



# BACK TO BASICS

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QWMN FORUM 2020

CITY OF  
**GOLDCOAST.**

# The Vision for a Water Sensitive Gold Coast

# GOLD COAST WATER STRATEGY

2019-2024

- Collaborated with CRC WSC and 72+ stakeholders to develop a water sensitive city vision
- Developed Water Strategy as City's response

GOLD COAST  
WATER STRATEGY  
2019–2024

WATER

CITY OF  
**GOLDCOAST.**



1

**OUR HEALTHY  
WATERS**



2

**INNOVATIVE WATER  
SOLUTIONS**



3

**WATER-INSPIRED  
DESIGN**



4

**PARTNERSHIPS  
FOR WATER**

# OUR HEALTHY WATERS

*Our environment, prosperity and unique Gold Coast lifestyle are dependent upon our healthy and connected water environments. From the hinterland to the ocean, healthy water environments support thriving habitats for native species, recreation and shading and carry out vital floodplain functions.*

- **ACTION 1.1** Develop and implement an **integrated catchment management monitoring, planning and prioritisation framework**



**"THE BEST SOURCE OF INSPIRATION  
CAN BE FOUND IN THE GOLD COAST'S  
BEAUTIFUL NATURAL ENVIRONMENTS.  
CONTINUE TO PROMOTE THESE AREAS  
THROUGH TOURISM AND LANDCARE  
MANAGEMENT INITIATIVES."**

Quote from a community member

What does transition look like?



# MONITORING AND EVALUATION

- Reforming monitoring program design

## **WATER ENVIRONMENT MONITORING PROGRAM (WEMP)**

- Sentinel Water Quality Monitoring
- Sentinel Macroinvertebrate Monitoring
- City Flows Monitoring
- Catchment Health Assessment and Diagnostics (each catchment every 5 years)



# DATA MANAGEMENT

- Consolidated and cleansed and quality coded 30+ years of historical data
- Metadata and quality code guidelines developed and applied
- Partnered with SRA to build Environmental Data Management System (EDMS)

# ENVIROSYS

Instant Guideline  
Compliance and  
Dataset  
Completeness  
**Insight**,  
highlighting  
locations with poor  
performance that  
need investigating

Compliance,  
Completeness &  
Data  
**Notifications**

**Realtime** network alerts  
and stations out of date

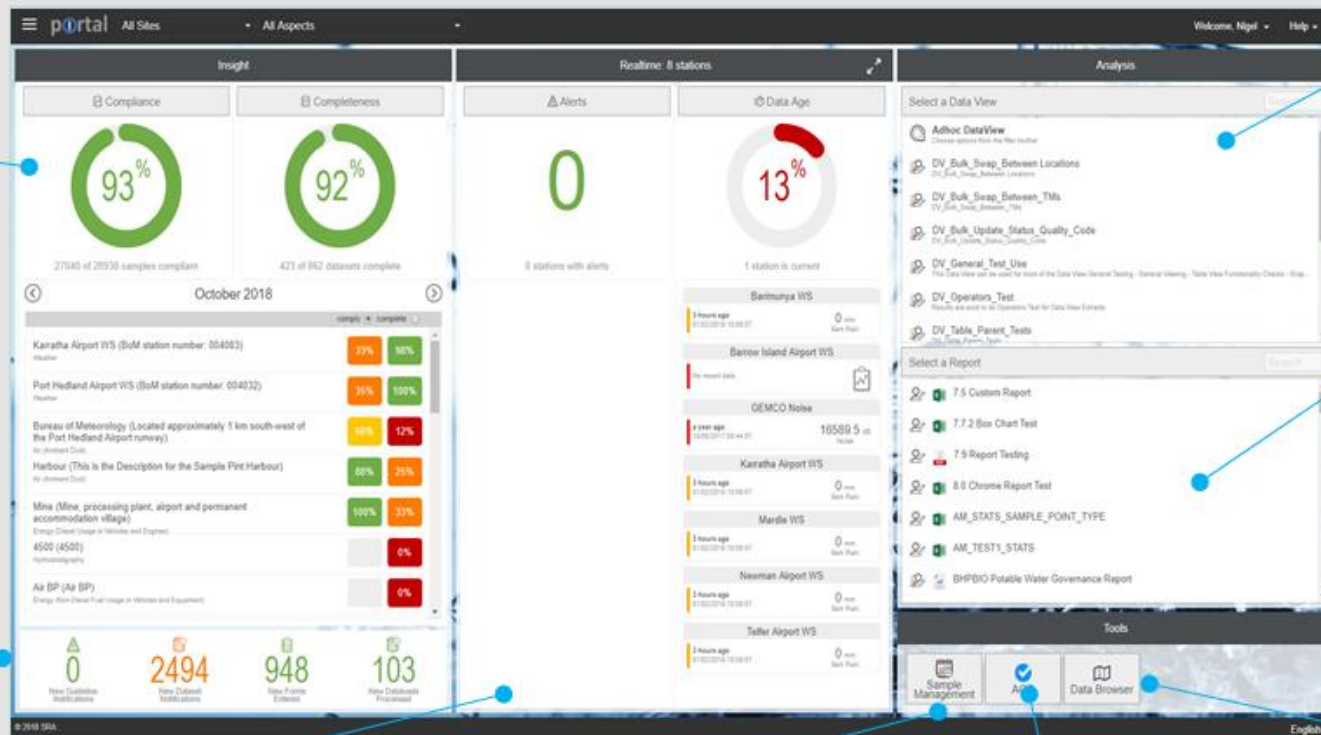
**Sample Management** Schedule  
and track the collection of results  
at locations

**TIBCO Spotfire** Advanced  
Analytics to support decision  
making

Configurable **Data  
Views**,  
representing data  
in tabular,  
graphical and/or  
spatial display

**Reports** –  
Standard, Custom  
and SQL Extracts  
in one list

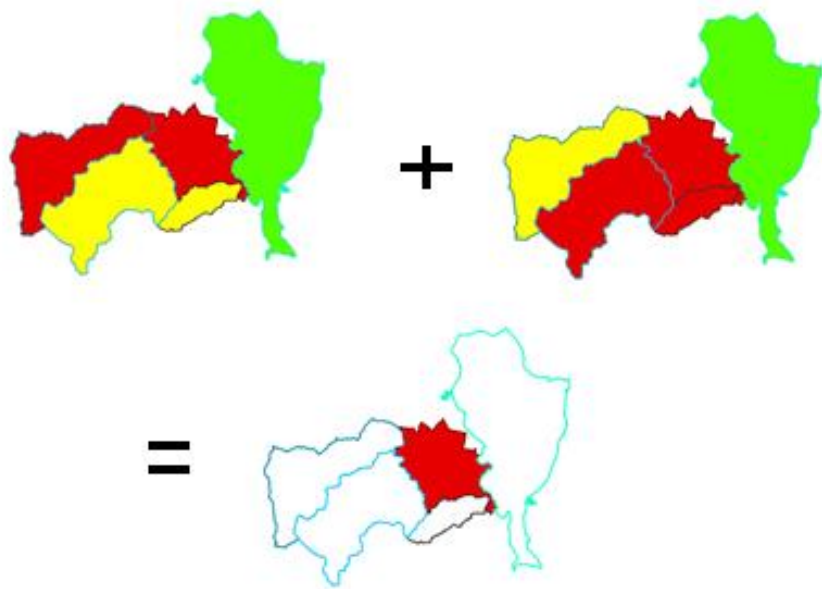
**Data Browser**  
Provides users  
with a spatial  
single-view  
interface to find  
and view any  
Sample Point data



# CATCHMENT PLANNING

- WEMP (CHAD, every 5 years) → Catchment Plan
- System understanding – catchment health, pressures, threats, values
- Storymap - interactive display of catchment health and associated management actions





# PRIORITISATION



- Using WEMP (CHAD) outputs
- Based on pressures, threats and values
- Qualitative and quantitative data
- Spatially prioritises catchment zones to protect and restore
- Inform either **catchment/ sub-catchment scale modelling** and/ or MCDA to identify individual projects/ treatments

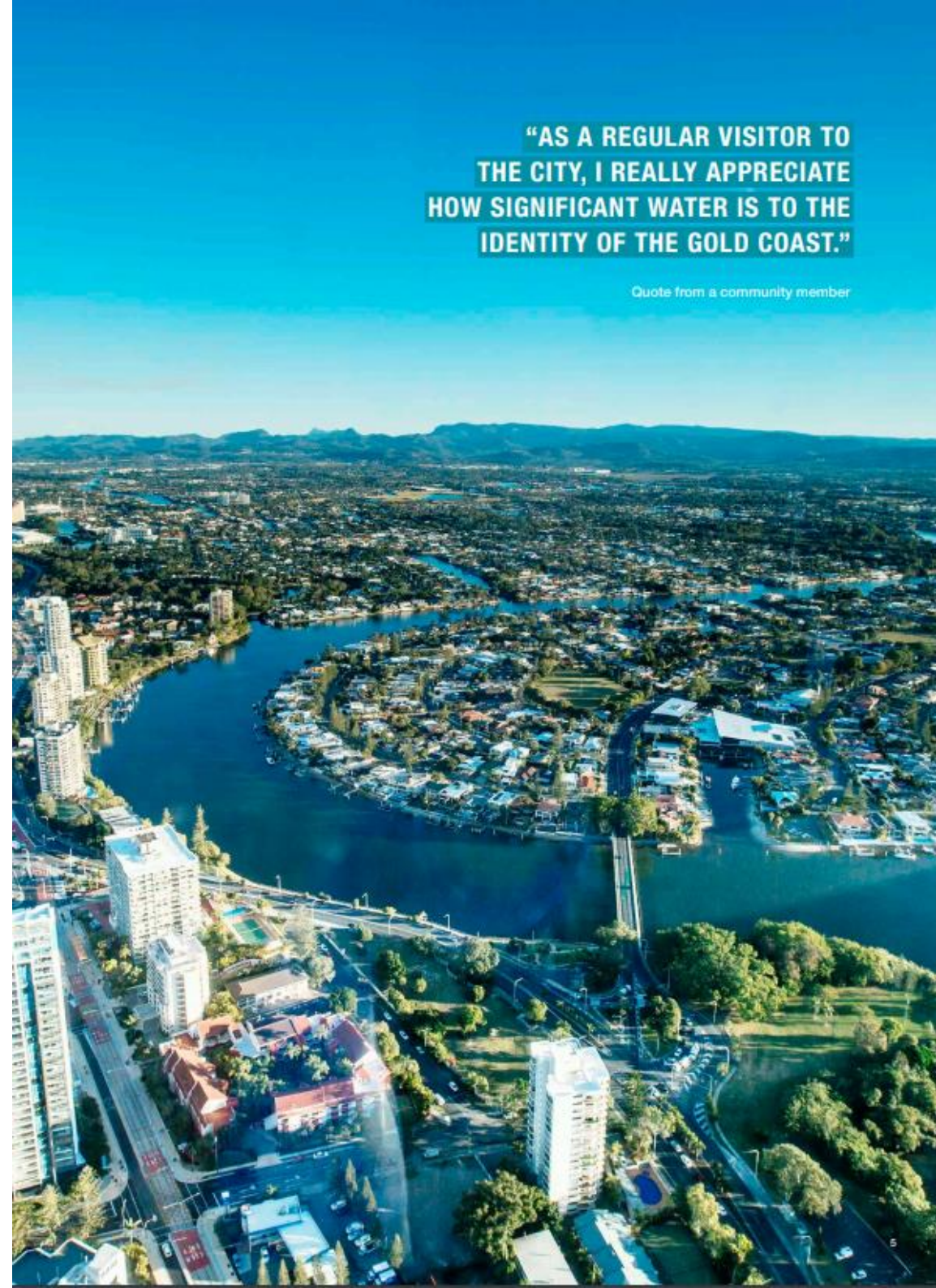
**Risk score table for stressors**

	Stressor	Description	Risk Score (1-25)
1	Acid soil run-off	Exposure of acid sulphate soils allowing oxidation and runoff of water with high concentrations of heavy metals and low pH	
2	Biota removal or disturbance	Removal, loss or disturbance of individual organisms or a specific species	
3	Flow management	Change to the natural flow regime, through impoundment, extraction or augmentation of water in rivers and streams	
4	Habitat removal or disturbance - general	Removal, loss or disturbance of habitat - general	
5	Habitat removal or disturbance – instream	Removal, loss or disturbance of instream habitat	
6	Habitat removal or disturbance – riparian	Removal, loss or disturbance of riparian habitat	
7	Instream and riparian habitat fragmentation	Changes to the lateral, longitudinal or vertical connectivity of instream or riparian habitat	
8	Nutrients	Changes to concentrations and bioavailability of nutrients	
9	Organic matter	Changes to the availability of carbon-based material derived from plants or animals, in either dissolved or particulate forms	
10	Pathogens	Bacteria, viruses, fungi, protozoa and other organisms that effect fitness and behaviour of other biota	
11	Pest species	Exotic or translocated species, invasive organisms that are detrimental to an ecosystem	
12	Salinity	Changes to surface water or groundwater water conductivity and/or ionic composition	
13	Sediments	Changes to load, distribution/movement patterns, settlement/resuspension rates, grain size of suspended or deposited sediments	
14	Thermal alteration	Change in surface water temperature regime	
15	Toxicants	Change to the concentration or bioavailability of pesticides, herbicides, organics, oils, hydrocarbons, metals, metalloids, organometallics, radiation, other toxic chemicals and contaminants	

Additional comments:

# CATCHMENT ACTION PLANS

- Identified prioritised list of actions (projects and management actions)

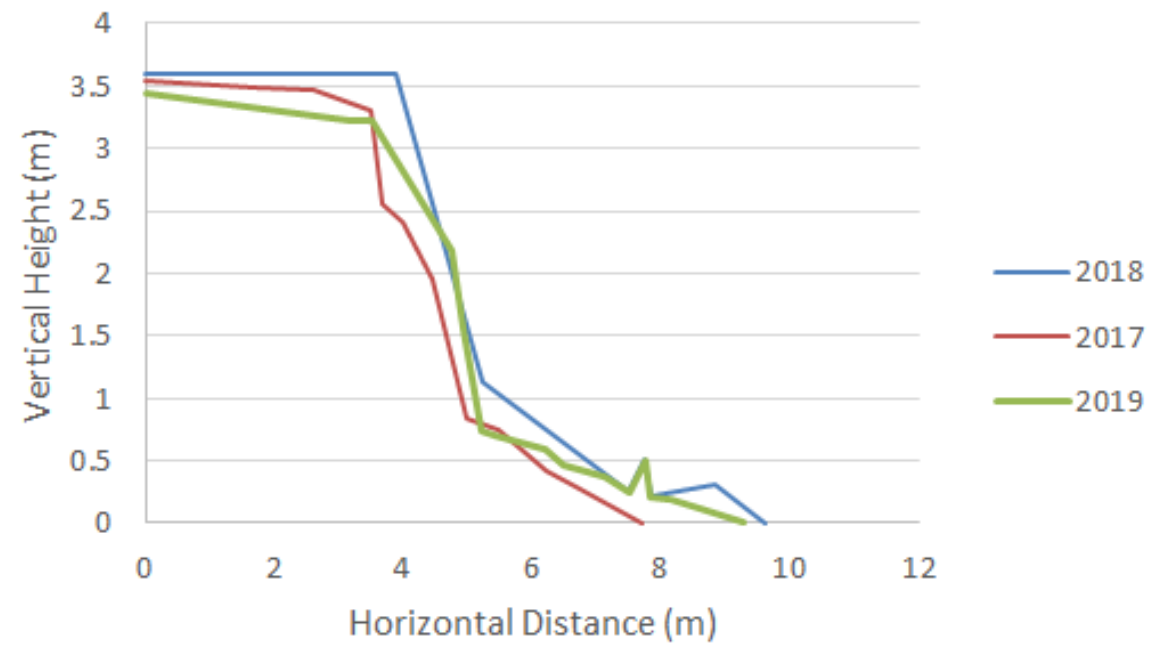


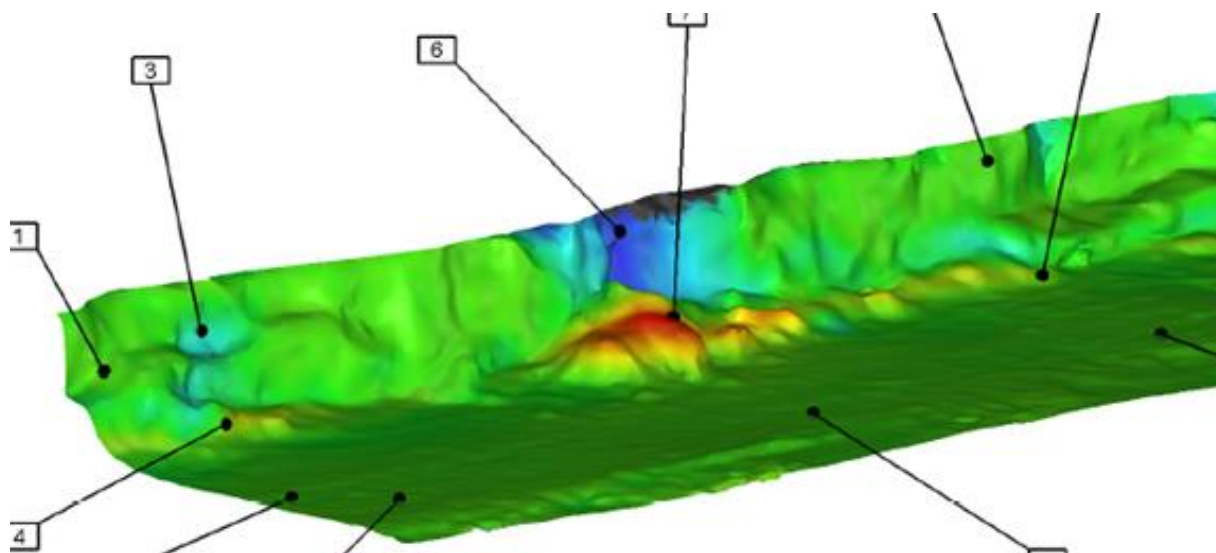
**"AS A REGULAR VISITOR TO  
THE CITY, I REALLY APPRECIATE  
HOW SIGNIFICANT WATER IS TO THE  
IDENTITY OF THE GOLD COAST."**

*Quote from a community member*

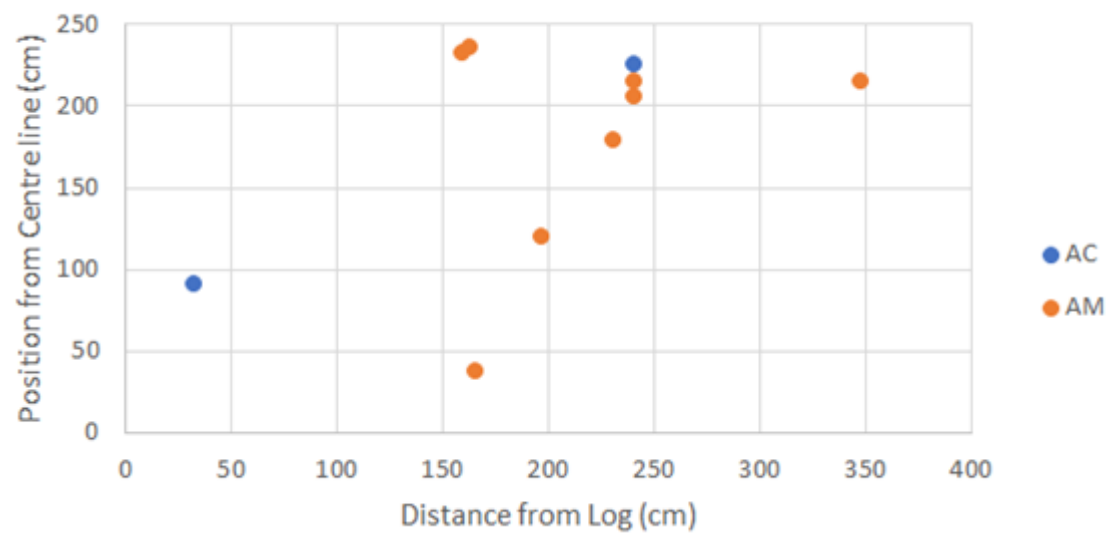


DLT10 (Post-Construction)





DLT09 Upstream Mangrove Layout





# REPORTING AND COMMUNICATION

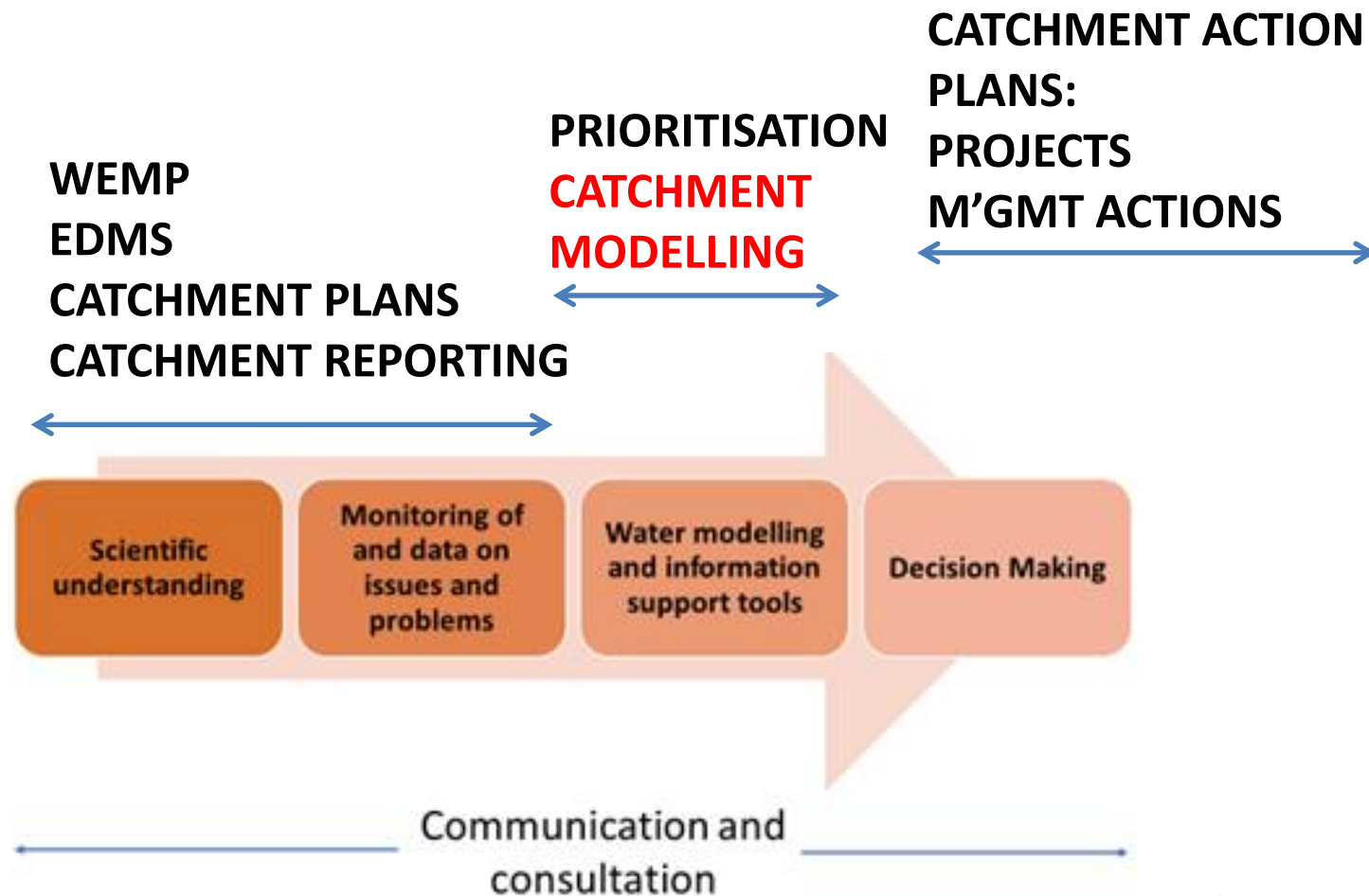
Catchment health reporting

Catchment plans and action plans

State of Environment reporting

Project Reporting

In the pipeline...





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