



Long Term Research & Demonstration Site Establishment & Management

Development of a water monitoring and management plan (WMP) at the Melbourne Zoo:

- Onsite water storages
- Water status of the soil and plant communities across the site
- The effectiveness of irrigation activities
- The soil profile
- Plant Hardness Zone
- Sustainable landscapes design
- Environmental performances and footprint analysis

HydroTerra has worked closely with the Melbourne Zoo to assist in moving towards this sustainable vision. These works involved the development of a combined approach to environmental monitoring at the Melbourne Zoo, focusing on developing a set of tools for continual optimisation of the irrigation program. This included monitoring of the weather, soil and a representative set of plants.

The objective of the monitoring program was to build a comprehensive database of environmental parameters that could be combined to develop a site-specific model of plant water use to provide a link between plant health and plant aesthetics goals, irrigation volumes, as well as monitoring the downstream effects of these activities, including minimising volume of water discharged to storm water as well as increasing its quality.

The monitoring program commenced in May 2019. The works have saved significant quantities of water in the areas investigated to date. This has provided unique insights into water use in an urban horticultural setting. There is however a need to expand the network and scope of assessments to fully develop an optimised irrigation approach across the Zoo as a whole. Current activities are restricted due to funding.

The technology utilised in the project included: Sentek: Enviroscan sensors; Drill & Drop soil moisture sondes, Dendrometers, GSM telemetry, Irrimax software and DataStream™ network management and oversight. Integration involved hardware integration between sensors and modems, scripting and API links.

Installation & training: Sentek soil moisture probes, Irrimax Software, Data Interpretation.



HydroTerra's team includes experience, qualified environmental scientists, hydrogeologists and electrical engineers.

To learn more:

Visit www.hydroterra.com.au for more information about our wide-ranging services or contact the team directly:

Email sales@hydroterra.com.au Phone (03) 8683 0091



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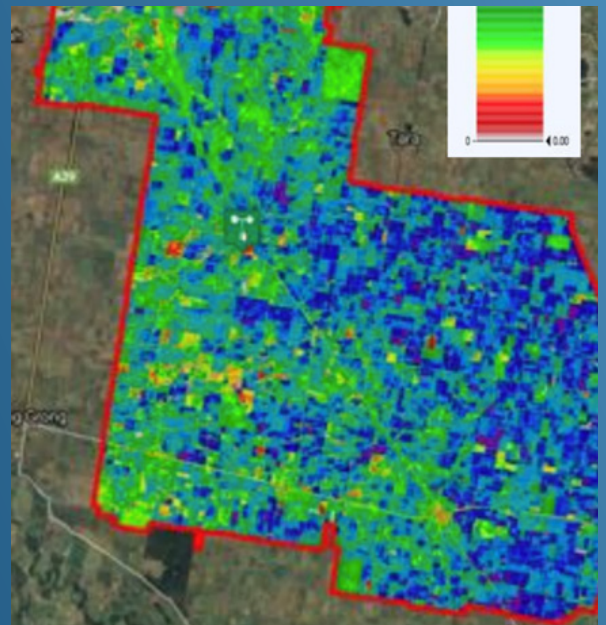
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