



WATER RECYCLING PROGRAM SAVES 68 MILLION GALLONS OF WATER AT COLD SPRING, MINNESOTA POULTRY PLANT



CH-1852

Inspexx™ IOBW Water Recycling System Saves Water and Helped Improve Productivity Nearly 20%

BACKGROUND

GNP Company strives to achieve operational excellence through eco-efficiency, understanding that sustainable solutions make good business sense and create shared value - for the company, customers and local communities. Partnerships play an important role in how the company thrives, balancing economic progress with the needs of People, Planet and Poultry.

CHALLENGE

Fresh water is critically important to poultry processing. Responsible use of this shared, limited resource is important to the resiliency/ sustainability of the company and to the vitality of local communities. GNP Company partnered with Ecolab to help the company make meaningful progress toward its goal of reducing the amount of water required to produce one bird from a 6.5 gallon baseline to four gallons per bird at its Cold Spring, Minnesota plant.

SOLUTION

Through its partnership with Ecolab, GNP Company implemented an innovative water reuse system for its Inside Outside Bird Washers (IOBW) featuring Ecolab's Inspexx™ IOBW Water Recycling System (WRS). This U.S. Department of Agriculture (USDA) approved control and filtering system safely recirculates and treats water from the plant's IOBW lines using specially formulated antimicrobial solutions. Inspexx antimicrobial technology helps reduce pathogenic bacterial contamination on poultry carcasses, parts, trim and organs, including *Salmonella* and *E.coli* O157:H7. Ecolab engineers custom-designed the system and technical experts helped create testing protocols and provide on-going service and expertise to assist with validation and assure system performance and regulatory compliance.

CUSTOMER IMPACT	eROI SM	ANNUAL ECONOMIC IMPACT	<p><i>*Using the Water Risk Monetizer tool, the customer would be able to calculate water savings by accounting for the location's water risk premium. The tool calculated a savings of \$358,059 in year one versus \$190,600 using current market price, which would help to facilitate a stronger business case to invest in water stewardship activities.</i></p>
Conserved over 68 million gallons of water		Saved \$190,600 in water cost*	
Avoided installation of separate downstream OLR technology and expansion of water treatment facility		Avoided \$500,000 in capital expansion	
Improved productivity nearly 20%		Increased production capacity (birds per minute)	

eROI is our exponential value: the combined outcomes of improved performance, reduced costs and sustainable impact delivered through our services and programs.

RESULTS

GNP Company has been able to reuse the recycled water in the IOBW system up to seven times without compromising cleanliness or the company's promise to deliver quality poultry products safely and responsibly. The water recycling program helped GNP Company save 1.36 gallons per bird, for annual water savings of more than 68 million gallons at its Cold Spring, Minnesota plant. That is nearly enough water to keep the population of St. Paul, MN hydrated for one year (based on an average adult drinking 11, eight ounce glasses of water per day, GNP Company saved enough to meet the drinking water needs for 270,000 people for a year).

While the environmental impact is impressive, a further benefit was the financial result and the ability to enable business growth. The Inspexx IOBW WRS water conservation strategy not only resulted in approximately \$190,600 in water cost savings, but since the system is approved for OLR (on-line reprocessing), GNP was able to avoid \$500,000 in costs associated with a separate OLR treatment and the expansion of their water treatment facility. This program also increased production capacity by nearly 20 percent.

CONCLUSION

GNP Company's investment in water recycling builds on the company's history of pursuing continuous improvement through innovation. Working together with Ecolab experts, the result is improved eco-efficiency that makes the plant - and company - more sustainable and reduces the company's impact on the local community, helping to preserve fresh water for future generations.

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