

**THINK
BIG**



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BlueinGreen

BlueInGreen
solutions for water quality



FOUR PRIMARY PLATFORMS NUMEROUS MARKETS AND APPLICATIONS ONE CORE TECHNOLOGY

ADAPTABLE AERATION



PRECISE pH ADJUSTMENT



DEPENDABLE DISINFECTION



OPTIMIZED ODOR CONTROL





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Headspace
with Gas

High Dissolved Gas
Concentration

- Patented Side Stream Gas Dissolution Method
- Water Serves as a Barrier to Limit Undissolved Gas from Escaping
- Achieves Very High O₂-O₃-CO₂ Concentrations
- Allows for a Much Smaller Carrier Stream
- Results in Less Cost for the Same Level of Treatment



AWARDS

2015 **GCCA GRAND PRIZE WINNER**

Recipient of the Global Cleantech Cluster Association's Later Stage Award

2010 **WEFTEC INNOVATIVE TECHNOLOGY AWARD**

Recognized by the Water Environment Federation for our groundbreaking dissolution system

TECHNOLOGY VALUE PROPOSITION

- **Simple Science**

- Leverage Henry's Law to obtain a supersaturated solution and deliver it efficiently in basins, pipes, lagoons, lakes, and rivers

- **Highest Efficiency on the Market**

- Optimize transfer efficiency, up to 98% - smaller footprint, smaller piping and ancillaries
- Consume 20-40% less oxygen, carbon dioxide, or ozone than competitors for the same level of treatment
- Relatively unaffected by depth and/or solids concentrations

- **True Turndown**

- Utilize VFD on pump to reduce power consumption when less delivery is required – competitors operate at fixed flow/pressure

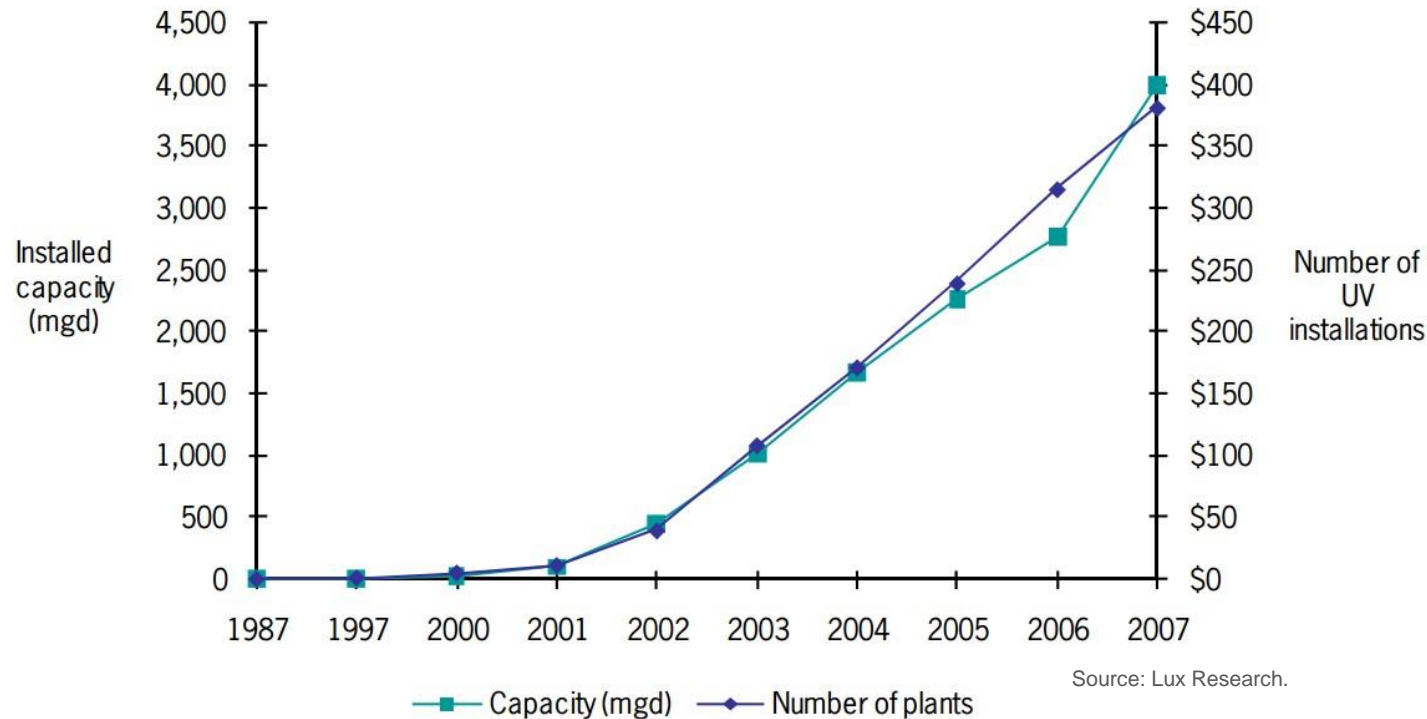
- **Elegantly Delivered**

- Deliver a skid mounted, fully integrated, and factory tested solution – easy to implement from design through construction

BLUEINGREEN HAS REACHED THE WATER MARKET TIPPING POINT

- New water technologies have North American UV Disinfection Installations, 1987-2007 slow adoption rates until they reach a Tipping Point

they
Point

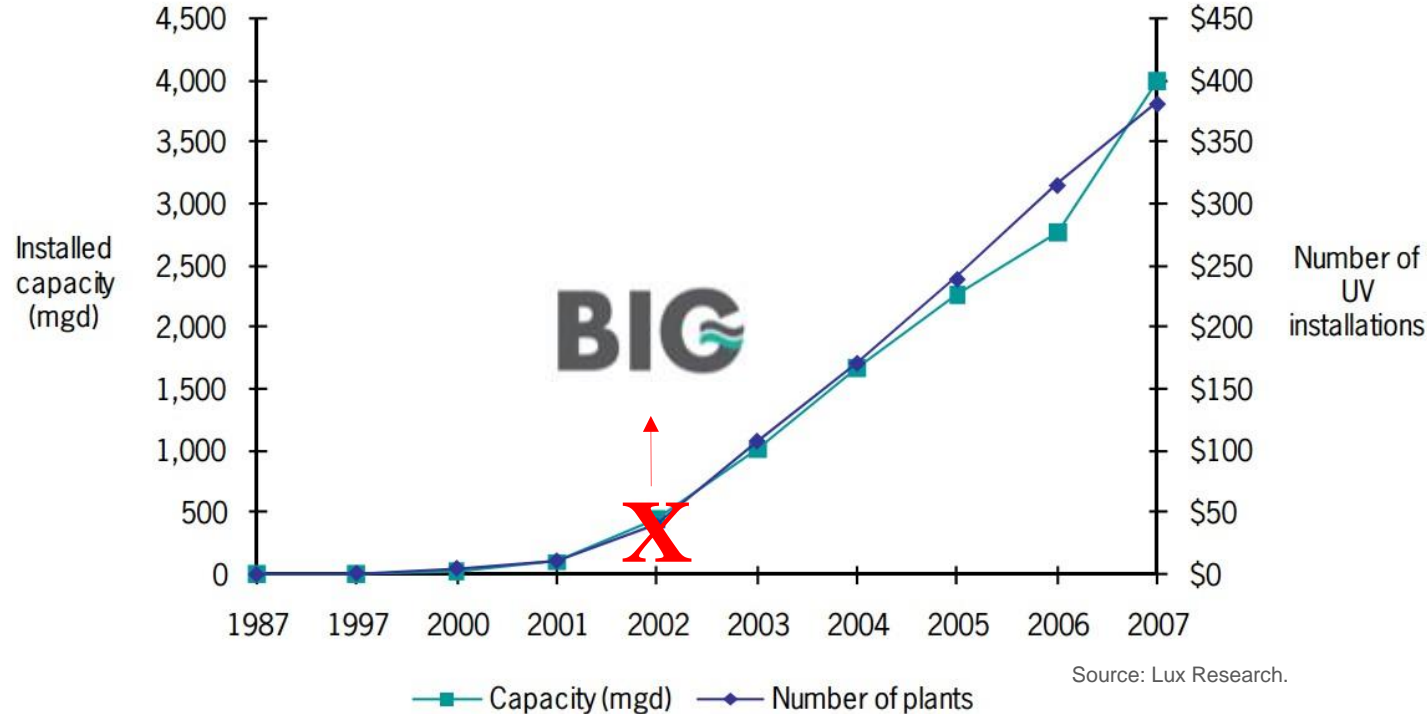


BLUEINGREEN HAS REACHED THE WATER MARKET TIPPING POINT

North American UV Disinfection Installations, 1987-2007

\$900K
30th

over
of



- Recently received PO for commercial unit
- Currently enhancing the treatment of just 700 million gallons water per day

- Actively seeking capital to fund growth in US markets
- Actively seeking strategic international partners and licensing opportunities



City of Fayetteville

Fayetteville, AR
CH2MHILL – OMI
Noland WWTP
SDOX Post Aeration

Leprino Foods
Greeley, CO
On-site WWTP
SDOX Post Aeration

Central Oklahoma Master Conservancy District
Oklahoma City, OK
On-site WWTP
SDOX Hypolimnetic Oxygenation

DEL MONTE FOODS

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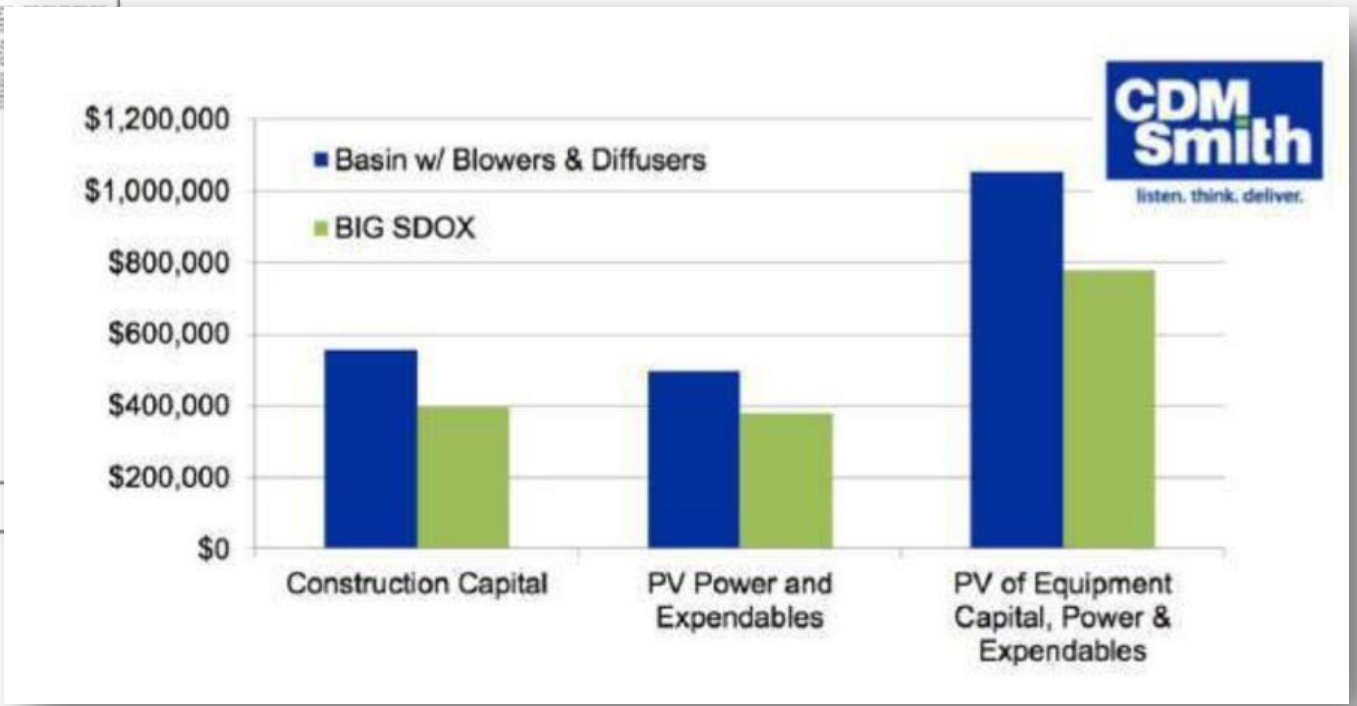
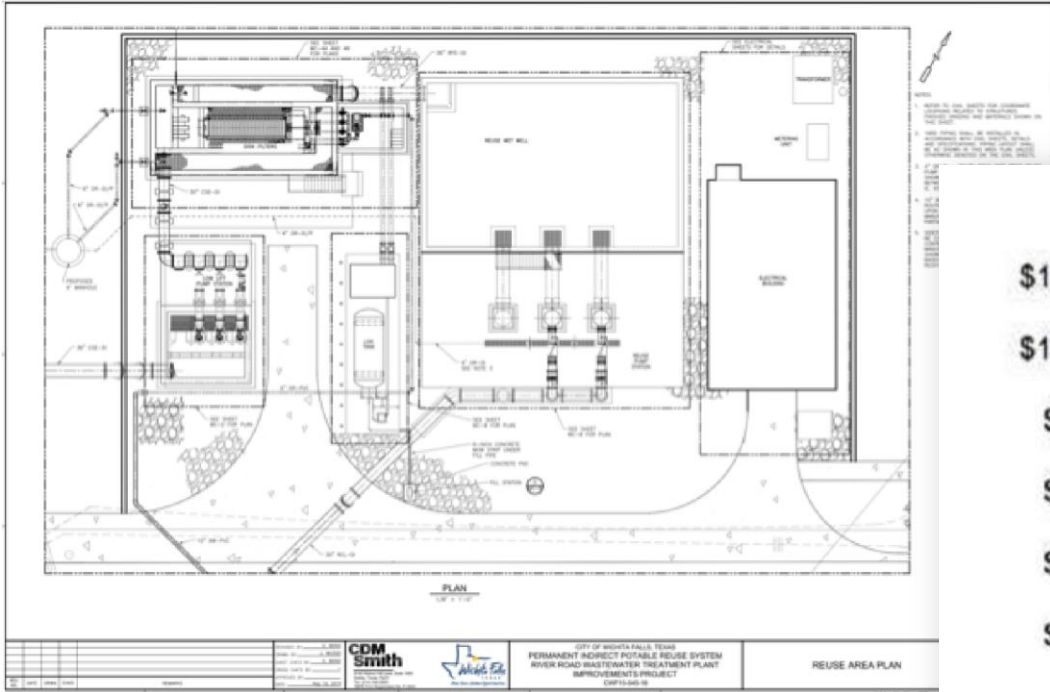
AERATION – LAGOON BIOLOGICAL

- Flow Rate:
1.5 MGD
- Application: Industrial Lagoon Aeration
- Solution:
SDOX
800
- O₂ Deliv.:
6,000
lbs/day
- Installation:
Q4 2014
- Engineer:
USI
Consulting



WICHITA FALLS, TX

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AERATION – EFFLUENT

REAERATION

MINNEAPOLIS, MN

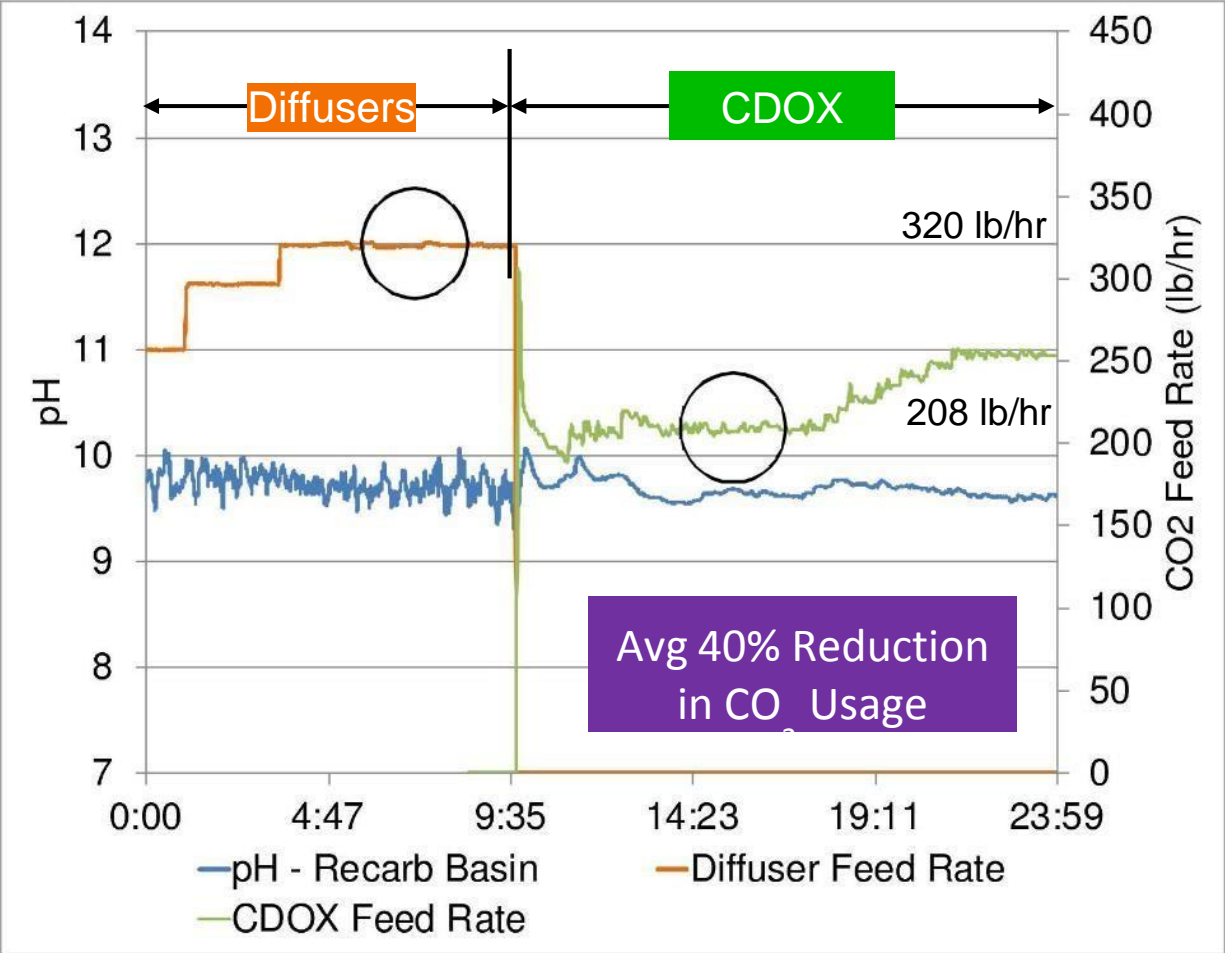
pH ADJUSTMENT – vs CO2 DIFFUSERS

- Full Scale Test at 120 MGD Plant
- Used Process Water for Carrier Stream
- Demonstrated Automatic pH Control for over 3 weeks

MINNEAPOLIS, MN



pH ADJUSTMENT – vs CO2 DIFFUSERS



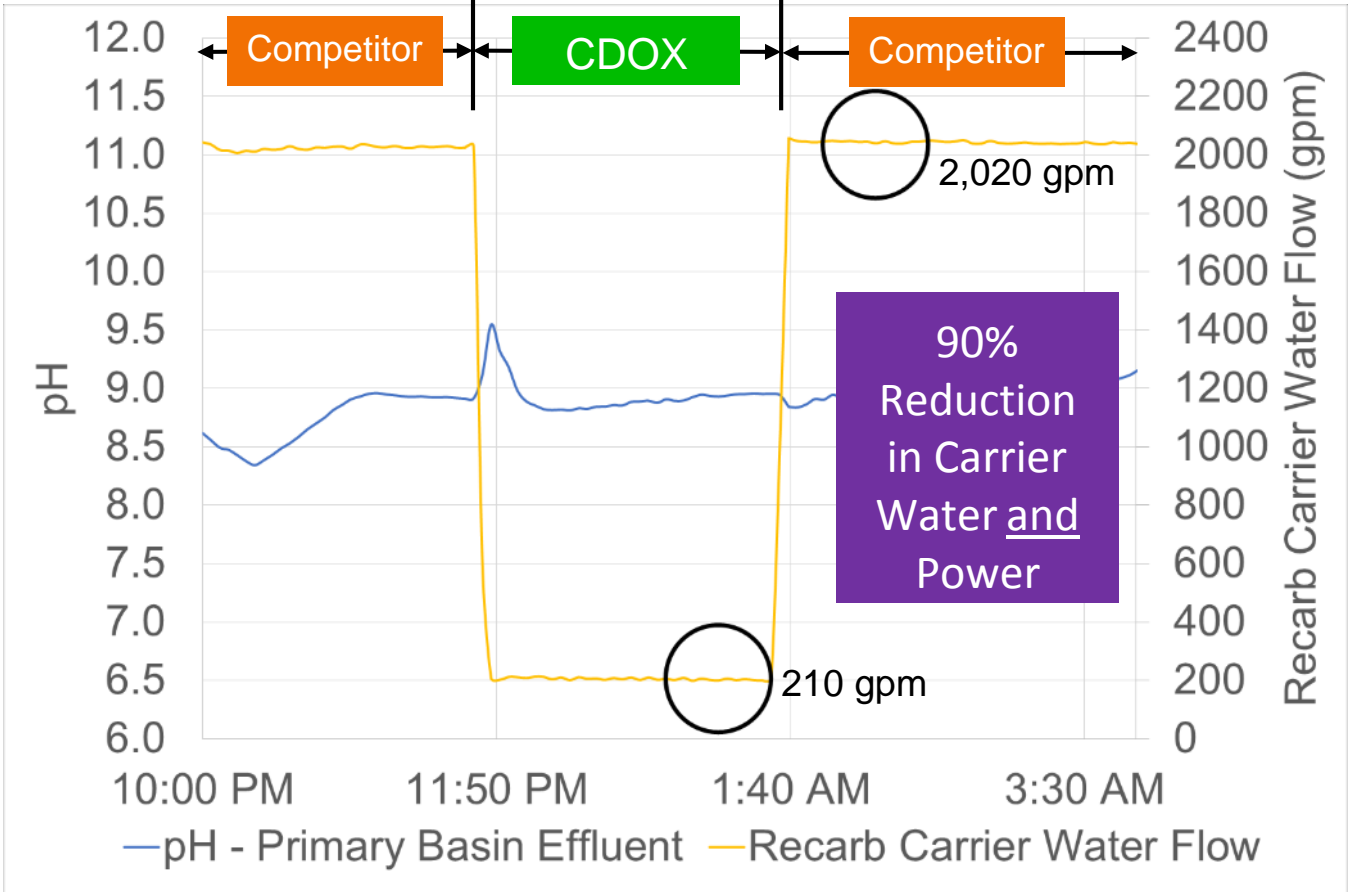
OMAHA, NE pH ADJUSTMENT – vs SIDESTREAM

- Full Scale Test at 160 MGD Plant
- Using Finished Water for Carrier Stream
- Demonstrated Automatic pH Control for 3 Months

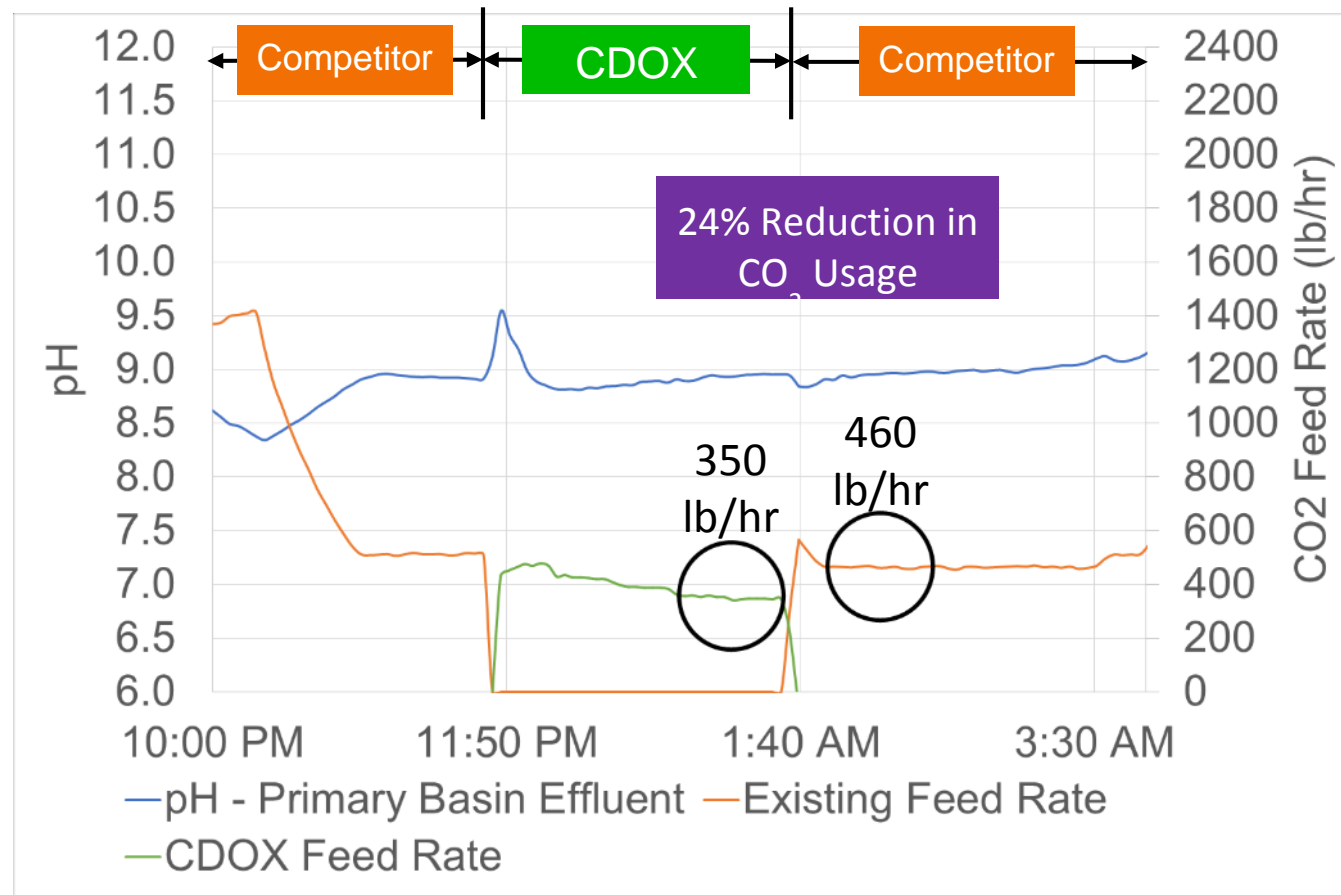


OMAHA, NE pH ADJUSTMENT – vs SIDESTREAM

OMAHA, NE pH ADJUSTMENT – vs SIDESTREAM



OMAHA, NE pH ADJUSTMENT – vs SIDESTREAM



OMAHA, NE pH



ADJUSTMENT – RECARB

- Plant Flow Rate: 160 MGD WTP
- Application: Recarbonation
- Product: CDOX 400
- Design Delivery Rate: 1,700-lb/hr
- Installation: Q4 2014 • Engineer: HDR
- \$90,000 savings annually on CO2 and pumping costs • Competitor's 2 year old system used as stand-by

PALMDALE, CA pH ADJUSTMENT

- Plant Flow Rate:
- Application:
Adjustment
- Product: CDOX
- Design Delivery
- Installation: Q1
- Engineer: MWH
- Seasonally high blooms in



65 MGD WTP
Influent pH

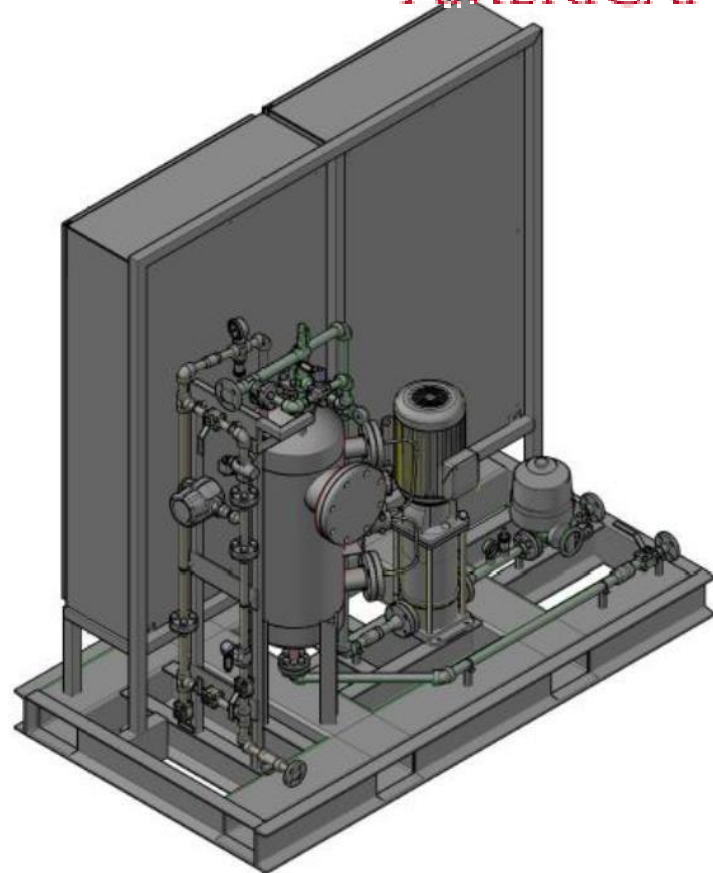
Rate: 330lb/hr
2015
Global

pH due to algal
aqueduct

PARKVILLE, MO pH



AMERICAN WATER



ADJUSTMENT - RECARB

- Plant Flow Rate: 3.1 MGD WTP
5 MGD Future • Application: Recarbonation
- Product: CDOX
- Design Delivery Rate: 43-lb/hr
- Installation: Q2 2016
- Engineer: Black & Veatch

- 10-week Delivery

LIVERMORE, CA

pH ADJUSTMENT – ENHANCED COAGULATION

- Utilizing CO₂ to adjust pH coagulant
- Rental Unit, ~24-mo to-

INDIO, CA



in order to use less

date

pH ADJUSTMENT - ADSORPTION

- Utilizing CO₂ to adjust pH in order to enhance Chromium removal
- Worked with Toxsorb out of Israel
- Pilot Unit Recently Decommissioned



CLARKSVILLE, AR

OXIDATION – POTABLE DISINFECTION

- Ozone for primary disinfection
- Plant Flow Rate: 16 MGD
- Application: Primary Disinfection
- Product: HyDOZ 1000, 420-lb/d
- Installation Date: Q1 2015
- Engineer: MWY

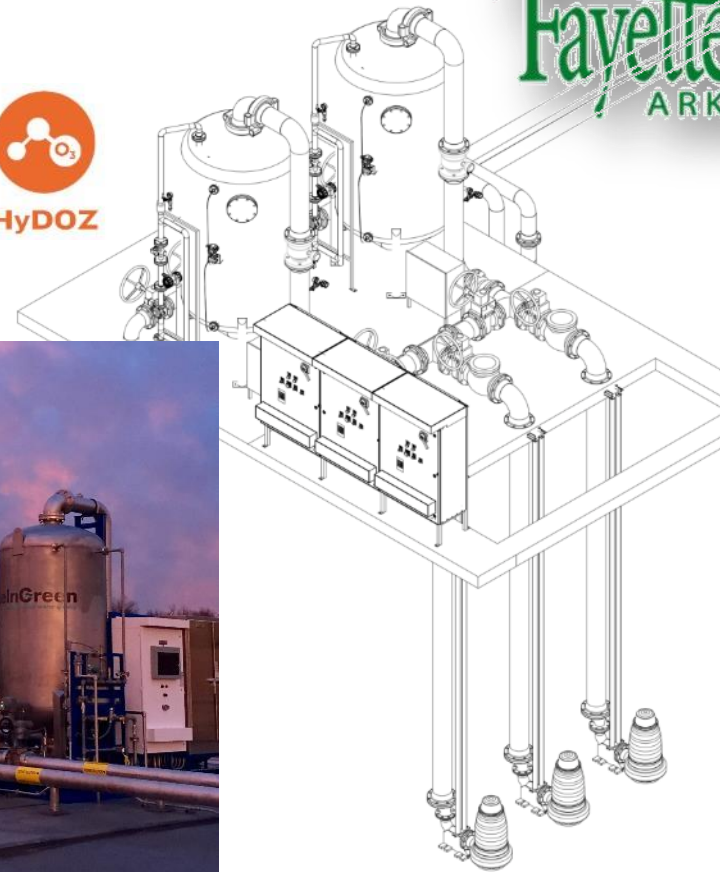
FAYETTEVILLE, AR



OXIDATION – WASTEWATER DISINFECTION

- Plant Flow Rate: 13 MGD, 29 MGD (peak)
- Application: Wastewater Disinfection
- Product: 2x HyDOZ
- Design Delivery Rate: 585-lb/d
- Installation Date: Q4 2015
- Engineer: CH2M Hill

JEFFERSON PARISH, LA



ODOR CONTROL – H₂S REDUCTION



Lift Station : G6-9 Helios
SDOX-CS 600 SDOX-CS 1000 2,000-lb/d 8,000-lb/d
800-gpm



Lift Station : G6-2 West Napolean
SDOX-CS 1000 2,000-lb/d 8,000-lb/d
3200-gpm

**BLUEINGREEN =
DISSOLVED GAS EXPERTS**

BlueInGreen

Over 4 years of research on *Aeration in water quality*
biological processes still underway in Delft

THINK BIG



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