Excluder Development

- Initial test fishing with the Over/Under Excluder took place during the 2012 B Season
- 2012 Test Goals:
 - Identify design flaws
 - Refine initial design characteristics
 - Obtain rough escapement estimates for both Chinook and chum salmon.

Over/Under Photos



Over/Under Photos



Over/Under Photos

