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Desalination Abstract

As world population increases, demand for freshwater supplies will inevitably increase as well. The limited freshwater supplies we have access to may not be enough to meet the world’s water needs. Desalination gives us access to almost all water on the planet by converting saline ocean water into safe freshwater. Several methods exist, including vacuum and multi-stage flash distillation as well as membrane processes such as reverse osmosis. Energy costs are usually higher for these processes, but reverse osmosis appears the least energy-intensive and thus the most likely candidate to compete with local freshwater sources.