AgriMarine Technologies

AgriMarine's Floating Semi-Closed Containment Systems: Lois Lake Steelhead Farm (and Other Projects)

Perspective

Finfish Aquaculture	66MT (FAO 2012)
Canadian Finfish Farming	128 kT (0.2%)
Typical Canada salmon site	3 kT/cycle
SOTA land-based energy	1.2 kWh/kg (World 9GW !)
SOTA land-based capital	$8/kg yr (World $520B !)

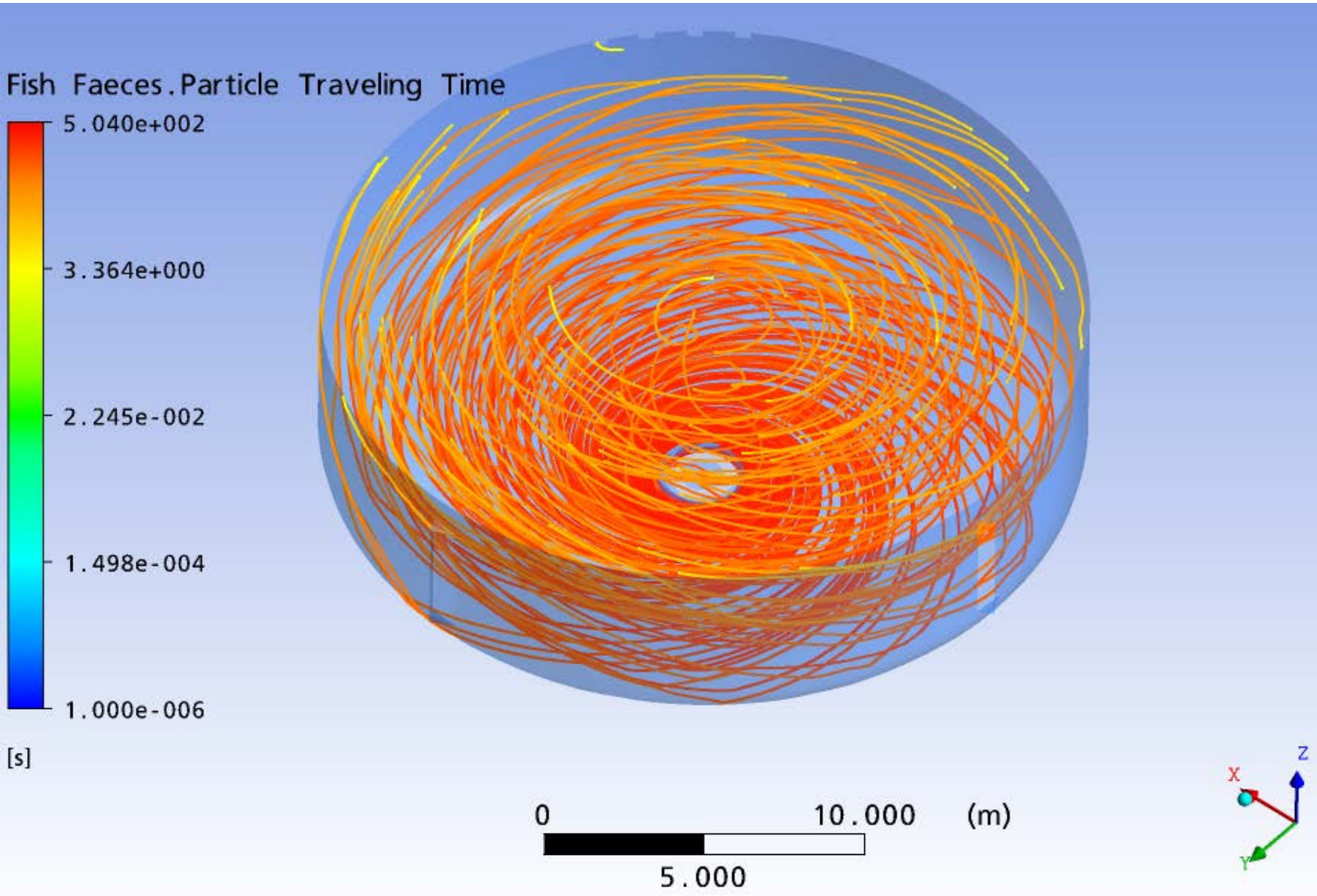
Can land-based RAS be scaled to meet demand ??

Agrimarine Strategy

Goal: Scale “easy” RAS benefits to net-pen size

	RAS	FCCA
Container Size	200-500 m3	3,000-20,000 m3
Head Loss	400 cm	3 cm
Oxygen supplementation	100%	50 – 150% ?
Nutrient Recovery	90 %	60% ?
Closed-cycle time	continuous	8 - 12 hrs
Cost	(your cost here)	$2-4/kg yr

First Iteration: Floating Cornell tank



Early design studies for marine sites

Light-weighted commercial trial

Immovable object vs. irresistible force

Redesign of flange - v1.2

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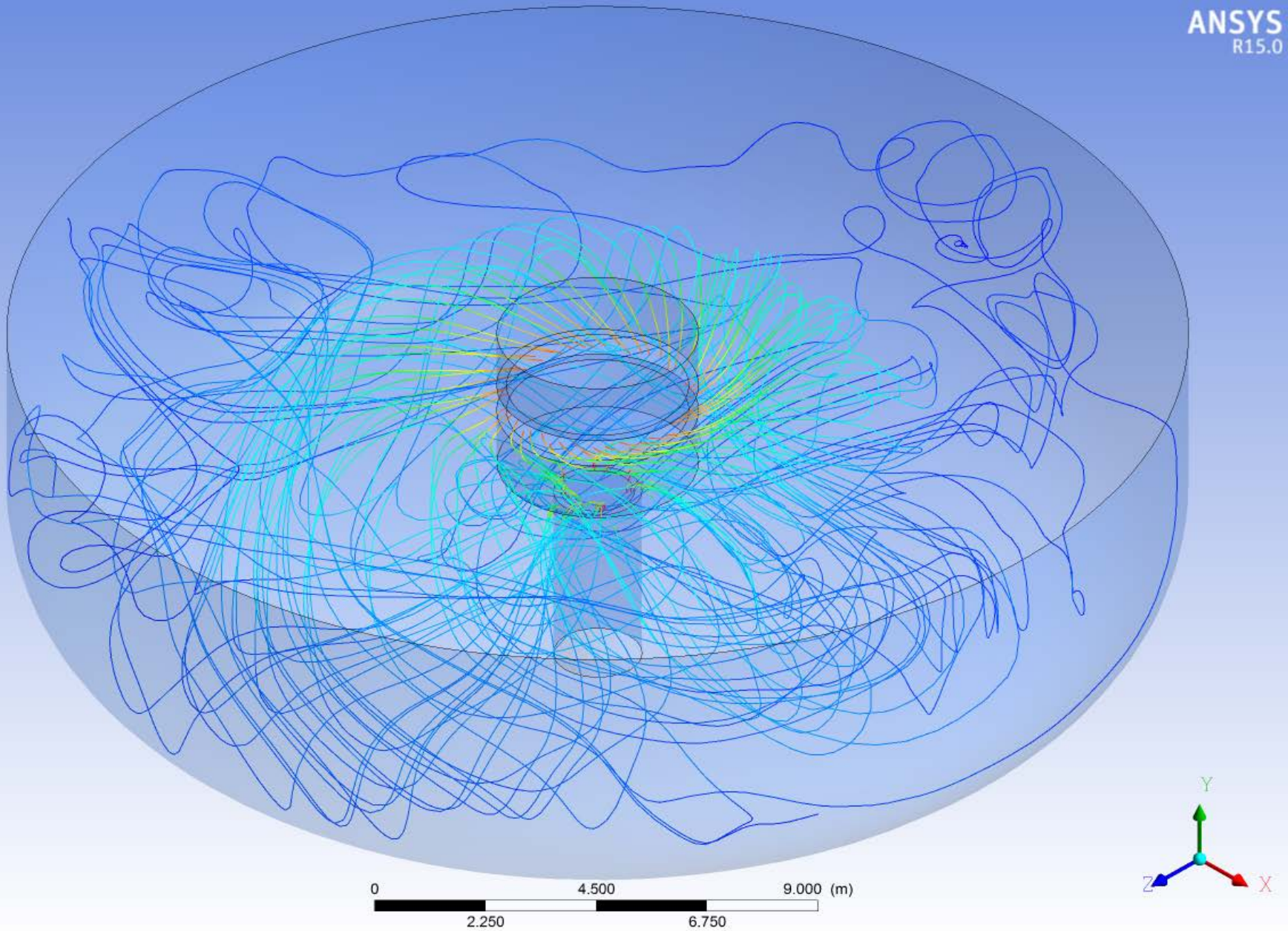
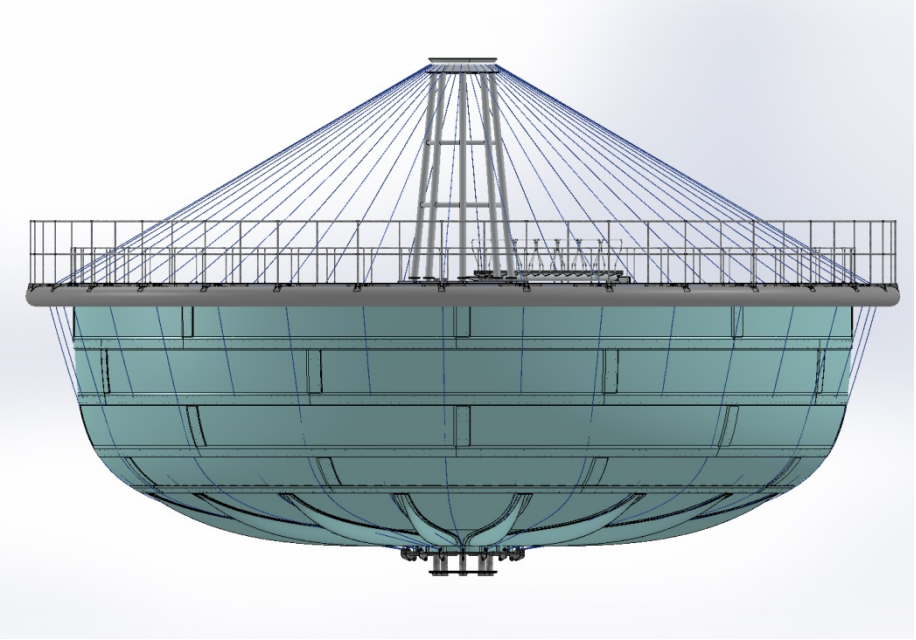
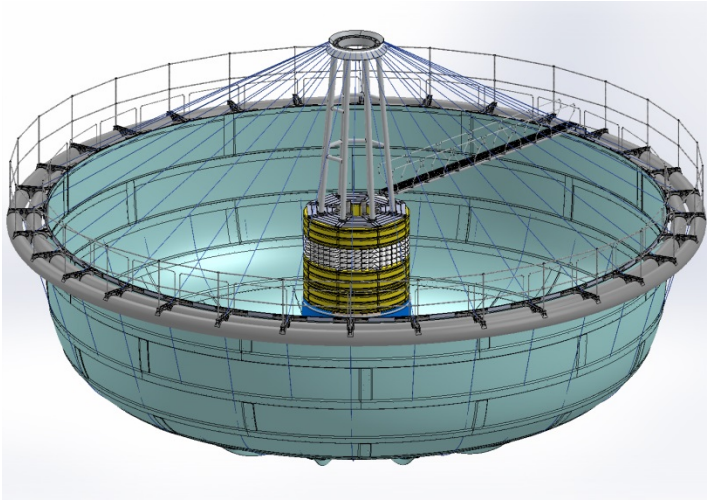
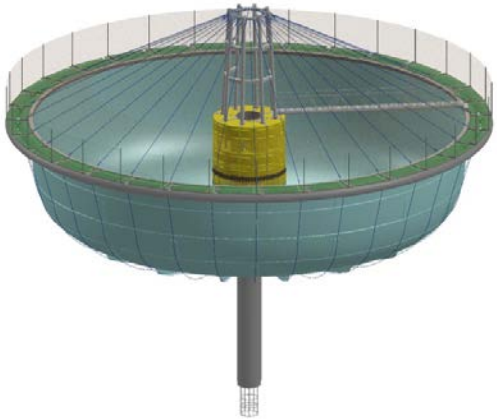
Center pump - drive teacup from center

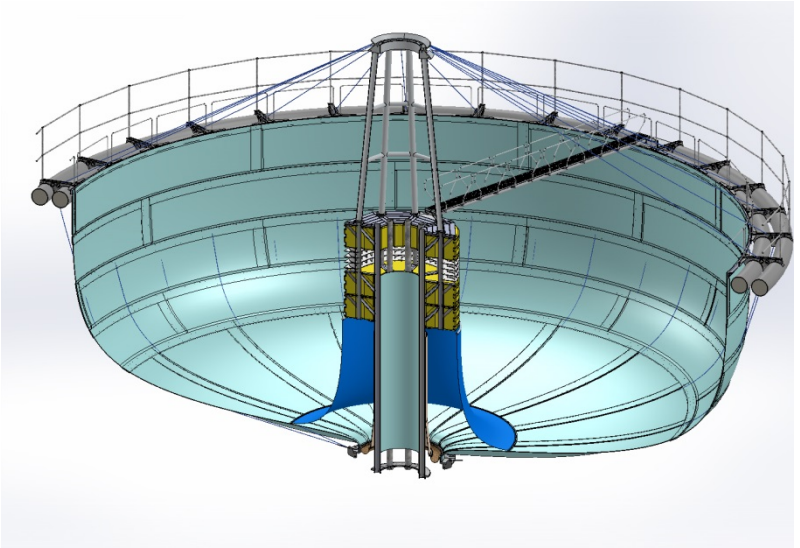


AgriMarine System™ v2



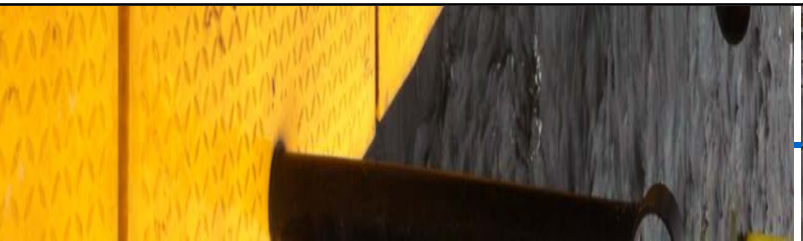




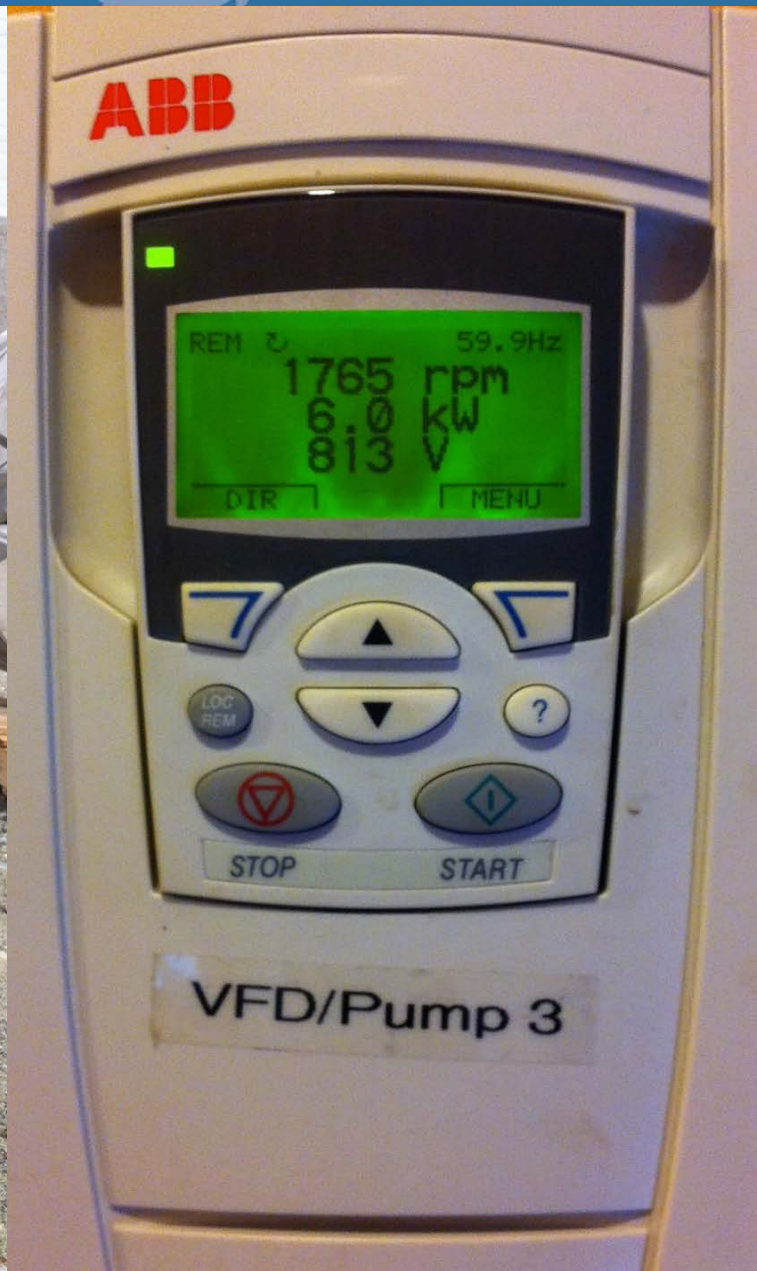


Construction of v2 tanks

Flexible wall proven so far



Updated FST pump

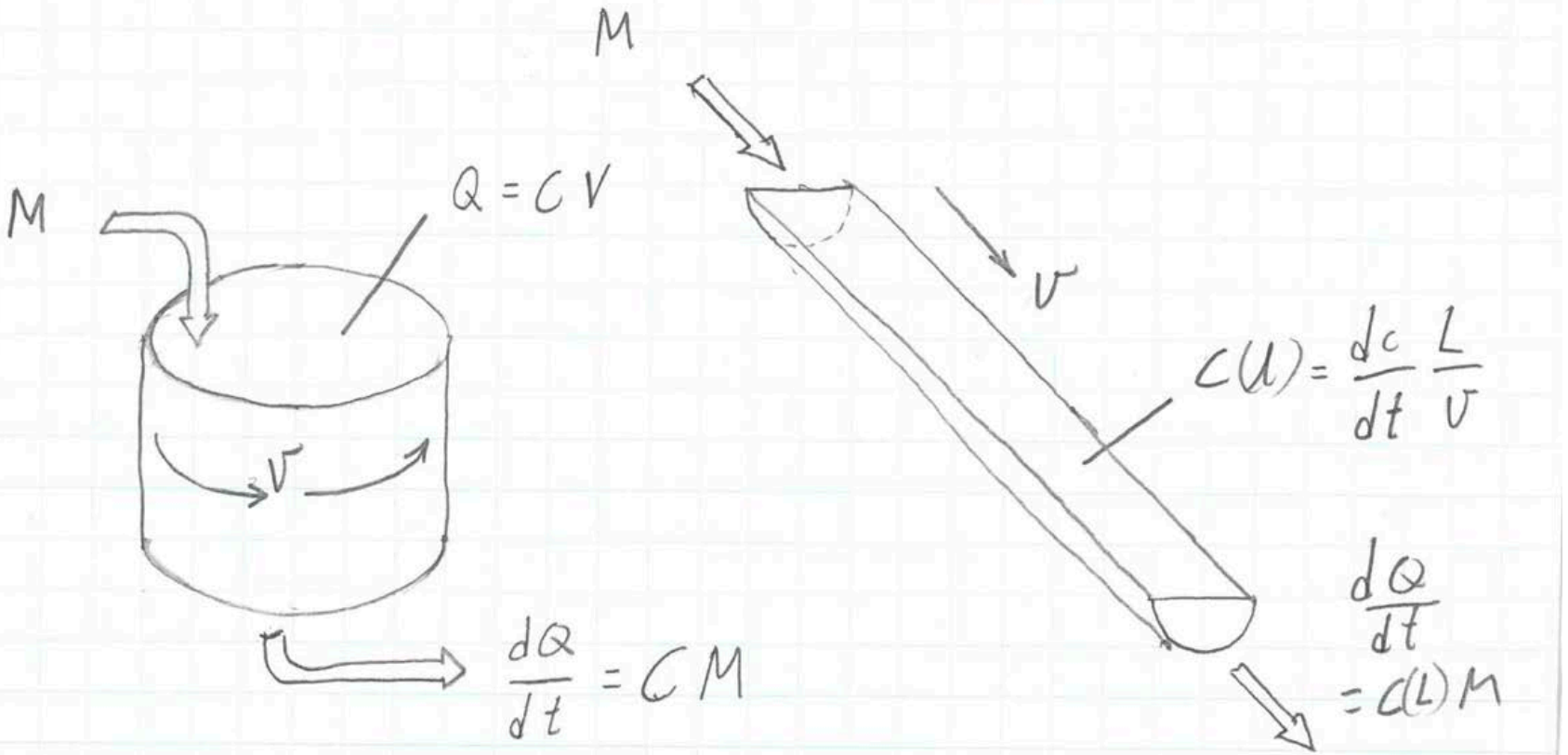


Alumina Membrane Fine Bubble Diffuser

Submerged “Oxygen Cone”

Next steps – back to plug flow

Mixed flow provides velocity but uniformly poor water quality
At large scale plug flow provides sufficient velocity !



Next steps - scale-up of solids recovery

Next steps – reduce carbon footprint

Questions ?

Further Information

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