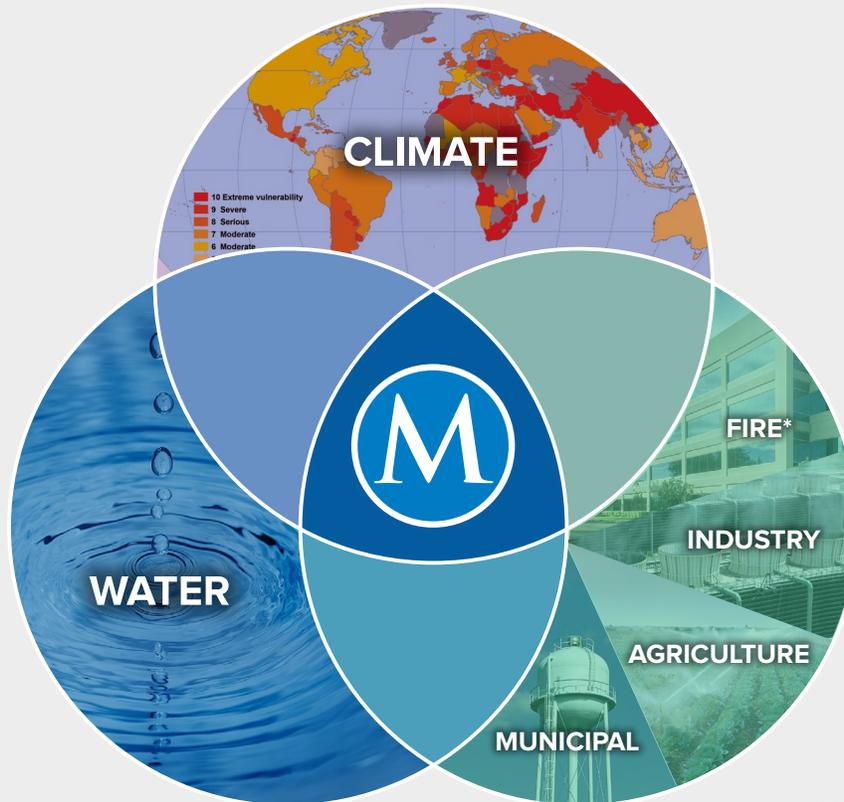


# Adapting to a Changed Climate

As a result of a changed climate we are now in a ‘new water reality,’ one that has less to do with the so-called ‘water industry’ and more to do with climate-induced risks facing any market where water is a key protagonist.

## Climate Adaptation Intersections



\*Finance Insurance Real Estate

### Our Point of View

Even if we stopped all carbon emissions today, we face rapidly escalating water quality and quantity risks associated with an already changed climate. ‘Sustainable development’ and ‘resilient systems’ are certainly a step in the right direction, but ultimately humanity will need technologies that help adapt to the new water reality. Some are referring to this space as ‘Climate Adaptation Tech.’

### Climate Tech is Not Just Decarb

Over the last few decades the technology vertical in climate (ie: “ClimateTech”) was almost entirely a story of minimizing or eliminating carbon emissions.

While renewable energy, energy efficiency, carbon sequestration, and other ‘Decarb’ or ‘NetZero’ efforts will necessarily continue; a changed climate is already upon us destroying lives and livelihoods, especially in lower-income urban and rural communities around the world.

### Utilities, and Beyond

The consequences of a changed climate are creating risks for water/wastewater utilities; however, many of the most pressing water-related risks are ironically outside of the so-called ‘water industry,’ across a multitude of market segments.

**MAZARINE**

Mazarine’s Fund II investment thesis is entirely focused on backing early-stage technology companies with hardware, software, or business model innovations that support customers in key markets adapt to the new water reality. See examples on the back side of this page, and learn more about Fund II [here](#). Inquiries: [info@mazarineventures.com](mailto:info@mazarineventures.com)

# Taxonomy & Dealflow

Below is a practical reference for investors looking to invest in early-stage companies with technologies that support industry and society's adaptation to the new water reality. We collectively refer to these technologies as Climate Adaptation Tech (CAT).

|                                              | <br><b>OBSERVE</b><br>Technologies that allow us to measure, monitor and see how the physical world is changing.                                                                                                                                                                                                                                                                                                                                           | <br><b>ANALYZE</b><br>Technologies that help us interpret and understand trends and risks in the physical world.                                                                                                                             | <br><b>ADDRESS</b><br>Technologies that affect change on the physical world, reducing climate-induced water risks.                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| What problem is being targeted?              | <i>"We don't have reliable data with sufficient specificity and spatial resolution."</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <i>"We have lots of data, but we need better ways of determining what the data is telling us."</i>                                                                                                                                                                                                                            | <i>"Current approaches are too expensive / complex / slow to implement, or are ineffective in helping us adapt."</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| What's the solution?                         | Solutions to gather more accurate data from the environment, processes, equipment and infrastructure and from the water itself.                                                                                                                                                                                                                                                                                                                                                                                                             | Tools both for data management (scrubbing and normalization) and to help correlate the datasets and draw inferences.                                                                                                                                                                                                          | Engineering, process and business innovations that address the challenges of the new "water reality" in the most effective and cost-efficient way.                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| What's the technology?                       | <ul style="list-style-type: none"> <li>In-situ sensing</li> <li>IIoT</li> <li>Earth observation (eg: satellite)</li> <li>Connectivity</li> <li>Analog to digital conversion</li> </ul> The <b>sensing</b> toolbox of innovations that observe, quantify and digitize anything related to water quality and quantity and sends the data to the cloud.                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Artificial intelligence</li> <li>Machine learning</li> <li>Deep learning</li> <li>Neural networks</li> <li>Bioinformatics</li> <li>Modeling/digital twins</li> </ul> The <b>data science</b> toolbox of innovations that convert data from disparate sources into actionable insights. | <ul style="list-style-type: none"> <li>Tech addressing water quality                             <ul style="list-style-type: none"> <li><b>Purification:</b> membranes, filter media, electrochemistry, biomimicry, etc.</li> </ul> </li> <li>Tech addressing water quantity                             <ul style="list-style-type: none"> <li><b>Flood protection:</b> earthworks, green infrastructure, etc.</li> <li><b>New water sources:</b> atmospheric water generation, desalination, reuse, etc.</li> <li><b>Efficiency and stewardship:</b> smart home, smart agriculture, smart city, etc.</li> </ul> </li> </ul> |
| What's the preferred business model?         | <b>Data as a Service</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Software as a Service</b>                                                                                                                                                                                                                                                                                                  | <b>Hardware as a Service</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                              | <b>Water as a Service</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| How to monitor success?                      | <b>No single measure; success is a function of the specific market and application:</b> <ul style="list-style-type: none"> <li>Improvements in water ratio, e.g. less fresh water per car manufactured, per household per month, per gallon of beer produced, per bushel of wheat produced, etc.</li> <li>Reduction in financial loss due to water 'events' (e.g. flooding, drought, property and infrastructure damage)</li> <li>Quantifiable improvements in drinking, waste, and stormwater compliance (e.g. less violations)</li> </ul> |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Examples of early-stage technology companies | Adaviv, Asterra, Conservation Labs, CloudtoStreet, Clyr, EQO, Flume, GorillaLink, Hohonu, Rezatec, SimpleLab, Smart Cover, StormSensor, Upstream, Veracet, Virridy, WaterClick, WellIntel, and hundreds more.                                                                                                                                                                                                                                                                                                                               | Airborne Snow Observatories, Ambiental, AQUAOSO, ClimateAi, HabiTerre, FoundrySpatial, Lumo, PANI, Salient Predictions, WaterPlan, and hundreds more.                                                                                                                                                                         | Altered, AquaMembranes, Agro, Box of Rain, ElectraMet, Gradient, Greyter, Hydralooop, Jain, Nebia, Netafim, Oneka, Orbital, PaveDrain, Permulation, Rivulis, SourceWater, Segula, StormTrap, Swirltex, and hundreds more.                                                                                                                                                                                                                                                                                                                                                                                                     |