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WATER USE AND REUSE POLICY



Guru Ghasidas Vishwavidyalaya

Bilaspur Chhattisgarh, India 495009

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1. INTRODUCTION

1.1 Purpose

1.1.1 The purpose of this policy is to set out objectives that the University needs to meet in order to reduce wastage of water, thereby limiting its consumption of a resource under considerable pressure.

1.2. Scope

1.2.1 The policy applies to all students, Faculty Members, Non-Teaching staff and contractors.

1.3. Definitions

1.3.1 Greywater Use – Waste water (excluding sewage) which is most commonly used in flushing toilets to avoid the use of freshwater for this purpose.

1.3.2 Rainwater Harvesting – The collection and storage of rainwater via roof capture and storage tank systems. The water can be re-used in toilet flushing or irrigation.

2. POLICY VISION

2.1. Policy Goals: Global Context – Sustainable Development Goals

The primary aim of this policy is to ensure the efficient use of water by creating a favourable environment for its effective implementation across all the university areas in a pragmatic, sustainable and participatory manner. The Policy will strive for

- To meet the sustainable goals as ensuring access to water and sanitation for all
- Substantially increase water-use efficiency across all the buildings
- Ensure sustainable withdrawals
- Supply of freshwater to address water scarcity
- Substantially reduce the number of people suffering from water scarcity

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2.2 10 % Reduction Target

The ability to meet the 10% reduction target has been assessed by reviewing the current water reduction guidelines. The target has been set using SMART criteria and is therefore Specific, Measurable, Achievable, Realistic and Time-bound.

3. POLICY PRINCIPLES

3.1. Monitoring and Measuring Water Use

Using existing sub-meters the University will monitor water consumption at the entrance point to site and buildings. Additional sub-meters will be installed where there is a lack of visibility. Major water consuming equipment will also be monitored. By understanding the usage trends and patterns, abnormal usage will be identified including areas suspected of having leaks.

3.2. Compliance

The University will ensure that its operations meet and where practicable, exceed the legislative requirements pertaining to water conservation and management.

3.3. Conserving Water

The University will evaluate water using equipment including washroom facilities and where practicable, replace equipment with water efficient equipment. This is also particularly relevant in halls of residence. For example, ageing washroom/bathroom facilities use considerably more water than modern fittings and in some instances have the facility to be left running. Replacing such fixtures via a targeted programme of work across the University and halls of residence will reduce water use.

3.4. Building and Maintenance Standards

The University's development plans mean the construction and refurbishment of buildings across the estate. In the construction of new buildings, it is essential that the best standards of water efficiency are pursued to minimize water use and associated costs over the operational lifetime. This process begins at the project inception in the assessment of proposed water reduction technologies.

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Good standards of maintenance are fundamental to reducing water use on site. The importance of repairing leaks as they are identified cannot be understated due to the cumulative effect of this water use. Maintenance teams frequently visit back-of-house areas and are therefore crucial in identifying leaks which would otherwise go unnoticed.

3.5. Greywater / Rainwater Harvesting

Where practicable, the University will consider the capture and re-use of water in new buildings via systems of greywater and rainwater harvesting. The systems will be evaluated on a whole life costing basis which also considers the carbon cost of pumping water from collection tanks.

3.6. Procurement

The University will establish procedures for assessing the water efficiency of new equipment. This will require a cross-department approach working with procurement teams.

3.7. Engagement and Collaboration

Key to success in reducing water use is the engagement with both staff and students across the University. On a day-to-day basis, staff and students influence water use. The University will establish behavioral change campaigns for staff and students to educate and empower them to take action in reducing water use. Collaboration will also follow in the form of supporting student and academic projects by providing water data and where required, expertise whilst facilitating the implementation of onsite-demonstrator projects. This will enhance the University's research bids by providing on-site projects whilst contributing to an increased chance of research success.

3.8. Conservation and Re-use of Water for Irrigation

- 3.5.1 Supplementary irrigation sources should be used by means of appropriate water harvesting measures.
- 3.5.2 Arrangement of hydrants or sprinklers indicating location and type with typical details and specifications.
- 3.5.3 Spray irrigation to be designed to provide total head-to-head cover to avoid dry spots and spray on paved areas and unplanted surfaces.

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4. GOVERNANCE REQUIREMENTS

4.1. Implementation / Communication Plan

The draft was circulated at the **Executive Sustainability Steering Group** as well as **Head of Departments** whose activities will be directly affected by the policy objectives. The Executive Sustainability Steering Group includes members from both academic and professional services at head of department and administration level as well as student and staff representation from the Union.

The policy will be communicated both internally and externally. The policy will be communicated on the University's external facing website as part of the existing policy library. Staff will be made aware of the policy in the University's induction programme as part of a new sustainability module.

4.2. Review and Change Requests

4.2.1. This policy will be reviewed on a 2 yearly basis. The policy will be submitted to the Executive Sustainability Steering Group and the EB Estate Committee and Executive Board for renewal.

4.3. Reporting

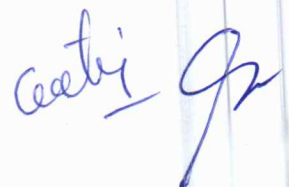
Performance against the target established in this policy will be monitored on a monthly basis by the Sustainability Team. The outcome will be reported to the following boards by the Head of Energy & Sustainability at the following frequencies as part of the overall Sustainability Report

- Estates Board Executive Committee – 3 Monthly
- Executive Board – 6 Monthly
- In the University Annual Report – Annually

5. EXPECTED OUTCOMES

5.1 While the goals set out broad aspirations and intention of the policy, the expected outcomes are tangible end results if the goals are achieved.

5.2 New opportunities and avenues emerges, where waste water is recycled and reused based on cost recovery and profit generating business models



5.3 Augmented capacities across institutions (State and city -level) that could possibly be replicated in other sectors

6 LEGISLATIVE CONTEXT

- NATIONAL BUILDING CODE OF INDIA 2005.

<https://law.resource.org/pub/in/bis/S03/is.sp.7.1.2005.pdf>

- <https://www.surrey.ac.uk/sites/default/files/2022-11/water-policy.pdf>

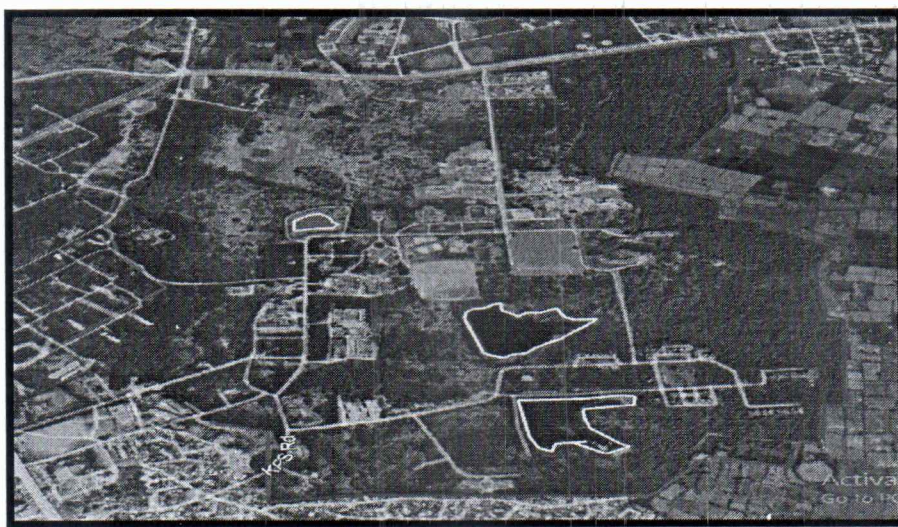


Figure 1. Ponds in Guru Ghasidas Vishwavidyalaya



Figure 2. Pond 1

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Figure 3. Pond 2 & 3

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