

**Table 2. Coldwater RAS System**

**Monthly Electrical, Oxygen, Labor Costs**

208 3 phase					
Equipment ID	Number	Size (hp)	Amperage Load**	Daily Operation Hours	Total Amps
Distribution pump	1	4	11.1	24	11.1
Filter pump	1	4	11.1	24	11.1
UV Unit	1	na	5.4	24	5.4
Drum Filter drum/pump	1	1	5	1	5
					32.6
KW Calculation = $\frac{\text{volts} \times \text{amps} \times \text{pf} \times 1.732}{1000}$ pf= 80 % efficiency					
$\frac{208 \times 32.6 \times .80 \times 1.732}{1000}$	9.4 kw/hr		226 kw daily x .08***	\$ 18.08 daily	\$542 monthly
Liquid Oxygen Use	8.0 lpm		11,520 lpm/day	345,600 liters per month cost = \$ 0.00041 per liter	\$ 142.00 monthly
Monthly Labor Costs* (monitoring, cleaning, feeding)	approx. 40 hours month @\$10.00/hr = \$400.00				
<b>Total Estimated Cost to Operate coldwater RAS system: \$1,084/monthly + feed and chemicals</b>					

\* note: monthly labor costs may be different than private farm due to wage rate and extra labor spent on monitoring, cleaning, etc.

\*\* amperage load from actual measurements

\*\*\*Wisconsin average residential rates were \$ 0.11 and commercial rates were \$0.08 in 2007([www.eia.doe.gov/cneaf/electricity/epm/table5\\_6\\_b.html](http://www.eia.doe.gov/cneaf/electricity/epm/table5_6_b.html)).

Potential producers need to check with their local electric supply to see what rate they would qualify for.