

# Environmental Data into DECISIONS

#### ENVIRONMENTAL ANALYTICS

We process, analyse and visualise your data through interactive dashboards and mobile apps to discover your data story.

### VISUAL SOLUTIONS

Using video footage and computer animations, we enable you to visualise and communicate your complex systems.

### ENVIRONMENTAL MODELLING

We conceptualise, configure and simulate models of our water systems, to develop solutions for your environmental challenges.

### INTELLIGENT SOLUTIONS

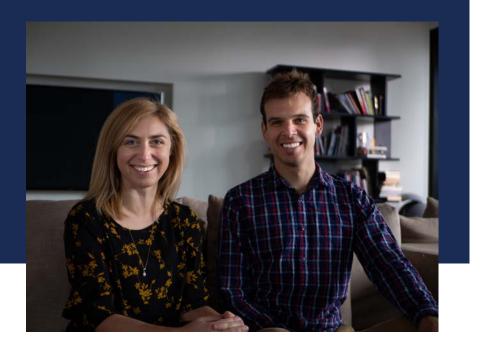
We apply the latest data analytics and visualisation tools to streamline environmental modelling and create a shared understanding of our complex environmental systems.



### DISCOVEREI

# Your Data Champions

At DiscoverEl, we love turning mountains of data into practical, useful, decision-guiding information.



### Our water industry is literally drowning in data

We are passionate about using data analytics and visualisations to secure a more sustainable environment for tomorrow. We are a team of environmental engineers, data analysts and computer animators whose mission is to bring environmental data to life.

Collaboration is key to innovation and digital transformations. We partner with experts across the environmental, data science and computer animation industries to deliver custom solutions for our clients.



### **ALICE DRUMMOND**

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Alice is Director of Environmental Analytics at DiscoverEl. Working as a Water Resources Engineer for over 8 years' specialising in surface water and groundwater modelling, Alice has helped secure sustainable water resources across Australia and New Zealand. Alice has a deep understanding of how environmental data can be used to provide insights, drive efficiencies and really improve communication.

'My passion is finding clever ways to process, analyse and communicate environmental data.'

As a Microsoft Associate in Business Intelligence, Alice applies the latest data analytics tools to the environmental industry to streamline data processing and build interactive dashboards.



CHRISTIAN BOROVAC cborovac@discoverei.com | 0451 532 441

Christian is the Director of Visual Solutions at DiscoverEI. Christian has worked as an environmental engineer for over 9 years, specialising in contamination and remediation, and has helped clean-up impacted sites across Australia and New Zealand. From this experience, he has learnt how the simple act of using schematics and visualisations can be a really powerful tool to help bridge the communication gap.

#### 'I have a passion for bringing numbers on a page to life'

As a certified drone pilot and Adobe animation expert, I have a passion for bringing numbers on a page to life.



# ENVIRONMENTAL ANALYTICS

### Data at your fingertips

### Let's tell your data story

We transform lengthy reports into interactive dashboards and key insights, to help you convert environmental data into decisions.

Applying the latest Business Intelligence tools within the environmental industry, we process, analyse and visualise your data through interactive dashboards and mobile apps.



**Dashboards**: Data modelling, interactive dashboard design (Power BI) and custom visual development.

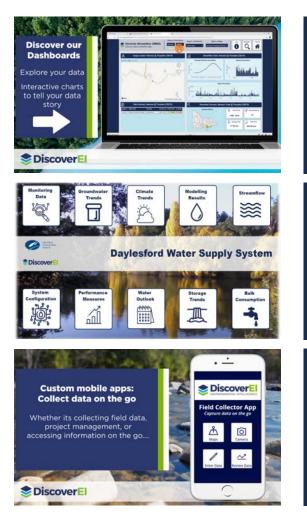


**Mobile Apps**: Low-code custom mobile applications, fully integrated across the Microsoft platform.



**Empowerment**: Tailored training courses (Power BI), ongoing technical support and maintenance.

### Case studies



### **ONLINE DASHBOARDS: WMIS**

DiscoverEl created an interactive dashboard in Power Bl to help water authorities and environmental managers visualise over 7,000,000 rows of historical streamflow data from the Victorian Water Management Information System (WMIS).

Video Link: https://youtu.be/l3lbLQXp-aM

### WATER MANAGEMENT: CHW

DiscoverEl developed an interactive water management dashboard for Central Highlands Water. This decision support tools combines climate, streamflow, demand, storage, groundwater and modelling data in one integrated platform.



Video Link: https://youtu.be/KshTTWLAy\_0

### **MOBILE APPS: Field Collector**

DiscoverEl created a custom mobile application to help environmental field staff to enter data on the go, which automatically syncs to Microsoft databases to streamline data capture.

Video Link: https://youtu.be/TPw\_OXLYUzQ



### **VISUALISATIONS** See the big picture

### Bring your data to life

We bring environmental data to life by combining illustrations, animations and aerial drone footage to create a shared understanding to the environmental systems we are working to protect.

Providing information in an accessible format ensures everyone is on the same page, to kick-start the conversation.



**Illustrations**: Schematics, conceptual models, and infographics (Adobe CC).



**Animations**: Animated schematics and charts, video reports and training videos (Adobe CC).



**Drone Footage**: aerial imagery and videos (DJI Technology), video editing and compilation.

### Case studies







### **DRONE FOOTAGE: Werribee**

DiscoverEl captured aerial drone footage of the rivers, reservoirs and catchments across the Werribee water supply system and combined this with animated charts and maps to help convey how the Werribee system operates.

Video Link: https://youtu.be/FPa821CC1i0

### SCHEMATICS: Otway System

Working together with GHD and Wannon Water, DiscoverEl created animated schematics of the North and South Otway water supply system to communicate the configuration, key operating rules, and infrastructure constraints to help visualise this complex water distribution network.

### 'HOW TO' VIDEOS: Otway Source

In collaboration with GHD and Wannon Water, DiscoverEl created a series of 'how to' videos for the Otway water resources model (eWater Source), to document model set-up and demonstrate how to configure and simulate the model.

Video Link: https://youtu.be/3hLyvBsy9No



## ENVIRONMENTAL MODELLING

From simulations to solutions

### Understanding our environment

We conceptualise, configure and simulate models of groundwater and surface water systems, to optimise our future water supply.

We combine industry standard modelling platforms (eWater Source, MODFLOW & PEST) with data analytics (Power BI) and automation (R & Visual Basic) to deliver our projects a whole lot more efficiently!

### Case studies









Water Resources: Water balance modelling (eWater Source, REALM), hydrological and spatial analysis.



**Groundwater**: Conceptualisation, SW-GW interactions, and numerical GW modelling (MODFLOW & PEST).



**Environmental Assessment**: Contamination and remediation assessment and data analysis.

### WATER BALANCE: Otway Source

Working in partnership with GHD, DiscoverEl developed a water resources allocation model of the Otway system in eWater Source, to optimise system operations for various climate, demand and augmentation scenarios.

Video Link: https://youtu.be/3hLyvBsy9No

### **GROUNDWATER MODELLING**

The team at DiscoverEl partners with hydrogeologists to develop conceptual and numerical groundwater models of hydrogeological systems to help deliver sustainable yields whilst minimising potential impacts to our environment.

### ENVIRONMENTAL ASSESSMENTS

DiscoverEl developed an interactive groundwater quality compliance reporting dashboard which is a fantastic tool for communicating water quality trends, statistics and exceedances.

Video Link: https://youtu.be/QaT8qzFL1Tc



# **DiscoverEl**

# UNLEASH YOUR DATA

### Get in touch today to discover environmental intelligence for yourself



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