

Missouri American Water Hammerbodies: Enhancing Employee Wellness and Safety

Executive Summary

Water utility work is physically rigorous and water main construction and main break repair may be its most demanding component. Missouri American Water's Hammerbodies program was designed to provide construction and maintenance employees with the tailored pre- and post-work conditioning that creates a daily safety presence in employees' work lives. **In just two years, the program has helped to create a 51 percent reduction in the company's OSHA recordable incident rate and cut lost-time injury rates almost in half. The resulting benefits of enhanced on-the-job safety, improved team performance and crew continuity are available to virtually any water utility at a nominal cost per employee.**

The Challenge

Missouri American Water is the largest water utility in the state – serving approximately 1.5 million people. The day-to-day work needed to deliver about 84 billion gallons of water per year is ongoing and rigorous – from digging to turning valves to lifting heavy equipment.

In addition to traditional water utility functions, about 36 Missouri American Water teams are dedicated to waterline construction and repairs. In recent years, we have invested approximately \$30 to \$40 million a year in proactive waterline replacement in the 4,200 mile St. Louis County distribution system alone. Virtually all of this work, plus normal water main break repairs, is done by company construction and distribution maintenance teams. Despite a strong safety education program, traditional approaches to reducing injuries were not meeting our injury reduction goals, especially in this more injury-prone construction environment.

Missouri American Water's leadership evaluated several options to reduce employees' injuries and lost time. The leadership team's evaluation criteria was straightforward – the program had to be tailored to the unique needs of operations and construction teams and it had to create a daily safety presence in employees' work lives.

The initial objective was to reduce the company's OSHA recordable injury rate and lost-time incident rate by 40 percent. Over time, as the benefits to the construction and maintenance teams became evident, employees from all functions joined the program. At the two-year mark, the program has surpassed its goals and provided valuable small group education on nutrition and exercise that supports American Water's broader wellness goals.

An innovative approach – training water industry “athletes”

In June, 2009, Missouri American Water launched the Hammerbodies program to a pilot group of construction and maintenance employees in St. Louis County. The program was based on a



simple premise – water industry employees work just as hard as professional athletes. Without the proper training, daily pre-work warmups and post-work cool-downs -- athletes may get injured. Just as athletes have unique training and preparation for their game days – so can water utility workers better prepare for their workdays.

Hammerbodies is an independent wellness and personal training organization in St. Louis that is open to all, but specializes in the unique needs of amateur and professional athletes. Missouri American Water partnered with Hammerbodies to develop a program that provided a unique daily conditioning program for employees *and* a broader wellness program designed to improve overall health – on and off the job.

Daily conditioning reduces injuries

The success of the Hammerbodies program started with its focus on the unique needs of water industry construction and maintenance employees. Hammerbodies trainers visited dozens of job sites. They watched teams at work, talked and listened to employees about the work they did – in all seasons and weather conditions – and learned about the body stresses and strains associated with their jobs.

“Day-to-day, these ‘utility athletes’ may work longer and harder than many of their peers in sports do on game day. This program gives these hard working utility teams the tools and resources that have proven successful in enhancing the health and performance of sports athletes.”
Coach Hammer, Hammerbodies

The Hammerbodies team used their observations and conversations to identify common types of injuries and strains. Then they created a unique conditioning program to help protect employees from the most common issues.

The program focused on short, dynamic warm-up and cool-down exercises at the beginning and the end of each workday. The six-minute conditioning workout at the beginning of the day is designed to prepare muscles and joints for the flexibility and strength needed to transition into demanding construction and maintenance work. The fifteen-minute cool-down helps the body to adjust safely to the rest period that follows a day of physical labor.

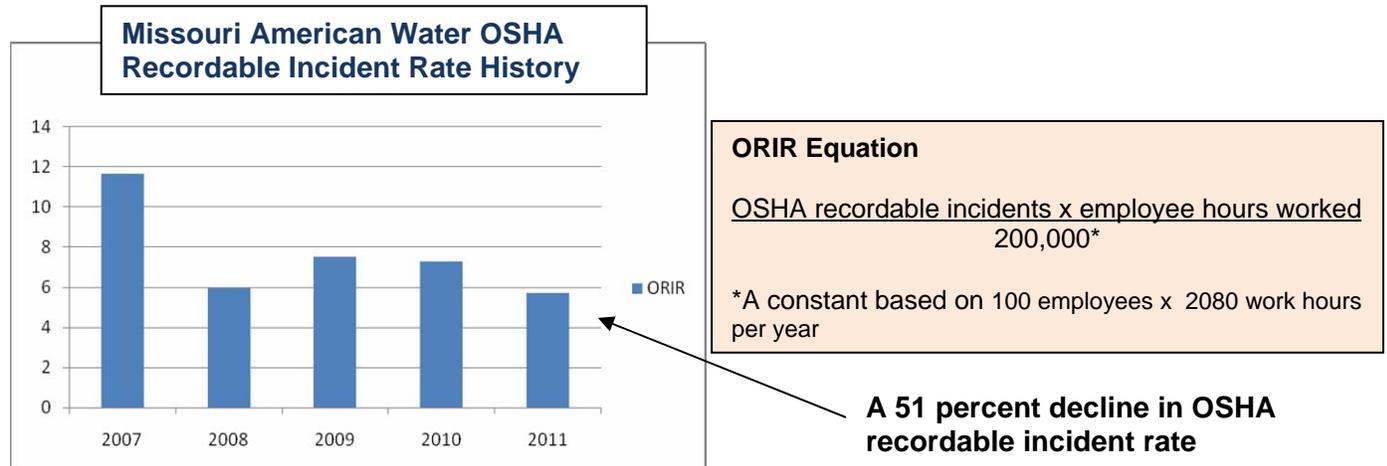
Initially, 36 construction and maintenance crews attended an eight-hour conditioning and wellness training session. They returned for an additional two hour follow-up after they incorporated the conditioning into their daily routines. Over time, all Missouri American Water employees received similar training, tailored to their unique job functions. Over its two-year history, the Hammerbodies program has surpassed its original goal and reduced Missouri American Water’s OSHA recordable incident rate (ORIR) by 51 percent.

The ORIR is a calculation that describes the number of OSHA recordable incidents that a company experiences, times employee hours worked. The rate helps compare the relative level of work-related injuries among different industries or operations. ORIR sets a common basis to help identify problem areas and monitor progress in preventing work-related injuries.



“This training is very informative and helpful. I liked the term ‘utililty athlete’ that Coach Hammer used,” **David Still, meter reader**

As more employees received training and adopted the program of daily conditioning workouts, the ORIR dropped steadily. The unique nature of the program and its proven benefits attracted positive local media coverage, including a segment on the local TV news. [{Link}](#)



(Note: these comparisons are for the January-July period each year, so the data reflects the same seven-month timeframe, year-to-year.)

Additionally, Missouri American Water’s lost time injury rate was almost cut in half – declining from 1.82 in 2007 to 0.92 in 2011. The benefit of employee safety is compounded by the value of crew continuity over time – benefitting the company and its customers.

The value of pre and post-work conditioning was also dramatically demonstrated in the reduction in soft tissue injuries (sprains, tears and pulls). From 2008 to 2010 soft tissue injuries accounted for 33 percent of all injuries, but by 2011 the number declined to 21 percent of all injuries.

Working toward longer-term wellness goals

The conditioning program was a critical part of a larger wellness program that Missouri American Water and Hammerbodies provided to all employees. The program’s nutritional guidance, along with instruction for at-home fitness training, are designed to help employees live healthier, reduce their risk of injury and improve the overall quality of their lives.

- **Nutrition** – Employees learned the value of variety, wholesomeness and balance in their diet. Hammerbodies highlighted the benefits of reducing saturated fats, sugary snacks and processed foods in daily meals and increasing vegetables, fruits and water intake.
- **Lifestyle** – Hammerbodies instructors explained the importance of recognizing and managing stress as a means of reducing the risk of chronic disease and improving daily quality of life.

“Our primary goals are helping these construction and maintenance employees stay safe and healthy on the job. We are experiencing the same benefits that the science of body conditioning has delivered in the sports arena – fewer injuries, better team performance and athletes who live healthier on and off the field; or in our case, on and off the job.” **Frank Kartmann President, Missouri American Water**

- **Fitness** – In addition to pre and post work conditioning, the Hammerbodies program taught cardio-respiratory fitness, muscular strength, endurance and flexibility. Employees could take the lessons learned home as the foundation for their own workout routines.

Benefits available to any water utility

At a time when safe work environments, work continuity and overall wellness are important to all industries, the Hammerbodies program is already demonstrating measurable benefits after just two years. Key to the program's success is day-to-day supervisor support for 21-minutes per day of conditioning before and after the work day begins. The costs per employee for the initial and refresher training has proven to be a great value for the safety gains, crew continuity and improved team performance that we have witnessed in just two years.

*"This is the most educational and informative training I've ever taken in 23 years at American Water," **John Rider**, working foreman*