

## *Water Management Policy*

### Purpose and Scope

In Western Australia's drying climate, water is an increasingly valuable and rare resource. The University needs to manage the consumption of scheme, storm and ground water resources responsibly and sustainably, and seek water conservation and re-use opportunities where practicable. This policy has been endorsed by the University's Environmental Sustainability Advisory Committee (ESAC).

This policy applies to all staff and students.

### Objectives

- To reduce both scheme and ground water consumption on each campus and implement conservation, re-use and control initiatives.
- To protect and maintain groundwater quality and recharge local aquifers.
- To conserve groundwater-dependent ecosystems and wetlands at all campuses.
- To ensure the University meets statutory requirements, including compliance with water restrictions, the maintenance of groundwater quality, and consumption within abstraction license limits and conditions.
- To incorporate water sensitive urban design principles and practices into all forms of water management (including storm water).
- To ensure that water conservation, re-use and efficiency is incorporated in design considerations for future refurbishments and developments on University campuses.
- To effectively promote, educate and manage the University community and key stakeholders on water use, practices and policy.

### Policy

#### **1. Responsibilities of the Property, Development and Commercial Services Office (PDCSO):**

- 1.1 The development and implementation of an annual Water Efficiency Management Plan (WEMP) for activities relating to scheme water use, conservation and management. The WEMP is submitted to the Water

Corporation, the Environmental Sustainability Advisory Committee (ESAC) and the PDCSO web page.

- 1.2 Management of ground and storm water. PDCSO develops and implements management plans to achieve compliance with licensing requirements (in the case of groundwater) and to demonstrate best-practice storm water management.
- 1.3 Maintenance of plant and water infrastructure to conserve water consumption and ensure performance, efficiency and quality of water supply.
- 1.4 Incorporating water efficiency measures, sub-metering and monitoring into new and refurbished facilities, as well as water re-use measures where practicable.
- 1.5 Meeting Water Corporation backflow prevention requirements, so that connections to the drinking water supply (including fire services) have a backflow prevention device (Reduced Pressure Zone Device - RPZD) fitted at the site boundaries that is appropriate to the high, medium or low risk hazard posed by the activities carried out at the property.
- 1.6 Meeting duty of care and PLB requirements for ensuring RPZD's etc. are maintained for zone and building protection within site boundaries.
- 1.7 Practicing a monthly monitoring, analysis and reporting programme for scheme and ground water consumption. Results from the monthly programme are to be reported to PDCSO management and data should show cumulative consumption data against the annual limits for each campus.
- 1.8 Maintaining scheme and irrigation infrastructure and associated services to each campus.
- 1.9 Ensuring the promotion of water conservation strategies to staff and students through staff sustainability champions programme, staff and student inductions, localised advertising and other University communication portals.
- 1.10 Advocate for the use of water sensitive urban design principles and installation of WELS-rated fixtures in all new facilities and built form refurbishment projects, including commercial and tenanted spaces.
- 1.11 Planting of new, replacement and transplanted plants will occur in autumn and winter whenever possible, to reduce the need for irrigation and enable successful planting and long term growth.
- 1.12 Landscape design and management will incorporate the appropriate use of local Australian natives and coarse mulch to reduce water and fertiliser demand; and exclude the use of turf, where practicable, to minimise water, fertiliser and chemical demand.
  - 1.12.1. Where turf is required, the turfed area will be kept to a minimum and the turf variety chosen will be fit for purpose. Renovation and new turf will not occur in summer whenever possible to reduce the need for irrigation and enable successful planting and long term growth.

- 1.13 Maintenance and operating costs of the automatic pump-back system on the Perth campus that removes nutrient-enriched water from the Melaleuca Swamp drainage swale to the infiltration basin located on the west side of campus adjacent to the Soccer fields.
  - 1.13.1. The barrier wall between Melaleuca Swamp and the North Lake wetland system must not be breached at any time, due to very high levels of organic nutrients.
  - 1.13.2. PDCSO is responsible for operating the pump-back system and addressing any problems with its operation.
- 1.14 The PDCSO and its commercial partner (currently the WACA) are mutually responsible for ensuring that the sports oval irrigated area and the amount of irrigation used does not exceed the amount required to sufficiently meet the sports oval requirements.

## **2. Responsibilities of Schools, Offices and Tenants**

- 2.1 The School of Veterinary, Life Sciences (VLS) with PDCSO are responsible for developing and implementing groundwater consumption monitoring and reporting for the Perth, Whitby and Mundijong campuses farm operations. Anomalies shall be investigated as part of a water efficiency and leak control strategy. Consumption information will be used to identify and implement opportunities for improved water efficiency and to submit periodic reports to PDCSO management.
- 2.2 The School of VLS is responsible for ensuring that the area of irrigated paddocks, and the amount of irrigation used, does not exceed the PDCSO agreed allocation and amount required to adequately meet farm, animal and ethics requirements.
- 2.3 The School of VLS is responsible for ensuring that the variety of crops planted are the most water efficient variety available to meet to farm feed requirements.
- 2.4 The School of VLS will maintain irrigation supply and equipment relating to University farm spaces and relevant research facilities (i.e. Glasshouses).

## **3. Avoiding Contamination of Ground Water and Scheme Water Supplies**

- 3.1 The University has high standards of ecological responsibility. No pollutants are allowed to enter the soil, the groundwater, the storm water system, or sewerage system. Any spills of toxic materials or substances that may contaminate the scheme or ground water supply should be immediately reported to the PDCSO via the FM helpdesk telephone (08) 9360 2262 or email [fm.helpdesk@murdoch.edu.au](mailto:fm.helpdesk@murdoch.edu.au) and the OSH office via the online reporting system <https://goto.murdoch.edu.au/IncidentHazardReport>.
- 3.2 Industrial and chemical waste streams must be disposed of as prescribed by the relevant authorities including Water Corporation.
- 3.3 Fertiliser (including manures, composts and mineral fertilisers), herbicide and pesticide use must be minimised, or avoided where possible, to avoid pollution of wetland ecosystems and groundwater. Decisions to use fertilisers and pesticides should be based in science, i.e. following soil testing for appropriate nutrients, to avoid excess nutrient or chemical leaching into the soil.

## Responsibilities

| Role  | Responsibility  |
|---|---|
| All campus users, including staff, students, researchers, contractors, tenants and community groups | <ul style="list-style-type: none"><li>are responsible for using scheme and ground water in an efficient manner and in accordance with licensing and consumption restrictions.</li></ul>   |
| All campus users  | <p>are responsible for:</p> <ul style="list-style-type: none"><li>ensuring that groundwater abstraction is minimised through use of appropriate conservation and efficiency measures as outlined in the Water Management Procedure.</li><li>for reporting faults or performance issues with water service or supply immediately to the Facilities Management (FM) Helpdesk telephone (08) 9360 2262 or email <a href="mailto:fm.helpdesk@murdoch.edu.au">fm.helpdesk@murdoch.edu.au</a>.</li><li>for reporting changes to their water requirements and use to the Property, Development and Commercial Services Office.</li></ul> |

## Performance Indicators

- Water Intensity Benchmark (Scheme water consumption divided by Gross Floor Area, core use including the Farm) for the Perth campus to be maintained at or below 1.1kL/m<sup>2</sup>.
- Bore Water abstraction is 5% below the Department of Water – License to Take Water abstraction limit across each campus.

## Governance

|                                  |                        |
|----------------------------------|------------------------|
| Approval Authority               | Senior Leadership Team |
| Owner                            | Vice Chancellor        |
| Legislation mandating compliance |                        |

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| <b>Category</b>  | Primarily a function of management   |
| <b>Related University Legislation and Policy Documents</b> | <a href="#">Environmental Sustainability Policy</a><br><a href="#">Health and Safety Policy</a><br>Water Management Procedure and Guideline (in development) |
| <b>Date effective</b>                                      | 23/11/2018   |
| <b>Review date</b>   | 23/11/2021   |

## References

[Water Corporation Backflow Prevention Guidelines](#)

[Department of Water Licenses to Take Water \(Perth and Rockingham campuses\)](#)

Water Efficiency Management Plan Annual Report

## Revision History

| Approved/Amended         | Date Approved | Resolution No.<br>(if applicable) |
|--------------------------|---------------|-----------------------------------|
| Administrative amendment | 08/05/2024    |                                   |
| Approved                 | 23/11/2018    |                                   |
| Approved                 | 04/04/2012    |                                   |

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