



Specialized water restoration solutions
made simple.



The **water** requirement
per unit of body mass of a
high-producing dairy cow is
greater than that of
any other land-based mammal

(Woodford et al)

THE CENTER POINT OF A FULL CIRCLE SOLUTION

We understand that dairies of all sizes face challenges that no other agribusiness does. Water impacts all aspects from maintaining clean water lines, sanitizing parlors, managing runoffs, lagoon capacity, and most importantly, ensuring safe water and nutrient management.

NLP Aqua Solutions' team is committed to restoring water back to its living state in balance to nature's intended ecosystem through custom **Traiad Restoration Technologies**. Each solution is designed to improve the functional properties of water, addressing all impurities, mitigating corrosion and biofilms, and enhance the bioavailability of nutrients. Key components include the ability to produce a powerful non-toxic disinfectant containing hypochlorous acid; Mother Nature's very own antimicrobial weapon against harmful microorganisms. Our body's immune system uses its white blood cells to produce hypochlorous acid, which effectively protects us against illnesses. And, this is the exact same mechanism that takes place in farm animals. Sanitizing the water lines will deliver what matters - increasing the income of farmers across the country.



INCREASE EARNINGS BY OPTIMIZING BACTERIA FREE WATER

Simple, reliable and sustainable to the overall operations

Utilizing a proprietary Electro Chemical Activation process, the Traiad™ On-Demand System produces a 100% natural germicidal, parvocidal antimicrobial agent effective at eliminating bacteria, algae and persistent biofilm. Biofilm consists of both living and dead organic material formed on surfaces and water distribution lines. Biofilm contributes to increased bacterial levels, reduction of dissolved oxygen, corrosion rendering the inferior for consumption to the animals. The Traiad™ On-Demand Sanitation System is the most effective solution for the agriculture market for restoring your operations and more importantly, maintaining animal health.

SIMPLE & SAFE SOLUTION

- Simple ingredients to produce natural organic disinfectant with antimicrobial properties
- Non-hazardous, non-toxic, and safe for cattle
- Accredited agent under the USDA organic regulations (7 CFR/205), EPA, FDA, and NSF
- Versatile for limitless disinfecting and sanitizing applications throughout the farm operations
- Effective and economical pre/post test dip

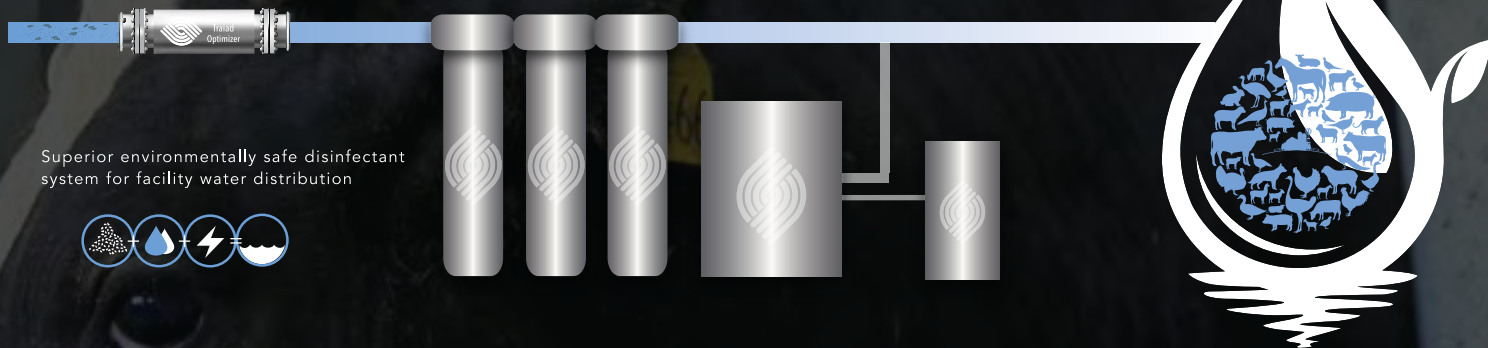
BENEFITS

- Improves feed efficiency and absorption of nutrients
- Increased conception rates
- Significant reduction in veterinary care
- Lower mortality rates
- Improves environmental hygiene
- Maintain water lines free of corrosion and bacteria
- Eliminate the procurement and storage of chemicals

ADDRESSING INORGANIC METALS

With many dairy operations, iron and other metals have been a reoccurring issue. We have successfully addressed Iron, lowering to less than .1 ppm with customized filtration systems irrespective of water source.

SCHEMATIC OVERVIEW



Superior environmentally safe disinfectant system for facility water distribution



FEATURES

- Environmentally sustainable to economize water use
 - Strong sterilization of bacteria, fungi, viruses and all other micro-organisms
 - Safe to use on humans, animals, and crops
 - Globally recognized disinfectant as a parvocide, bacteriocide, and germicide
 - Shelf stable, cost effective solution
- Environmentally safe; does not contaminate or leave by-products in soil and water
 - Does not built resistance compared to other chemical pesticides
 - Minimal service and maintenance costs



ECONOMICAL

Cost-Effective Water
Restoration Systems for
Disease Prevention & Control



ECO-FRIENDLY

Natural solutions
manufactured 100% safe for
animals and the environment



EFFECTIVE

Mitigates biofilm and bacteria
from the entire water lines
storage, and drinking troughs



EASY APPLICATION

Complete certified system
with automated remote
control monitoring

FACTS

Mastitis is estimated to cost the global dairy industry \$19.7 to \$32 billion annually.

Professor D. Eckersall,
Professor of Veterinary Biochemistry
University of Glasgow



A milking dairy cow drinks from 30 to 50 gallons of water each day = 88% of nutrient intake
Dairy Herd Management.com

SCS FOR MILK QUALITY RESULTS

Time Period	Somatic Cell Counts	SPC	E-Coli	LPC	PI
Day 1	279,000	1,147	97	12	1,478
Day 365	124,000	300	10	1	600

In 2017, the dairy operations expanded to 3,500 cattle. When existing water lines were cut, no biofilm and scale was found.



RESULTS



SUSTAINABLE AGRICULTURAL WATER ECONOMY

NUTRITION & CONSERVATION

After the liquid-solid separation, the nutrient-rich clean compost is re-distributed to the fields. In turn, crops grown with restored water enhance the nutrients and yield of the feed to protect animal health. Roots systems easily penetrate deep into the soil to facilitate water conservation.

04

LIQUID-SOLID SEPARATION

Wash water and effluent is captured and transferred in a storage pond where the sand is separated for reuse. Through our sustainable technology, the water is restored clean to the wash water storage.

03



ANIMAL HEALTH

01

Optimized restored water hydrates and nourishes the animal tissues by increasing the bioavailability of the natural minerals found in the water assimilated through aquaporins; the cells' water channels. Restored water further aids in animal digestion producing less anaerobic bacteria that contributes to methane gas and ammonia.

ENHANCED CLEANING

02

Restored clean water mitigates scale and biofilm from troughs, equipment and floors to reduce maintenance and chemical usage on the farm. Less surface tension in the water reduces the mud and manure from adhering to the animal's body and hair.



Delivering Results
that **MATTER**



TRAIAD
RESTORATION TECHNOLOGIES