

6.2 Policy and Strategy of the Maintenance of Water treatment system in operation and rainwater harvesting system



# Bapatla Engineering College:: Bapatla

(Autonomous under Acharya Nagarjuna University) (Sponsored by Bapatla Education Society) BAPATLA - 522102 Guntur District, A.P.,India www.becbapatla.ac.in



Bapatla Engineering College (BEC) has a long-term commitment for conservation for water. The Institute of Science and Technology will regularly monitor the use of water with frequent meter readings to enable a rapid response to potential leaks in the system before damage, excessive use and expense occur. Overnight leak tests by taking meter readings before and after a period of no occupancy will identify any leaks and/or overflows in the building. the specification and design of all water systems to monitor remotely by the management staff. While the excellent design of water systems will reduce the amount of water used at BEC, the behavior of the students and faculty at the Institute of Science and Technology will carry the most influence. Therefore, occupant education is a crucial factor in the reduction of water use. Institute of Science and Technology has operated an ground research program specifically designed to conserve water and reduce runoff from campus.

# Best Practices of the college include the strategies for conservation of water in and around the college premises:

- 1. Minimizing water run-off by attaching faucets, thereby preventing wastage of water.
- 2. Reducing evaporation losses and recharging groundwater by planting and maintaining trees.
- 3. Use of recycled water for gardening and flush toilets.
- 4. Installation of the sprinkler system to water plants and to avoid water loss.
- 5. Watering of plants is carried out before 7 A.M and after 5 P.M to reduce evaporation loss.
- 6. An active Environment Club with exclusive Staff Co-coordinators, Student Secretaries and volunteers chart various activities and programs to create awareness on environmental issues among students.
- 7. Continuous monitoring of water usage and misuse in the college by student volunteers called 'Environment Comrades'.
- 8. Display boards for instilling alertness to conserve precious water resources are fixed near all the water sources.
- 9. Use of composting units and establishment of vermicomposting units in the campus to process dry wet waste generated in the campus.
- 10. Value added courses on Environmental Issues and Conservation and Vermicomposting Technology are offered for students to enrich their awareness on environmental issues and solutions.

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# 6.2 Water Conservation facilities available in he Institution

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## 1. Rain Water Harvesting

#### I. Rain water harvesting from Roof Top of Administrative Block







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#### III. Rain water harvesting by paver blocks





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#### **IV.Usage of Sprinklers in Gardening**





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## 2. Bore well/Open well Recharge

#### 1. Open well Recharge





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#### **II.Tube well Recharge**





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## 2. Construction of tanks and Bunds

#### 1. Tank





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#### **II.Bunds**





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## 4. Waste Water Recycling

1. Sullage Water from Hostel sinks to Soak Pit for Subsurface Irrigation (Gardening)





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#### 2. Waste water from RO Plant utilization for Earthing



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# **3.** A part of Sullage from General Engineering Block and R.O Plant waste water treatment with stepped Aeration for Recreatiom





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# 5. Maintenance of Water Bodies and distribution system in the campus



**1.** Dead end network distribution system



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Flow diagram of ground water (tube well) points in various blocks for the purpose of domestic and gardening



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