



Optimizing Critical Groundwater Infrastructure

Water Well Rehabilitation and Asset Management

WellJet® delivers sector-disruptive wellfield asset management solutions that provide unprecedented well performance improvement, energy savings, and extend well lifespan resulting in triple bottom-line benefits to clients.



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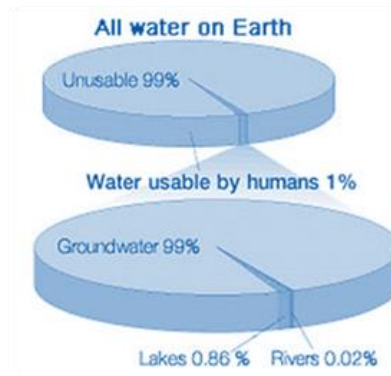
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Background

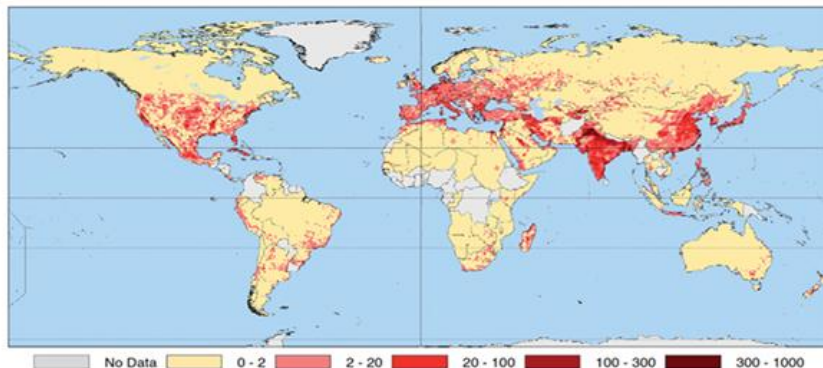
Groundwater is the world's most extracted resource, providing almost half of all drinking water and the majority of water for irrigated agricultural lands and represents a major element of the \$1 trillion global water services market.

1. Water Availability

While essential, freshwater is incredibly rare, with only 1% of global water available for use by humans and 99% of that present as groundwater.



2. Global Extraction



Worldwide 1,000 km³ or 2.64 hundred trillion gallons of groundwater are extracted annually, and used to supply agricultural (70%), domestic (20%), and industrial (10%) users.

3. Critical Groundwater Well Infrastructure



'Out of sight, out of mind' too often applies to groundwater and the subsurface environment in which it exists, but maintaining this critical infrastructure is essential to providing comfort, security, goods, and services for the U.S. economy.

The National Ground Water Association

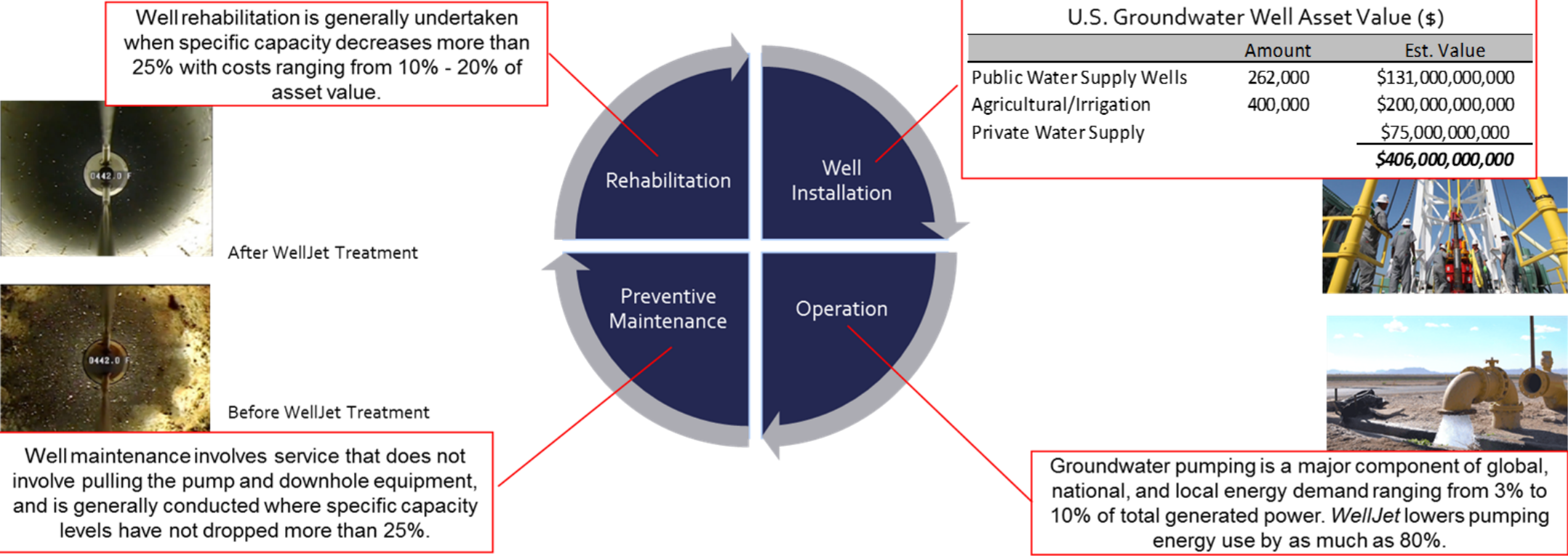
4. Scope of the Opportunity



With wells numbering in the millions, the water well services sector has grown to support this critical infrastructure. The U.S. water well services sector generates over \$16 billion in revenue annually servicing groundwater wells. Substantive markets also are present in Asia, MENA, the EU, Oceania, and the remainder of the Americas.

Critical Infrastructure Profile

U.S. groundwater wells represent infrastructure critical to food, energy, and economic security valued at over \$400 billion. WellJet services optimize performance of this critical asset value through unprecedented energy use reduction, maximizing water quality & production, and extending asset lifespan.



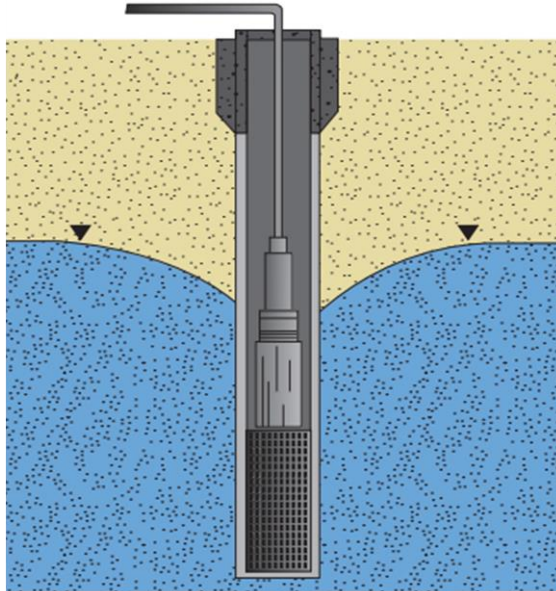
The water industry provides investors with attractive inflation linked pricing, monopolistic business models, sticky customers, high visibility cash flows, and long term contracted revenues.

Water Asset Management

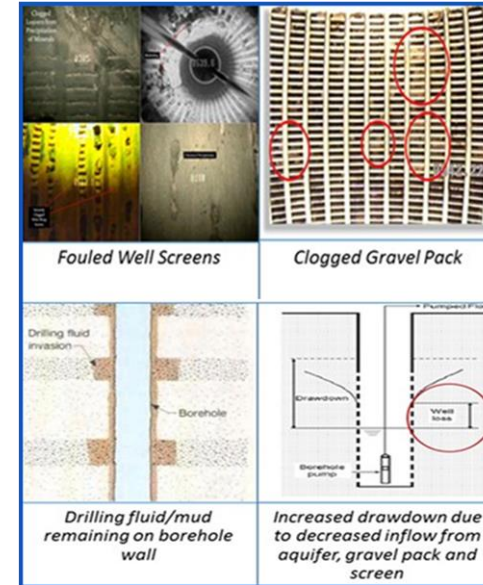
Groundwater Supply Challenges

Groundwater extraction wells operate in harsh environments and as they age, yield & flowrate decrease, water quality declines, energy use increases, resulting in a larger environmental footprint and reduced asset lifespan – mitigating these issues requires significant capital and O&M resources.

Groundwater well performance and integrity decline through routine use due to biological, chemical, and physical fouling of downhole components.



This results in costly decreased water production, higher pumping energy costs, and equipment wear/ decline.

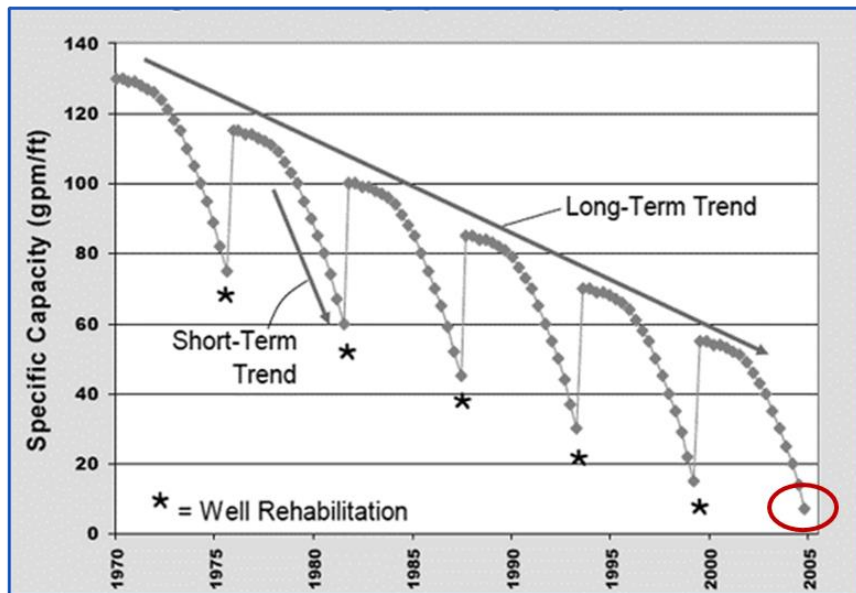


Decline in Well Performance caused by:

- 1. Fouled Well Screens***
- 2. Clogged Gravel Pack***
- 3. Incomplete Well Development at Installation***
- 4. Resultant increased Drawdown***
- 5. Pump Performance Decline***

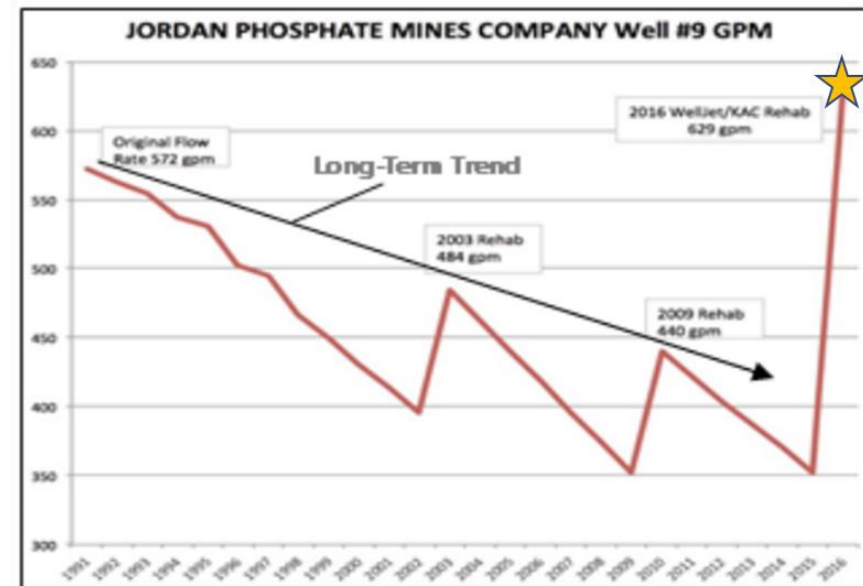
WellJet's Solution

WellJet's market-disruptive technology & cutting-edge process increase well yield, efficiency, and water quality. WellJet treatment reverses well performance decline, returning performance to new or "better-than-new".



Typical Groundwater Well Sector Rehabilitation Programs result in a Performance Decline to Failure results in:

1. *Decreased Water Yield & Flowrate*
2. *Increased Energy Utilization*
3. *Degeneration & Failure of Infrastructure*



WJ breaks the conventional well performance degradation/rehabilitation curve, returning wells to original/better-than-new performance.

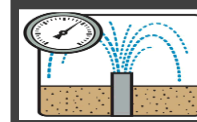
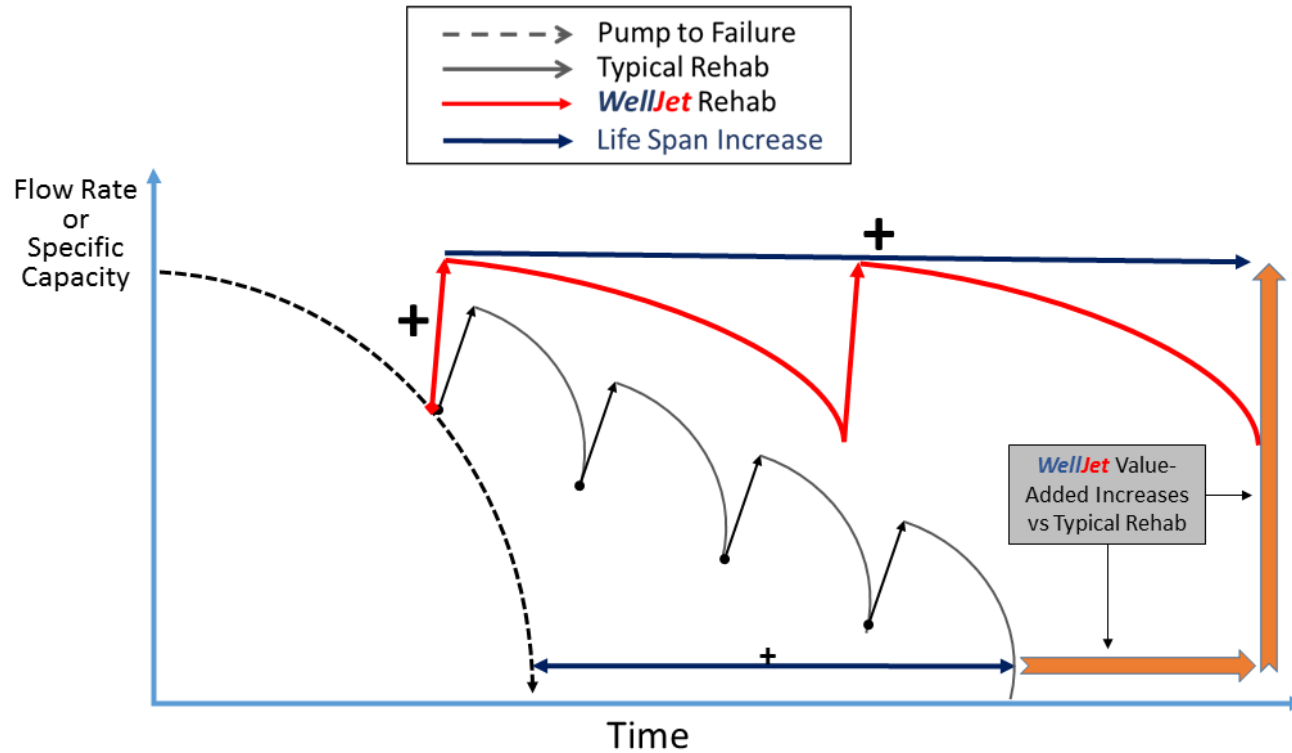
WellJet Sector- Disruptive Technology

- *WellJet*, introduced in 2011, is a California-based well development and rehabilitation company, employing state-of-the-art hydrojetting technology.
- *WellJet* (Patent No.: US 8,312,930 B1) is the world's most advanced and effective method for water well development and rehabilitation delivering unprecedented water-yield, well infrastructure restoration, and energy savings for its clients.
- *WellJet* utilizes an array of custom-built, high-pressure self-rotating nozzles that deliver laminar streams of water downhole at up to 20,000 psi – breaking even the toughest bonds between obstructions, the well screen and the filter zone.
- With *WellJet*, older wells are restored to their original flow rates – or better – and new wells are unleashed to function at peak performance. All this, at a fraction of the cost of outdated methods – and in an eco-friendly fashion.
- *WellJet* uses nothing but water, pressure and our patented technology – water to obtain water. Nothing could be simpler, safer or more effective.

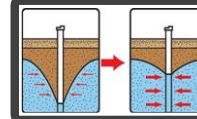


Performance Comparison

WellJet's well intervention process consistently returns wellfield assets to unmatched new or "better-than-new" production rates, maximizing asset value and lifespan, and ensuring system efficiency.



Breaking the performance degradation curve – restoring well flow rate



Boosting specific capacity – increasing energy efficiency



Improved water quality – removing chemical & biological contaminants from well



Increases wellfield value – enhances reliability of groundwater supply critical infrastructure



Maximizes well and support equipment lifespan

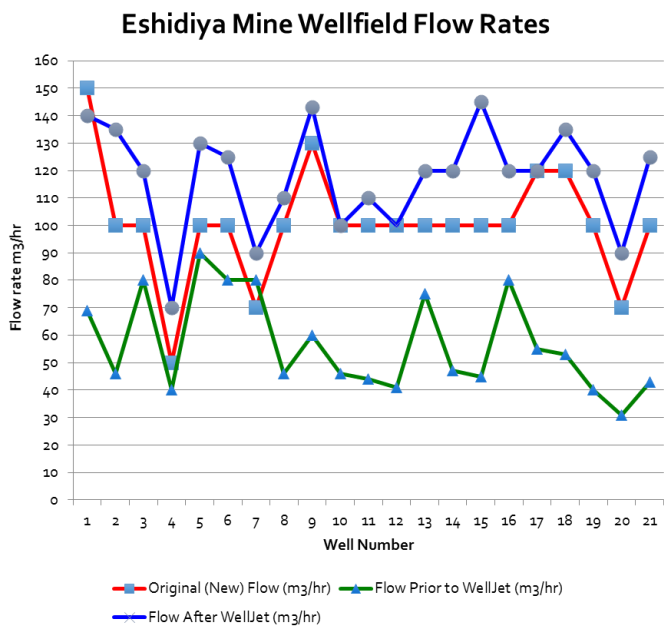


Reducing rehabilitation cycle time – rehab in 1 week rather than 1 month sector average

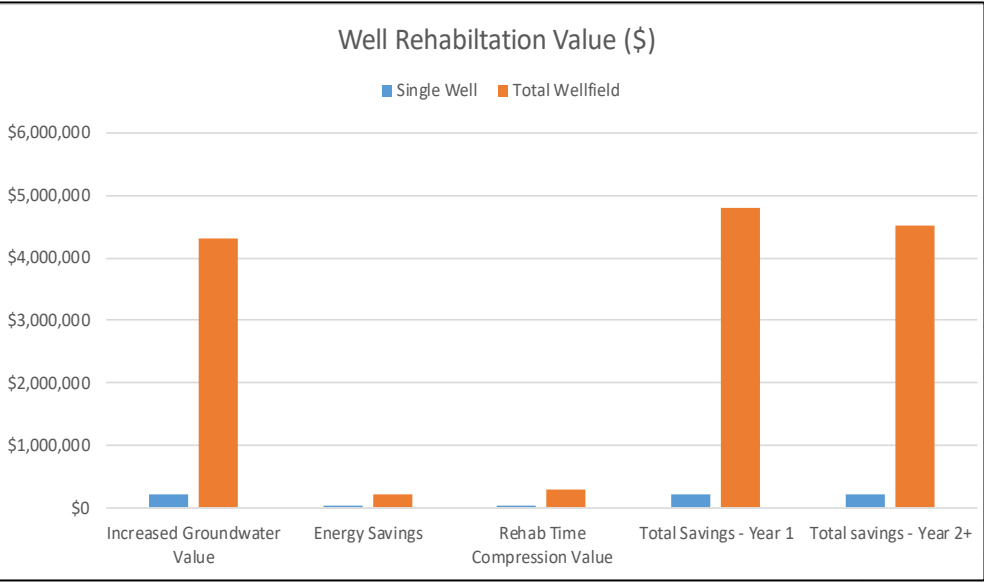
Representative WellJet Wellfield Performance & Financial Results



Jordan Phosphate Mine Company's Eshidiya Wellfield



Input Variables:		
% of time well used annually	50%	
Value of Water	\$1,000	
Standard rehab time/well, days	17	
Welljet Rehab time/well, days	5	
Average Energy Cost, \$/kWh	\$0.17	
	Pre-Rehab	Post-Rehab
Pump Efficiency pre rehab, %	30%	70%
Flow Rate, gpm	263	517
Drawdown, feet	100	24
Rehab Value Added Calculator:		
	Per Well	Wellfield
Increased Groundwater Value	\$205,207	\$4,309,342
Energy Savings	\$9,820	\$206,216
Rehab Time Compression Value	\$13,717	\$288,065
Total Savings - Year 1	\$228,744	\$4,803,623
Total savings - Year 2+	\$215,027	\$4,515,559



WellJet’s recent rehabilitation of the Jordan Phosphate Mine Company’s 25-year old Eshidiya Wellfield (21 wells) resulted in returning all wells to new or “better-than-new” performance generating over \$4M annually in water value over pre-rehab levels.