

EQUINOX CENTER

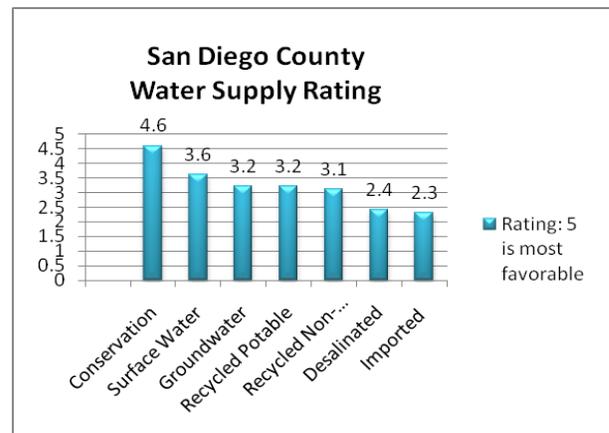
“San Diego County’s Water Sources: Assessing the Options”

A new study sponsored by the Equinox Center, and researched and produced by the Fermanian Business and Economic Institute, examines San Diego County’s water supply challenges and opportunities over the next 20 years as the region strives to maintain our quality of life while our population increases by 750,000 people.

Report Findings

➤ **Dependence on imported water (nearly 80% of the county’s current supply) is neither optimal nor sustainable, and is the least favorable water supply option.** This is due to vulnerability caused by structural, legal and environmental issues that put its reliability and cost effectiveness at risk.

➤ **Conservation is and will remain the most favorable and least costly option over the next two decades.** The extent to which it can reduce the region’s demand as the population continues to grow remains to be determined.



➤ **Recycled water, both potable and non-potable, has considerable potential to become a local, reliable source of water for the San Diego region.**

➤ At \$2 million/mile, **the cost of constructing the additional pipe infrastructure required to distribute non-potable recycled water poses the largest constraint to increasing use of that source.** In comparison, after advanced treatment, **recycled potable water can be added to the existing infrastructure,** making it a less expensive option.

➤ **Surface water and groundwater do not have the capacity to serve as significant sources for the region’s water requirements,** although they have relatively favorable rankings.

➤ Sea water **desalination is the most costly and energy intensive of all options,** rendering it a less favorable option despite its abundant water source.

➤ Energy is used to produce all water sources, so the availability and cost of energy, as well as greenhouse gas emissions, makes **energy use an important factor.** Production of desalinated sea water uses significant energy at 4,100 to 5,100 kWh/acre foot. In contrast, recycled potable water uses 1500 – 2000kWh/AF and recycled non-potable water uses 600 to 1,000 kWh/AF.

➤ San Diego County’s **water future needs to be addressed from both the demand and the supply side.** **Pricing water closer to its true marginal costs** will be necessary to manage this most valuable and scarce resource. Previous Equinox Center research revealed that appropriate water pricing can spur significant water conservation.

*San Diego County’s seven possible sources of water were ranked, without weighting, based on the following factors: marginal cost, energy intensity, legal, regulatory, environmental, technical, safety, social acceptance, availability and reliability. The results are detailed in the chart, where a “5” is the most favorable. See full report for details and description of ranking methodology.