

ROTATIONAL SUPPLY MANAGEMENT PROVIDES A BONUS – LOW COST SAFE YIELD INCREASE

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Water systems with multiple sources of supply can adopt rotational source management to improve overall system yield. Activation of groundwater sources prior to dry season onset preserves stored surface water reserves. This presentation discusses how rotational supply management can leverage system yield by as much as 10 percent.

The Peace River Manasota Regional Water Supply Authority's source of water is the Peace River which has no dams or salinity barriers to capture and store fresh water to prevent it from flowing to tide. So the utility must harvest water in the wet season when river flows are high and then store this water for use later in drier conditions when river flows are low.

A severe drought over much of the state in 2007-8 led to development of a permit known as the Operational Flexibility Water Use Permit (OFWUP) in 2009. The OFWUP recognized the intrinsic value of multiple sources of supply being interconnected. The OFWUP was a remarkable achievement in collaborative partnering and parties to the permit included: the Englewood Water District, Sarasota County, the City of Punta Gorda and the Peace River Manasota Regional Water Supply Authority. The face value of the permit was 7.25 and 11.6 million gallons per day (MGD) on an annual average and peak month basis, respectively.

Groundwater is inherently drought tolerant compared with surface supplies so leveraging reserve capacity from groundwater systems significantly increased regional system resiliency. Although the OFWUP was only intended to serve the region in emergencies, water managers have been exploring possible benefits from a more formalized rotational supply strategy through computer modeling. Modeling efforts have revealed that not only does rotational supply management boost resiliency levels but it can generate as much as 10% in new system yield without the need for any new capital investment.

PRESENTER BIO: Ms. Holcomb is a licensed Professional Engineer with 25 years of experience in water supply development and planning. She has worked in both the private and public sectors and has both regulatory and utility management experience.