

INGENIOUS IDEAS

Cleaner, Safer Water

(NAPS)—How dry are we? Many Americans have been facing drought conditions for years. Across the country, cities are instituting sweeping water-usage restrictions and conservation programs. In some places, planting new trees and shrubs is prohibited and privately owned pools may not be filled.

In these desperate times, many state and local water agencies are turning to desalination, a technology that makes ocean and brackish water drinkable by stripping it of salt and other minerals. The process will ultimately provide a far more reliable supply of fresh water than Mother Nature.

“Desalination will create a drought-proof supply of water,” said Bob Yamada, the San Diego Water Authority’s seawater-desalination program manager. He added that 20 years from now, as much as 20 percent of California’s drinking water could come from the ocean.

Many countries, including Saudi Arabia, Kuwait and others have been using desalination and distillation—which uses heat to evaporate salt and other impurities—for more than half a century. In fact, Saudi Arabia gets about 70 percent of its fresh water from the ocean.

Until recently, desalination was considered too expensive and energy-intensive for use in the U.S. However, advances in membrane technology now mean that desalination can produce one gallon of fresh water from every two



Treasure of the deep—fresh water from the sea, thanks to advances in technology.

gallons of seawater, an improvement of 50 percent over 20 years ago. Engineers have also developed ways to cut energy costs associated with desalination. Legislation before Congress (H.R. 1071 and S. 1016) would provide energy grants to water agencies to cut costs further.

Most environmentalists embrace the technology. Studies show that pumping the cooling water and concentrate back into the ocean raises its salinity by less than 1 percent, which is equivalent to the natural rise and fall.

In addition to combatting drought in the U.S. and around the globe, desalination is expected to help satisfy a growing demand for fresh water as the world’s population continues to increase.

To learn more about desalination technology and its application in the United States, visit the U.S. Desalination Coalition Web site at www.USDESAL.org.

Did You Know?

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