



“If you lose fish because the water is too warm or too cool, they can’t be replaced, and it’s another year before you can breed them again. It’s almost impossible to put a cost figure on that. With Micro-Comm, we haven’t had any problems and we haven’t lost any fish, and that’s all I need to know.”

*—Dave Waller,
hatchery manager*

Dave is hooked on Micro-Comm, and Missouri anglers are reeling in the benefits

When the State of Missouri decided to invest \$19 million in a state-of-the-art fish hatchery, they selected Micro-Comm to design the water control systems. As a result, Dave has more fish and more time. And, local fishers have bigger stories to tell.

Dave Waller knows fish. After all, he’s been managing fish hatcheries in Missouri for more than 25 years. And he loves what he does.

That’s why he’s so pleased with his Micro-Comm control system. Simply put, Micro-Comm lets him focus on what he does best—managing the breeding and maturing of sport fish to stock public waters.

You see, Lost Valley Fish Hatchery, completed in 2000, is one of the largest and most innovative fish-rearing facilities in the nation, producing 4 to 10 million fish per year for more than a million Missouri anglers.

And Micro-Comm played a pivotal role in that process. Selected as the vendor of choice for control and monitoring systems, Micro-Comm’s sophisticated electronic network maintains exact water levels and temperatures, assuring healthy aquatic habitats and adequate quantities of fish for local streams and lakes.

“The computer-controlled system sends signals from the master computer to the slave PLCs through radio signals. It is constantly inquiring the slave PLCs as to status and reporting,” explained Dave Waller, hatchery manager. “So, you can check status of everything at any time and get information that’s less than a minute old.”

These automated capabilities have

contributed to immediate success for the hatchery, which, in its first year, produced a million fish.

“Because the system works — especially the alarm system — we haven’t lost any fish due to water or mechanical failure,” Dave said.

Dave also says the system has delivered substantial cost savings, by reducing water use, overtime wages and evening/night shifts at the 14-person operation.

“Most hatcheries don’t have this type of advanced electronic system. They rely on sight, so they have to be staffed 24 hours a day,” he said. “We just have one shift now, instead of three; that’s a major savings. Plus, the system is efficient, so we don’t waste water.”

What’s more, Dave feels confident working with the Micro-Comm staff, people he describes as smart and dedicated.

“I know if I have a problem I can call, and they’ll respond. Our Micro-Comm project manager is a genius. He really knows his computer stuff,” Dave declared. “And, he’s very dedicated. In every instance his concern has been what we need and how to get there.”

To learn why clients like Dave are hooked on Micro-Comm—and about the benefits you can reel in—give us a call at **(913) 390-4500**. Or, contact Dave Waller at **(660) 438-4465** for his take on the value we provide.



Micro-Comm keeps Lost Valley Hatchery afloat, 24 hours a day

How Micro-Comm's advanced electronic and telemetry system helped the Missouri Conservation Department create one of the largest, most innovative public fish hatcheries in the United States, delivering increased fish production while reducing water consumption and staffing costs.

MICROCOMM

"Where creativity and technology converge"

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Client

- Missouri Department of Conservation's Lost Valley Fish Hatchery, Warsaw, MO
- \$19 million fish rearing facility, including ponds, towers, indoor production facility and aquarium/visitors' center

Problem

- Maintaining water levels and temperatures to ensure all fish hatch and thrive
- Designing a state-of-the-art system that could grow with the brand new aquarium

Special challenges

- First time a State Fish Hatchery has been fully automated. The project required three main control processes:
- Automating 7 wells capable of pumping 3,500 gallons per minute to fill a cold water tank and pond water tank.
- Utilizing a combination of water sources (including a 20-acre pond) to fill the ambient temperature water tanks.
- Recirculating storage in cold water tank thru heat pumps for heated tanks.

Logistics

- 78 aerated fish rearing ponds, covering 72 acres, on a 971-tract of land
- A 16,000-square-foot indoor production facility and 13,500 gallon aquarium
- 7 wells, 1,125 feet deep, capable of pumping 3,500 million gallons per minute
- 320,000 gallons of water storage, including a cold water tank, heated water tank, pond water tank, ambient pond tank, and ambient pond hatchery tank.
- A 20-acre holding pond used to recycle water and provide ambient temperature water to fish rearing units
- 7 wells, 1,125 ft deep, capable of pumping 3,500 gallons per minute.
- Master computer control room
- 900 MHz spread spectrum radio data network
- Audible alarm/P.A. system utilized across the facility

Solution

- Integrated a complete Allen-Bradley computerized control system including Allen Bradley RSview HMI software and a MDS 900 MHz spread spectrum radio data network.

Tactics

- Installed new PLCs to monitor and control hatchery, wells and water storage tanks.
- Created a computerized main control room for complete control of the facility.
- Designed a high-speed 900 MHz spread spectrum radio data network to network all PLCs.

Results

- No fish lost due to water or mechanical failure
- Increased production—4 to 10 million fish produced each year
- Immediate, up-to-date information available for all remote sites
- Substantial savings through water efficiency and eliminating shifts and overtime

Equipment

- Allen Bradley SLC500 Programmable Logic Controllers (PLC)
- AB Micrologix 1000 PLC
- Microwave Data MDS 9810 Spread Spectrum Radios (902-928MHz)
- Micro-Comm Pressure Transducers
- Druck Pressure Transducers
- Data Industrial Insertion Flow Meters
- Royce Dissolved Oxygen Analyzers
- Red Lion Remote Displays
- Dukane Audio System for paging and alarm annunciation
- RSView32 HMI, RSLogix500 Programming Software