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Traditional cooling systems often rely heavily on freshwater, which creates a sustainability challenge—especially in regions prone to water scarcity, such as Australia.

SciDev has developed HydraCool™ – an integrated water treatment, reuse, and recycling system purpose built for data centre water management.

It combines alternative water sourcing and specialised water treatment processes to recycling and reuse water – reducing environmental impact and dependence on potable supplies.

HydraCool™ incorporates SciDev's world-leading PFAS ion-exchange technology, Fluorofix®, delivering regulatory confidence alongside environmental performance.

Why HydraCool™

- Cuts potable water use
- Lowers operating costs
- Compact, modular systems with rapid deployment
- Reliable, compliant cooling water quality
- Improves water security and resilience
- Reduces supply risk and supports sustainable operations



Alternate Water Sources

Our water sourcing solutions are designed to reduce reliance on potable water, strengthen water security, and support sustainable site operations.

Through the HydraCool™ range, we enable the sourcing, treatment, and reuse of alternative water sources to meet site specific operational needs.

Our solutions include:

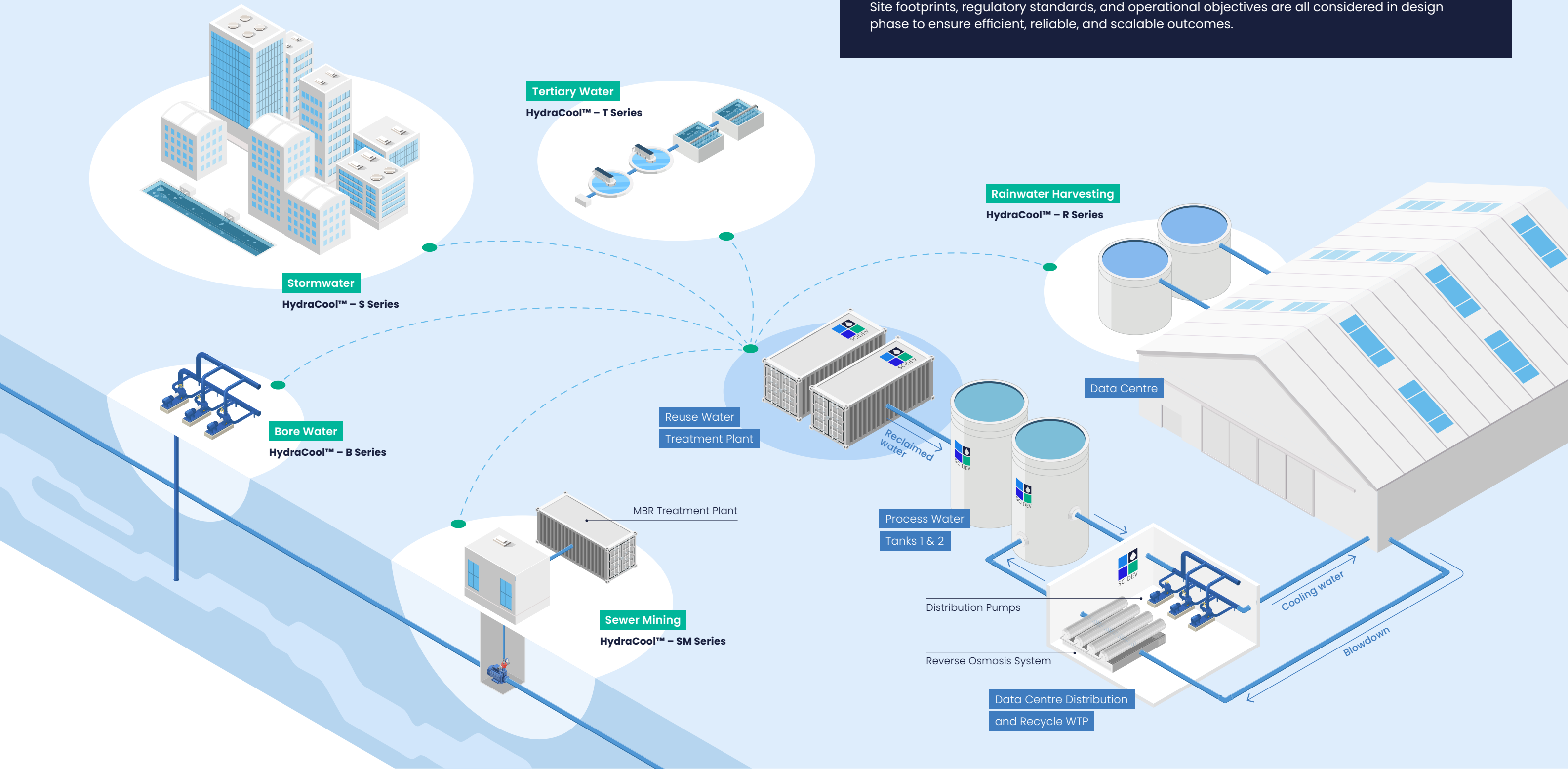
- **Sewer Mining** – HydraCool™ SM Series
- **Rainwater Harvesting** – HydraCool™ R Series
- **Stormwater Capture** – HydraCool™ S Series
- **Bore Water** – HydraCool™ B Series
- **Tertiary Water** – HydraCool™ T Series

Water Treatment

From design and construction to operations and maintenance, our specialist team partner with data centre operators to deliver tailored HydraCool™ water treatment solutions across each campus.

Design Led, Customised Water Treatment Systems

Our in house design team develops HydraCool™ systems to suit site specific requirements. Site footprints, regulatory standards, and operational objectives are all considered in design phase to ensure efficient, reliable, and scalable outcomes.



Core Treatment Capabilities

Biological and Membrane Systems

- ➔ Membrane Biological Reactors (MBR)
- ➔ Moving Bed Biofilm Reactors (MBBR)
- ➔ Ultrafiltration
- ➔ Reverse Osmosis
- ➔ Ceramic membranes

Specialist Processes

- ➔ FluorofIX® – PFAS removal
- ➔ RegenIX®
- ➔ Metals AIX
- ➔ Nitrates AIX

Water Distribution

- ➔ Water Delivery/Transfer

Chemical and Physical Treatment

- ➔ pH correction
- ➔ Granular Activated Carbon (GAC)
- ➔ Physical and cartridge filtration
- ➔ Chlorination
- ➔ Chemical oxidation and reduction
- ➔ UV disinfection

Advanced Water Management

- ➔ Blowdown and process water recycling
- ➔ Zero Liquid Discharge (ZLD) solutions

Monitoring and Recycling

- ➔ HydraIQ™ digital monitoring and control platform
- ➔ Real-time performance data and optimisation
- ➔ Blowdown/ Process Recycling and Reuse

Flexible Construction and Deployment

We build HydraCool™ systems to suit programme, footprint, and site constraints.

Modular construction are preferred for rapid deployment, or prefabricated skids and stick built methods are used if a traditional approach is best for site. This flexibility supports phased expansion and minimises operational disruption.



Operations and Maintenance

Our specialist technical team delivers end to end operations and maintenance support for HydraCool™ systems, including asset management, system optimisation, and remote monitoring.

Through proactive performance management and data driven insights, we ensure reliable, efficient water production while ensuring system reliability, performance, and long term asset value.



Asset Management



Optimisation



Remote Monitoring



Reliable water production