

Metric and indicator reference	Metric / Indicator	Value	Description	Evidence 1	Evidence 2
	SDG6: CLEAN WATER AND SANITATION				
6.2	Water consumption per person				
6.2.1	Water consumption tracking Measure the total volume of water used in the university that is taken from mains supply, desalinated, or extracted from rivers, lakes, or aquifers?		Water UniMAP's Main Campus is from 3 bulk metres and all the metres is supply by Syarikat Air Perlis (SAP).		
	Whole university	946623	Data in meter cube	https://drive.google.com/file/d/1PNGAExFXH9EFZwP-7UzPEfr1WGT6v97/view?usp=sharing	https://drive.google.com/file/d/1PNGAExFXH9EFZwP-7UzPEfr1WGT6v97/view?usp=sharing
	Partial measurement				
6.2.2	Water consumption per person	63.93941236	Data in meter cube for 1 year usage		
	Volume of water used in the university: Inbound (treated/extracted water)	946623	Data in meter cube for 1 year usage		
	Campus population	14805	people		
6.3	Water usage and care				
6.3.1	Wastewater treatment A process in place to treat wastewater.		<p>UniMAP has appointed a competent external company for the maintenance work of the Sewage Treatment Plant on a contract basis for a period 24 months, Page 1 to 4 pdf Evidence 1. This is to make sewage treatment implemented in accordance with the requirements of the AKTA KUALITI ALAM SEKELILING 1974: Peraturan-peraturan Kualiti Alam Sekeliling (Kumbahan) 2009.</p> <p>The implementation of maintenance is carried out periodically according to the maintenance schedule set on a weekly, monthly and annual basis. Monitoring of the entire operating system of the Sewage Treatment Plant is done through the Sewage Treatment System Performance Monitoring Parameter Record every month.</p> <ol style="list-style-type: none"> 1. Acceptance letter (SST) for sewerage treatment plant maintenance contract (Page 1 to 4 pdf Evidence 1) 2. Plan Preventive Maintenance (PPM) schedule (Page 5 pdf Evidence 1) 3. Summary chemical / physical test year 2024 (Page 6 & 7 pdf Evidence 1) 4. Effluent Monthly Lab Test Result (Page 8 to 31 pdf Evidence 1) 5. AKTA KUALITI ALAM SEKELILING 1974 (Page 32 to 54 pdf Evidence 1) 6. Picture report for activity in (Picture Page 1 to 17 pdf Evidence 2) 	https://drive.google.com/file/d/1UHE7Jw0r1bZjIRhM-q9B5dfr723VgEw/view?usp=drive_link	https://drive.google.com/file/d/1qTSNH4sewQIW5O4yTmrUmXUZG1Z8tN6xVlw7?usp=drive_link
6.3.2	Preventing water system pollution Processes to prevent polluted water entering the water system, including pollution caused by accidents and incidents at the university.		<p>To prevent contaminated water supply, UniMAP ensures that the water supplied to the campus is obtained from treated water managed by local provider/authority - Syarikat Air Perlis (SAP).</p> <p>Evidence 1 is Water Sewerage and Fact Book 2024 for our main campus water supply in Perlis.</p> <p>To prevent the water system in campus pollution, UniMAP's Development Department have installed a control panel in the primary and secondary screening process to monitor water quality and testing water quality, as shown in Page 1 to 17 pdf Evidence 2.</p>	https://drive.google.com/file/d/1IT9CrNMDf2zD-UhrVLIONOgLaPuqV4Rv/view?usp=drive_link	https://drive.google.com/file/d/1_9elmB6ZBr4csa2YNP5SGnatu5YCZo/view?usp=drive_link
6.3.3	Free drinking water provided Provide free drinking water for students, staff and visitors (e.g. drinking water fountains).	21	<p>UniMAP rented water filter system to provide free water to all staff and students. This is to ensure all staff and student are provided with safe and purified water for drinking purpose. It is convenient for all staff and students to assess good quality of clean and safe purified drinking water at any time. Furthermore, staff and students will save the time to prepare hot/cold drinks during meetings, viva voce session without the need of having to go out to the store to buy hot/cold drinks.</p> <p>UniMAP provides almost 21 locations with free drinking water for students, staff, and visitors at various locations on all campuses.</p>	https://drive.google.com/file/d/1UjTIEFWswMhSteTVS1yb5o1n9LQmoVID/view?usp=drive_link	
6.3.4	Water-conscious building standards Apply building standards to minimise water use		<p>Page 249 - 253 pdf Rainwater Goods, Rainwater Harvesting System & Testing and Commissioning Evidence 1.</p> <p>The government proposed that rainwater harvesting will be made compulsory to new large buildings under approval by the National Council for Local Government. Rainwater harvesting is a method used for collecting and storing rain water from rooftops and used back for non potable used such as general washing, landscape irrigation and toilet flushing only. UniMAP would be getting numerous benefits as the system would help reduce water supply demand from water concessionaires, provide an alternative supply in times of supply disruption as well as reducing the possibility of flash floods.</p> <p>Rainwater Harvesting Tank Picture in UniMAP Campus Page 1 & 2 pdf Evidence 2.</p> <p>Akta Jalan, Parit Dan Bangunan 1974 - Undang-Undang Kecil Bangunan Seragam (Negeri Perlis) (Pindaan) 2012 is a local authority law for water conscious building standards Page 3, 4 & 5 pdf Evidence 2.</p>	https://drive.google.com/file/d/1vV3HUYwVwYtBYCQk8VeeQQWwMgfaC5g/view?usp=drive_link	https://drive.google.com/file/d/1a8sGuwxtCFwKUqYNgiF5mdDKNeaPBh-/view?usp=drive_link
6.3.5	Water-conscious planting Plant landscapes to minimise water usage. (e.g. use drought-tolerant plants)	7166 trees	<p>UniMAP is expanding its greenery with 7,166 plants across campus. Through SDG 6.3.5 Water-conscious Planting, UniMAP uses drought-tolerant and native species, early morning watering, mulching, and drip irrigation — keeping the campus vibrant while saving water.</p> <p>Using species like Hamelia patens(Fire bush), Pachystachys lutea (Golden shrimp), Lantana camara (Bunga Tahi Ayam), Leucophyllum frutescens (Texas sage) and Heptapleurum (Schefflera) is an excellent choice for conserving water while still maintaining aesthetic appeal.</p> <p>Watering in the early morning is indeed a best practice for gardeners. This timing minimizes evaporation losses due to cooler temperatures and lower wind speeds, allowing plants to absorb more water effectively. Additionally, watering in the morning helps prevent fungal diseases that can occur when plants remain wet overnight.</p> <p>UniMAP also implementing mulch around the plants to retain soil moisture, using drip irrigation systems for targeted watering, and incorporating native plants that are well-adapted to the local climate to further enhance the sustainability of these landscape projects. These practices can help ensure that the landscape remains vibrant and healthy while minimizing water usage.</p>	https://drive.google.com/file/d/1a5zyNQ081zrCO2IZJgGW7Hs6X11FUOm/view?usp=drive_link	
6.4	Water reuse				
6.4.1	Water re-use policy Have a policy to maximise water reuse across the university?				

6.4.2	Water re-use measurement Measure the reuse of water across the university?	4680000 liters	<p>UniMAP hiring three contractors for landscape maintenance work in different zone. Watering works are held twice daily for common newly planted species. Approximately 1 medium tank of 2500L water from retention pond is needed for each of contractor per zone. The calculation breakdown of water usage for watering is as below:</p> <ol style="list-style-type: none"> 1. Water needed per contractor per day: 2500 L 2. Watering frequency: 2 times daily 3. Days of work per month: 25 days 4. Months of work per year: 12 months 5. Number of contractors : 3 <p>Water usage for watering per year = 2500L water x 2 times daily x 26 days of work x 12months x 3 contract/zone = 4,680,000 L</p>	https://drive.google.com/file/d/17BDUMUpOFFNYNDTkOM5bBQAqYfJlzpC/view?usp=drive_link	
6.5	Water in the community				
6.5.4	Sustainable water extraction on campus Where water is extracted (for example from aquifers, lakes or rivers) utilise sustainable water extraction technologies on associated university grounds on and off campus.	Rainwater and Retention Pond water	<p>UniMAP using rainwater and a retention pond as the main watering sources is a great approach for sustainable landscape maintenance. This method not only conserves tap water but also utilizes natural resources effectively.</p> <p>Watering early in the morning is indeed beneficial, as it minimizes evaporation and allows plants to absorb moisture more efficiently.</p> <p>The implementation of a retention pond and water pump system at the Syed Sirajuddin Areeb Putra Sports Complex, UniMAP, is in line with SDG 6.5.4. This initiative demonstrates sustainable water management by harvesting and reusing rainwater for landscape irrigation, thereby reducing reliance on treated water and supporting the university's green campus agenda.</p>	https://drive.google.com/file/d/1IsY1F6UUWh-GSeLqk9U2D-cLOjaL6PtI/view?usp=drive_link	
7.2	SDG7: AFFORDABLE AND CLEAN ENERGY University measures towards affordable and clean energy				
7.2.1	Energy-efficient renovation and building Have a policy in place for ensuring all renovations or new builds are following energy efficiency standards		Refer ST EECA in Malaysia	https://www.st.gov.my/content/2024/EECA/B%20-%20Energy%20Efficiency%20and%20Conservation%20-%20Act%2024%20-%20Act%20861.pdf	
10.6	SDG10: REDUCED INEQUALITIES Measures against discrimination				
10.6.7	Accessible facilities Provide accessible facilities for people with disabilities.	174	<p>UniMAP's building is equipped with accessible facilities for people with disabilities. Existence of facilities in UniMAP is at rental building and permanent building in UniMAP's campuses. Some examples of all of the facilities are lifts (24 unit), parking lots (44 unit), toilets (37 unit) and wheelchair ramps (69 unit). Total of all of this facility is about 174 unit. All of this facility is for people with disabilities to use when visiting or live in our campuses.</p>	https://drive.google.com/file/d/1sWZHs7vrvHsfCmOyl4gUveZBsR3Qn4o/view?usp=drive_link	https://drive.google.com/file/d/1CUeVOWztguoyC5paDlv3r4vk7bapGxka/view?usp=drive_link
11.4	SDG11: SUSTAINABLE CITIES AND COMMUNITIES Sustainable practices				
11.4.6	Pedestrian priority on campus Prioritise pedestrian access on campus	<p>570 metres for covered walkway</p> <p>2,264 metres for un-covered walkway</p>	Refer masterplan location and picture evidence.	https://drive.google.com/file/d/1791E4HrdkipNaFOuC6pwNaBzSr9umDZx/view?usp=drive_link	
11.4.8	Planning development - new build standards Build new buildings to sustainable standards		<p>UniMAP's planning development for new buildings must refer to Cawangan Arkitek Jabatan Kerja Raya (JKR). All the planning and building will go through JKR for future and current development. For the development of new building in UniMAP main campus, the overall design shall incorporate passive design strategies in MS 1525, Handbook On Passive Design Strategies For Energy Efficient Building made by Cawangan Arkitek JKR, JKR STANDARD JKR/SIRIM 3:2020 ICS: 91.020; 13.020 Environmental protection and enhancement works for projects.</p>	https://drive.google.com/file/d/1E-teFRXppN4d2SzMYLCF9hyZTkt0NYd9/view?usp=drive_link	https://drive.google.com/file/d/1h5neCaf_4KsFtGGDEMo0eoWnb5v6bKBE/view?usp=drive_link
11.4.9	Building on brownfield sites Build on brownfield sites, where possible				