

EXECUTIVE SUMMARY

The Department of Ecology's Technical Resources for Engineering Efficiency (TREE) team worked with the Twin City Foods (TCF) Ellensburg plant staff during the late summer and fall of 2005. Twin City Foods is a vegetable processor and produces frozen peas, corn and carrots for a variety of product brands.

The goal was to identify ways to reduce the facility wastewater concentration, water use and solid waste generation. The TREE team visited the facility several times to observe the current process activities, gather information, and identify potential opportunities. TCF staff collected samples, made flow measurements and provided information on processing and ancillary equipment. This report presents an evaluation of this facility's opportunities for reducing BOD loading, water use and solid waste generation.

TCF staff took steps to reduce water use during the 2005 corn and carrot processing season based on measurements made and general recommendations given by TREE. Water use was reduced by 10% (three million gallons) between the first and second TREE visits to the facility (August 15 and September 8 respectively). Both TREE and the facility staff believe additional water savings is possible for a savings of up to 33 million gallons per year.

TCF already recycles a substantial amount of material. Adding the additional stream of paper will reduce solid waste generation by 12 tons a year. Improving the efficiency of handling their recyclables will save money and effort as well.

TREE believes TCF can also reduce BOD loading and solid waste generation. In particular, opportunities exist to keep solids out of the gutter system.

TABLE 1: QUANTIFIED OPPORTUNITIES

Opportunity	Water <i>gal/year</i>	Solid Waste <i>tons/year</i>	City Sewer <i>gal/year</i>	Cost Savings <i>\$/year</i>
1 Recycle water and other water efficiency techniques	33,000,000		1,000,000	\$28,000
2 Recycle mixed paper waste		12		\$6,550