

**Location:** New Mexico



## Transforming dairy processing with AMI water technology

The dairy industry seeks to balance high water demands for dairy processing with the need to conserve water and energy.

### Challenge

A leading dairy farm in New Mexico has one of the largest herd sizes in the country. Recognized for its significant contributions to the state's economy, the dairy farm produces millions of pounds of milk and cheese annually.

Its commitment to sustainability and operational efficiency has positioned them as a key player in the dairy industry.

With the volume of milk production and dairy processing activities, high quality water became critical for sustained growth and compliance with regulatory standards.

The client reached out to Applied Membranes for a robust and reliable water treatment solution. Feedwater measures over 2000 ppm TDS and contains elevated levels of sodium, magnesium, calcium, bicarbonate, chloride, and sulfate.

### Solution

Applied Membranes engineered and built a Reverse Osmosis (RO) system producing **150 GPM (35 m<sup>3</sup>/h)** high-quality product water for dairy manufacturing.

The energy-efficient RO system incorporated advanced water treatment technology capable of removing contaminants, minerals, and impurities for dairy processing.

The AMI solution is complete with pretreatment including four (4) 42 x 72" multimedia filters; 2 in parallel followed by 2 in parallel, providing redundancy and reliability.

#### Key Features:

- Antiscalant
- Multimedia filters (4)
- Programmable Logic Controller (PLC)

### Results

Applied Membranes supplied a reliable water treatment solution to the client to achieve their goals of operational efficiency, improved product quality, and regulatory compliance.

**Water quality:** AMI system provides consistent, high-quality water for dairy processing, enhancing product quality and safety.

**Cost savings:** Energy-efficient AMI system minimizes water wastage, resulting in tangible cost savings for the client.

**Regulatory compliance:** The client remained compliant with stringent water quality requirements.

By leveraging AMI technology, the client solidified their position as a leader in the dairy industry

