



## Water & Air Bubble Screens

Reduce

### Salt Intrusion through Ship Locks

Rob Uittenbogaard (Principal Researcher, Deltarès)

John Cornelisse (Design & Instruments, Deltarès)

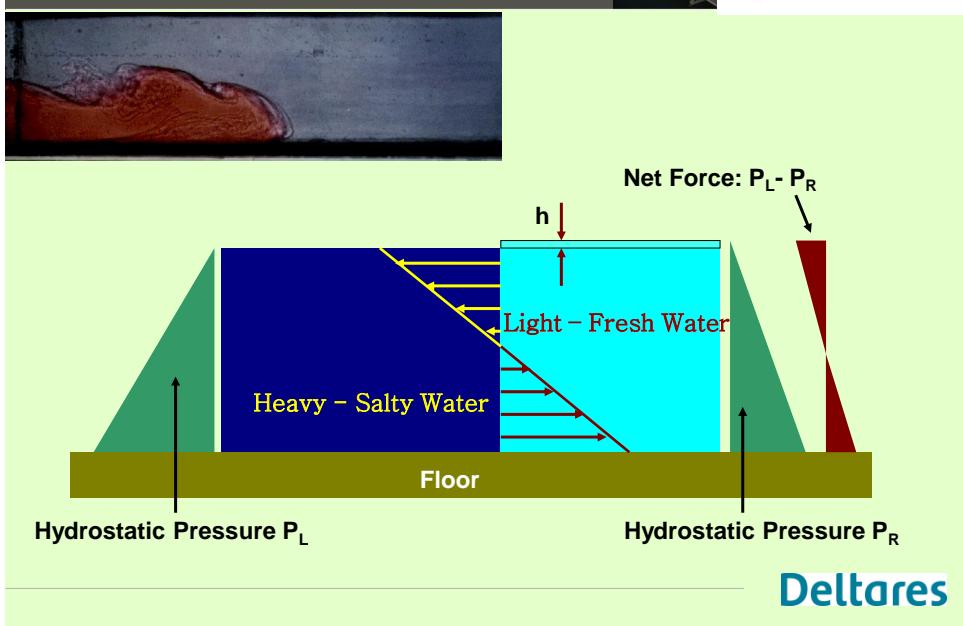
Ken O'Hara (Inventor, Flownthrough Ltd., UK)

Commissioned by Rene Boeters & Hans van Pagee  
 Rijkswaterstaat, the executive agency of the Ministry of Infrastructure and the  
 Environment

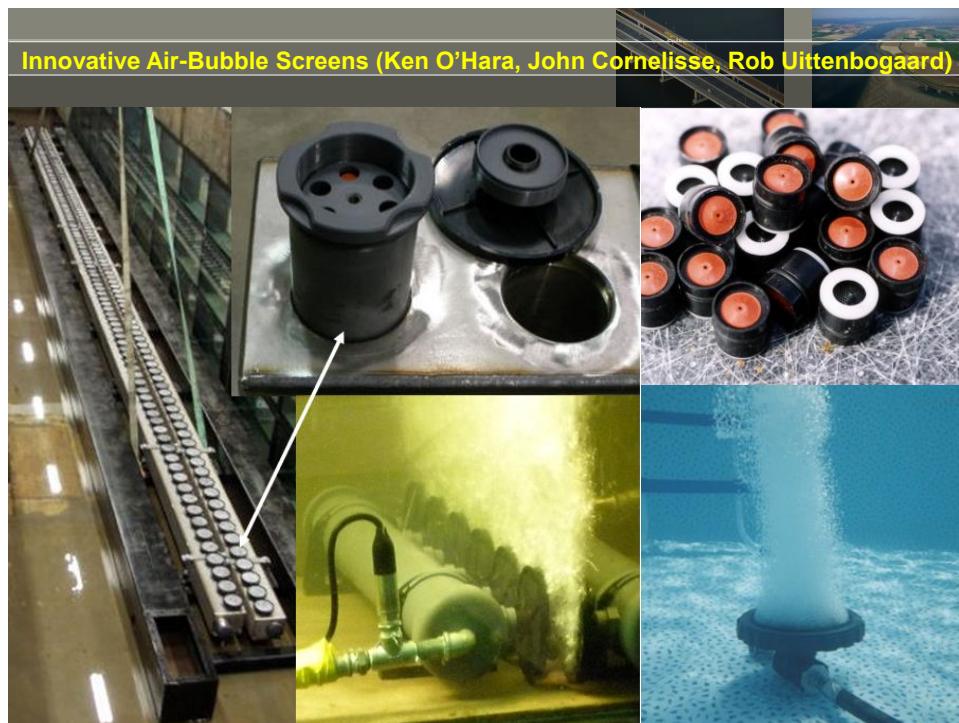
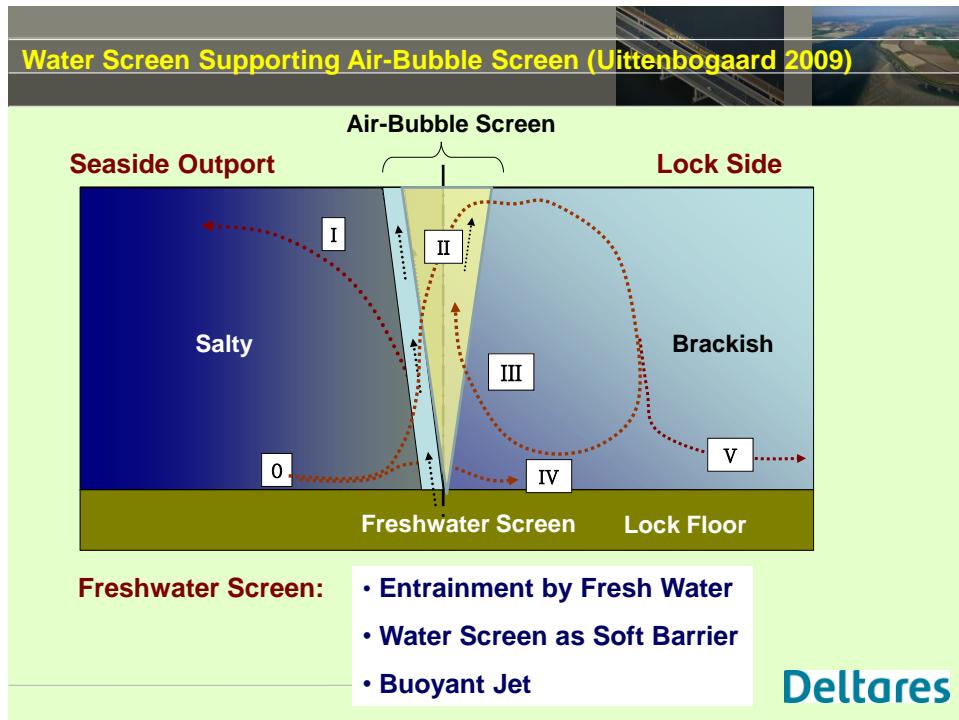
## Lock Exchange Flow - The Principle



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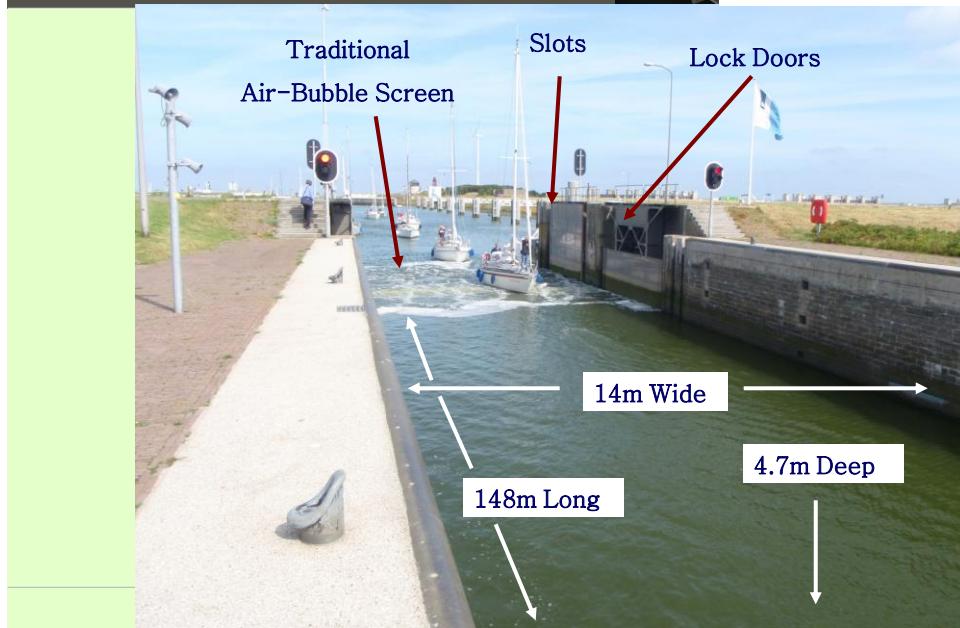
Deltarès



**The Stevin Ship Lock (Netherlands)**



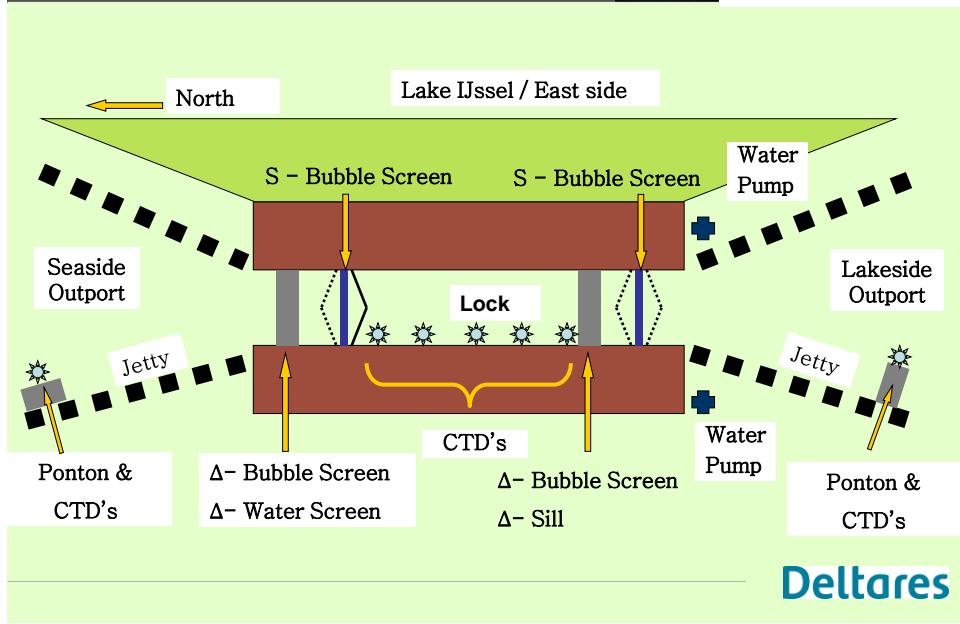
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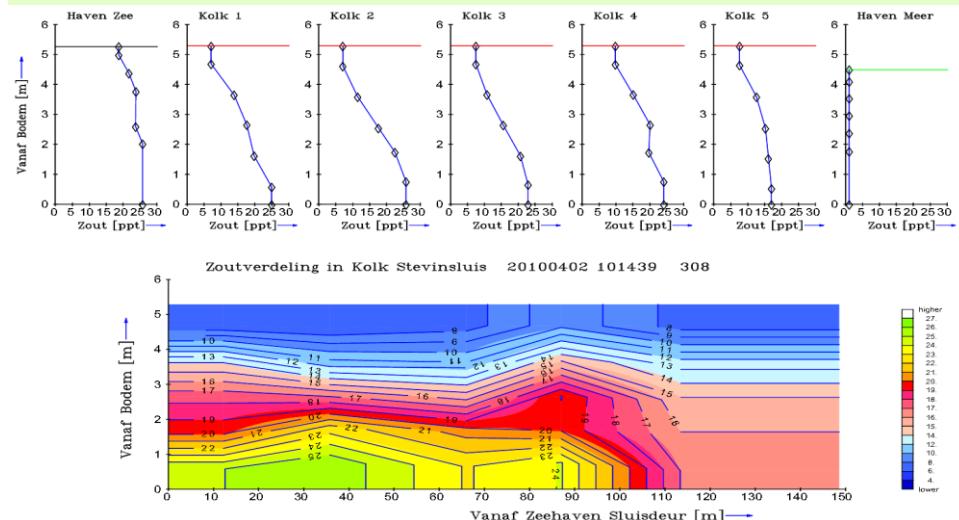
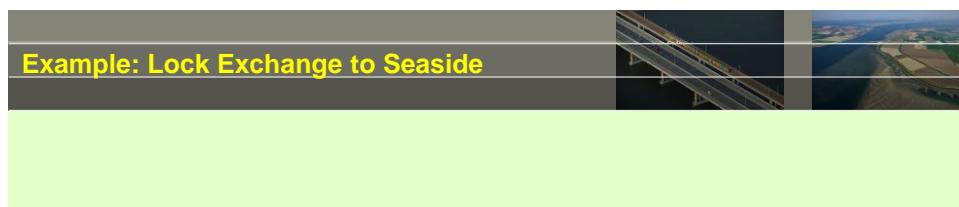
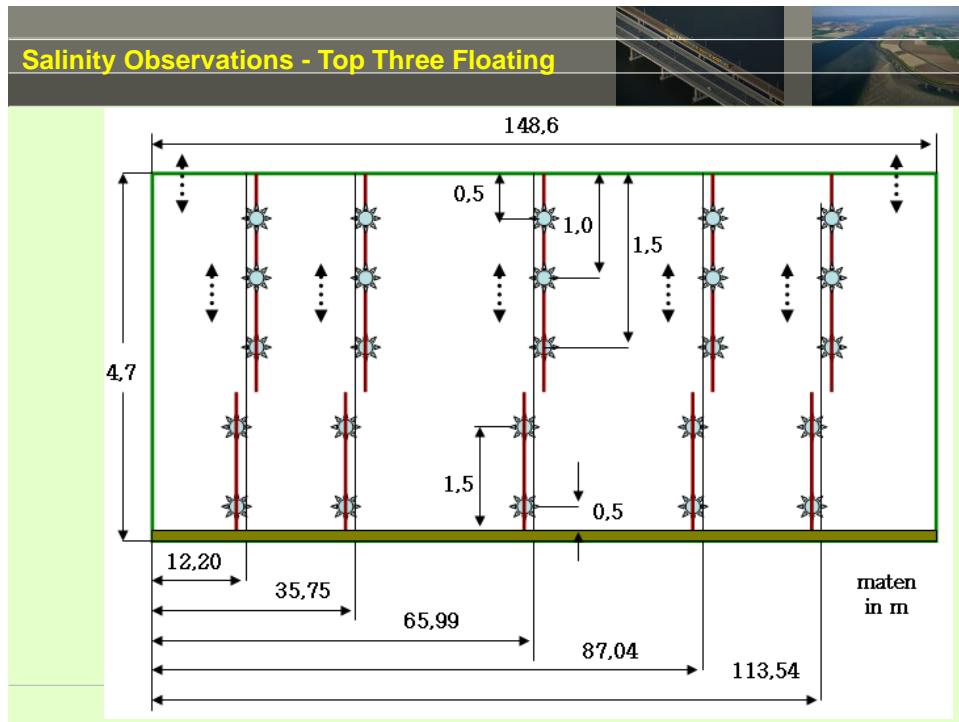


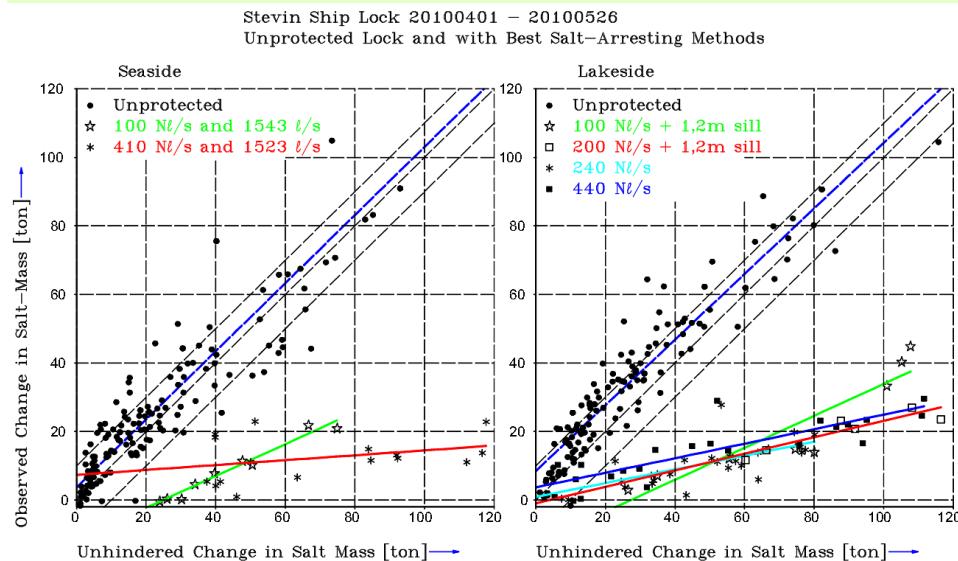
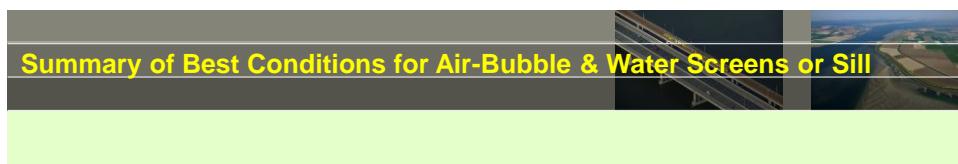
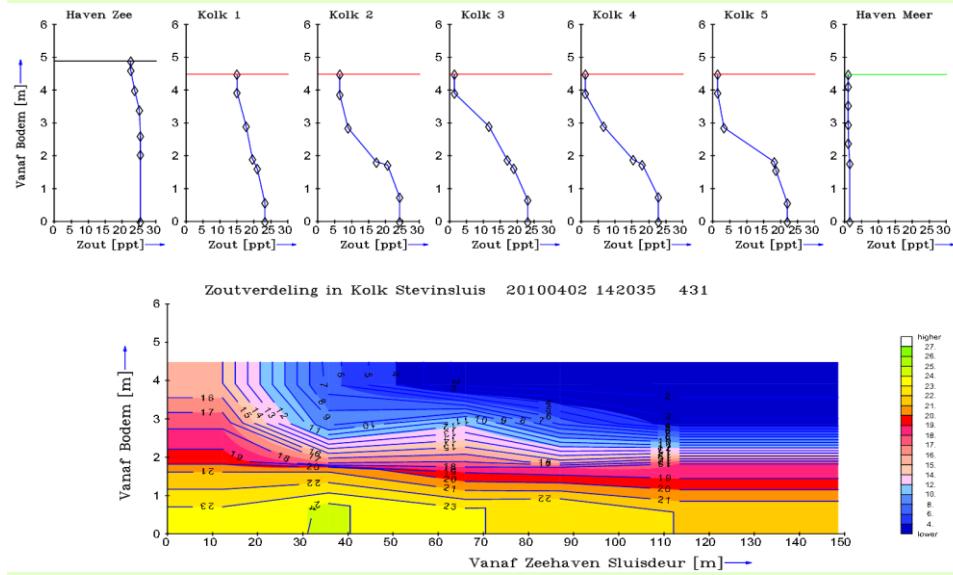
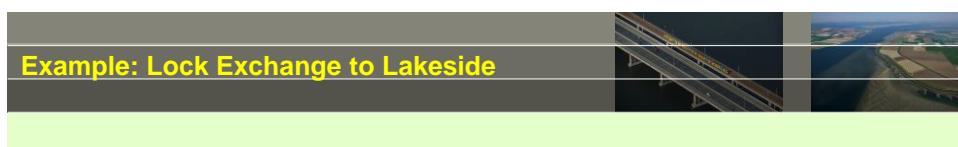
**Stevin Ship Lock – Design & Instrumentation**

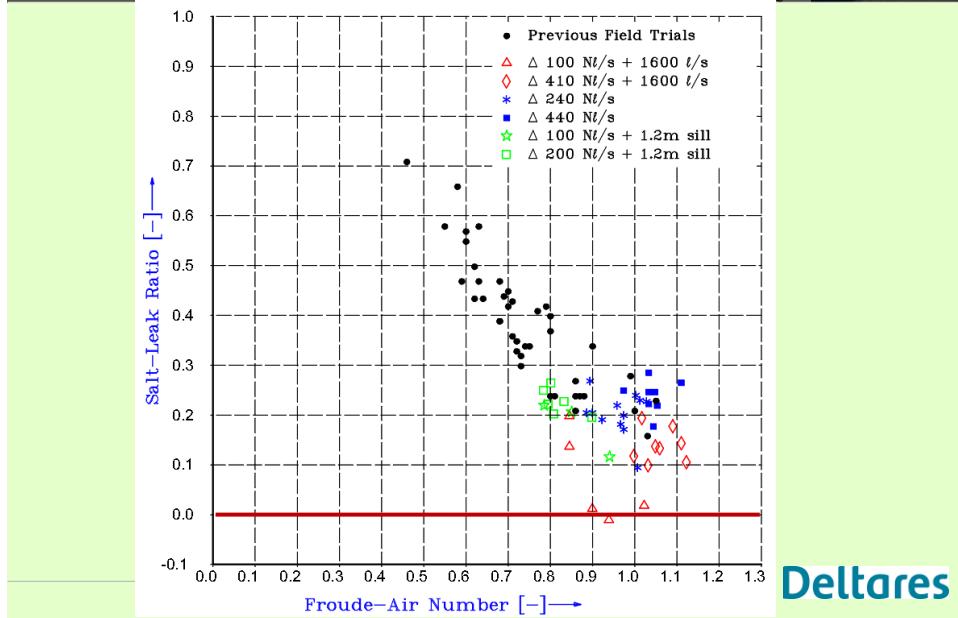


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**Summary of Best Conditions for Air-Bubble & Water Screens or Sill****Deltares****Blooms/Scums of Blue-Green Algae ... At Least a Nuissance also a Health Risk**

