Winter 2010

BJWSA NewsSPLASH

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Planning for a Sustainable Water Supply

Dean Moss, General Manager

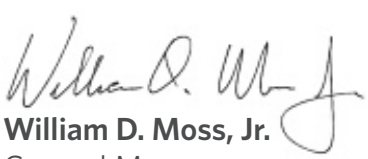
BJWSA recognizes that – regardless of future conditions – we must have a safe, reliable, and long-term source of water. In 2008, we embarked on the development of an Integrated Water Resources Management Plan (IWRMP) as a blueprint for accomplishing this goal. With this effort, we are determining how BJWSA will meet community needs over the next 50 years. We expect the plan to be completed and approved by the Board of Directors in early 2010.

The first steps in the planning process included a thorough evaluation of current and projected populations, our system capacities, trends in water use and conservation, our reuse practices, and water supply and sources. Based on our research, the IWRMP focuses on three major efforts:

- more efficient water use,
- increasing water reclamation and reuse, and
- developing new water sources.

The plan examines the long-term sustainability of the Savannah River and the Floridan Aquifer as sources of water supply. The Floridan Aquifer in southern Beaufort and Jasper counties is being impacted more and more by saltwater intrusion and may become unusable within the next 25 years. The Savannah River has been completely reliable, even during ten years of drought, but it will face increasing demands from other groups and is subject to future climatic changes. Eastern water rights law does not allow BJWSA to "lock up" a guaranteed supply from the river. Therefore, we are considering alternative and supplemental supplies, including all available sources of drinking water within a reasonable distance. We also have looked at methods and costs of increasing the use of reclaimed water from wastewater treatment.

Our ability to adapt, our consistent focus on efficient operations, and the long-term success of the IWRMP will ensure that BJWSA is ready to meet the future confidently. This issue of *News Splash,* provides more information on the how the IWRMP will help us to continue providing a reliable and sustainable water supply.



William D. Moss, Jr.
General Manager

Demand for Water 1998–2008 in billion gallons

In 1998, BJWSA produced 3 billion gallons of water to meet customer demands; in 2008, production rose to almost 8 billion gallons. The significant increase in water demand over the past decade is expected to continue as our population continues to grow.

Trends in High Water Use

In the early part of the decade, BJWSA's peak day demand for water was almost twice as high as the use in an average day. Additionally, water use during a typical hot summer morning approached the limits of our ability to supply it and still keep water in storage for fire emergencies. If this pace had continued, by 2050, BJWSA would have to produce 120 million gallons of water per day – almost three times our current production and double what the state now permits us to withdraw from the Savannah River.

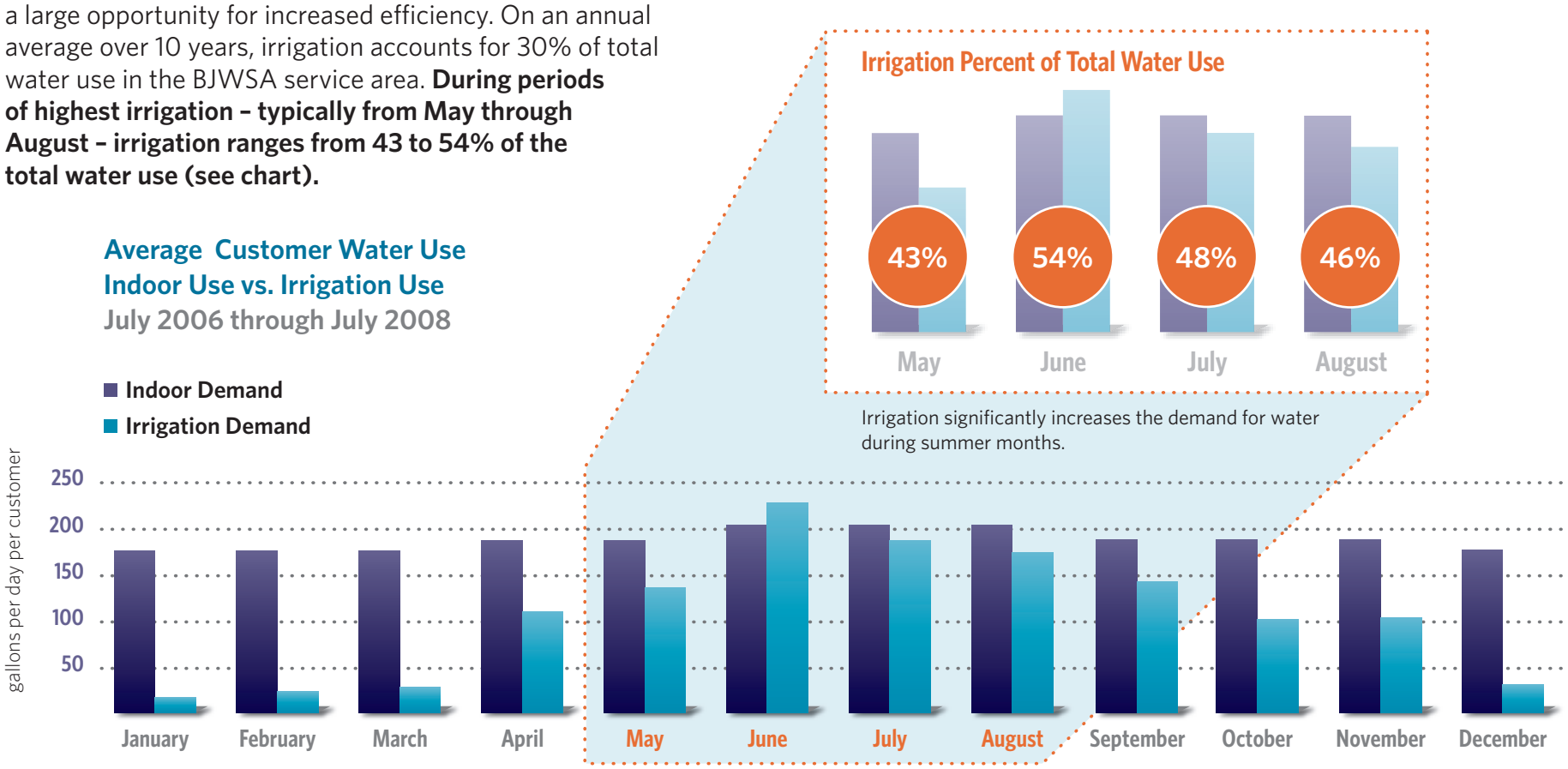
We must curtail the recurrence of such high water demands or face the need to spend millions of extra dollars on expanding facilities, which would significantly impact water bills of all customers. BJWSA's Integrated Water Resources Management Plan focuses on activities that will increase efficient water use and stop waste.

INSIDE: More about what BJWSA is doing to protect and ensure your water supply for the future.

Becoming More Water Efficient

Our research shows that we must use water more efficiently in order for existing water supplies to meet our needs over the next 50 years. Reducing our water demands will postpone costly development of new water sources and expansion of treatment facilities. Using water more wisely and reducing water waste now will lower demand on the Savannah River and Floridan Aquifer, protecting our water sources for the future.

How do we increase water efficiency? Our Integrated Water Resources Management Plan identifies irrigation as a large opportunity for increased efficiency. On an annual average over 10 years, irrigation accounts for 30% of total water use in the BJWSA service area. **During periods of highest irrigation – typically from May through August – irrigation ranges from 43 to 54% of the total water use (see chart).**

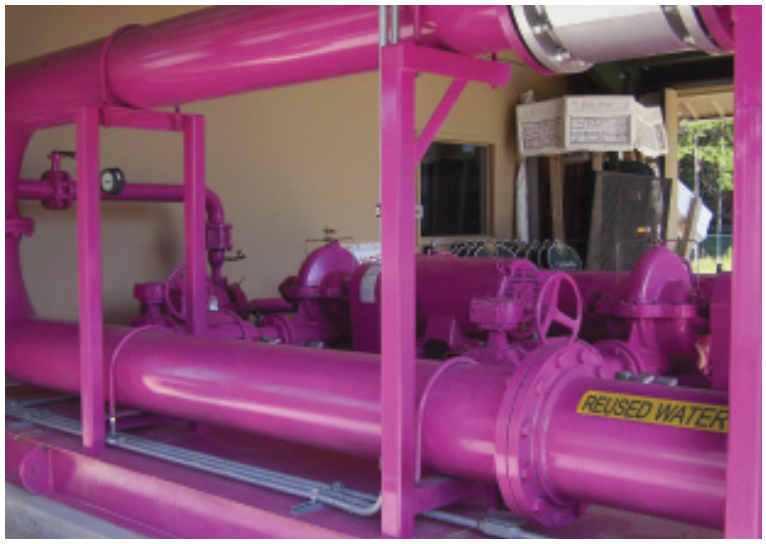


"Reducing our water demands will postpone costly development of new water sources and expansion of treatment facilities."

Our objective is to reduce irrigation by 15% by 2015. We are looking at a number of ways to achieve this goal, such as workshops, landscape and irrigation efficiency evaluations, encouraging rainwater collection and use, developer incentives, and implementation of irrigation policies. We will continue with our outreach and education efforts to promote efficiency and the use of reclaimed water for irrigation.

BJWSA is also looking at ways to encourage our customers to be more efficient in their everyday water use. We will enhance our current customer education efforts regarding efficient plumbing fixtures, water-saving appliances, and leak detection and repair, including automatic customer notification of meter readings that indicate a possible leak. Additional activities may include offering indoor retrofit kits for faucets and showerheads, developing a new rate structure based on water use, targeting high water users, and adopting and enforcing water saving rules.

We will continue to place a strong focus on water efficiency throughout BJWSA systems and facilities by conducting careful leak detection and repair, using low flow plumbing fixtures, and maintaining drought tolerant landscaping.



Increasing Reuse of Reclaimed Water

While most wastewater treatment facilities discharge their treated water to a river or a lake, BJWSA has been a leader in using reclaimed water for irrigation on area golf courses and now, also in residential subdivisions. Increasing our use of reclaimed water will play an essential part in reducing water demands and ensuring water for the future.

Using reclaimed water for irrigation means that less water has to be taken from the Savannah River and Floridan Aquifer and treated to drinking water standards. The benefits are significant – protection of surface water quality, postponement of costly investment for developing new water sources, longer life for our existing facilities, and an additional source of revenue.

Our Integrated Water Resources Management Plan identifies a variety of activities for increasing the use of reclaimed water, such as:

- developing storage for reclaimed water,
- expanding our distribution capabilities,
- creating incentives for new developments,
- establishing a rate structure that supports reuse, and
- continuing customer education.

The IWRMP has determined that 50% of the wastewater flowing to BJWSA reclamation facilities is available for irrigation. If storage facilities can be developed, our reuse can increase. The remaining 50% of wastewater flows can be used for other beneficial applications, such as saltwater intrusion barriers and ecosystem restoration.

Developing New Water Sources

Currently, the Savannah River and the Floridan Aquifer are reliable sources of water for Beaufort and Jasper counties. However, the future is uncertain, and there are issues that may cause water supply challenges.

Unpredictable climate changes, especially rainfall, may have long-term implications for the Southeast's water supply. Water withdrawal from the Savannah River could be limited due to climate changes, pollution, competition, or legal limits. The river is facing increasing water demands, and Eastern water rights law does not allow BJWSA to "lock up" a guaranteed supply from the river. A decade ago, BJWSA had 9,000 retail customers and now has over 45,000. In addition, we serve wholesale customers who resell and/or redistribute our water to their residents, resulting in a total of over 120,000 direct and indirect customers. The Savannah metro region, already drawing 70 million gallons a day from the river, will need more to support future growth and to reduce pumping of the Floridan Aquifer.

Further restrictions may be placed on groundwater withdrawals because of saltwater intrusion in the Floridan Aquifer. Changes in water quality standards could also affect the water sources that we will be able to use.

As part of our Integrated Water Resources Management Plan, we are looking at ways to protect our existing supplies and at potential water sources to meet community needs through 2060. We are considering all available sources of drinking water within a reasonable distance, including:

- new well fields in the Upper Floridan Aquifer (away from the coast),
- new groundwater wells in the Middle Floridan Aquifer,
- collecting and using stormwater for irrigation,
- new surface water supplies from the Combahee or Edisto Rivers, and
- desalinization of ocean or brackish water.

In general, most of these sources will be more expensive to develop and deliver than the water supplies we already use.

The IWRMP will suggest alternative, balanced, and sustainable mixes of all possible resources to meet future water needs. Drawing future water supplies from a variety of sources will provide increased reliability and flexibility, as well as reduce stress on our current supplies.

NewsSPLASH

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Beaufort-Jasper Water & Sewer Authority

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Dean Moss General Manager

Need More Information?
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What is that Pink Stuff on My Bathroom Fixtures?

That "pink stuff" that you may be seeing around your sink drains or in your toilets is naturally occurring airborne bacteria that has nothing to do with the quality of your water. Although the exact species of bacteria is not known, most experts have concluded that this pink staining is most likely from the bacteria *Serratia Marcescens.* These bacteria thrive on moisture, dust, and phosphates. Once airborne, these bacteria seek moist environments to grow.

What You Can Do Always keep bathtubs and sinks wiped down and dry. Frequently clean your sinks with a cleaning solution that contains chlorine. Chlorine bleach (3 to 5 tablespoons) can be periodically stirred into the toilet tank and flushed into the bowl itself. Cleaning and flushing with chlorine will not necessarily eliminate the problem, but will help control the bacteria growth. If you have a septic tank, use a non-chemical cleaner, such as borax to avoid damaging your septic system.

Important! Follow the manufacturer's cleaning instructions for your plumbing fixtures and countertops; chlorine cannot be used with some designer products. Use care with abrasives to avoid scratching fixtures, which will make them even more susceptible to bacteria.

BJWSA
ROUND UP!
for People in Need

Help People in Need As a customer, you can help people who need basic water and sewer services but cannot afford the connection fees. Simply allow us to round up your monthly utility bill to the nearest dollar. Those few pennies every month from many customers add up to a lot of help for those less fortunate.

To contribute, go to our website or call Customer Service to enroll in the Thad Coleman Fund.

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