

**SIGNINA CAPITAL AG**

**WATER INFRASTRUCTURE  
QUARTERLY REPORT – Q2 2024**





**Waste Water, Mt. Holly, NJ**

A New Jersey-based Wastewater Treatment Plant where original funds were partly used to mount solar panels to increase energy efficiency of the plant, lower costs over time, and provide energy to the local municipality. The state of New Jersey requires electricity suppliers to secure a portion of their electricity from solar facilities located in NJ, creating a natural market for Solar Renewable Energy Credit (SREC) trading credits. The project not only reduces the plant’s energy consumption but also improves its overall efficiency. We can surely extend our reach in this area and currently look at a broader investment opportunity in the same sector.

**Sustainable Sewerage, Ontario**

The Sustainable Sewerage market in Ontario currently undergoes a significant change when it comes to consolidation and strong demand for renewal of existing plants. Amongst others we are working with a public company which has developed a technology providing sewage collection and water treatment. It offers an all-in-one solution which is both cheaper to install and operate than traditional systems. The existing projects are all government linked and work closely with municipalities and we are currently working towards a PPP pipeline for its sewerage system. The provincial regulations regarding sewerage mean that many municipalities are required to change/install systems in the coming years. We have been implementing the first parts of the portfolio of existing projects and we will continue to implement more under the same framework. The constant diversification increased the security for the investors but also allows us to further reach into this market. The investment model has not changed, but the reach within Ontario has become broader.

**Greenhouses, Virginia**

A lot of the groceries produced in the USA are transported across the country and come from regions with little water (such as leafy greens which are still 99% field grown in the US). This creates high costs and carbon footprint along with a lack of consistency for fresh produce. The greenhouses today can control the environment to produce fresher quality produce, utilizing less water, is local and sustainable. The project will be developed in Virginia for the local market.

**Industrial Re-use, Blue Planet, California**

The project is a carbon capture and mineralization project based in Pittsburg, CA. The company captures both wastewater and CO<sub>2</sub> emitted from a gas-fired power plant and combines these with locally sourced demolished/returned concrete as a process input material to produce several different “CO<sub>2</sub> sequestered” and “up-cycled” aggregate products for use by Bay Area businesses, governments and consumers in a wide range of low-carbon, high-value concrete mix designs. The wastewater and steam is obtained from the local power plant and the ammonia needed from their treatment plant is located adjacent to the plant. As a result, either method will use recycled water, which is legislatively supported in California. The whole process revolves around reusable and recyclable products. The carbon dioxide mitigation, waste water usage and demolished concrete process input provide a process producing recycled aggregates while reducing carbon dioxide.

**Hydropower, Marseilles, Illinois**

A lock and dam hydroelectric water power project located on the Illinois River. The site has obtained a FERC License (expires 2061) and is finalising development. Once the site is connected and producing energy it will provide power to the local municipalities and income will be generated by the power purchase agreement in place.

**Hydropower, Braddock, Pennsylvania**

A lock and dam hydroelectric water power project located on the Monongahela River, Pittsburgh. The site has obtained a FERC License (No. P-13739) with a 5.25MW capacity and is finalising development. The site, once producing energy will provide power to the local area with income being generated via the sale of the energy.

**RECENT PROJECT  
RELATED DEVELOPMENTS**

Besides our travel update in the mail, we had the following developments in the market:

**Agricultural Greenhouses**

The site has finished construction. During the week of our visit, the last food safety test and registration was concluded and one week later the first commercial sale to Taylor Farms was executed. From now on shipping our delicious salads out is a constant activity, due to the structure of the site.

**Waste water in Canada**

There is a push from the Federal government to build new homes, which in turns means treatment plant expansions. TPG’s purchase of CapReit only cements the idea that there will be plenty of developments to be built in Ontario.

<https://www.capreit.ca/capreit-announces-strategic-sale-of-mhc-portfolio-for-740-million/>

This is significant as it underpins our thesis since 2016. At the same time we have also added several projects to our pipeline and are currently conducting several due diligences for investors on our portfolio. We are still conducting financing and purchasing of municipal and private sites.

**Hydropower**

Similar to last quarter PPAs continued to be reviewed with pricing monitored. The projects are being appraised and there will be there will be a significant update and movement during the year. Our Braddock project is moving along according to plan and PPA and constructions are currently being discussed.





# REGIONAL MARKET INFORMATION

## NEWS IN BRIEF

### Saving Singapore’s Shores

<https://www.straitstimes.com/multimedia/graphics/2022/01/singapore-protect-sea-levels-rise/index.html?shell>

### Thames Water’s biggest shareholder writes off investment

<https://www.ft.com/content/aa0a8179-27ce-42aa-9687-b4a61360c907>

### Greener greenhouses promise more energy-efficient growing power

<https://phys.org/news/2024-07-greener-greenhouses-energy-efficient-power.html>

### Primo Water and BlueTriton Agree to Merge, Creating a Leading North American Pure-Play Healthy Hydration Company

<https://www.beveragedaily.com/Article/2024/06/17/Primo-Water-and-BlueTriton-merge-focus-on-bottled-water-refill-growth>

## BREAKING DOWN CANADA’S CA\$29.3 BILLION PIPELINE OF WATER PROJECTS<sup>1</sup>

*Canadian cities are pressing ahead with record spending plans as ageing infrastructure meets new regulatory and climate resiliency goals. GWI analyst Daniil Antonov evaluates the emerging project landscape.*

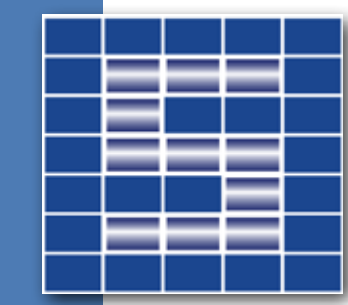
**A new GWI survey covering 14 of Canada’s largest municipal capital improvement plans has revealed a CA\$29.3 billion (US\$21.3 billion) pipeline of water projects geared towards meeting population growth, looming wastewater treatment targets, and new source water quality challenges.**

From the 14 capital improvement documents analysed by GWI, wastewater treatment investments (CA\$8.7 billion/US\$6.3 billion) top the forecasted spending through to 2029. Key projects include Toronto’s Ashbridges WWTP (CA\$1.6 billion/ US\$1.2 billion), Hamilton’s Woodward WWTP (CA\$400 million/US\$290 million), and a longer-term CA\$10 billion/ US\$7.3 billion renovation of Vancouver’s Iona Island WWTP, where the investment programme extends out to 2040.

Drivers include federal effluent regulations with staggered compliance targets – pushing utilities towards nutrient removal upgrades – and Canada’s goal of building 5.8 million new homes by 2030, which is fuelling capacity increases at centralised facilities.

On the drinking water side, investments in water network rehabilitation and extensions are set to ramp up as Canadian cities grapple with ageing infrastructure concerns. Toronto, Vancouver and Montréal all have billion-dollar network repair and renewal





schemes in the pipeline, creating opportunities for trenchless technologies, cathodic protection, and structural lining. The impact of the 2023 Canadian wildfires on municipal spending is also evidenced across a number of plans, as cities move ahead with source water protection initiatives following quality impairments. Municipalities have started improving resilience, with projects in Lake Coquitlam and Lake Ontario set to add new water sources and increase withdrawal depth. Vancouver’s Capital Regional District, meanwhile, is allocating CA\$1.1 billion (US\$800 million) for its Goldstream Reservoir filtration plant.

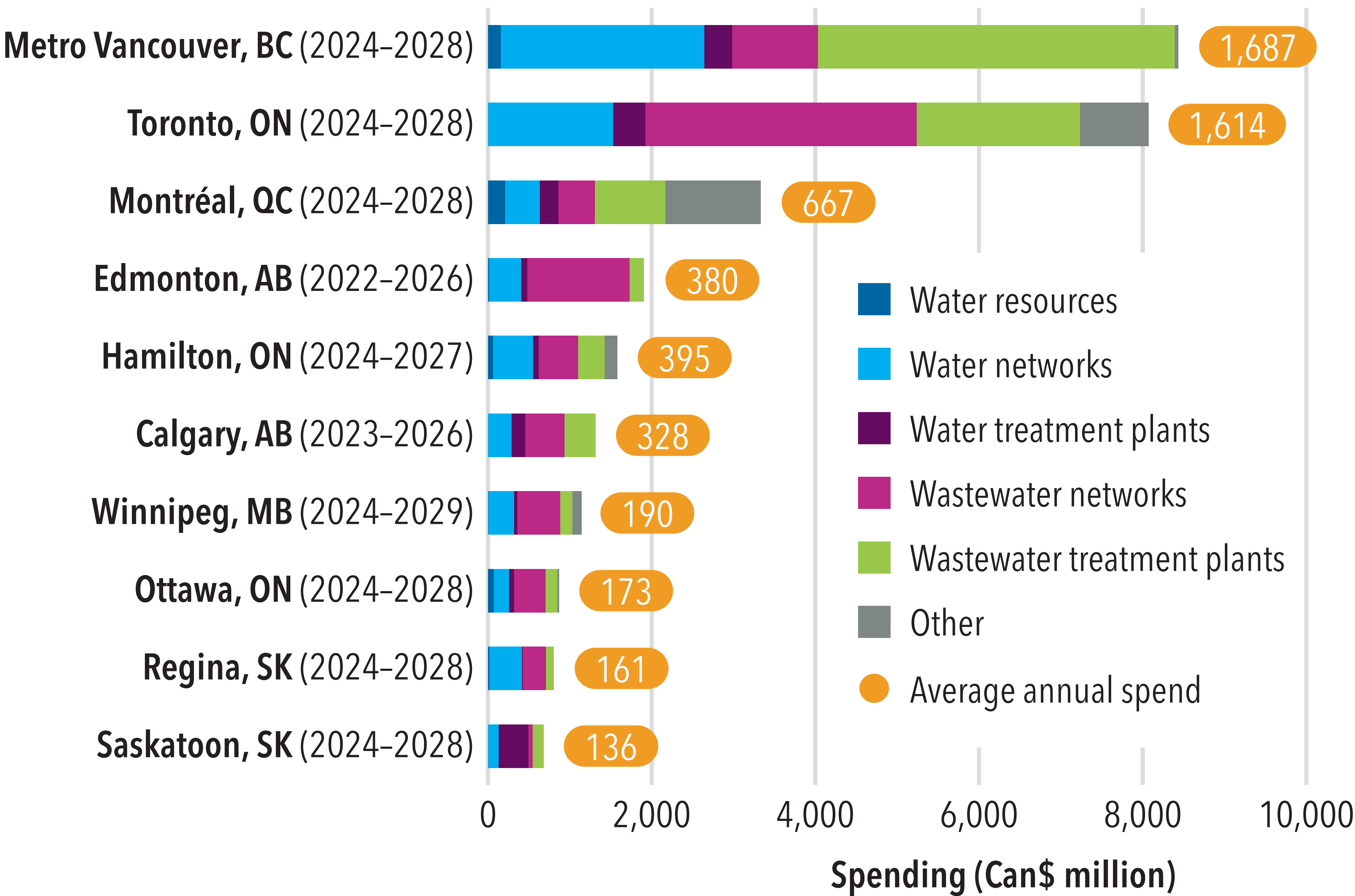
The record spending plans come at a challenging time for Canadian capital planning departments, with continuing supply chain challenges and labour unavailability affecting project delivery timetables. Hikes in operating expenditure have similarly squeezed municipal budgets since the onset of the COVID-19 pandemic.

Managing volatile operational costs alongside significant capital investment programmes has naturally put pressure on funding sources. While larger cities such as Toronto and Metro Vancouver are likely to fund future projects through developmental cost charges and annual tariff increases of between 3% and 5%, smaller communities like Hamilton are looking to federal grants (without which 10% annual rate rises are anticipated).

The extent to which federal costsharing can mitigate sharper rate hikes remains to be seen. Although a stop-gap CA\$1 billion was secured for water infrastructure as part of the March 2024 federal budget, the market eagerly awaits signs of new federal support from lawmakers.

WHERE IS THE SPENDING IN CANADA’S WATER SECTOR?

Canadian municipalities are set for record spending as pressures from housing demand and regulatory goals mount. Wastewater treatment investment is out in front, while network investments trail close behind.



Source: GWI WaterData, based on municipal data





## FUNDING A WATER SECURE FUTURE<sup>2</sup>

The annual spending on water is **\$164.6 billion** in developing countries, which amounts to roughly **0.5 percent** of their **GDP**. While roughly **91 percent** of the annual spending on water above comes from the public sector, including public spending by the government and the state owned enterprises; less than **2 percent** comes from the private sector.

**Countries need to increase their spending in the water supply and sanitation subsector by US\$131.4 to US\$140.8 billion annually—almost tripling current expenditure levels.**

This global average, however, masks the stark heterogeneity across different regions and country groups. Sub-Saharan Africa and South Asia face the largest spending gaps. To bridge these gaps and attract private investment, there must be an emphasis and necessity for governments to enhance spending efficiency, catalyzing long term financing, and reforming the water sector towards achieving Sustainable Development Goals for water access by 2030.

To overcome all these deficits, Funding a Water Secure Future underscores the importance of governments spending more and better. These and other measures will go a long way toward achieving a more water-secure future that the world needs.

### The key recommendations from the report include:

- **Increase budget execution rates** through enhancing the sector's absorptive capacity by reforming public investment management and public financial management.
- **Raise the productivity of public spending** in the sector by improving efficiency at various levels.
- **Reduce the inefficiencies of water service providers** by prioritizing cost-effective utility operations and improving investment planning for infrastructure development and technology upgrades.
- **Minimize disparities in access to water services** by targeting investments and water subsidies to poorer and rural communities.
- **Catalyse the flow of long-term private and international finance** by using risk-pooling arrangements, public sector guarantees, and catalytic capital to invest more, and more often, in water resources.
- **Implement reforms** including improving cost recovery and demand management; developing government capacity and human capital; and strengthening data access, transparency, and communications.





# Funding a Water Secure Future:

## Assessing Global Spending Patterns

Almost a decade into the SDGs, the world is not on track to achieve its goals for water, leading to water insecurities for billions of people. More and better spending are needed to achieve global water security for all.

## Unveiling the Reality of Water Insecurity

At present, **4 billion** people live in water-scarce areas, and **one in four** cities face water insecurity.

Over **2.2 billion people** – 1 in 4 – lack access to safely managed water supply

**3.5 billion** people (equivalent to **43%**) lack access to safely managed sanitation services.

Every **100 seconds**, one child dies due to diarrhea attributable to inadequate water and sanitation services

Growing populations means more water is needed to produce food. But **one in ten** people go to bed hungry each night

## The Size of Spending in Water

**Nearly \$165 billion**

is spent annually in the water sector.



### The public sector dominates spending in water

Roughly 91% comes from the public sector — government spending and SOEs. The private sector constitutes less than 2%.

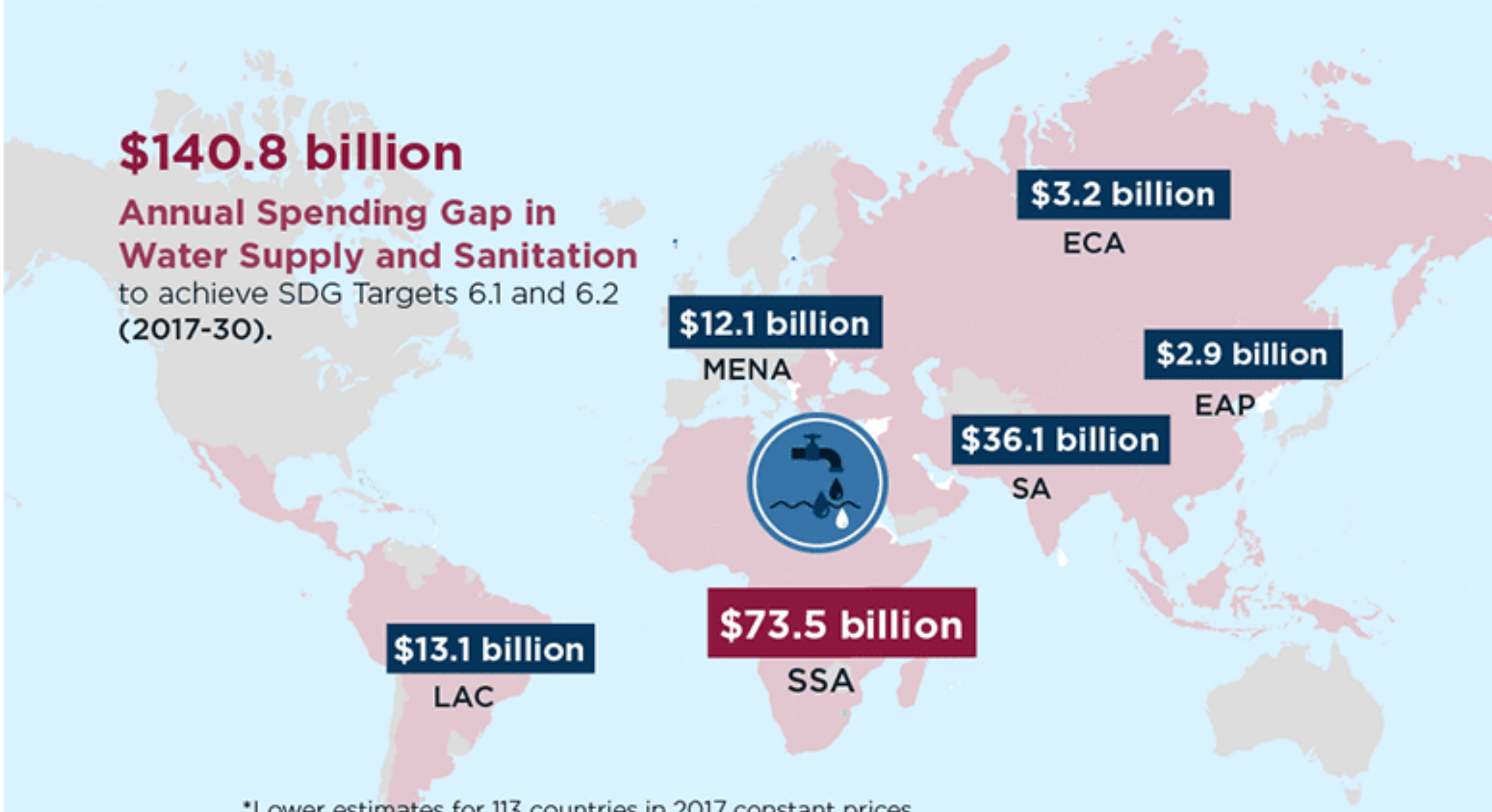
## Bridging the Water Spending Gap

Achieving Sustainable Development Goals (SDGs) related to access to safely-managed water and sanitation presents significant financial challenges

The annual spending gap at a global level between 2017 and 2030 to achieve these targets is estimated at

**\$140.8 billion.**

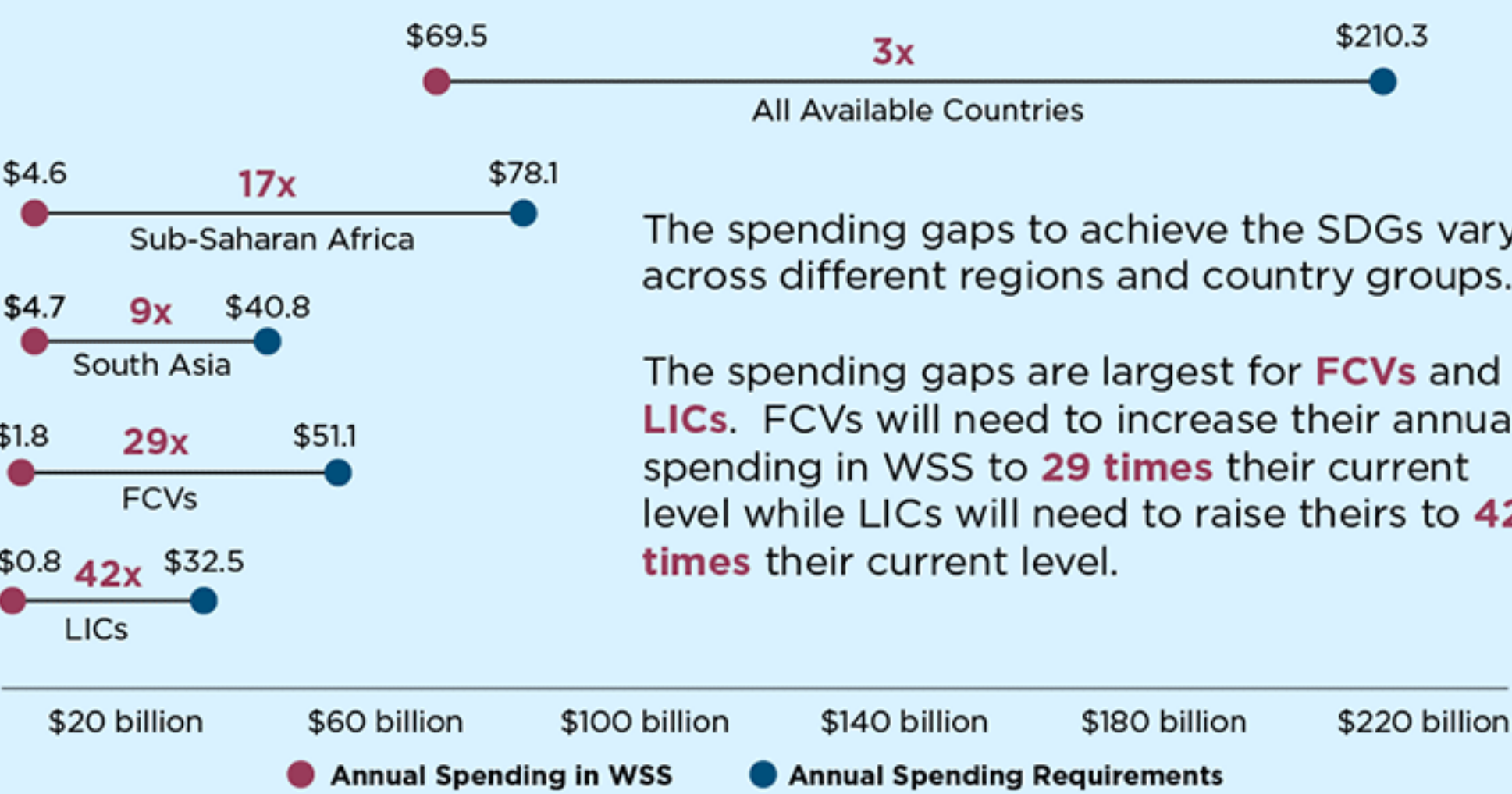
The funding shortfall is particularly pronounced in **Sub-Saharan Africa** and **South Asia**.



**Climate change** is likely to exacerbate the cost to reach the SDGs, through the need for more maintenance, costlier technologies and financial protection for water infrastructures

## How much more is needed to Achieve the SDGs?

Annual Spending in WSS vs Annual Spending Requirements to Achieve SDGs 6.1 and 6.2 (2017-2030) (billions)



The spending gaps to achieve the SDGs vary across different regions and country groups.

The spending gaps are largest for **FCVs** and **LICs**. FCVs will need to increase their annual spending in WSS to **29 times** their current level while LICs will need to raise theirs to **42 times** their current level.

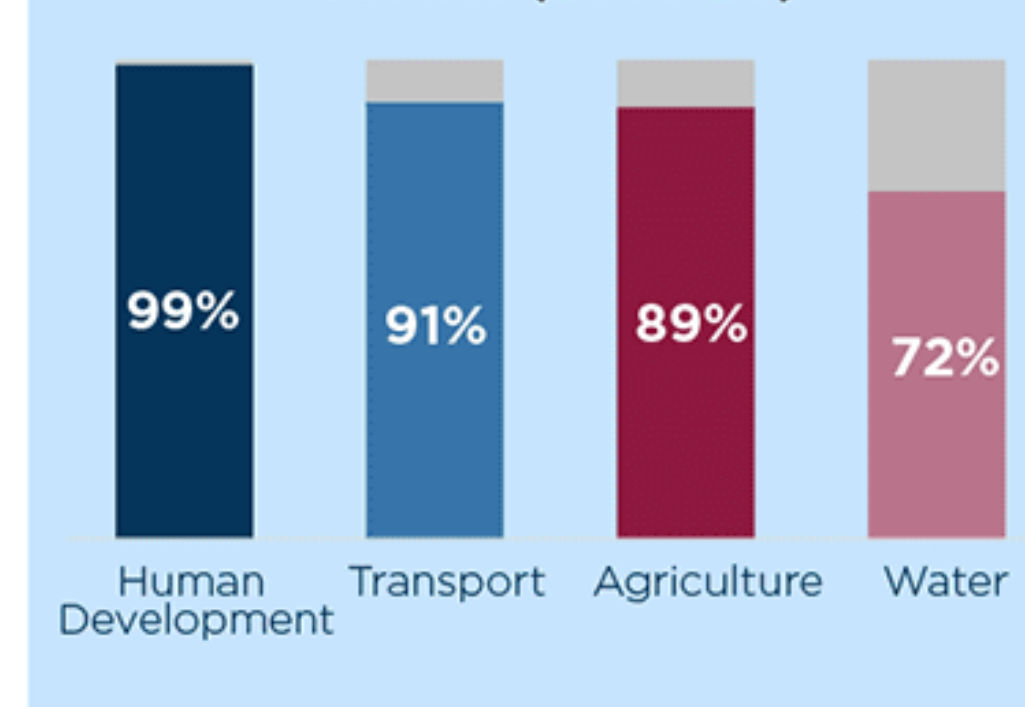
## Uncovering Water Spending Challenges

### The water sector faces

low budget execution, significant inefficiencies leading to hidden monetary losses, and stark disparities in subsidies for households



Average Budget Execution Rates By Sectors (2009-20)



**In the water sector, over 1/4 of funds were not used**

Despite the need for increased spending, over a quarter of budgeted funds go unspent, highlighting the sector's limited absorptive capacity

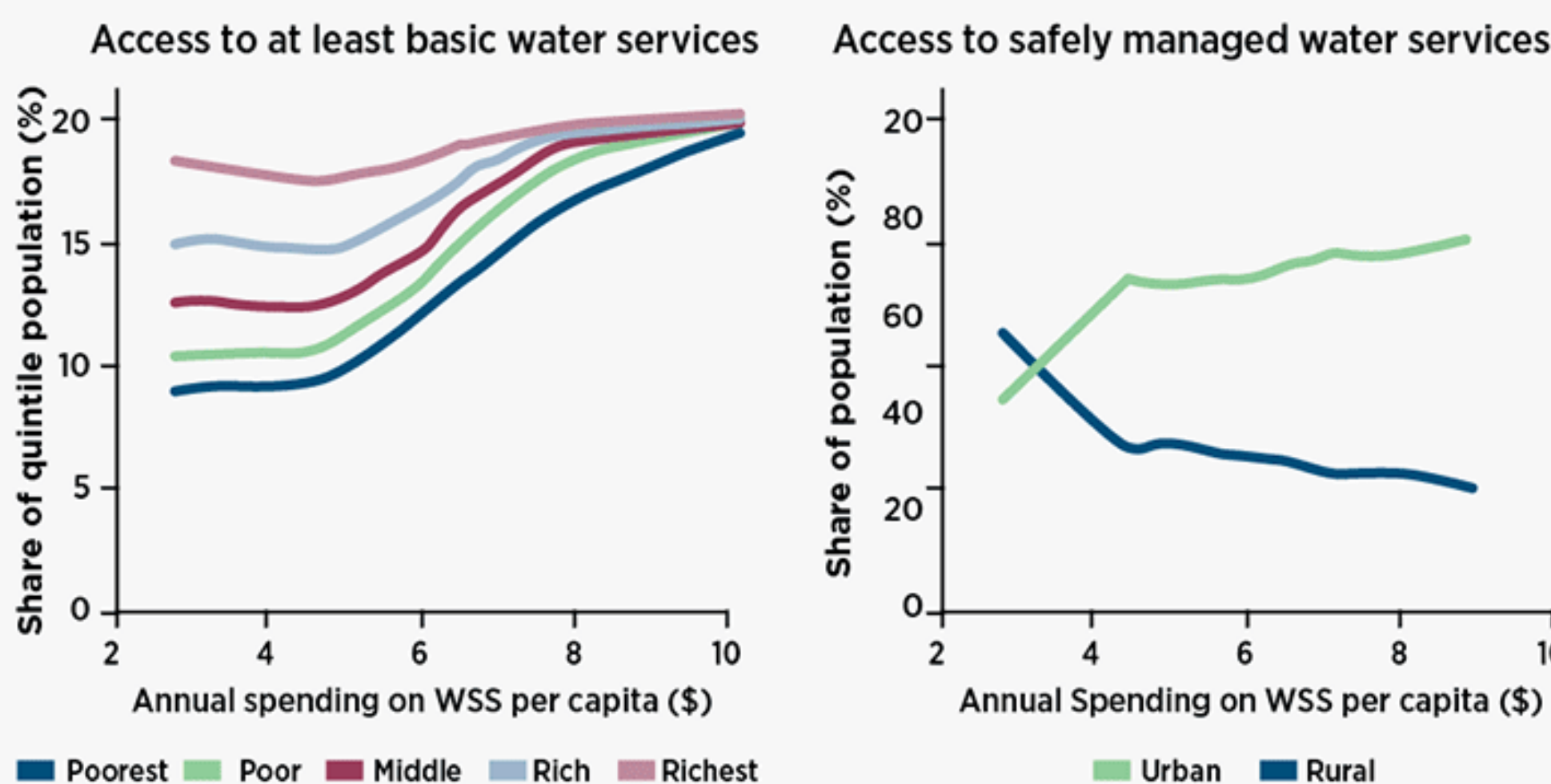


**\$21.38 million**

is lost annually due to cost inefficiencies by a typical water utility

**Hidden Losses:** Water service provider inefficiencies lead to significant "hidden" losses, averaging about \$21 million annually per utility.

## Public Spending on Water Supply and Sanitation Often Benefits Wealthier and Urban Communities Disproportionately



### WSS Subsidies: Regressivity and Impact

- Regressive Nature:** WSS sector subsidies primarily benefit those with existing water access, reinforcing disparities.
- Regional Patterns:** Regressivity is notably pronounced in Sub-Saharan Africa.
- Exclusion Impact:** Subsidies may exclude individuals or groups without access to water supply services, perpetuating inequalities.

## Accelerating Policy Transformations: A Roadmap to Revitalize Water Investments

- Actionable policy recommendations are crucial for enhancing budget execution and reducing inefficiencies among water service providers.
- Implementing these policy measures can streamline budget execution processes, reduce inefficiencies, and contribute to improved water sector performance and impact.

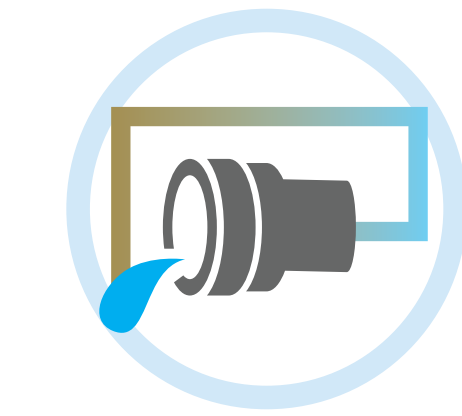






- ✓ Accounts in balance
- ✓ SREC prices stable
- ✓ Incoming receivables within range of model
- ✓ Costs within range of model
- ✓ Meets target return of 7-9%

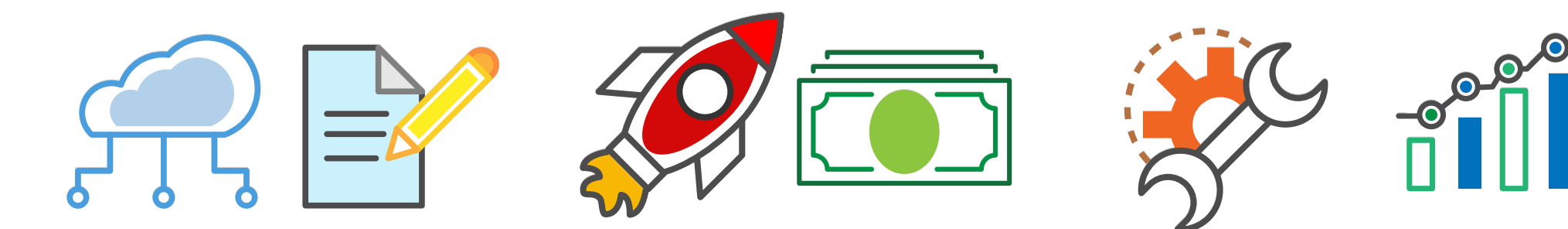
## WASTE WATER | MT. HOLLY, NEW JERSEY



A **New Jersey-based Wastewater Treatment Facility** (WWTF) where funds were partially used to mount solar panels to increase energy efficiency of the plant, lower costs over time, and provide energy to the local municipality. The state of New Jersey requires electricity suppliers to secure a portion of their electricity from solar facilities located in NJ, creating a natural market for Solar Renewable Energy Credit (SREC) trading credits. The project not only reduces the plant’s energy consumption but also improves its overall efficiency. It also helped in 2010 to improve the infrastructure in an area that was hard hit during the financial crises.

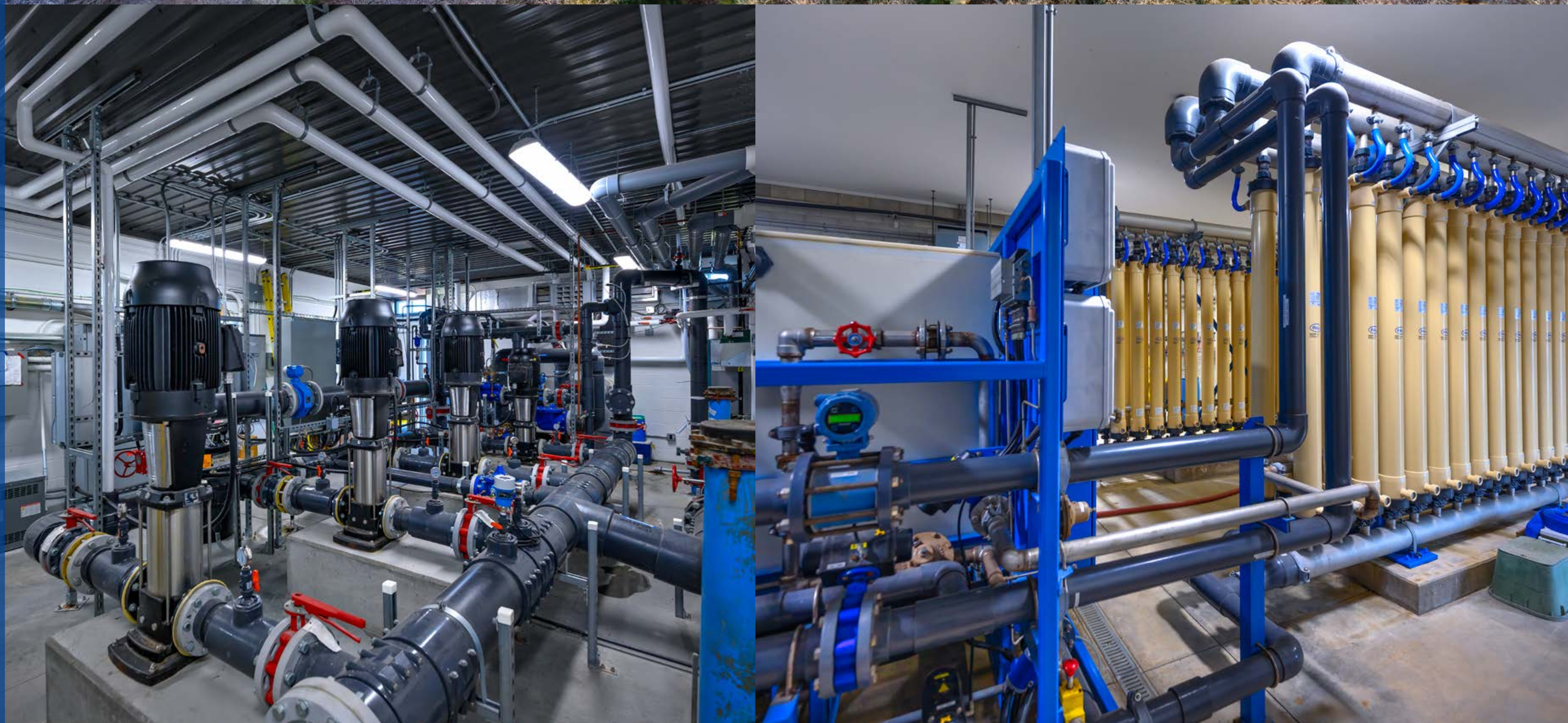
The site continues to operate and provide energy with the usual stronger summer months. Pricing appears to be stable.

- Monitor PPA component
- Monitor SREC eligibility and prices on the market (1 SREC for every 1000kW-hours of electricity produced)
- Monitor regulatory shifts in clean energy incentive programs (RPS) and timelines
- Document any changes to the investment expectations
- Online monitoring of the solar power as well



UN SDG	ICMA CRITERIA	ESG POLICY SOLUTION
<div>6 CLEAN WATER AND SANITATION</div> <div>7 AFFORDABLE AND CLEAN ENERGY</div>	<b>Renewable energy</b> <ul style="list-style-type: none"><li>• Climate change mitigation</li><li>• Natural resource conservation</li><li>• Pollution prevention and control</li></ul> <b>Climate change adaptation</b>	<b>Clean energy creation</b> – solar panels provide clean renewable energy  <b>Pollution reduction</b> – the Waste Water Treatment Facility (WWTF) utilizes the solar panels energy via a power purchase agreement. This reduces the heavy amount of energy required by the WWTF which would otherwise be coming from non-renewable sources of energy  <b>Energy efficiency</b> – the proximity of the site to the waste water facility offers a high energy efficiency
<b>ESG RISK MITIGATION</b>   • Renewable Energy consumption • Water Consumption		





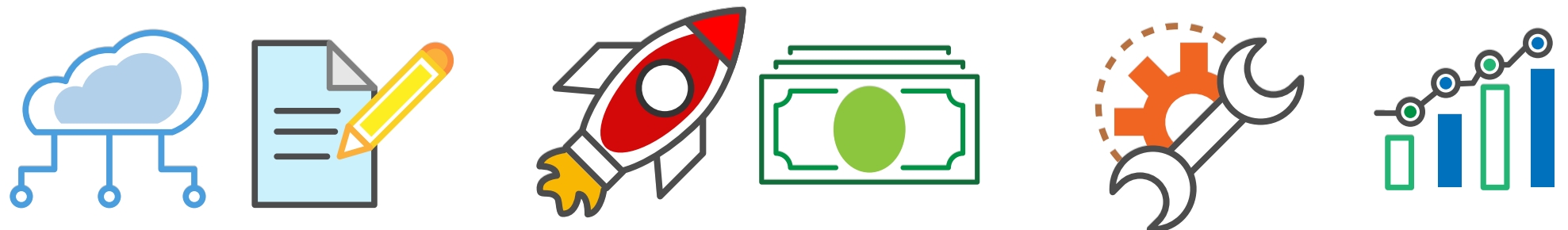
- ✓ Accounts in balance
- ✓ Project updates
- ✓ Incoming receivables within range of model
- ✓ Meets target return of 7-9%
- ✓ Interest payments made on time




# SUSTAINABLE SEWERAGE | ONTARIO |

The Canadian wastewater market is highly fragmented. The market requires small impact installations, rather than traditional centralised large waste water treatment plants. Our existing 300 projects are government linked and only fully licensed projects with no planning risks are being considered. Signina focuses on business consolidation of mid-sized businesses, operating in project sizes of \$5-50m. The small to mid-range business growth is supported by shifting demographic developments into smaller, satellite communities, as well as a stable favourable regulatory environment.

With wastewater rates rising steadily, the risk-reward associated with Signina’s consolidation strategy is readily apparent and has picked up pace since its start in 2008. With larger institutional mandates we have triggered more deals diversifying from the existing projects. Sustainable sewerage has become a major concern over the past couple of decades. The majority of the contracts are in municipalities that are rated A or higher by rating agencies. In addition there are various municipalities that do not carry any debt.

The operations are as expected. Some of the new potential contracts have come to fruition or making significant progress in the past quarter. There also remains a pipeline of new business and contracts which are being assessed.



UN SDG	ICMA CRITERIA	ESG POLICY SOLUTION
<div><div>6</div><div>CLEAN WATER AND SANITATION</div><div></div></div> <div><div>9</div><div>INDUSTRY, INNOVATION AND INFRASTRUCTURE</div><div></div></div> <div><div>11</div><div>SUSTAINABLE CITIES AND COMMUNITIES</div><div></div></div>	<p><b>Sustainable water and wastewater management:</b></p> <ul style="list-style-type: none"><li>• Pollution prevention and control</li><li>• Natural resource conservation</li><li>• Climate change adaption</li></ul> <p><b>Eco-efficient and/or circular economy adapted products, production technologies and processes</b></p> <ul style="list-style-type: none"><li>• Climate change mitigation</li><li>• Natural resource conservation</li></ul>	<p><b>Sustainability</b> - providing finance and assistance in creating and maintaining infrastructure for wastewater treatment and clean water</p> <p><b>Pollution prevention</b> - by creating sustainable sewerage infrastructure the need for septic tanks and landfill sites are heavily reduced. The waste water treatment assists an ongoing global problem with handling waste and impurities</p>
<div>ESG RISK MITIGATION   • Water Re-use • Water Pollution</div>		





- ✓ Accounts in balance
- ✓ Permitting process on schedule
- ✓ Timeline on Track
- ✓ In line to meet target return of 7-9%

# INDUSTRIAL RE-USE | BLUE PLANET, CALIFORNIA

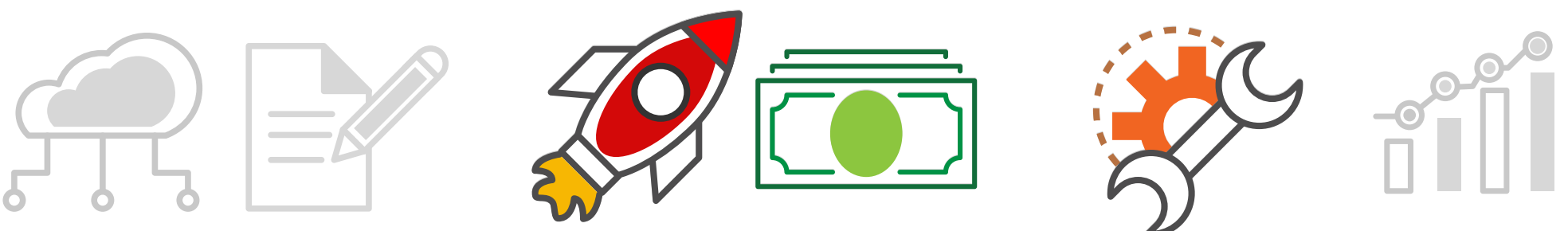


The project is a **carbon capture and mineralization project based in Pittsburg, CA.** It captures both wastewater and CO<sub>2</sub> emitted from a gas-fired power plant and combines these with locally sourced demolished/returned concrete as a process input material to produce several different “CO<sub>2</sub> sequestered” and “up-cycled” aggregate products for use by Bay Area businesses, governments and consumers in a wide range of low-carbon, high-value concrete mix designs.

The wastewater and steam will be obtained from either the local power plant or from the sanitation district that can provide wastewater and the ammonia needed from their treatment plant which is located adjacent to the plant. As a result either method will use recycled water, which is legislatively supported in California. The whole process revolves around reusable and recyclable products. The carbon dioxide mitigation, waste water usage and demolished concrete process input provide a process producing recycled aggregates while reducing carbon dioxide.

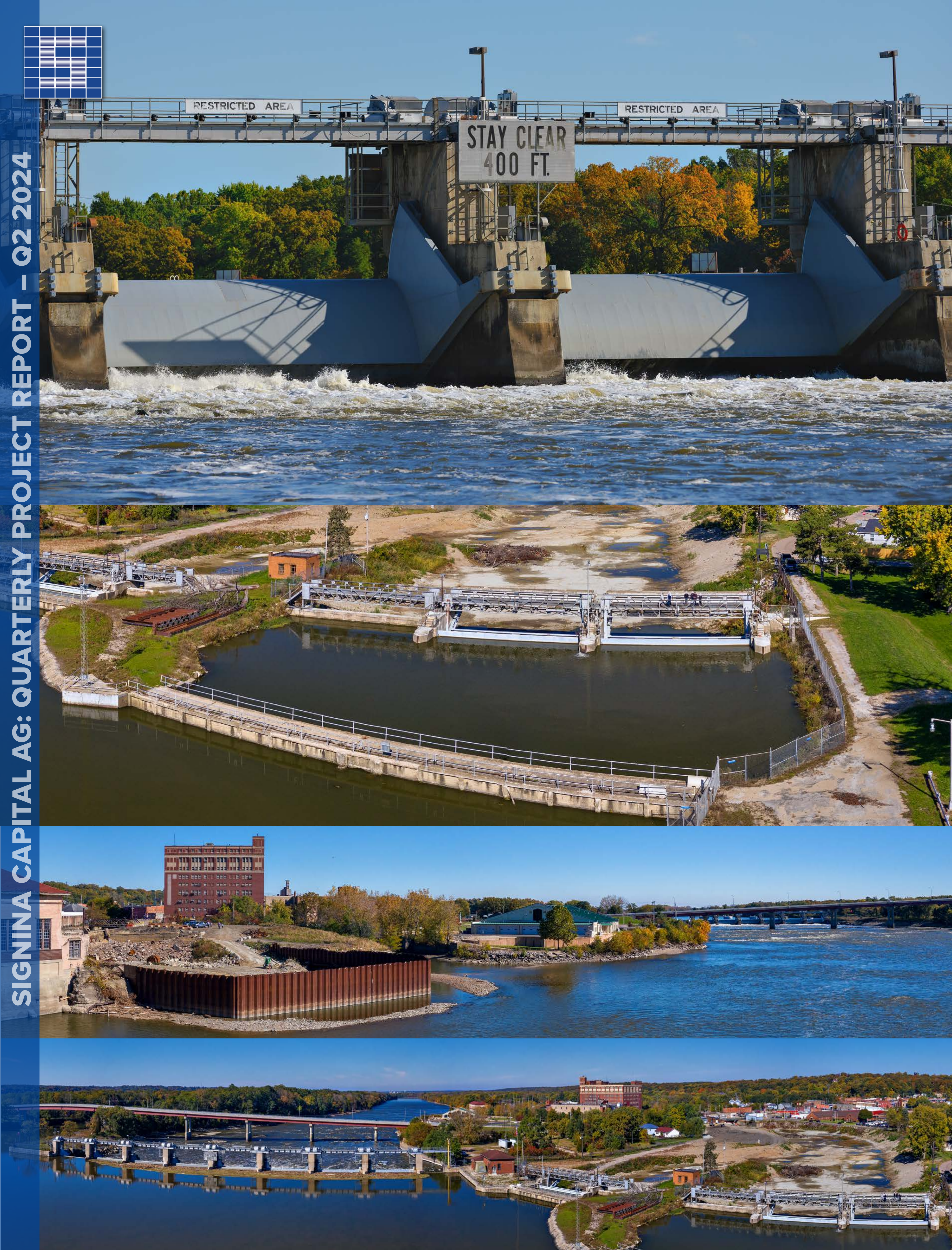
The project and technology company continues operate as expected and has gained momentum from some large industrial firms.

- Maintain monthly communication with project team
- Document changes and delays to the permitting process



UN SDG	ICMA CRITERIA	ESG POLICY SOLUTION
<div>9</div> INDUSTRY, INNOVATION AND INFRASTRUCTURE	<b>Climate change adaptation</b> <b>Green Buildings</b> <ul style="list-style-type: none"><li>• Climate change mitigation</li><li>• Natural resource conservation</li><li>• Pollution prevention and control</li></ul>	<b>Reuse of wastewater</b> – the water will be obtained from either the local power plant or from the sanitation district. This results in recycling the wastewater
<div>11</div> SUSTAINABLE CITIES AND COMMUNITIES	<b>Eco-efficient and/or circular economy adapted products, production technologies and processes</b> <ul style="list-style-type: none"><li>• Climate change mitigation</li><li>• Natural resource conservation</li></ul>	<b>Recycling products</b> – the process also uses locally sourced demolished concrete as a process input to create aggregate products for use in the Bay Area
<div>13</div> CLIMATE ACTION		<b>Sustainable buildings</b> – the aggregates created in the process are from renewable and green sources. This in turn does not impact the environment negatively and meets the goal of sustainable cities and communities
<b>ESG RISK MITIGATION</b>   • Water Re-use • CO <sub>2</sub> Emissions Neutrality • Pollution		





- ✓ Accounts in balance
- ✓ Regulatory requirements kept to date
- ✓ Costs within range of model
- ✓ Timeline on Track

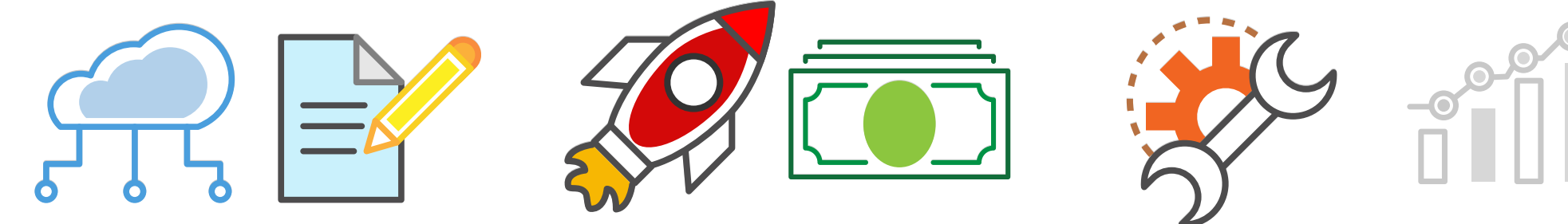
## HYDROPOWER | MARSEILLES, ILLINOIS



**Hydropower, Illinois:** A lock and dam hydroelectric water power project located on the Illinois River. The site has obtained a FERC License (expires 2061) with a 10.26MW capacity. Once the site is connected and producing energy it will provide power to the local municipalities and income will be generated by the power purchase agreement in place. The project is considered a small- or mid-sized project and has reduced the environmental impact dramatically. It entails a variety of environmental rules from the EPA that have been fulfilled with the FERC licence. The mandate looks at small hydropower facilities (below 25 MW) as such sites have minimal impacts on the surrounding area unlike large hydropower facilities which often have negative impacts on the surrounding environment.

The project continues to move slowly both on from a construction aspect as well as any PPA finalisation. Hydropower continues to be a hot topic in the clean energy movement and will likely pick up momentum now the world is reopening. There continues to be some volatility in the pricing too which is being monitored closely.

- Maintain monthly communication with onsite project manager
- Document any changes to the investment expectations
- Monitor the financial reporting, cash flows and accounts



### UN SDG



### ICMA CRITERIA

#### Renewable energy

- Climate change mitigation
- Natural resource conservation
- Pollution prevention and control

#### Energy efficiency

- Climate change mitigation
- Pollution prevention and control

#### Environmentally sustainable management of living natural resources and land use

- Natural resource conservation
- Biodiversity
- Climate change adaptation

### ESG POLICY SOLUTION

**Renewable energy creation** - hydropower is a clean renewable source of energy which can be sold via a PPA agreement or via merchant wholesale pricing on hydropower exchanges

**Environmental management** – the small hydropower market goes through a rigorous environmental approval process to make sure there is minimal impact to the surrounding region

**Biodiversity conservation** – the environmental approvals for such projects include aquatic preservation to ensure the natural environment is not negatively impacted

### ESG RISK MITIGATION

- Project Size under 25mw
- Renewable Energy Production





- ✓ Accounts in balance
- ✓ Regulatory requirements kept to date
- ✓ Costs within range of model
- ✓ Timeline on Track

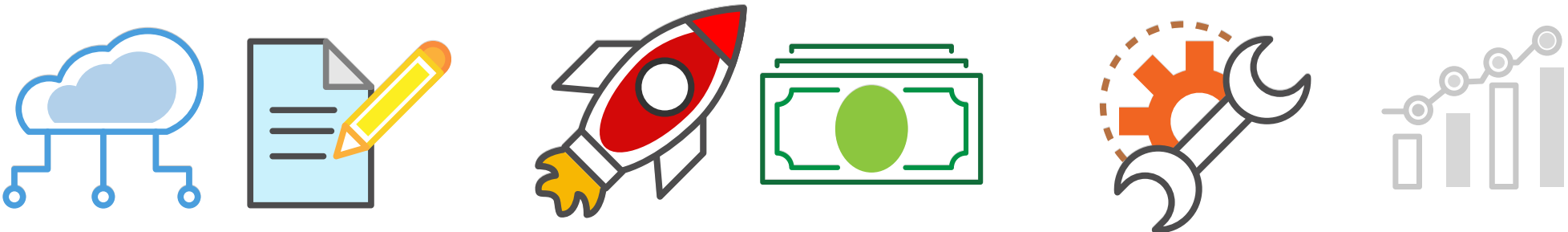
# HYDROPOWER | BRADDOCK, PENNSYLVANIA



**Hydropower, Pennsylvania:** A Lock and Dam Hydroelectric Water Power Project located on the Monongahela River, Pittsburgh. The site has obtained a FERC license (expires 1965) with a 5.25MW capacity. It is a similar project to Illinois and is in an advanced stage in the PPA negotiations to lock in a price for the first few years post commissioning. Furthermore the project has received state grants.

The project is getting through its final approvals in order to construct the Hydropower plant. Alongside this step there continue to be discussions with some local groups to regarding PPA offtakes for when the site should be operational.

- Maintain monthly communication with onsite project manager
- Document any changes to the investment expectations
- Monitor the financial reporting, cash flows and accounts



UN SDG	ICMA CRITERIA	ESG POLICY SOLUTION
<div>7</div> <div>AFFORDABLE AND CLEAN ENERGY</div> <div></div>	<b>Renewable energy</b> <ul style="list-style-type: none"><li>• Climate change mitigation</li><li>• Natural resource conservation</li><li>• Pollution prevention and control</li></ul> <b>Energy efficiency</b> <ul style="list-style-type: none"><li>• Climate change mitigation</li><li>• Pollution prevention and control</li></ul> <b>Environmentally sustainable management of living natural resources and land use</b> <ul style="list-style-type: none"><li>• Natural resource conservation</li><li>• Biodiversity</li><li>• Climate change adaptation</li></ul>	<b>Renewable energy creation</b> - hydropower is a clean renewable source of energy which can be sold via a PPA agreement or via merchant wholesale pricing on hydropower exchanges  <b>Environmental management</b> – the small hydropower market goes through a rigorous environmental approval process to make sure there is minimal impact to the surrounding region  <b>Biodiversity conservation</b> – the environmental approvals for such projects include aquatic preservation to ensure the natural environment is not negatively impacted
<div>ESG RISK MITIGATION   • Project Size under 25mw • Renewable Energy Production</div>		





- ✓ Off-take agreement signed
- ✓ All licenses acquired
- ✓ All EPC contracts and bonding signed
- ✓ Costs within range of model
- ✓ Timeline on Track

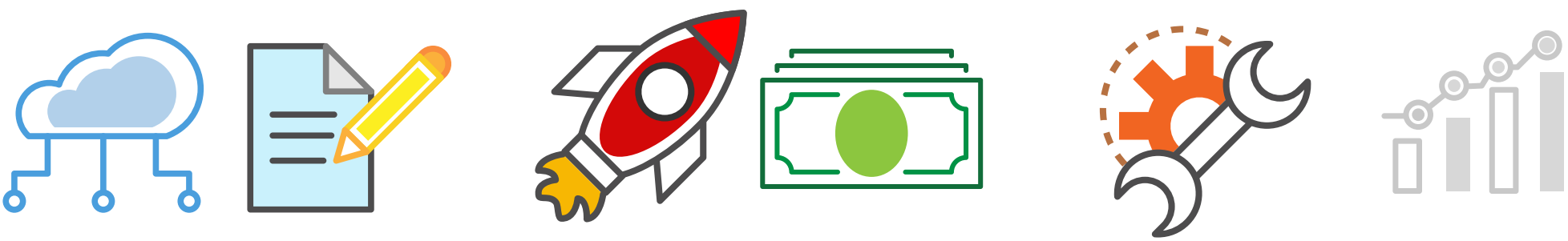
# GREENHOUSES | VIRGINIA, USA



A lot of the groceries produced in the USA are transported across the country and come from regions with little water (such as leafy greens which are still 99% field grown in the US). This created high costs and carbon footprint along with a lack of consistency for fresh produce. The greenhouses today can control the environment to produce fresher quality of greens (or lettuce or vegetables), utilizing less water, is local and sustainable.

There is continued growth of advanced greenhouse market (482 acres built or in construction in U.S. since 2018). There has been significant disruption in leafy greens caused by food safety (recalls), changing climate, and labour availability. There is an expected acceleration in food service driven by demand for food safety, resiliency, and quality representing a strong growth sector. The target crop segments benefit from demand for sustainably grown, local food, enhanced convenience and taste, and improved food safety.

The major food chains need reliable produce which is hard with purely field grown facilities. Therefore similar to other areas in infrastructure the various food service, retail and integrated growers are happy to sign off-take agreements to guarantee a reliable product. Such greenhouses are plentiful in Europe reducing the technology risk to being tried and test.



UN SDG	ICMA CRITERIA	ESG POLICY SOLUTION
<div>9</div> <div>INDUSTRY, INNOVATION AND INFRASTRUCTURE</div> <div></div>	<b>Energy efficiency</b> <ul style="list-style-type: none"><li>• Climate change mitigation</li><li>• Pollution prevention and control</li></ul> <b>Environmentally sustainable management of living natural resources and land use</b> <ul style="list-style-type: none"><li>• Natural resource conservation</li></ul> <b>Eco-efficient and/or circular economy adapted products, production technologies and processes</b>	<b>Food Security</b> – The sites create standardized produce. The classic agriculture method leaves a lot of the quality down to the elements. This could lead to bad harvests. The Greenhouses secure the output quality and quantity.  <b>Environmental Management</b> – The greenhouses reduce the amount of water required in order to grow the fresh produce. As it is under strict conditions the process can be optimized. Furthermore the sites are local rather than cross country.
<div>12</div> <div>RESPONSIBLE CONSUMPTION AND PRODUCTION</div> <div></div>		
<div>15</div> <div>LIFE ON LAND</div> <div></div>		
<b>ESG RISK MITIGATION</b>   • Water Consumption • Pollution • Water Re-Use		





# REFERENCES

- 1. **Breaking down Canada’s CA\$29.3 billion pipeline of water projects**  
[GWI – June 2024](#)
- 2. **Funding a Water Secure Future**  
<https://www.worldbank.org/en/topic/water/publication/funding-a-water-secure-future#Infographic>

# LEGEND

## INDUSTRY



**Waste Water symbol:** refers to projects in the US and in Canada and includes water treatment, water discharge and waste water treatment.



**Re-cycle symbol:** refers to industrially used water that is recycled or re-used and cleaned for our projects.

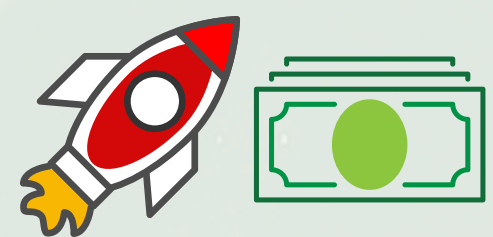


**Hydro symbol:** refers to any project that generates energy out of flowing water.

## PROGRESS



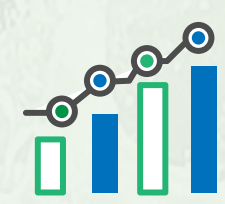
**Cloud / Contract:** the planning stages and contracts are drawn up and we have fully due diligenced all security matching our criteria.



**Rocket / Money:** execution of all major contracts, licences and financing has been agreed upon.



**Cog Wrench:** Construction is in progress.

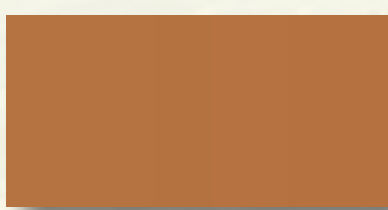


**Bar Chart:** project is producing cash flows or fully financed and up and running.

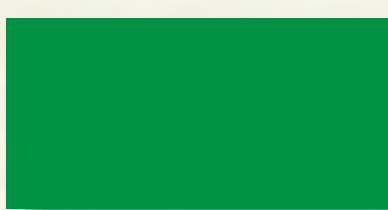
## COLOUR



**Brown-yellow:** contains current or past brownfield status combined with extensions or upgrades.



**Brown:** brownfield projects mid-stage projects that we entered relatively early with a limited or de-risked construction period.



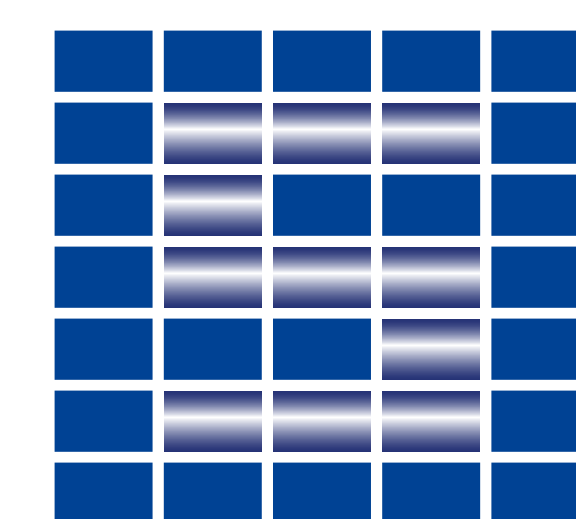
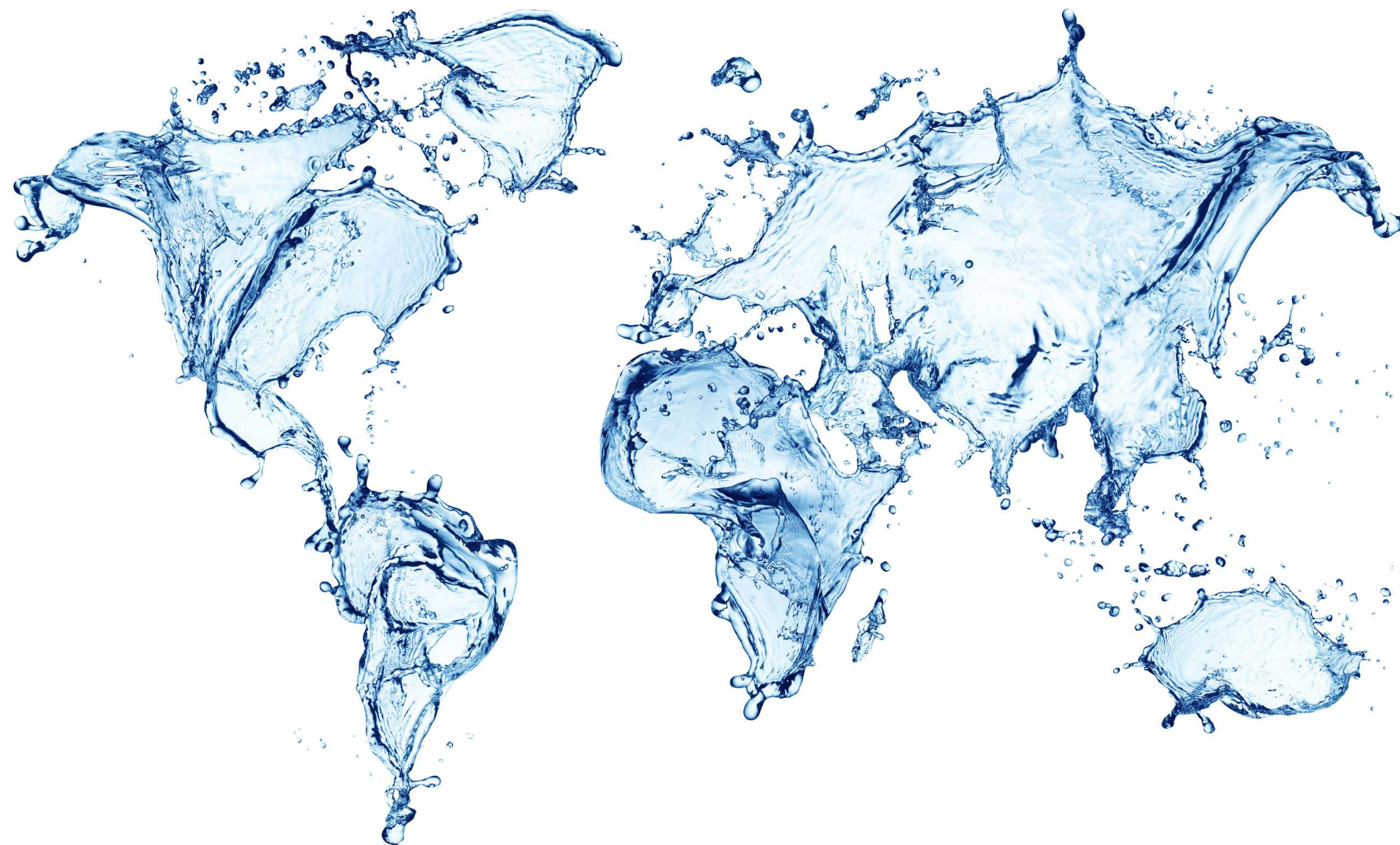
**Green:** greenfield projects mean that we are an active part since the very beginning of the projects. This is unusual for us and only applies to a fully de-risked contractual situation.



# SIGNINA CAPITAL AG

Zurich-based Signina Capital AG was established in 2006. Signina is a full spectrum advisory firm in the water infrastructure sector. The team has more than 100 years of combined industry experience. They have placed in excess of USD 1 billion of capital with the private and public sector into environmentally and commercially strategic water infrastructure assets. It is currently overseeing more than USD 750 million of active water infrastructure assets.

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