



Technical systems 2

Information sharing and quality of data

- Data inaccuracies from the DOW license data
- WCP audit year not lining up with license reporting year and difficulties in extrapolating usage from part year readings.
- Need to complete amalgamation of licences
- Some areas do not have a water licence.

Vegetation/landscape management 1

Vegetation/landscape management

- Wide spread of experience and capacity amongst turf managers
- Maintaining quality of heavily used playing surfaces with fixed allocations
- How to better maintain turf so it is tougher needing less water
- Need for information for watering/management for establishing local plantings
- Need to develop contingencies for reduced allocation when they eventuate in the future
- Turf maintenance and renovate the matt layer on parks, can impact on infiltration rates
- No DOW allocation for non irrigated garden area demands eg. water trucks for verges/ establishment of local plants.

Vegetation/landscape management 2

Soil management

- Need for localised and regional diagnostics to understand soil problems and solutions
- Maintaining soil and turf quality where saline or grey water and recycled stormwater are to be used
- Maintaining soil quality while decreasing fertiliser use
- Water repellency on Bassendean sands.

Facilities provision 1

POS Review

- Holes in capacity/experience and accreditation across the industry for irrigation design, installation, management and maintenance
- Difficulty of redesigning/developing older parks (hydrozones, ecozones) with older systems
- Lack of corporate and community ownership of water conservation measures (*ie.* gold and olive are the new green)
- Compare the cost of maintaining turf areas in comparison to bush/ native garden areas.
- Need to better determine water and maintenance requirements for hydrozones
- Lack of usage information to better match turf water use to usage.

Facilities provision 2

Environment

- Natural wetlands being threatened due to falling water tables
- Risk of Weed growth and spread to private property eg. weeds (particularly Parramatta grass) become a problem with decreased water and increased usage
- Groundwater quality problems *eg.* pH, salinity, dissolved Fe
- Environmentally sensitive adjoining areas
- Need to develop drought contingency plans
- Managing saline intrusion with a myriad of unregulated domestic bores.

Social systems 1

Governance

- Difficulty of quantifying savings from preventative maintenance
- Difficulty in selling expenditure required for the water conservation measures
- Water savings within sub licence areas cannot be transferred from one licence to another
- LGAs being responsible for groundwater use at facilities they do not manage (*ie.* golf courses, cricket wickets, maintaining artificial lakes for aesthetics)

Staffing and capacity building

- Lack of resources (staff) to achieve the outcomes of water conservation
- Lack of 'waterwise' demonstration parks with numbers
- Lack of training and accreditation
- Lack of experienced staff and short career paths.

Social systems 2

Community

- High expectations for high quality playing surfaces - leads to increase use
- Lack of community ownership of the outcomes of water conservation (Xeriscapes)
- Vandalism is a problem especially due to the long watering window as a result of poor system performance.
- Maintaining community safety in landscape re-designs
- Lack of communications plan to inform the community on water conservation issues
- Water conservation needs to take into account the social aspects of POS.

Urban growth

- High growth requiring additional irrigated public open space
- Problems with developers not adopting landscape design guidelines and/or irrigation specifications
- There is limited control over developers in the amount of water they use whilst they are maintaining the parks under their control
- Managing handover of parks from developers is sometimes difficult
- New urban developments need water allocations to maintain amenity and facilities provision.

Conclusions

- Climate and water availability
- Urban growth
- Governance problems
- Capacity problems
- Community expectations diverse
- Facilities provision.

Recommendations

- Governance
 - Peak representative body to develop industry responses, lobbying
 - Resources provided to manage change
 - Open and accountable systems and practices
 - Better communications across stakeholders and communities
- Capacity
 - Develop agreed priorities and goals
 - Mandated standards
 - Training for all levels: management and practitioners
 - R&D to focus on facilities provision in a water limited landscape
- Facilities
 - Demonstration sites with numbers.