

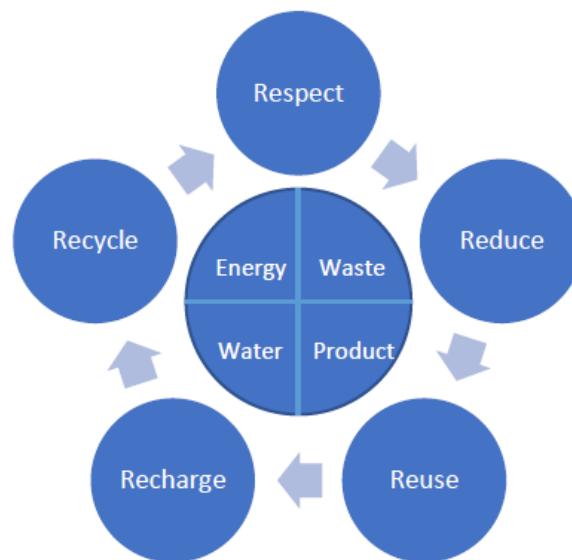
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# Water Audit

## General Description

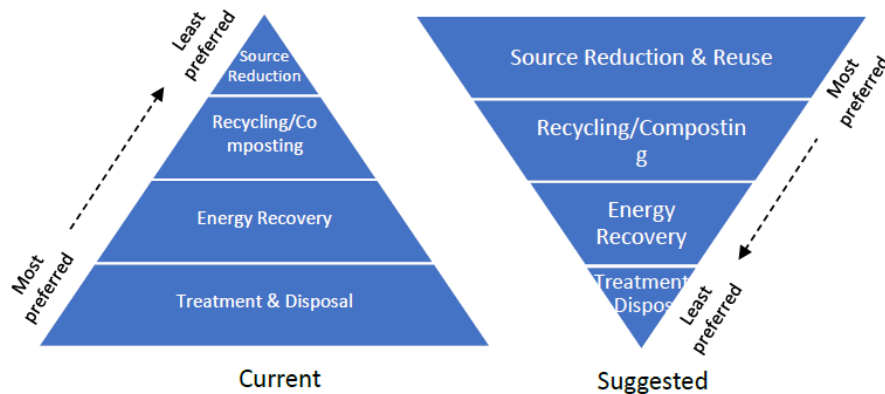
Efficiently manage your water resources with our Water Audit Services. Our team employs advanced techniques to assess water usage, identify inefficiencies, and recommend sustainable solutions. From industrial facilities to residential complexes, we ensure optimal water utilization for a greener and more cost-effective future.

5R Principles of water management:



1. **First R - Reduce Wastage of Water:**  
Promote adoption of water saving products and processes to reduce wastage of water
2. **Second R - Reuse Used Water:**  
Encourage people to use water at least twice before discarding it as waste water. For example, using last wash rinse water for mopping of floors; wash water of vegetables, lentils for watering plants etc.
3. **Third R - Recharge Ground Water:**  
Adopt Rain Water Harvesting
4. **Fourth R - Recycle Waste Water:**  
Treat your own waste water and re-use it for gardening, washing of public spaces and construction. Promote a complete substitution of freshwater use in gardening with use of treated waste water.
5. **Fifth R - Respect Water: Water is life –**  
Let's re-learn to respect Water and extend cooperation for the efforts being initiated towards water conservation. Our religions use Water as the supreme 'Purifier'. Re-start those traditions

## Pyramid of Waste Management:



## Objectives

1. Water Audit is a systematic approach to identify, measure, monitor & reduce the water consumption by various activities in the Community.
2. Complete audit and supply demand analysis based on the data gathered during audit
3. Inspection of any leaks & water loss assessment.
4. Range of practical & cost-effective measures for sustainable water saving & reducing consumption.
5. Laboratory testing services related to all source of water & waste water.
6. Optimization of existing treatment facilities.
7. Identify the sources of water consumption & waste water generation through field studies.
8. Identifying energy saving potential in existing drives.
9. Training of staff & systems awareness programs.
10. Annual financial savings, economics for the proposed water & waste water saving initiatives suggested.

## Benefits

1. Water audit improves the knowledge and documentation of the distribution system, problems and risk areas and a better understanding of what is happening to the water after it leaves the source point.
2. Leak detection programs help in minimizing leakages and tackling small problems before they become major ones.
3. Identification of deviation in water quality with respect to requirement at various points can help organization to initiate proper treatment.
4. These programs lead to:
  - Reduced water losses
  - Improved financial performance
  - Improved reliability of supply system
  - Enhanced knowledge of the distribution system
  - Efficient use of existing supplies
  - Better safeguard to public health and property
  - Reduced legal liability
  - Reduced disruption thereby improving level of service to internal customers

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## Approach and Methodology

### Level 1:

- Pre-assessment walk through audit
- Data collection – Processes, machinery / equipment and water usage
- Study the historic water use data
- Determine water flow rates and quality for each application
- Identify the areas of water conservation
- Identify the source of waste water generation

### Level 2:

- In-depth process studies for water/wastewater quantification & characterization
- Flow monitoring, measurement, sampling & analysis
- Identify areas for water conservation & waste minimization measures
- On the spot recommendations of general housekeeping measures

### Level 3:

- Synthesis to evolve options for medium term & short-term measures
- Detail process design calculations, sizing, basic engineering for the options identified
- To prepare complete technical & commercial proposal
- Detailed Water Audit Report Submission