

Successful water conservation programs may have adverse consequences on the quantity and the quality of recycled water.

By Pat Cross, regional director, West Region

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In response to a fourth straight year of drought, nearly everyone in the West is focused on reducing water use. Businesses are focused on trimming water consumption wherever they can

and homeowners are cutting back indoor water use by taking shorter showers, only doing full loads of laundry, and taking other measures like installing low-flow toilets and fixtures. Although potable water resources are limited, some golf courses have been fortunate to have a plentiful and dependable source of recycled water for



Figure 1 - A downside of successful water conservation is less water flowing to recycled-water-processing facilities, reducing the amount of recycled water available for golf course and landscape irrigation and increasing concentrations of undesirable components.

irrigation, but that could be changing. One of the unforeseen consequences of successful water conservation is less waste water flowing through sewage systems, resulting in less recycled water being available for golf course and landscape irrigation. With less flow, it also is possible to see deterioration in recycled water quality with higher concentrations of soluble salts, chlorides, sodium, nitrates and ammonia. Reduced-quality recycled water can adversely

impact turf growth and promote more rapid algae growth in storage ponds and reservoirs.

Users of recycled water should be taking the following actions over the next several months to monitor recycled water quality and proactively adjust management practices:

- Use a portable salinity tester – i.e., a total dissolved solids (TDS) tester – to monitor and record salt levels of recycled water that is delivered to the golf course. Note that direct measurements of water using a portable TDS tester do not need to be adjusted like soil readings – the direct reading is the actual value. The key is to monitor changes and potential spikes in soluble salt levels.
- Stay in regular contact with your recycled water provider regarding the status of water production and quality.
- Submit water samples to a chemical-testing laboratory for analysis at two-month intervals to assess changes in recycled water quality.
- Continue with proactive management programs like spiking, aeration, gypsum application, and the use of soil penetrants to help keep water moving through the soil profile off-set the negative impacts of soluble salts and sodium.

More detailed information on managing recycled water is available by reading [Purple Gold - a contemporary view of recycled water irrigation](#) and [A Step-by-Step Guide for Using Recycled Water](#).

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