CREATE A COMPETITIVE ADVANTAGE THROUGH PRODUCED WATER RECYCLING



THE PRODUCED WATER **DISPOSAL PROBLEM**

- PRODUCED WATER IS THE BIGGEST PRODUCT OF THE OIL & GAS INDUSTRY
- HANDLING & DISPOSING PRODUCED WATER IS THE LARGEST SINGLE COST OF OPERATING A WELL
- WATER AVAILABILITY FOR FRACKING IN WATER-SCARCE REGIONS REPRESENTS A MAJOR THREAT TO E&P COMPETITIVENESS

A PRODUCED WATER OPPORTUNITY FROM H2O

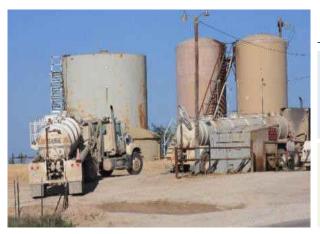
H2O Systems Recycles Produced Water to a High-Purity Frack-Ready Water Quality

- REDUCED HAULAGE COSTS & HANDLING
 ISSUES
- REDUCED ENVIRONMENTAL RISKS
- REDUCED CHEMICALS TO PURCHASE
- LESS RELIANCE ON FRESH WATER FOR DRILLING & FRACKING



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COMPELLING INCENTIVES TO RECYCLE PRODUCED WATER



REDUCE PRODUCED WATER DISPOSAL COSTS

- PRODUCED WATER HANDLING & DISPOSAL IS THE LARGEST SINGLE COST OF OPERATING AN OIL & GAS WELL
- CONSIDERING A HANDLING & DISPOSAL COST IN THE RANGE OF \$4-6/BBL AND DISPOSING 50,000 BPD WOULD COST \$73M - \$110M PER YEAR
- H2O **TREATS & HANDLES** YOUR PRODUCED WATER **CLOSE TO THE SOURCE** FOR CENTS/BBL
- THE HIGH COST OF HAULAGE & DISPOSAL IS REDUCED AND THE COST OF
 EXPENSIVE GATHERING PIPELINES IS MINIMIZED

ELIMINATE THE WATER AVAILABILITY PROBLEM

- FOR OIL AND GAS COMPANIES TO REMAIN HIGHLY **COMPETITIVE**, OPERATE **EFFICIENTLY**, AND EXPERIENCE CONTINUED **SUCCESS**, IT IS CRITICAL TO HAVE ACCESS TO A **HIGH-QUALITY WATER** SOURCE
- MORE THAN 70% OF ALL WELLS ARE IN EXTREME WATER STRESS AREAS
- H2O Systems recycles produced water to a **High-Quality Frack- Ready** water for drilling & fracking
- ABUNDANT SOURCE OF WATER FOR LONG-TERM DRILLING DEMAND
- HIGHLY-AUTOMATED, LONG-LIFE, NON-CHEMICAL SYSTEMS **REDUCES OPEX** AND HAZARDOUS CHEMICALS





MINIMIZE ENVIRONMENTAL LIABILITIES

- EVAPORATION PONDS AND SWDS ARE **OUTMODED**, **INEFFICIENT**, AND CREATE **UNWANTED ENVIRONMENTAL LIABILITIES** (SPILLS, BIRD MORTALITY, LEAKS, SEISMIC ACTIVITY)
- Pipelines eliminate trucking but introduce new environmental risks and **Produced Water Liabilities** remain with E&P Operator
- RECYCLING **DIVERTS** PRODUCED WATER **AWAY FROM THE DISPOSAL PROCESS**, IMMEDIATELY **REDUCING** EVAPORATION & IMPOUNDMENT POND, TRUCKING & SEISMIC **ENVIRONMENTAL RISKS**



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FRACK-READY WATER NON-CHEMICAL SOLUTION FOR OILFIELD PRODUCED WATER

H2O Systems uses a proprietary non-chemical process to **CONVERT** produced water from being a **WASTE MATERIAL** INTO A **VALUABLE RESOURCE**, TRANSFORMING RECYCLING PRODUCED WATER TO A HIGH-PURITY FRACK-READY WATER, WITH ANY SURPLUS WATER GOING TO OTHER BENEFICIAL REUSES.

FRACK READY WATER

CUSTOMIZED SPECIFICATIONS FOR SLICK-WATER & CROSS-LINKED GEL APPLICATIONS

DESALINATED WATER

FOR BENEFICIAL REUSES: IRRIGATION, MAKEUP WATER, LIVESTOCK DRINKING WATER

H2O PROVIDES HIGHLY-AUTOMATED, NON-CHEMICAL SYSTEMS WITH INTEGRAL BUILDING & LONG-LIFE COMPONENTS

ON A LOW MULTI-YEAR CENTS/BBL RATE, ELIMINATING CAPITAL COST AND LIBERATING SIGNIFICANT AMOUNTS OF

OPERATING CASH THAT CAN BE USED FOR CORE E&P ACTIVITIES.

IMMEDIATE AND SIGNIFICANT COST SAVINGS - MOVING FROM \$4-6/BBL FOR WATER DISPOSAL TO CENTS/BBL FOR A WATER TREATMENT SERVICE WATER TREATMENT IS A NON-CORE COMPETENCE FOR E&P OPERATORS DIVERTS CAPITAL DOLLARS AWAY FROM INCOME GENERATING E&P ACTIVITIES – THIS CREATES A LOGICAL OPENING FOR A PARTNERSHIP WITH A WATER HANDLING SPECIALIST

ENVIRONMENTAL LIABILITIES TRANSFERRED - ASSOCIATED PRODUCED WATER RISKS CAN BE RELOCATED FROM THE E&P OPERATOR TO H2O SYSTEMS

H2O'S SYSTEMS CREATE APPLICATION-SPECIFIC SOLUTIONS TO MINIMIZE CAPITAL EXPENDITURE AND OPERATING COSTS. TO LEARN MORE ABOUT H2O'S INDUSTRY-LEADING PRODUCED WATER RECYCLING SOLUTIONS, VISIT H2OSYSTEMSGROUP.COM



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