Delivering Water Solutions for a More Connected, Sustainable World
Global Water Market – users and utility spend

World Water Consumption by Use

- Agriculture: 70%
- Industrial: 19%
- Municipal: 11%

Developed Countries Water Consumption by Use

- Agriculture: 41%
- Industrial: 44%
- Municipal: 15%

Utility Spend

- Utility CAPEX: 37%
- Utility OPEX: 16%
- Equipment: 44%

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Addressable Market

Global Market

$600-700B/year

Capital: $250-300B/year
O&M: $350-400B/year

Addressable Market

Target Countries: $80-90B/year (capital)
Target Services: by country

<table>
<thead>
<tr>
<th>Target Country</th>
<th>Target Service</th>
<th>Addressable Market Revenue ($, B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>Consulting/Design</td>
<td>8</td>
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<tr>
<td></td>
<td>Design/Build</td>
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<tr>
<td></td>
<td>Operations (non regulated)</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
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<tr>
<td>Outside U.S.</td>
<td>Consulting/Design</td>
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<td></td>
<td><strong>Total</strong></td>
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<tr>
<td>Global</td>
<td>All</td>
<td>23</td>
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</tbody>
</table>
Jacobs’ water business profile

Client Type
- 94% US Federal
- 2% Municipal
- 1% Industrial
- 3% Agriculture

Geography
- 82% US
- 2% Canada
- 2% Latin America
- 2% Middle East
- 9.9% Asia Pacific
- 2% Europe

Delivery Platform
- 65% Consulting
- 18% Design-Build
- 17% Operations & Maintenance
Jacobs’ end-to-end solutions

- Industry
- Agriculture
- Power
- Energy
- Ecosystems
- Urban

- All water users
- Services across the entire water cycle
- Full service delivery platform
- Solutions & Technology Organization
Jacobs’ Global Leadership - Technology

- Long-term investment in technology organization
- Senior technology subject matter experts and icons
- Technology career path
- Portfolio of technology ‘firsts’
- Investment in proprietary processes and modeling tools
Market Drivers

Traditional Drivers
- Water scarcity
- Population growth
- Urbanization
- Aging infrastructure
- Aging workforce
- Recent and emerging regulations
- Water/energy/food nexus

Accelerator

Climate change-induced extreme weather events

COVID-19
Jacobs’ Leadership Position

#1 Wastewater Treatment
Sanitary and Storm Sewers

Top 500 Design Firms 2020
Engineering News Record

#2 Water Treatment, Desal Plants
Water Supply
# Jacob’s Global Leadership - Innovation

<table>
<thead>
<tr>
<th>Market/Bundle</th>
<th>Water</th>
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<tr>
<td><strong>Solutions</strong></td>
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<tr>
<td>Drinking Water and Reuse</td>
<td>Wastewater</td>
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<td>Groundwater Treatment</td>
<td>Odor Control and Air Quality</td>
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<td>Desalination</td>
<td>Wastewater Treatment</td>
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<td>Water Rescue</td>
<td>Wet Weather Treatment</td>
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<td>Membrane Technologies</td>
<td>Residuals Resource Recovery</td>
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<td>Surface Water Treatment</td>
<td>Master and Facility Planning</td>
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<tr>
<td><strong>Technologies</strong></td>
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</tbody>
</table>

**Communities of Practice**
- Lakeview, Ontario, Canada
- Central Pasco County, Florida
- Thames Estuary, Asset Management 2100, UK
- STEP Program, Abu Dhabi, UAE
 Thames Tideway Tunnel  Thames Water/Bazzelgette Ltd, London, UK

- Program management of the design and construction
  - Two, 24-foot diameter tunnels totaling approximately 20 miles in length
  - 11 connection tunnels
  - 350-feet deep, 413 mgd pump station to store and transfer storm flows to a wastewater treatment plant
- 300 work packages and over 60 construction contracts
- Liaised with over 30 local communities to meet stringent environmental requirements
- Delivery converted to a P3 with our program management team, a valued part of the deal

Total Capital Cost
$7.54B
**Tuas Water Reclamation Plant** Singapore PUB

- Largest MBR facility in the world - total average treatment capacity of 800,000 m³/d and a footprint 30% smaller than conventional plants.
- Separate industrial and domestic used water streams arrive and are lifted 300 feet to the treatment plants.
- Manufacture Industrial Water and NEWater - elements of PUB's holistic approach to managing the water cycle.
- Treatment processes to minimize energy consumption and sludge production and maximize biogas production to generate electricity.
- Co-located with the Integrated Waste Management Facility to form the **Tuas Nexus**, one of the world’s first large scale examples of industrial ecology, where the waste product of one industry become the fuel for the other.

**Total Capital Cost**

**Tuas Nexus**

$4.7B
Northeast Water Purification Plant  City of Houston, Texas

- Largest progressive design-build of its kind in North America – 320 mgd
- Treatment challenges include variable raw water quality and a small facility footprint to minimize cost and construction time
- Procurement and subcontracting approach to achieve lower construction costs - informed bid packages and transparent and competitive bid processes
- Phased design-build approach allows the project to be implemented in phases to meet funding/budget requirements

Total Capital Cost
$1.77B
Agua Nueva Water Reclamation Facility
Pima County Regional Wastewater Reclamation Department, Arizona

- Design, build and operate a nutrient removal facility to meet Arizona Class A+ reclaimed water standards and the surface discharge requirements for discharge to the Santa Cruz River.
- Full contract operations for 15 years with a possible 5 year extension - responsible to maintain the asset and permit compliance
- Delivered 8 months early and 1 year ahead of regulatory deadlines - saved $77M, reduced annual operating costs by $2M and reduced the facility's footprint by over 75 percent.
- Since startup, the facility has consistently met the standards for reclaimed water and discharge.

Total Capital Cost
Tuas Nexus $172M
Non-Revenue Water Pilot Program
Gwinnett County, GA (with funding from AT&T, Qualcomm, U.S. EPA)

- Water for which the utility receives no revenue (leaks, inaccurate meters, theft)
- Worldwide utilities lose $14B
- In US utilities lose $8.76B
  - $1.6M/yr for small utility
  - $62M/yr for large utility

Pilot Program
Over k500 IoT devices deployed with real-time streaming analytics and geospatial dashboard to identify and characterize NRW related issues

Reduced NRW within pilot area by 20%
Other Solutions and Technology Services Delivered to Jacobs Water Clients

- Environmental Strategic Consulting
  - Asset Management
  - Commissioning and Energy Efficiency
  - Cities and Places
  - P3 Transaction Advisory
- Tunneling and Ground Engineering
- Digital Solutions
  - Intelligent Systems Solutions
  - Geospatial Solutions
  - Digital Delivery
- Built Environment
Summary

- Large, global, and fragmented market
- Maintaining base business and capturing the spikes leads to continued and long-term sustained growth
- Full-service offering, global connectivity with strong local team, and technical solutions continue to be a differentiator
- Retaining and developing our talent serves our present and secures our future