

# Mortality Removal

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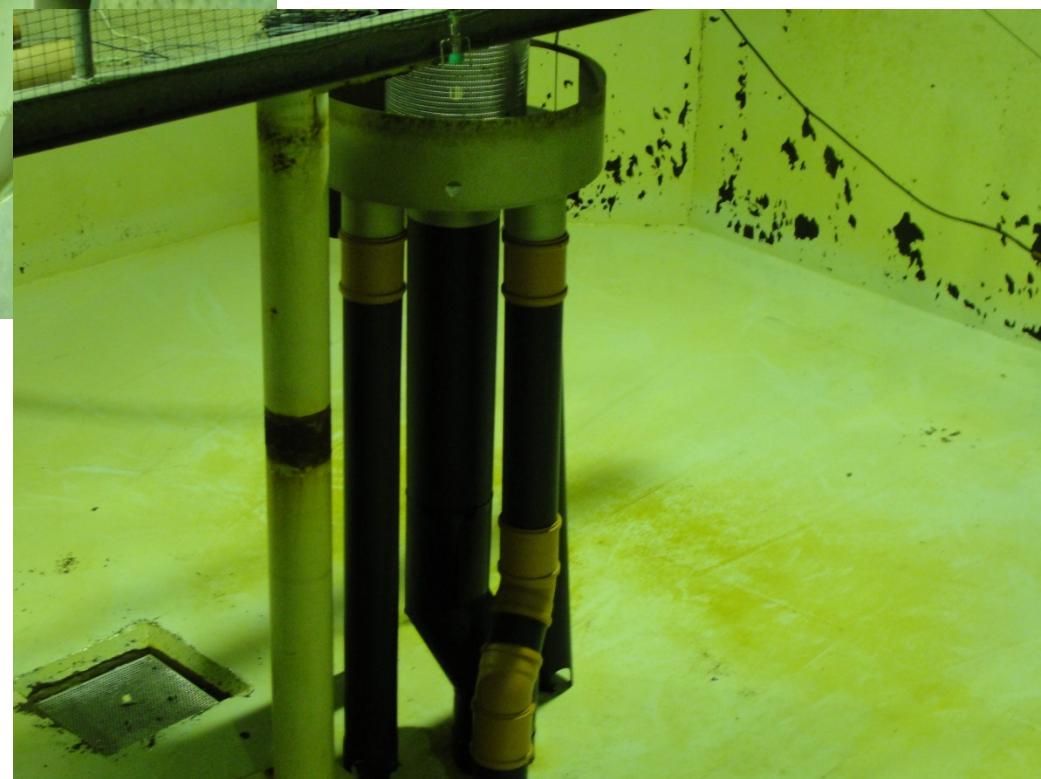
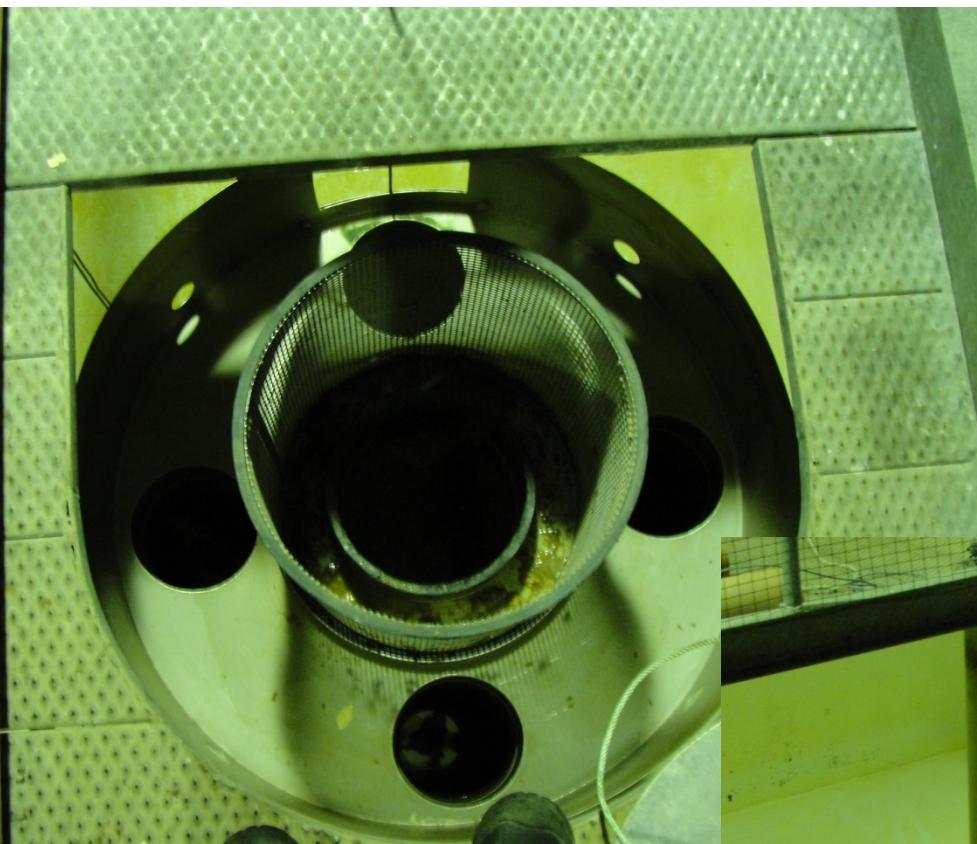
# NO SCUBA DIVING!!



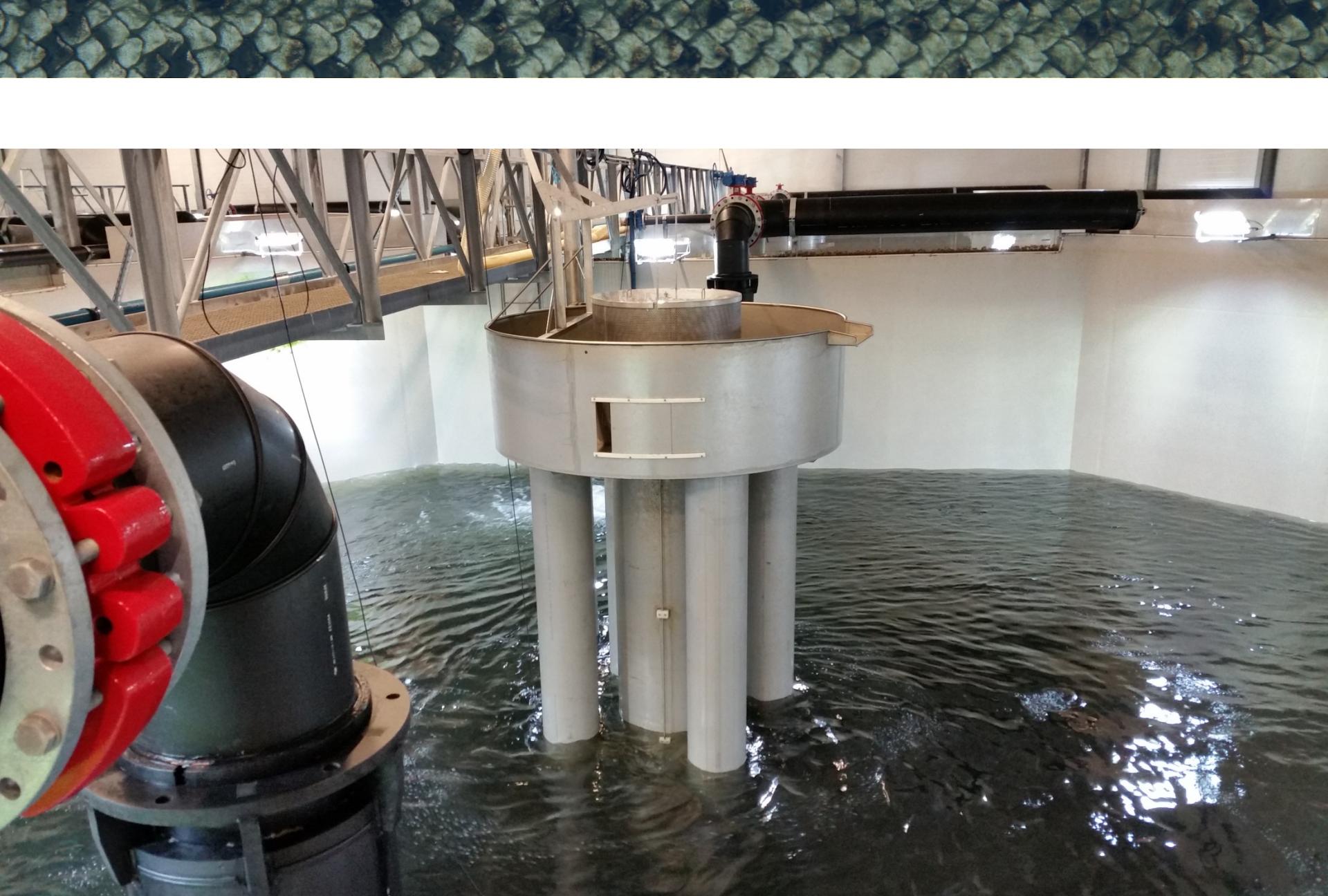
# Tank Surface Mort Removal Structure

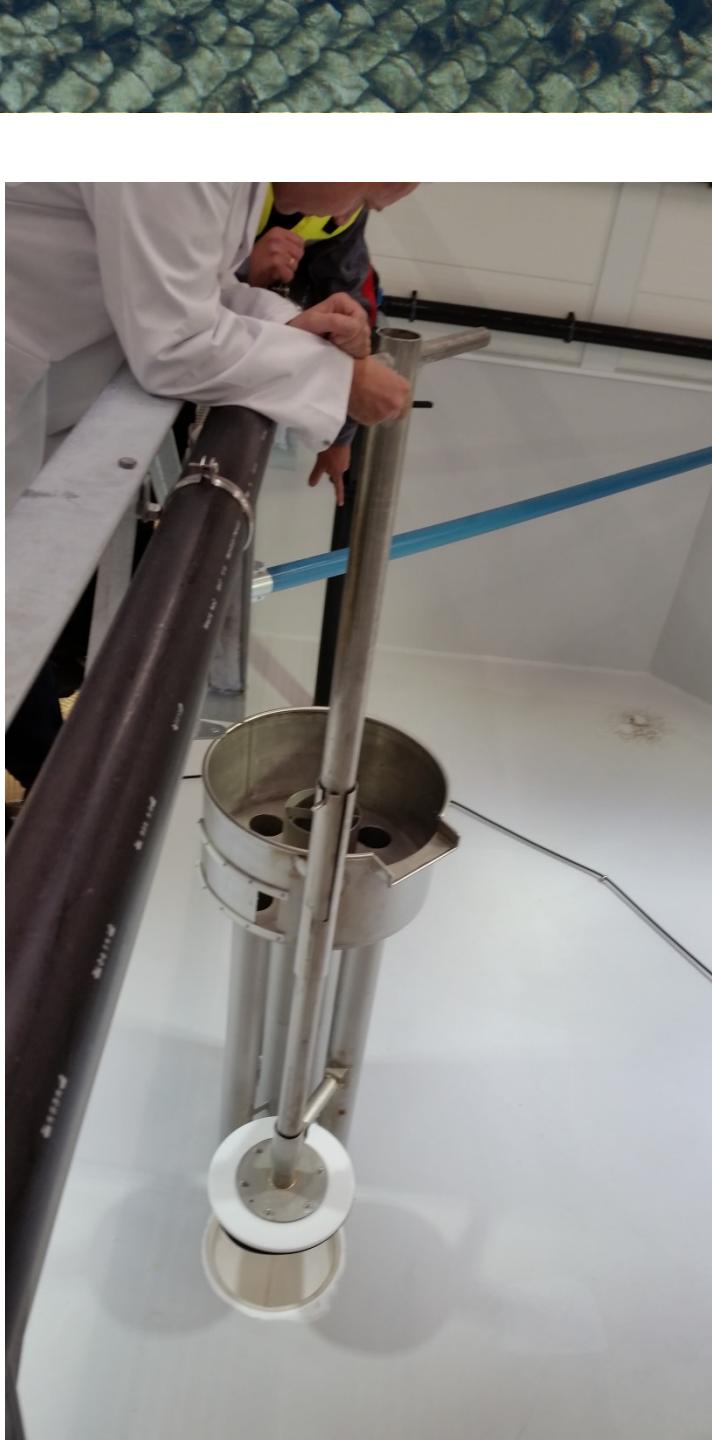
- Center drain uses four 110 mm diameter pipes to pull morts up to surface drain
  - Live fish swim out





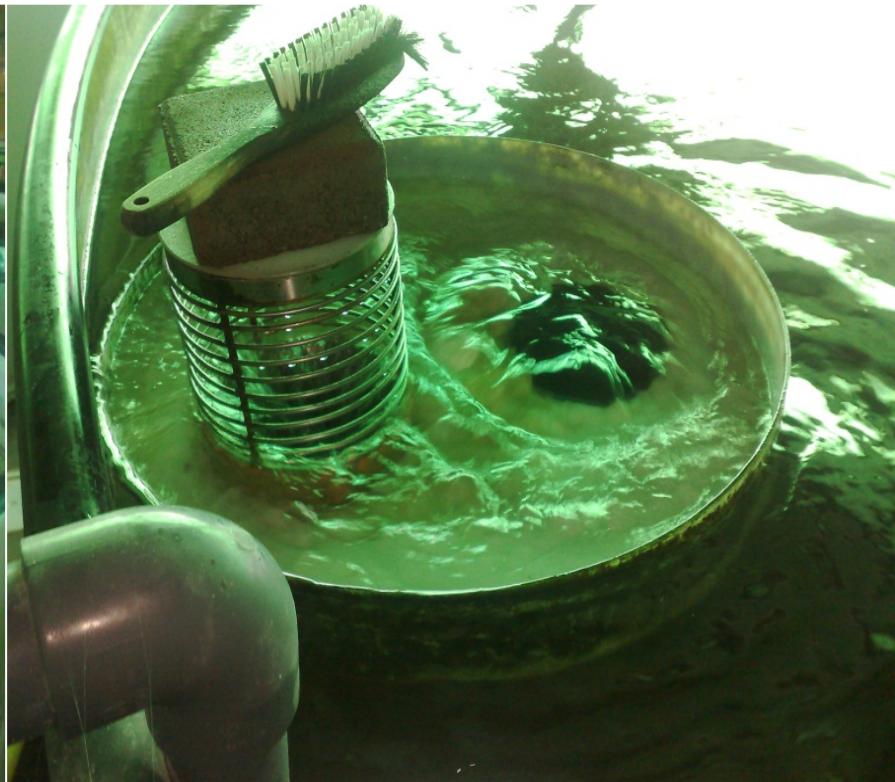






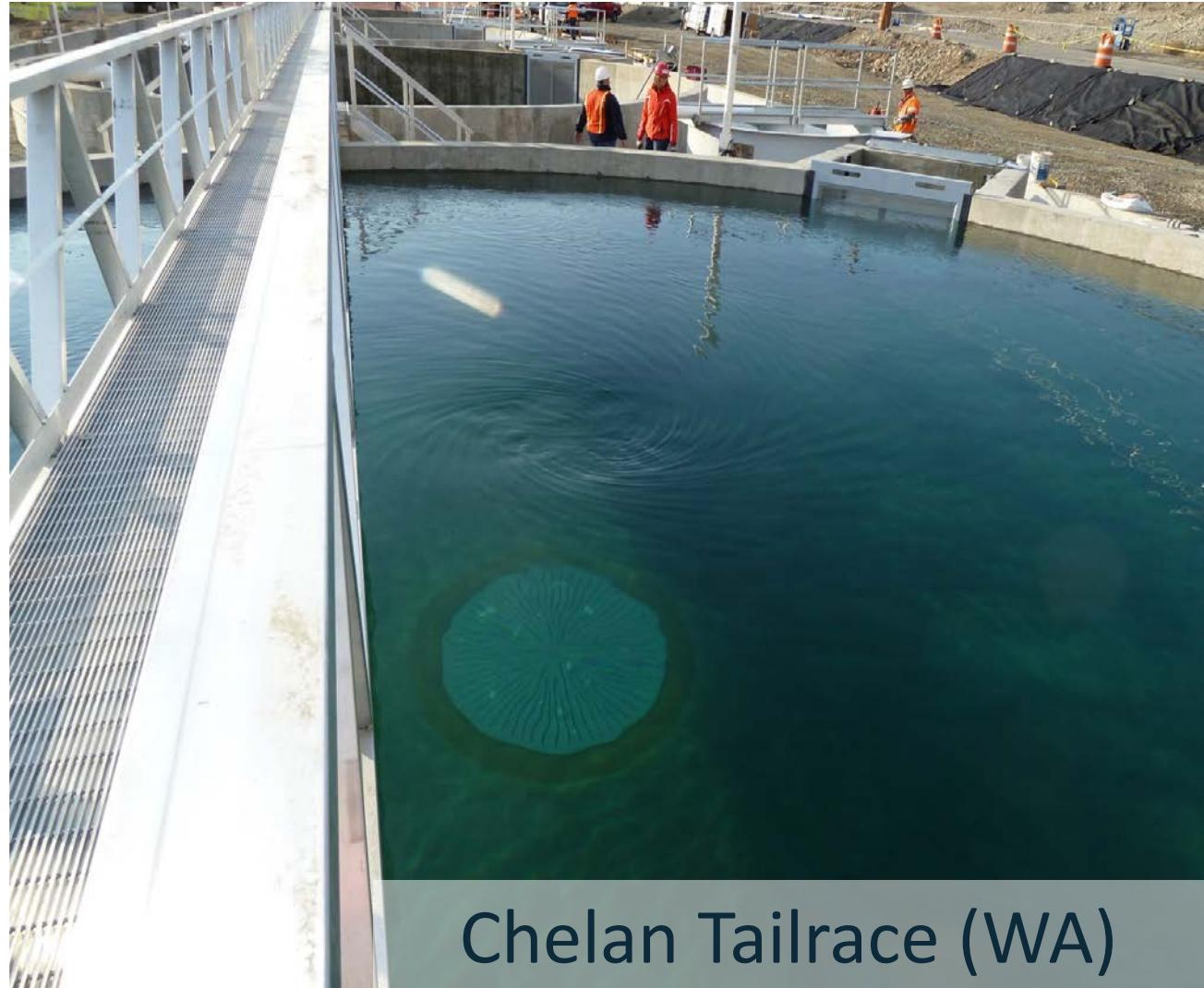
# Tank Surface Mort Removal Structure

Sea bream farm, Ein Amifraz (Israel)



# Circular Tanks: Removing Morts

Collect  
morts  
from  
bottom-  
center  
drain  
using  
walkway  
over tank



# Circular Tanks: Removing Morts

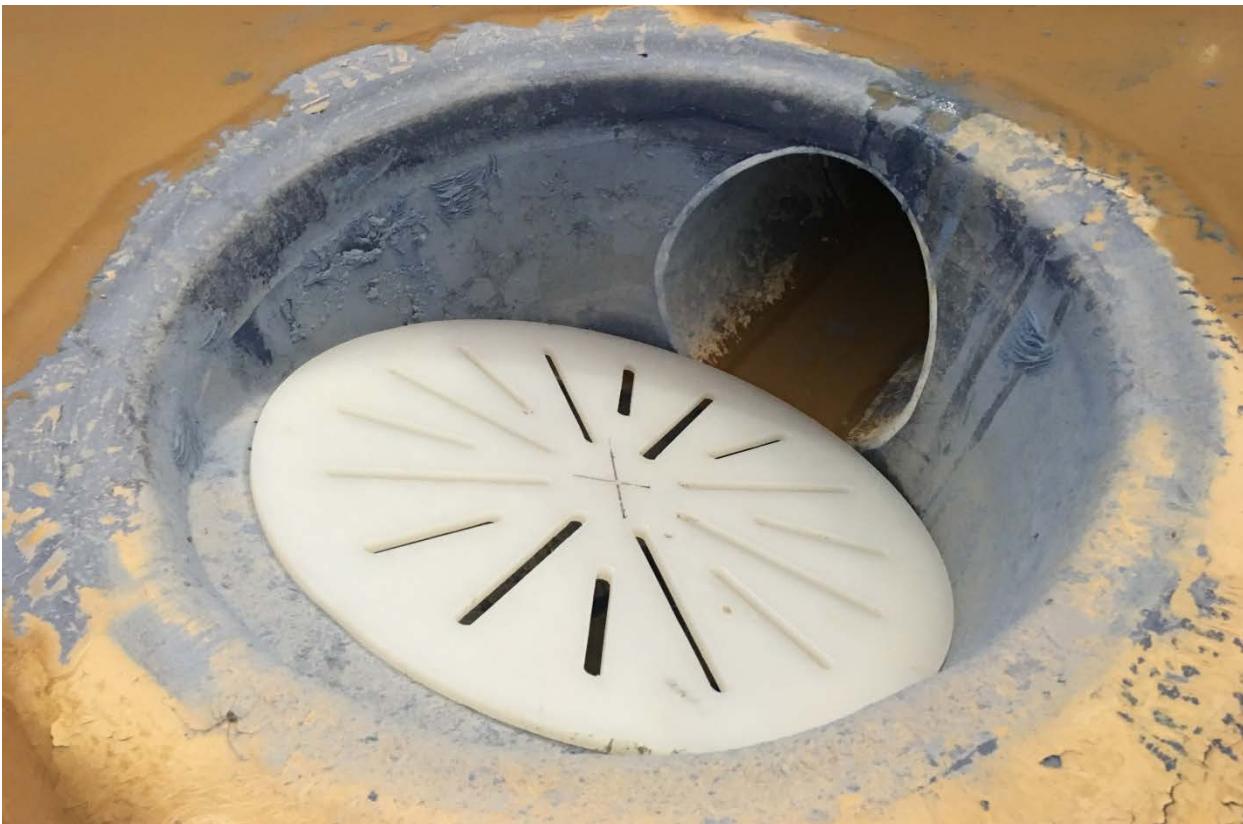
- Hinged exclusion screen on bottom drain



Hagonsborg salmon farm (BC)

# Simple Mort Drain

- Superior Fresh, Wisconsin
  - Separates mort drain from bottom drain flow
  - No moving parts



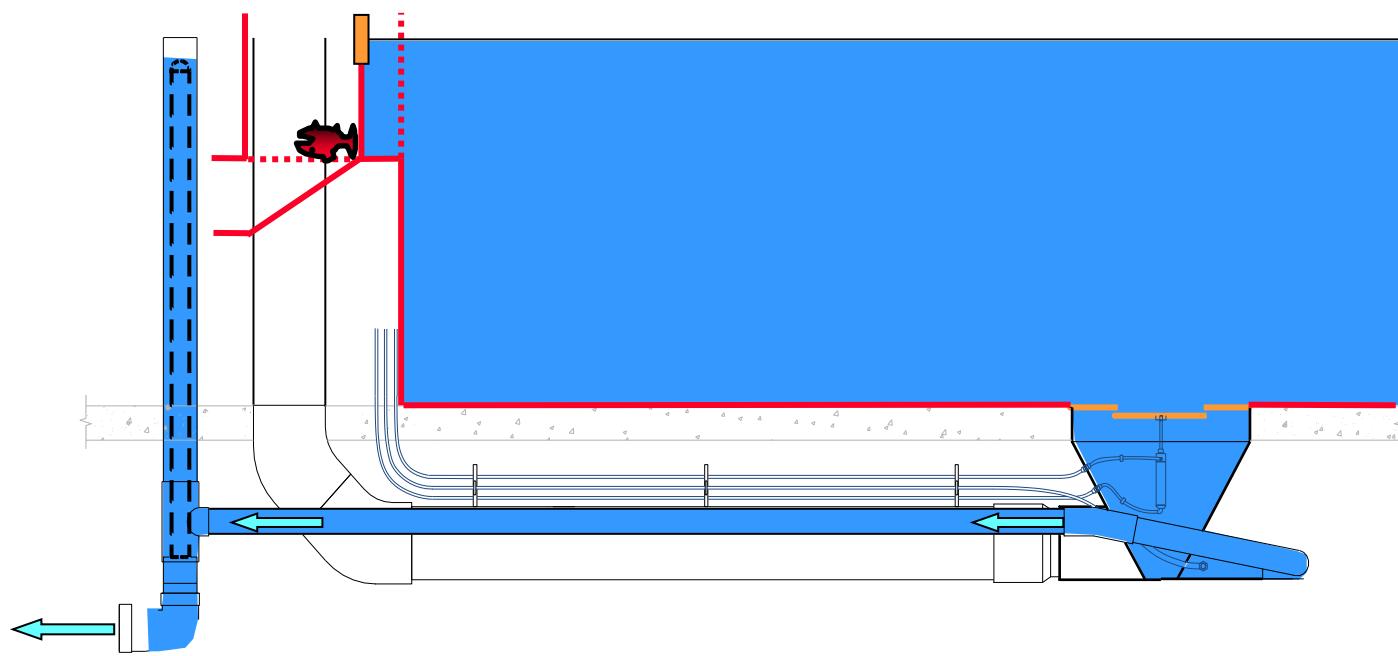
# Pneumatic Mort Flushing System

- Separates mort drain from bottom drain flow
  - Block flow over sidebox outlet weir
  - Pull 30 cm diameter sidebox stand-pipe
  - Raise bottom-drain cover using pneumatics



# Pneumatic Mort Flushing System

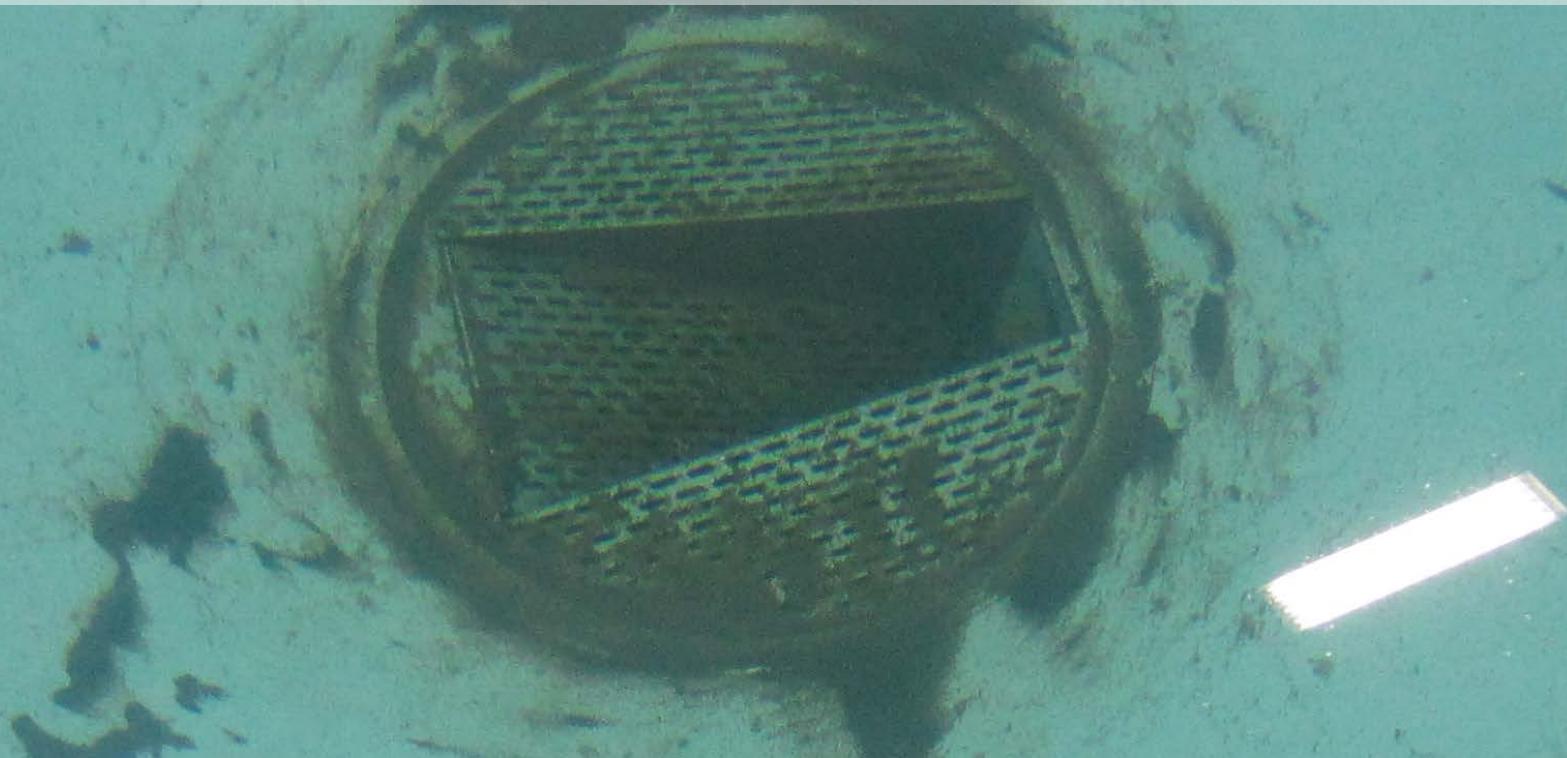
- Flushing dead fish
  - Replace standpipe
  - Remove dead fish
  - Remove dam board



# Pneumatic Mort Flushing System

- Variation used at Sweetspring, Washington
  - Separates mort drain from bottom drain flow

Shown in open position





# Conclusion

- Mechanisms to remove dead fish must be considered!
  - decrease labor costs
  - reduce spread of fish disease
  - maintain water level