#### A snapshot of Australian water in 2009

mistakes & success

Joe Flynn CEO Water Industry Alliance

Water Industry Alliance



Alliance

#### tomatoes



wastewater ✓ + stormwater + CO<sub>2</sub> harvesting ✓ 12 times yield ✓ 1/10 water ✓ 2 x \$ selling price ✓ Nexus of water, energy & food

Water Industry Alliance



Water Industry Alliance

#### exports !

- wastewater monitoring
- wastewater treatment MIEX
- water quality guidelines
- pipes, fittings, valves
- reverse osmosis
- leak detection & prediction
- 15 year O&M alliancing

- soil moisture monitoring
- precision irrigation delivery
- rainwater harvesting
- water quality research and policy
- food research and knowledge
- competition policy



Alliance

waterindustry.com.au

Water Industry Alliance

#### who we are

- not for profit industry association
- drive water exports
- ✓ 240 member companies
- mmembership from across the water sector:

governments & private sector, education, research, consulting, manufacturing, technology, contractors, operators

Water Industry Alliance



Alliance

#### our intent

#### share experience

- success & mistakes

#### create innovation networks

- linking clients, suppliers & researchers

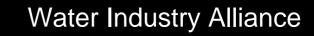
Water Industry Alliance



Alliance

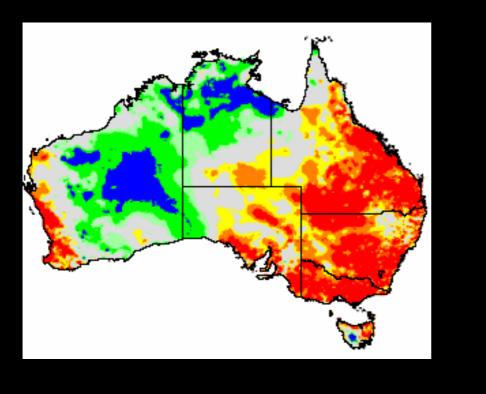
# key points

- 1. climate change not if but how we respond
- 2. competition policy roles & better management
- 3. pricing & cost recovery
- 4. demand management & efficiency
- 5. natural resource mgmt & whole of catchment
- 6. water trading
- 7. diverse sources
- 8. culture of innovation





Alliance



# Recent rainfall & trends

Rainfall relative to historical records, 2002 to 2007



Extremely low, 0-10 percentile

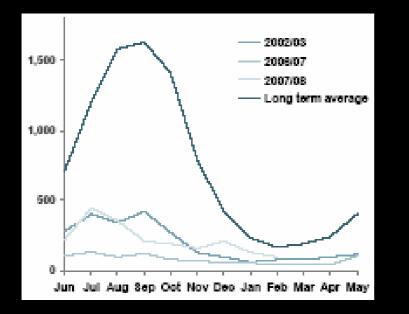
Extremely high, 90-100 percentile

#### Water Industry Alliance



Water Industry Alliance





Inflows continue to be below long term average

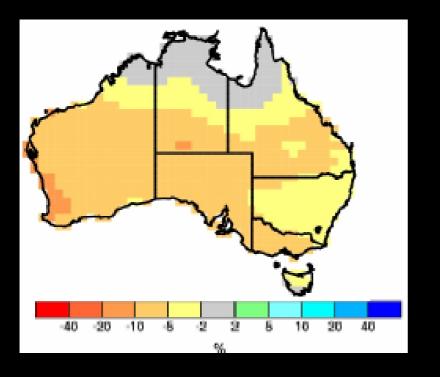
Total inflows to Murray system, long term average & selected years

#### Water Industry Alliance



Alliance

240 companies \$2.4bn exports



Rainfall levels predicted to fall as a result of climate change.

Predicted % change in annual rainfall in 2050, with respect to 1990

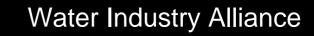
Water Industry Alliance



Alliance

# key points

- 1. climate change
- 2. competition policy roles & better management
- 3. pricing & cost recovery
- 4. demand management & efficiency
- 5. natural resource mgmt & whole of catchment
- 6. water trading
- 7. diverse sources
- 8. culture of innovation





Alliance

### competition reforms

- Not privatisation, retain public ownership
- Regulator acts as a competitor
- Separation of service delivery, regulation, policy setting & ownership
- Water must be available for interstate trade
- Amalgamation
- Corporatisation
  - Cost recovery pricing
  - Planning including asset management & whole of cycle

Water Industry Alliance



Alliance

# key points

- 1. climate change
- 2. competition policy roles & better management
- 3. pricing & cost recovery
- 4. demand management & efficiency
- 5. natural resource mgmt & whole of catchment
- 6. water trading
- 7. diverse sources
- 8. culture of innovation

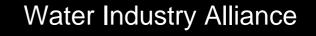
Water Industry Alliance



Water Industry Alliance

# pricing

- metering all consumption
- long term asset management
- drives demand management
- independent regulator outside of political process
- 15% pa price increase to \$2.80 / kL





Alliance

# key points

- 1. climate change
- 2. competition policy roles & better management
- 3. pricing & cost recovery
- 4. demand management & efficiency
- 5. natural resource mgmt & whole of catchment
- 6. water trading
- 7. diverse sources
- 8. culture of innovation

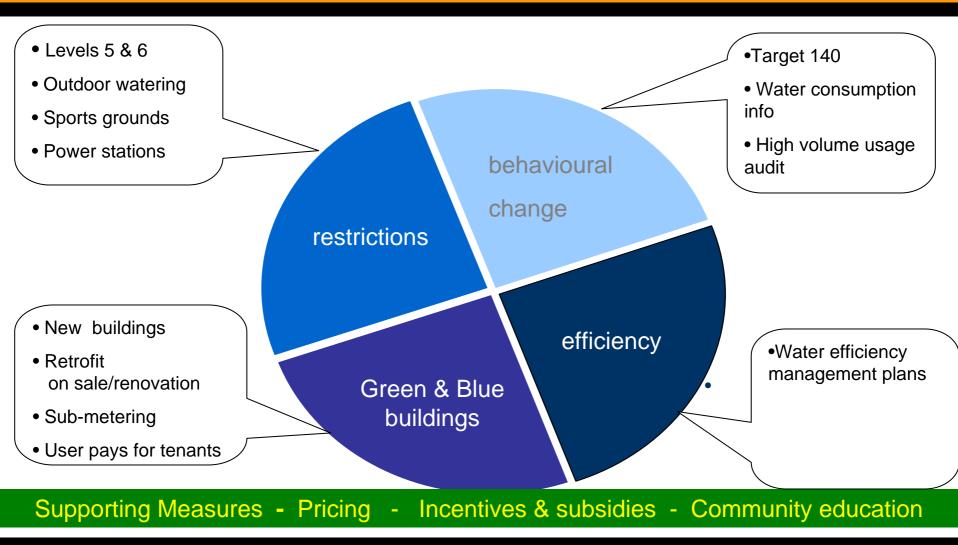
Water Industry Alliance



Water Industry Alliance

water solutions for a thirsty world

#### from the world's driest inhabited continent



#### Water Industry Alliance



Water Industry Alliance

# key points

- 1. climate change
- 2. competition policy roles & better management
- 3. pricing & cost recovery
- 4. demand management & efficiency
- 5. natural resource mgmt & whole of water cycle
- 6. water trading
- 7. diverse sources
- 8. culture of innovation



Water Industry Alliance

#### natural resource management

- 100% allocation + reduced inflow + States = dying Murray
- Sustainable flows
- Ecological health
- Integrated management of whole of catchment
- Linking ground & surface water
- Salinity

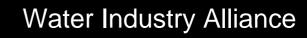
Water Industry Alliance



Water Industry Alliance

# key points

- 1. climate change
- 2. competition policy roles & better management
- 3. pricing & cost recovery
- 4. demand management & efficiency
- 5. natural resource mgmt & whole of catchment
- 6. water trading
- 7. diverse sources
- 8. culture of innovation





Water Industry Alliance

#### water trading

- Separate land right from water right
- Water moves to highest value use including the environment
- Integrity
- States must make their water available

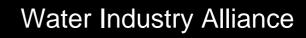




Alliance

# key points

- 1. climate change
- 2. competition policy roles & better management
- 3. pricing & cost recovery
- 4. demand management & efficiency
- 5. natural resource mgmt & whole of catchment
- 6. water trading
- 7. diverse sources
- 8. culture of innovation





Water Industry Alliance

# diversification of sources

- Conservation eg. Target 155

   rebates, pricing, education,
- Reuse eg. 45% target
- Grids
- Rainwater tanks
- Greywater reuse
- Desalination
- Urban stormwater harvesting & ASR

waterindustry.com.au

Water Industry Alliance



240 companies

*\$2.4bn exports* 

# key points

- 1. climate change
- 2. competition policy roles & better management
- 3. pricing & cost recovery
- 4. demand management & efficiency
- 5. natural resource mgmt & whole of catchment
- 6. water trading
- 7. diverse sources
- 8. culture of innovation

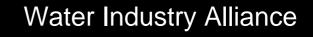
Water Industry Alliance



Water Industry Alliance

#### culture of innovation

- Prediction
- Measurement
- Carbon Footprint reduction / Cleantech
- Creating the Future





Alliance

#### aquaspy.com.au

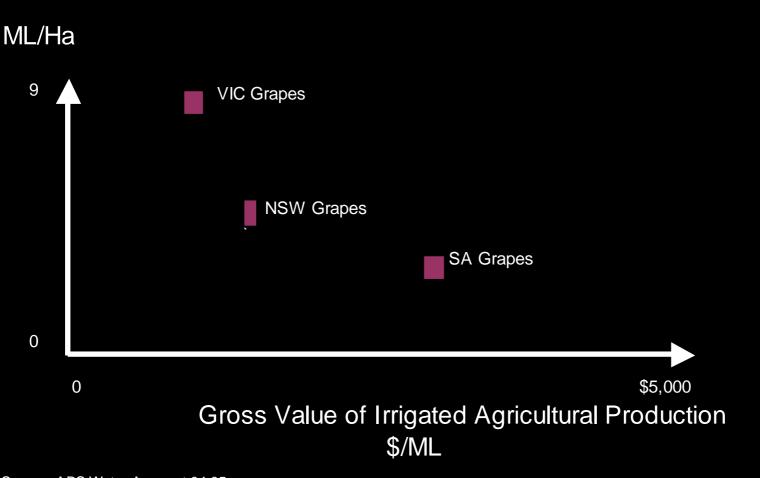
- designs, manufactures and distributes moisture sensors and smart IT for the irrigation market worldwide
- improve crop quality & yield while reducing water 20-70%



#### Water Industry Alliance



Alliance



Source: ABS Water Account 04 05

#### Water Industry Alliance



Alliance



#### Water Industry Alliance



Water Industry Alliance

#### willunga basin water company



✓ provides reuse water
 for 50% of McLaren Vale
 winegrowing region

reduces Nitrogen &Phosphorous dumping

owned & operated by water users

Water Industry Alliance



Alliance

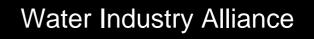
#### baleen filters



✓ self cleaning filter

✓ 1/60 energy of
 traditional wastewater
 treatment

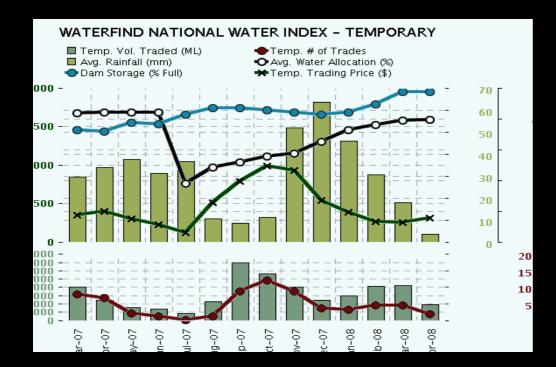
✓ wine, meat, mining, utility, food processing





Alliance

from the world's driest inhabited continent



#### waterfind.com.au

 Stock Exchange for Australian water

 Australia's largest water broker

 pricing data, indexes, alerts, news

Water Industry Alliance



Water Industry Alliance



# Optimatics.com.au

- world leader in water systems optimization
- saving 20% to 50% on multi million \$ capital works plans in the USA & Europe
- utilising Ant Colony Optimization, Particle Swarm Optimization and Artificial Neural Networks.

Water Industry Alliance



Alliance

#### Creating the future

- Academics engaged with policy & industry
- Research
  - Australian Water Quality Centre
  - Centre for Water Management and Reuse
  - Water Quality Research Australia
  - ICE WaRM

Water Industry Alliance



Water Industry Alliance

# key points

- 1. climate change, not if but how we respond
- 2. competition policy roles & better management
- 3. pricing & cost recovery
- 4. demand management & efficiency
- 5. natural resource mgmt & whole of catchment
- 6. water trading
- 7. diverse sources
- 8. culture of innovation



Alliance

Joe Flynn CEO Water Industry Alliance

Water Industry Alliance



Alliance