

Ground water and climate change

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Substantial reductions in potential groundwater recharge are projected for the 21st century in southern Europe (Spain and northern Italy) whereas increases are consistently projected in northern Europe (Denmark, southern England, northern France). Along the southern rim of the Mediterranean Sea potential groundwater recharge could decrease more than 70% by the 2050s.

Conjunctive uses of ground water and surface water that use surface water for irrigation and water supply during wet periods, and ground water during drought are likely to prove essential. Managed aquifer recharge wherein excess surface water, desalinated water and treated waste water are stored in depleted aquifers could also supplement groundwater storage for use during droughts. Indeed, the use of aquifers as natural storage reservoirs avoids many of the problems of evaporative losses and ecosystem impacts associated with large, constructed surface-water reservoirs.

Source: Taylor et al., 2012. Nature Climate Change. Published Online: 25 November 2012 | DOI: 10.1038/NCLIMATE1744.

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