

Water Stewardship Charter

Organisation Name Site Location Charter Champion Senior Management Signature Date

University of Galway	H91 TK33	Michael	Curran	<i>Michael Curran</i>	19th January 2023
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Scope Item Key Business Drivers Driver Type Priority



University of Galway is located in Galway City and has a population of 19,500 students and 2500 staff (obviously reduced with COVID-19). The campus is based on 250 acres, consisting of 97 buildings with a teaching floor area of 213,500m2. The campus is split into 4 distinct areas, Nuns Island, South Campus, North Campus and Dangan (Sports Fields).

Materiality

University of Galway has a large Water network throughout the campus and numerous connections to the site, we have numerous water meters installed by Irish Water and internal manual meters feeding the buildings. We are updating are site Building Management System for Energy and Water, our energy partners have installed new metering and we have built the new BMS system to integrate the new metering. The university is developing systems to reduce consumption and this is highlighted in our strategy to reduce are 2019 baseline by 10% by 2025. **COVID-19 RESTRICTED WATER USAGE AND THEREFORE COMPARISON ARE NOT CORRECT WE ARE CURRENTLY ANYALISING 2022 FIGURES AGAINST 2019 FIGURES**

1	To raise awareness with staff, students and visitors of water as a critical and limited resource that must be used responsibly.	Reputational	High
2	To reduce water usage on campus by 10% by 2025 based on 2018 baseline.	Operational	High
3	utilise new technologies and methods to reduce water consumption on our Laboratory's and Research labs.	Reputational	High
4	To eliminate all unnecessary water usage on campus, to maintain and further improve the water usage reductions achieved on campus in the last period.	Financial	High
5	To eliminate the reliance of staff, students and visitors on single use plastics for water consumption	Reputational	High

Resource Profile

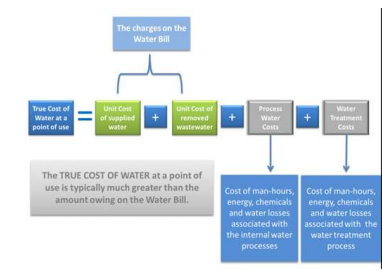
Meter ID	Address	Meter ID	Address	Meter ID	Address	Meter ID	Address	Meter ID	Address
05/09/2019	3453	23/02/2018	13-15	15/06/2019	30-31	05/09/2019	39-41	05/09/2019	39-41
12/02/2019	7912	17/02/2017	00-01	12/02/2019	34-36	12/02/2019	34-36	12/02/2019	34-36
06/12/2017	801-802	31/02/2017	00-01	06/12/2017	13-15	14/04	06/12/2017	13-15	
26/12/2017	65-68	30/02/2017	00-01	25/08/2017	00-01	4	08/08/2017	00-01	
20/08/2017	65-68	01/12/2016	00-01	25/04/2017	23-25	388-61	25/04/2017	23-25	
04/09/2017	67-76	08/08/2016	00-01	15/02/2017	00-01	4	15/02/2017	00-01	
24/04/2016	691-626	04/02/2016	00-01	14/02/2017	00-01	65-6	14/02/2017	00-01	
02/02/2017	12-13	08/02/2016	00-01	02/11/2016	00-01	79-2	11/02/2016	00-01	
02/12/2016	12-13	06/12/2015	00-01	03/08/2016	00-01	48-0	22/07/2016	00-01	
03/08/2016	10-18	12/08/2015	00-01	24/04/2016	00-01	79-1	11/02/2016	00-01	
03/02/2016	11-14	26/04/2015	00-01	03/02/2016	00-01	73-1	03/02/2016	00-01	
03/02/2016	107-10	11/02/2015	00-01	03/11/2015	00-01	73-3	06/12/2015	00-01	
06/12/2015	11-14	30/12/2014	00-01	04/08/2015	00-01	66-0	25/08/2015	00-01	
06/12/2015	107-10	11/02/2014	00-01	12/04/2015	00-01	66-1	12/04/2015	00-01	
06/12/2015	107-10	08/12/2013	00-01	08/08/2014	00-01	73-1	08/08/2014	00-01	
06/12/2015	12-18	26/04/2014	00-01	11/02/2014	00-01	12-0	11/02/2014	00-01	
06/12/2015	12-18	26/04/2014	00-01	12/02/2014	00-01	02-0	04/02/2014	00-01	
06/12/2015	14-18	05/12/2013	00-01	05/12/2013	00-01	72-1	05/12/2013	00-01	

True Cost of Water:
University of Galway currently pay on our large volume sites
The following costs:

Water Supplied: €1.10 per m3
Water Removed: €1.00 per m3

Key components to be checked:
Energy costs for pumps and equipment
Man-Hour Costs
Cost of Disposal
Regulatory Compliance

University of Galway are employing two interims in Summer 2023 to carry out True Cost of Water on our Larger systems.



University of Galway BMS team and plumbing maintenance team record the monthly water Volumes to compare this against bills issued by Irish Water, a spreadsheet is updated By the plumbing services supervisor. This will be updated in the new ISO50001:2018 template and will be web based tool recording the manual Meter readings, it will also be an action to update the meters on the right to Digital metering at a cost of €60k.

Analysis

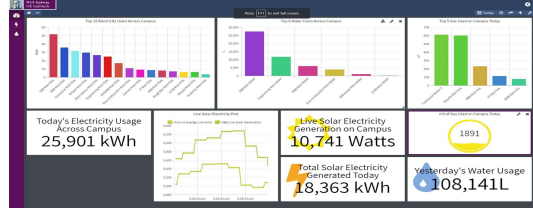
Monitoring

Site KPIs & Targets

The following are a list of the existing Water Meters linked to the University of Galway
WPRN No.Address
9831822Domestic Main, Newcastle Road Lower, Galway
9832283Life Cycle & SRB Building, Newcastle Road, Galway
9832939Campus Innovation Centre, Newcastle Upper Galway
9831823St. Anthony's, Newcastle Upper, Galway
9831995Tank Main, Newcastle Upper, Galway
9832598Molecular Diagnostic Research, Unit 1, IDA Park, Galway
9831776Dangan Sports Complex, IDA Business Park, Dangan Lower, Galway

- 9832239Dept of Health Promotion, Distillery Road, Newcastle, Galway
- 9832237Riverside Terrapin, Distillery Road, Newcastle, Galway
- 9832236Block T, Distillery Road,Newcastle, Galway
- 320722916 Distillery Road, Galway
- 9832238Martha Fox House, 4 Distillery Road, Lower Newcastle, Galway
- 9832053University Road, Galway (Science Research place by Snipe Avenue)
- 9832785Aula Maxima, College Road, Galway
- 9832300Aula Maxima, College Road, Galway
- 9832894Meter Oppsite Cathedral, Earls Island, Newcastle, Galway
- 9832420Meter No.1, Earls Island Newcastle, Galway
- 9831982Nuns Island, Galway, Galway
- 9831908IMI Road (MRI) University Road, Galway
- 9832895IMI Road, Pedestrian Canal Path, University Road, Galway

Water Conservation and Leadership is high on the University of Galway Sustainable strategy document with targets set for 2025, this is also highlighted in the soon to be published in the roadmap Carbon Plan 2020 - 2030



Map





- Increase Awareness**
 - WATERNOMICS Platform Apps
 - Public Display Re. Water Consumption
 - Interactive Signage at Water Meters
- Promote Education**
 - Water Aware Workshops / Seminars
 - Notification of savings in plans
 - Promote use of WATERNOMICS Data
 - Promote WATERNOMICS Platform for new Apps
- Reduce Consumption**
 - Water Consumption Awareness
 - Gamification
 - Engagement
- Improve Operation**
 - Installation of Metering
 - Water Network Information
 - Fault Identification Diagnosis
- Promote Environmental Responsibility**
 - Promote use of Data
 - Platform/Apps
 - Newsletters / Seminars

Action Plan								
Item	Action Description	Action Type	Aligned Business Driver	Impact/ Targets	Who	Next Step	Target Completion	
1	To recognise water as a critical and limited resource by adopting a University of Galway Water Policy	Kaizen Event	Reputational	University of Galway Strategic plan sets out targets to be achieved by 2025 as part of the Climate Action Plan and Carbon Reduction – Scope 3 Water	Buildings and Estates	Listed as strategic Goal in the Sustainability strategy	Q4 2025	
2	To reduce, from a 2019 baseline, water usage in campus buildings by 10% by 2025	Kaizen Event	Operational	Strategic plan completed and published 27th November 2020, action BE1 outlines the target	Buildings and Estates	Action plan to be developed as part of the	Q4 2025	
3	Continue the programme of installing water metering and sub-metering on our largest water consumers.	Just Do It	Operational	Plumbing Maintenance team and Building Management system installing additional digital meters for data collection.	Buildings and Estates	Ongoing as part of Register of Opportunities in	Q4 2025	
4	By 2025 extend programme of measurement, analysis and efficiencies to all significant buildings on campus.	Kaizen Event	Operational	ISO50001:2018 Energy Team to incorporate Water as part of the new data collection Monitoring and Verification	Buildings and Estates	ISO50001:2018 plan to be updated and verify all	Q4 2025	
5	Continue programme of installing water-saving devices in laboratories, kitchens, workshops and WC facilities across the campus e.g. low flow taps, dual flush WC's, time control on urinal flushes and showers and low flow shower heads	Just Do It	Operational	The plumbing maintenance team carry out regular surveys and inspections of the plumbing network, wash hand basins, sinks etc. Collaboration between the Laboratories to reduce water wastage.	Buildings and Estates	Monthly surveys and recording of all actions.	Q4 2025	
6	Incorporate water usage reduction as a key project design component as part of new buildings and retrofits. Water efficient sanitary fittings; Rainwater harvesting systems and greywater recycling systems; Leak detection; Water sub metering; Presence detectors controlling the water supplies to washrooms; and Water efficient irrigation practices	A3 Project	Operational	The Building Research Establishment's Environmental Assessment Method (BREEAM) is a method for assessing how sustainable a new building or refurbishment is. It is University Statement of Fundamentals which will present a significant challenge to design teams.	Capital Works Team and Design Teams	Review of all Capital Projects and inspection of systems.	Q4 2025	
7	Increase the awareness of staff, students and visitors of the importance of water as a critical resource that must be used responsibly.	Kaizen Event	Reputational	UNIVERSITY OF Galway Sustainability and Green Campus team run awareness days, it will be a requirement to encourage more awareness of Water usage.	Buildings and Estates, CUSP and Green	Present ideas at Water Forum and set ideas.	Q4 2025	
8	Engage staff, students and visitors in responsible water usage and water consumption reduction at a building level and beyond by providing water consumption information and inviting inquiry and feedback	Kaizen Event	Operational	Sustainability and Green Campus team run awareness days, it will be a requirement to encourage more awareness of Water usage.	Buildings and Estates, CUSP and Green	Present ideas at Water Forum and set ideas.	Q4 2025	
9	Continue to lead and contribute to research activities in water resource management, water usage reduction, water supply and water treatment.	Kaizen Event	Regulatory	NUI Galway Research to assist in water saving technologies, water transportation, water sewage. SEAI Research award 2020 – Water Drainage	Dept of Engineering and MRI Institute	Learning and presentation to community and online	Q4 2025	
10	Use research led teaching and on-campus applied solutions to instil sustainable water practice in our future generations of water professionals.	Kaizen Event	Reputational	Online learning and Using campus as a live Demo site, this is working well in the Energy Awareness campaigns.	Buildings and Estates Water	Review of method for Live Demo site.	Q4 2025	