



Sustainable Solutions

Client

Aurora Organic Dairy

Location

Boulder, Colorado

Sustainable Master Planning for the Dairy Industry

Project Description

The Aurora Organic Dairy (AOD) had already met stringent organic dairy certification requirements when it decided to take its commitment to sustainability to the next level. The dairy is committed to a broad vision of sustainability—one that encompasses all of the organic regulations, as well as issues such as soil health, waste management, use of renewable resources, water conservation, and a full spectrum of health initiatives that apply to the way the company treats its employees, animals, and partners.

In March 2005, AOD selected CH2M HILL to guide its efforts in designing a sustainability master plan for its Platteville, Colorado, farm and dairy plant—a plan that would establish a benchmark for the dairy industry. The plan was to be grounded in economic value and focused on all aspects of operations and animal wellbeing.

The CH2M HILL team, consisting of representatives from six business groups (that included Environmental Services, Water, Transportation, and others) and seven offices in the U.S. and Canada, worked with AOD's leadership and staff to reach consensus on their sustainability goals and priorities. After a thorough examination of associated risks and cost-reduction benefits, five areas were identified that provided the best opportunities for achieving the dairy's sustainability goals:

- Manure and organic solid waste management
- Wastewater management
- Energy use
- Water use
- Energy supply

CH2M HILL developed an implementation schedule for the master plan, which considered each action's priority and how to minimize the impacts on farm and dairy plant operations.

Today, AOD has implemented comprehensive composting plans at its Platteville and High Plains dairies in Colorado, which allow it to compost cattle manure into valuable organic-approved fertilizer on its hundreds of acres of organic pasture. AOD also implemented a vacuum system to capture and recycle gray water as irrigation water, and will reclaim the first-rinse water from its processing facility to mix with cattle feed at the dairy farm. Its state-of-the-art on-farm milk plant uses variable speed motors and low-wattage lighting for energy conservation and has its own water treatment facility. The company is also exploring new sustainability technologies such as wind, solar, biogas, and CO₂ absorption.



Sustainable Components

- Combined farm-generated wastewater and animal waste to create anaerobic digestion system that produces biogas to generate electricity
- Implemented schedule for master plan addressing areas of manure and organic solid waste and wastewater management, energy and water use, and energy supply