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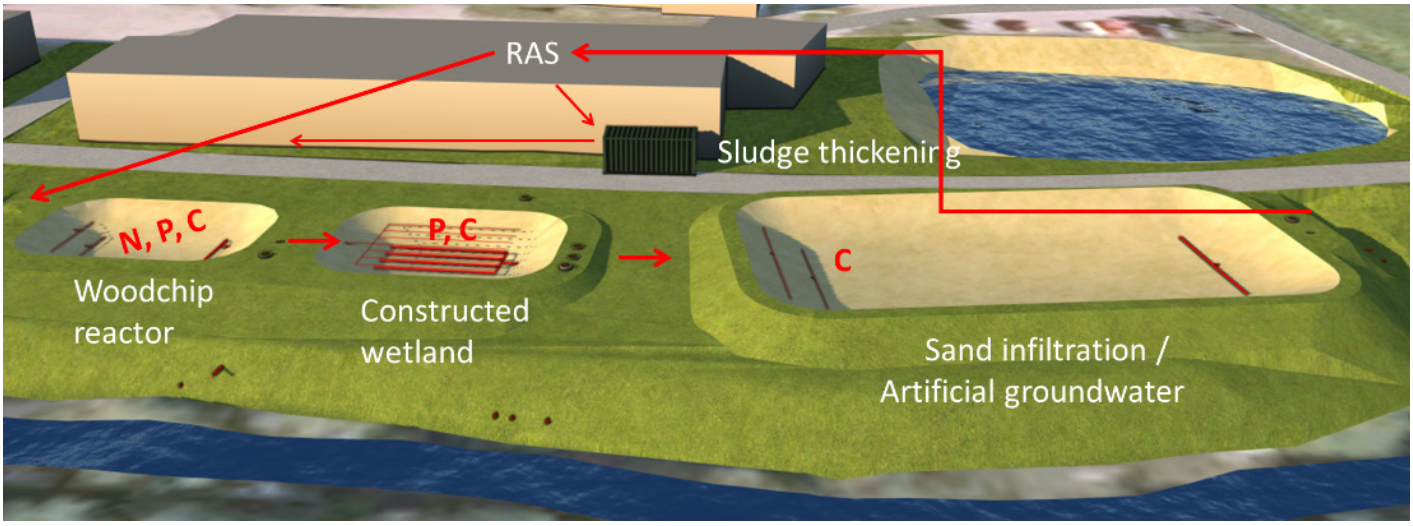
Passive water treatment for **recirculation aquaculture systems (RAS) farming –** re-charging effluent to pristine intake water

Challenge

RAS farming uses a fraction of water compared to conventional aquaculture. Yet, there are cases where access to pristine, new water is very scarce or cases where there are stringent environmental regulations concerning nutrient levels of effluent waters. High-tech solutions exist to overcome these challenges, but there is a need for alternative and affordable solutions.

Solution

Passive water treatment for recirculation aquaculture systems (RAS) farming — re-charging effluent to pristine intake water. The solution combines natural processes of wetland, woodchip bioreactor and sand percolation to remove carbon, phosphorus, and nitrogen from the RAS effluent to levels, where the effluent can be taken back to the RAS.



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Benefits

Passive water treatment field offers affordable, low-maintenance effluent treatment and water source solution for RAS farms. The concept makes fish farming possible in new locations, where shortage of water or environmental limitations have previously prevented fish farming or the growth of the business.

IPR status

Water Treatment System for a Recirculation Aquaculture Facility, patent granted in Finland 10/2020, National applications filed in Canada, China, Europe, India and USA.

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