

**New York State  
Environmental Investment Program (EIP)  
Capital Project Summary  
Great Lakes Cheese**

**Project Background**

Started in 1958, Great Lakes Cheese (GLC) is a manufacturer and packer of premier natural and processed bulk, shredded, and sliced cheeses. The business began as a small company that delivered bulk cheeses to neighborhood stores in Cleveland, OH. Since then, GLC has grown rapidly by acquisition, plant expansions, investment in new production and distribution technologies, and by setting high standards for customer service. Today, GLC serves the nation's retailers and food service operations from seven strategic facilities across the U.S., including one in rural Adams, NY.

**Project Description**

EIP funds would be used to purchase and install a membrane filtration system for a new waste processing facility being built as part of a large business expansion in Adams. The system would include reverse-osmosis technology to separate water from its byproduct and potentially sell recovered organics formerly managed as wastes.

GLC's Adam's operation would double its cheese-making capabilities to more than 2.5 million pounds per day. The new whey process system would assure 2.25 million pounds per day capacity to manage additional byproduct, and would convert that byproduct into two marketable products, whey protein powder and whey permeate. It would also enable Adams to recover, recycle and reuse about half of the 84 million gallons of waste water generated, which would otherwise have to be pretreated on site and

potentially managed as waste. In addition, the heat energy contained in the waste water would be recovered and used at their wastewater treatment plant.

Specific performance outcomes for the two year project included processing at least 172,000 tons of byproduct per year, and recovering as much as 3,150 tons of 80% whey protein concentrate and 22,000 tons permeate powder. The added value represented by these materials would earn at least \$3.8 million for GLC. In addition, by recovering and reusing as much as a half of the water used in production, and the heat it contains, the business would save another \$267,800 per year on avoided costs.

**Project Results**

Based on company records, GLC is achieving great success using the reverse-osmosis system. As the business continues to refine and improve operation of the new equipment, it is exceeding expected outcomes. GLC is recovering in excess of 1,500 tons of whey protein powder and permeate monthly. Based on current pricing, the plant will potentially earn significant new revenues this year from the sale of this material. Plus, the operation has been recovering and reusing about 240,000 gallons of water each day, saving annually on water purchases, avoided energy, and other, related waste water management costs. Annual water and energy savings at the plant surpassed the project goals.

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**Contractor:** Jefferson County IDA  
**County:** Jefferson County  
**ESD Region:** North Country  
**ESD Contact:** 518/292-5340

**NYS EIP Investment:** \$ 500,000  
**Contractor Match:** \$ 1,374,631  
**Total:** \$ 1,874,631  
**Completion Date:** September, 2010