Department of Sustainability and Environment

BOM Water Information Industry Seminar

Organising Information in Victoria

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Outline

How the water sector is organised

- What this means for collecting information
- What this means for organising information
- Funding implications

Water entitlements and markets

- What this means about information needs

Water Resource Management

- Information needs

Victorian programs and opportunities

Challenges

- Coping with different organisational models
- Identifying value add opportunities
- Problems of scale (local operational information to national accounts)
- Unrealistic expectations

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Objective

The purpose of water information is to enable water services to be delivered effectively, efficiently and sustainably.

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How the water services is organised in Victoria – a highly devolved model – information management has devolved

Government – entitlements, policy, standards, regulation, compliance

Water authorities – service delivery - headworks, retail, river health services

Minister	*Minister*	*WAs*	*WAs*	*Minister / WAs*
Entitlements	**Adjusting Entitlements**	**Supplying water**	**Measuring water**	**Reporting & Compliance**
Firm, tradeable legal rights to water	*Balance Consumption & Environment Strategies Markets*	*Deliver water to customers as per entitlements – user pays*	*So you can manage*	*What happened...*

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Consequences of industry organisation

What this means for collecting information

- Information is collected by water authorities to enable them carry out their businesses
- Water corporations
  - collect most sector information
  - Store most information
  - Fund most information
- Information collected is operational and detailed (i.e. within billing systems)
- Government requires water corporations to collect and report information to customers and back to government
- Government collaborates with corporations to to some information (eg hydrographic data)

Challenges

- standards
- being clear about who needs what
- interfaces between authority and government
- scale - what is best stored locally vs. centrally (i.e. showerheads)
- identifying value add opportunities

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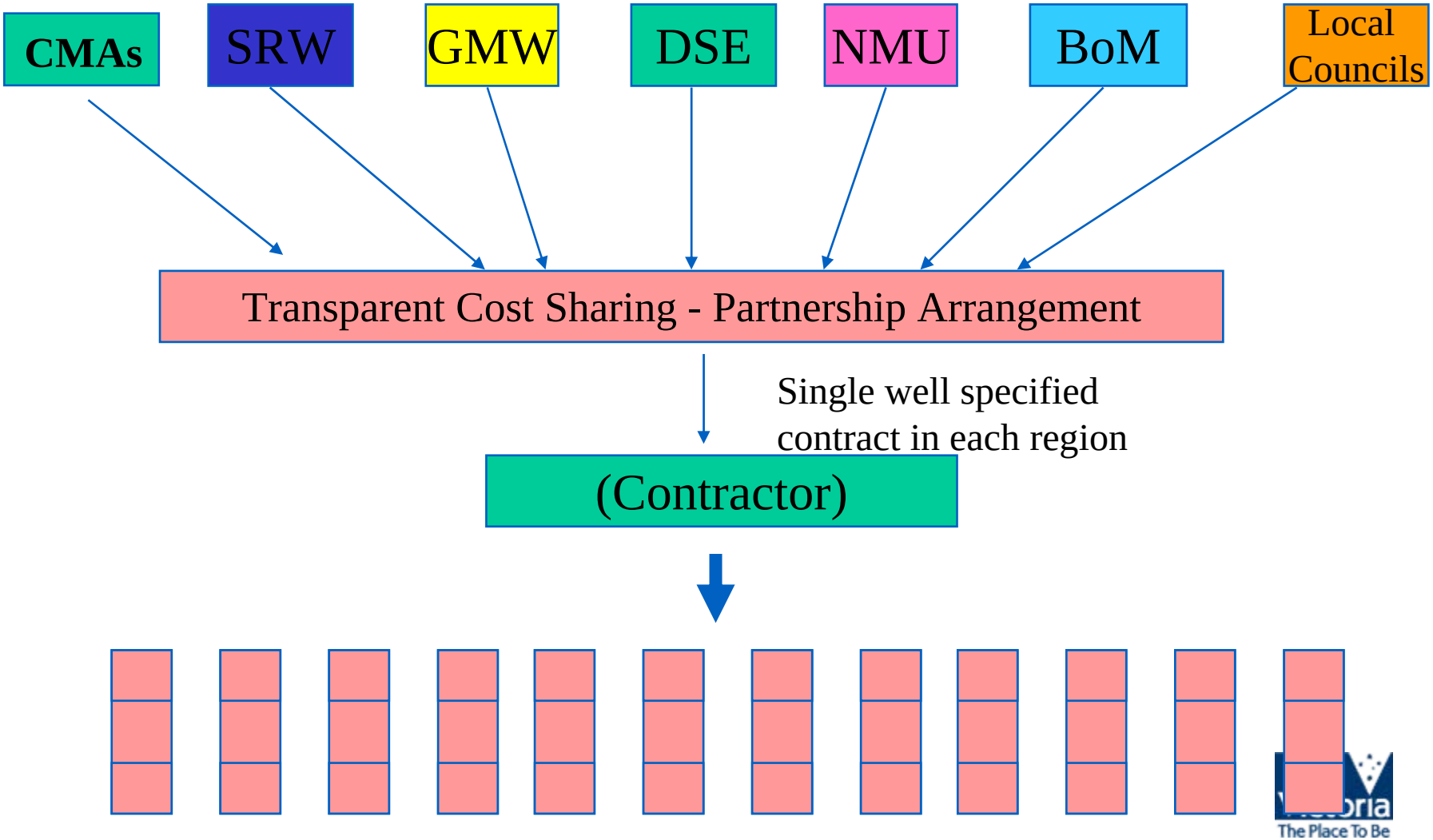
Collaborative approach to collecting hydrographic data



But how well have we been doing overall?

	Problem	Solution	
Data Collection	Lack of quality control, audits of contractors, inappropriate or undocumented methodology and contracts	Water Resource Monitoring Partnerships Method manuals, QA/QC Auditing properly specified contracts	✓
Data Storage and Handling	Data in different databases, different formats Lack of metadata or documented methodology	State Water Resources Data Warehouse Standards for data handling	✗
Delivery of Information	Lack of interpreted information No electronic access to data	Trend analysis of existing data holdings Improved access to data warehouse	~

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Summary (using hydrology info as an example)

3 key priorities for DSE

- Broaden partnership scope
- Develop data integration potential
- Review and select best monitoring sites

Challenges

- Integrate state processes with BOM

Next steps

- Work with partners and stakeholders to design the model for achieving the vision (including BoM)
- Clearly definite roles, responsibilities, cost sharing etc.
- Formalise contracts for the continued roll out of the partnership program for the next few years

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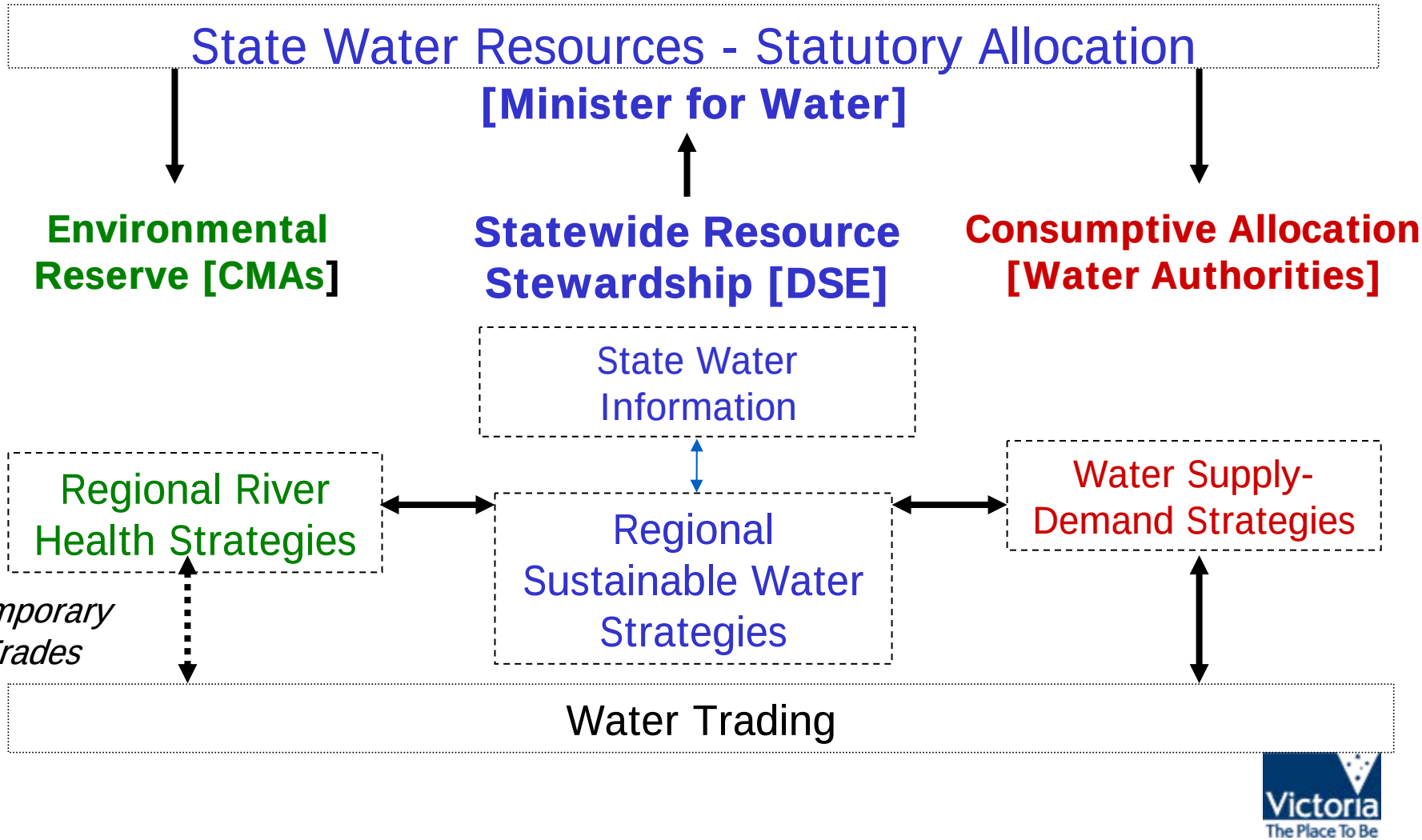
Framework for water entitlements and markets drives information requirements



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Key principles underpinning entitlements and markets framework

- Water entitlements define a holders rights to a share of the available resource
- Effectively all water entitlements have already been allocated
- The risks of variability in the availability of the resource are held by entitlement holders rather than centrally
- Entitlement holders are required to manage this risk through a range of strategies including water conservation and markets.
- Information about water availability is used to water restriction levels in urban areas and “seasonal allocations” in irrigation areas (a responsibility of water corporations)
- Restriction and allocation decisions based on water that can be physically delivered at point in time – not on the basis of forecasts
- The probability of increased allocations are provided to irrigators

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Water market information needs

Improved metering

- all significant uses to be metered
- new water uses pay full cost

Improved compliance

- all water users must comply with entitlements
- RWAs required to enforce licence conditions

State water accounts & water inventory

Register of entitlements

- water shares, allocations and delivery shares
- tracks water trades
- public access

Improved monitoring

- quality and quantity
- environmental condition of rivers
- second benchmarking river condition
- upgrade State's groundwater bores ($13mill. over 4 years)

Consequences of entitlement framework for information collection

- Information is required and collected to protect the integrity of all entitlements
- The nature of the information is defined by state legislation
- Registers of entitlements with proper prudential management are required consistent with state legislation
- Water entitlements are very similar to dollars and need to be accounted for in the same way
- Financial accounting systems are the best starting point for accounting for entitlements and water use
- This specialised information will contribute to catchment water balance reporting but is different to hydrographic information

Challenges

- Clarity about who should be accountable for what information
- Clarity about who is accountable for information supplied
- Interface issues

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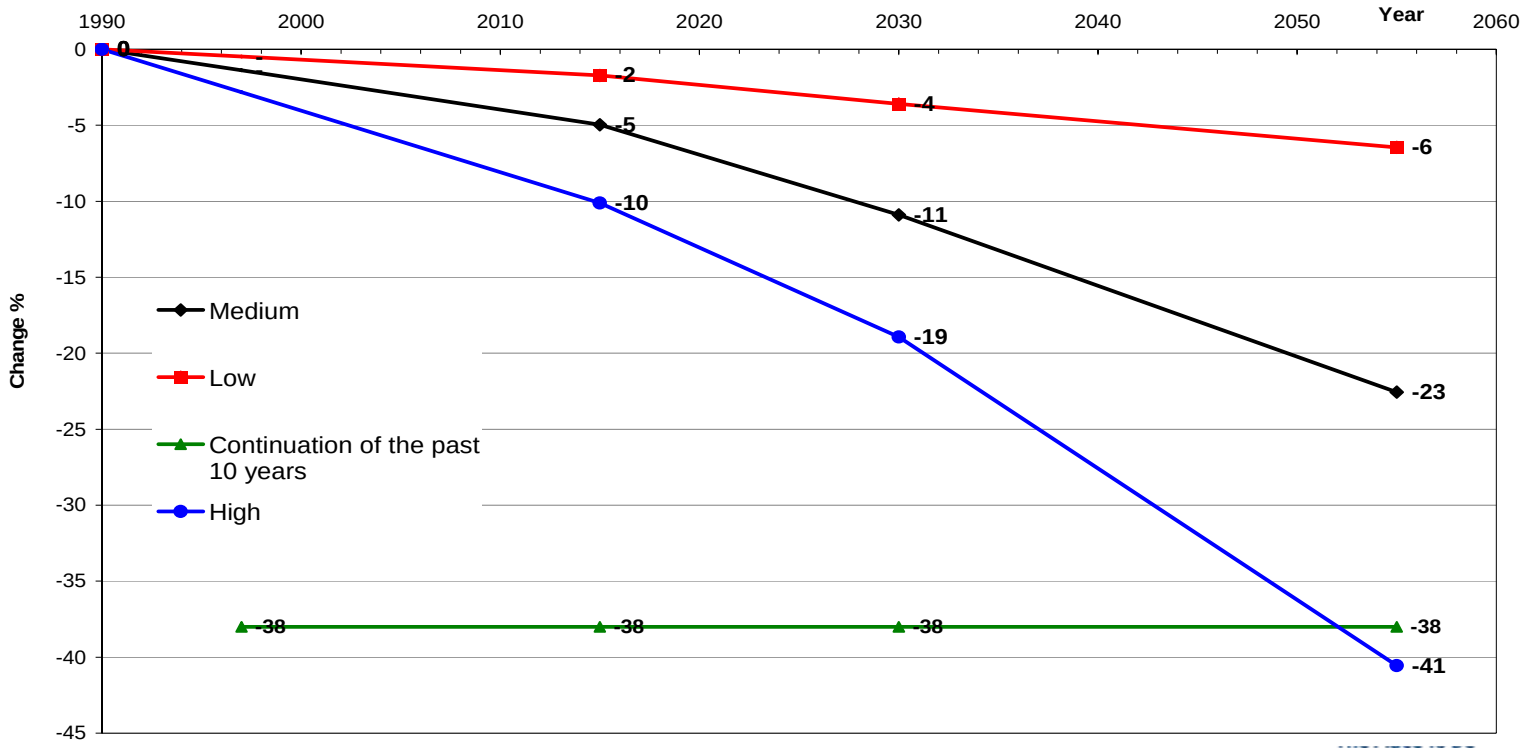
Information required for strategic water planning

e.g Planning for Climate Change

- **part of 15 year review**
- **research and investigation approach**
- **not short term forecasting**



Planning and strategies have different information needs

- Climate change
- Water system models
- Urban and rural water demands
- Technical analysis
  - Financial
  - Economic
  - Environment
  - Social

Challenges

- Clarify roles and responsibilities for information

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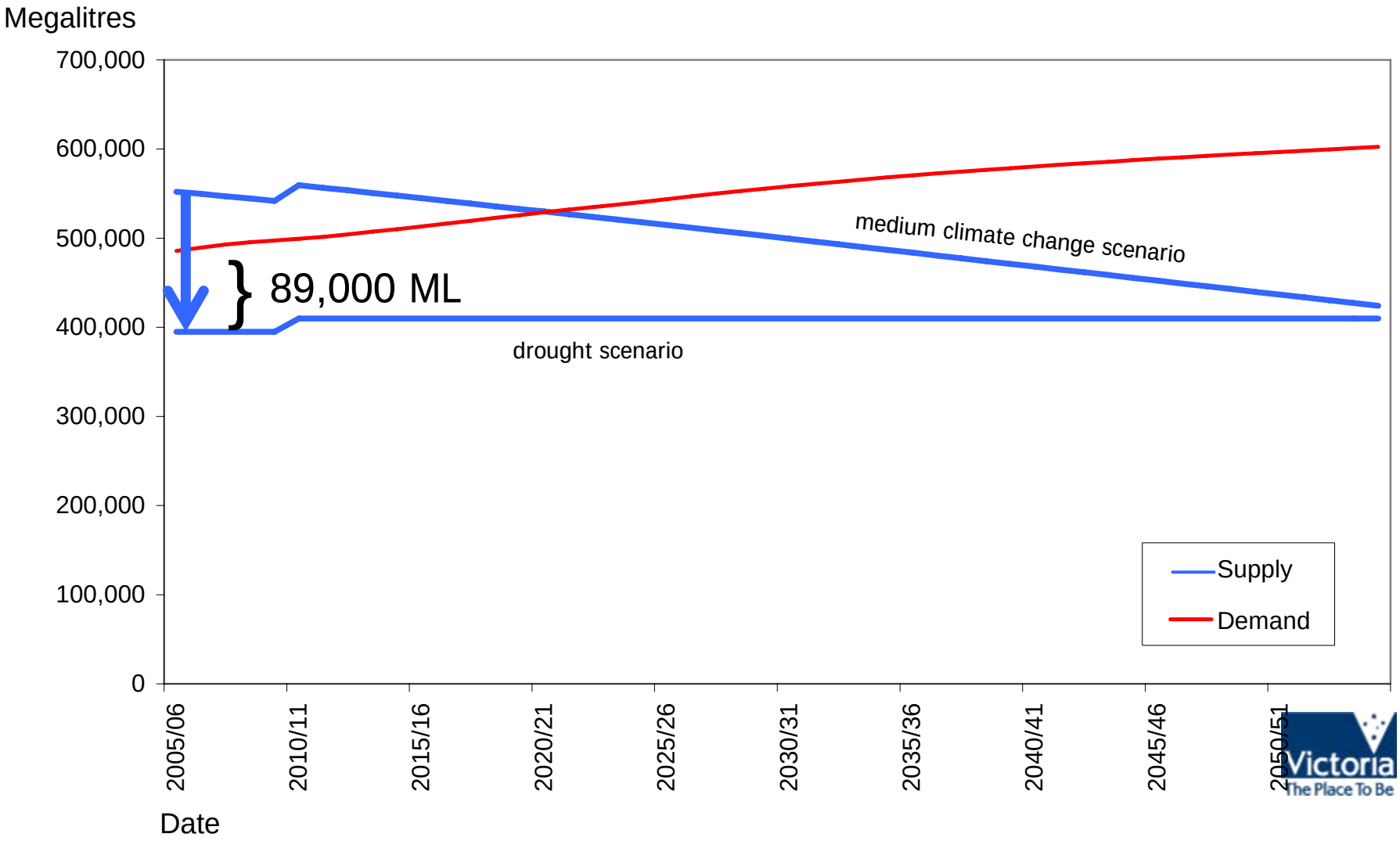
Step change in climate If low flow conditions continue –Melbourne example



- Victorian Water Information will be incorporated into a wide range of information products well beyond the BOM product suite.
- Data management systems available for customisation / localisation
- Software assets developed by BOM will made available to Victoria
- There will be some co-investment in:
  - Data improvement programs
  - IT infrastructure

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Potential Benefits of BoM Involvement

- Standards to facilitate information interchange will all our clients
- Improve quality (accuracy, completeness timeliness, etc) water information
- Automated QA & QC software tooling
- Additional data publication channel
- Additional investment in data collection
- Access to data services
- Product suite broadening
- Investment in IT infrastructure to be picked up within State
- Access to technologies and services for :-
  - Data integration
  - Data aggregation
  - Data Analysis

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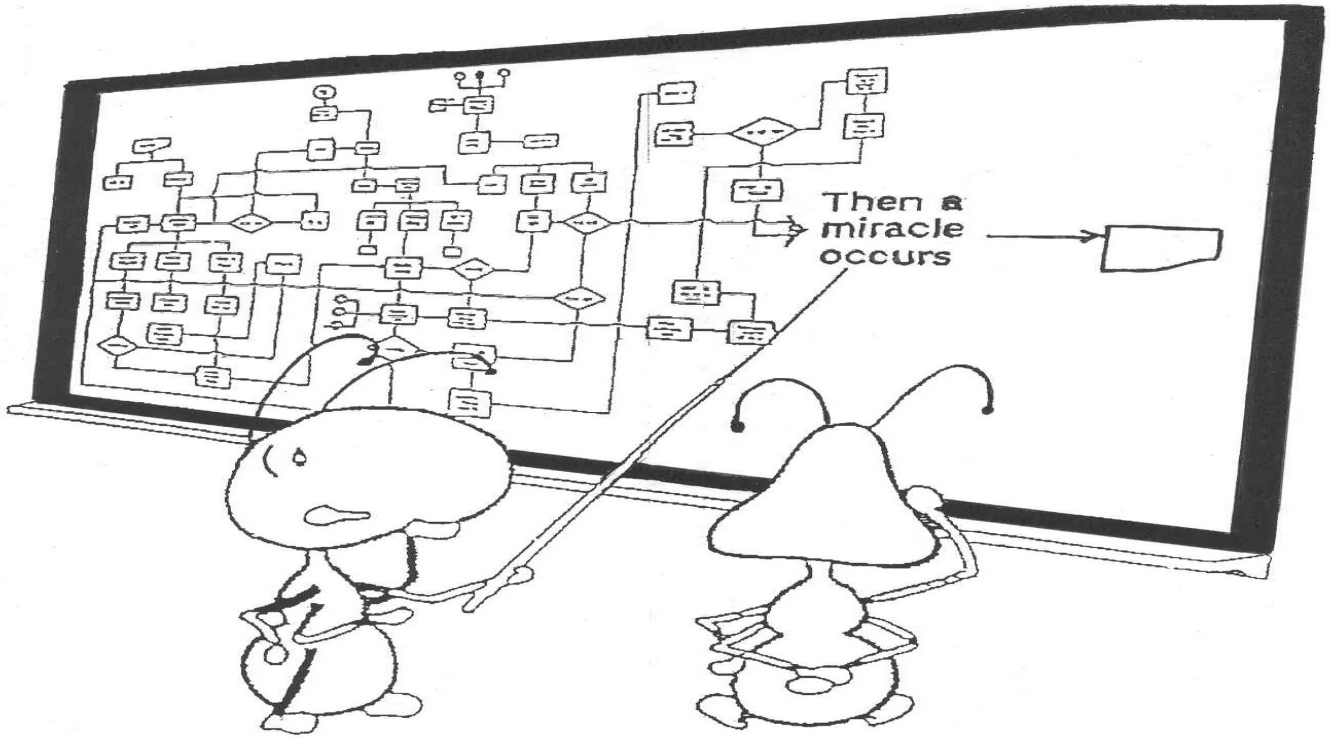

Good work, but I think we might need just a little more detail right here.

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