



Doing Our Part for the St. Johns River



Environmental Progress at Palatka Mill

- Upgrades to the manufacturing process at the Palatka mill over the last decade have resulted in environmental progress on the ecosystems of Rice Creek and the St. Johns River.
- The \$200 million package of environmental upgrades resulted from a 1998 cooperative agreement between the mill, the U.S. Environmental Protection Agency and the Florida Department of Environmental Protection.
- The upgrades made to the Palatka mill represent state-of-the-art technology.



Key Manufacturing Improvements

- New bleach line
 - eliminates use of elemental chlorine
 - decreases water consumption
 - improves quality of effluent
- New brownstock washing system
 - reduces amount of bleaching chemicals needed
- New oxygen delignification system
 - reduces amount of chemicals used in pulp bleaching
- New specialized filter
 - improves chemical recycling and reuse



Improvements by the Numbers

- 40% reduction of effluent water volume in the past decade
- 99.9% of the effluent volume is water
- 73% reduction in phosphorus discharges
- 54% reduction in nitrogen discharges
- 40% decrease in water consumption since 1998
- 90% less dependency on groundwater since 1998

Rice Creek is Alive



- Take a boat ride on Rice Creek and you'll never be alone. Alligators, turtles, fish and manatees are active in these waters, and waterfowl populate the banks.
 - Based on scientific abstracts and published articles in scientific journals, there have been improvements in the reproductive health of fish populations in the basin.
 - University of Florida scientists have conducted a study comparing fish in mill effluent-related sites and other locations along the SJR basin; species diversity and abundance did not differ.
- The mill's effluent discharge volume is down 40% from 1998. Due to recycling and reuse, only 4% of the water used in operations is discharged daily.
- Georgia-Pacific's NPDES permit requires that effluent cycle through biological treatment ponds before a single drop of water is discharged from the mill, so 99.9% of our effluent volume is water.

Nutrient Share

- Only 0.5% of the nutrient material entering the SJR comes from the mill's treated effluent.
 - The remaining 99.5% comes other point source dischargers such as wastewater treatment plants and non-point source dischargers (i.e., farms and residential users).
- The mill has made dramatic reductions in contributions of nitrogen and phosphorous to the SJR.
 - For more information, please visit the St. Johns River Water Management District Website at: www.sjrwmd.com.



Benefits of a New Pipeline

- Relocating the effluent entry point from Rice Creek to the St. Johns River will provide significant environmental benefits to the SJR basin.
- GP is committed to compliance with future water quality standards and improving the water quality of Rice Creek and the St. Johns River.
- The relocation of the mill's treated effluent discharge point represents our best effort to implement the best available technology at the Palatka mill.
- The new pipeline will further improve the grassbeds along the mouth of Rice Creek and allow it to return to its natural state.





Our Environmental Commitment

- GP invested \$200 million in environmentally beneficial manufacturing process upgrades to improve effluent water quality, and current data indicates we will invest another \$30 million to build a pipeline to further improve water quality in Rice Creek & SJR.
- Many of the modifications undertaken by GP were not required to meet existing effluent standards for pulping and bleaching systems contained in the EPA's Cluster Rule.
 - We implemented the best available technology in good faith to improve the environment while also meeting the desires of state & federal government officials.
- Our company efforts are part of the total solution for SJR, but it's not the complete solution.
 - It's up to each of us as individuals and as a community to do all we can to protect and enjoy SJR.