



WATER AUDIT

- **'Water is Elixir of life'** and should be handled and treated with utmost care. BGS is committed to protect **'Blue and Green'** of our planet by carrying out water efficiency audit programs, which makes positive contribution to the world we live in and promotes best practices for sustainable water management.
- **During water audit we give importance to few significant words which co-relate to our organization:**
Build Liquid Utility Efficiently & plan Growth with Responsibility towards Environment & Energy for the Next level.

Measure Of Blue:

- Water audit is a systematic and scientific study of water circuits to identify, measure, monitor & reduce the water consumption, conducted by well - informed independent organization.
- Comprehensive water audit gives a detailed profile of the distribution system, thereby facilitating easier and effective management of the resources with improved monitoring. It helps in correct diagnosis of the problems faced in order to suggest optimum solutions.
- Water audit is also an effective tool for realistic understanding and assessment of the present performance level and efficiency of the service and the adaptability of the system for future expansion & rectification of faults during modernization.

Water Audit Helps In:

- Crisis management.
- Asset management (sustainable).
- Bench marking (grading values).
- Controlling losses (apparent & real).

EVERY DROP COUNTS!



Water Audit Determines Green Water Foot Print, Blue Water Foot Print & Grey Water Foot Print By:

- The amount of water lost from a distribution system due to leakages, evaporation, overall wastage etc. and the cost of such losses to the utility.
- Quality of water available to various users against the specific requirements.
- Efficacy of existing treatment plants to achieve quality of treated water.
- Exploring possibility of alternative technologies to achieve required quality and quantity of treated water as well as optimization of cost.
- Checking how blue you are.

Benefits Of Water Audit:

- Water audit improves the knowledge of existing treatment and distribution system resulting in identification of problem and risk areas. Leak detection programs help in minimizing leakages and tackling small problems before they become major ones.
- Water audits also help Organizations to establish proper data collection system. This helps in identification of deviations in water quality with respect to requirement at various points based on which Organization can initiate actions as appropriate.



Water Audit Programs Lead To:

- Efficient usage of existing supplies by minimizing water losses.
- Enhanced knowledge of the distribution system and exploring possibility of upgrading the same with new technologies.
- Improved reliability of supply system.
- Improved financial performance.
- Better safeguard to public health and property.
- Reduced legal liability.
- Reduced disruption.
- Link environmental performance to profitability.

Approach And Methodology

Phase - 1:

Audit process is initiated by collecting required information in a structured way. Information provided by the client in a Pre-Audit Questionnaire helps in understanding existing water usage pattern.

Phase - 2:

Walk through audit and interviews:

1. Data collection – processes, machinery and water usage.
2. Study the historic water use data.
3. Determine water flow rates and quality for each application.
4. Identify the areas of water conservation.
5. Identify the source of waste water generation.

Phase - 3:

Analysis and conclusions:

1. In-depth process studies for water/waste water quantification & characterization.
2. Flow monitoring, measurement, sampling & analysis.
3. Base-line determination
4. Identify areas for water conservation & waste minimization measures.
5. Energy saving potential for various drives.
6. On the spot recommendations of general housekeeping measures.

Phase - 4:

Preparation of comprehensive water audit report:

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



Deliverables Of Water Audits:

• Facility Description - Details of existing water circuit:

Detailed description of facility along with schematic layout of water supply distribution system.

• Water usage model:

Detailed analysis and presentation of past data including trend analysis over period of time.

• Water Balance:

Detailed Schematic diagram giving water balance.

Detailed audit findings and Suggestions and recommendations:

- Establishment of specific water consumption & waste water generation per unit of production.
- Target level of specific water consumption & waste water generation with similar type of industry both local & at international level.
- Identification of inefficient usage, problem areas for water conservation and remedial measures.
- Identification of opportunities and quantification of reduction in water footprint, enhance efficiency of water management.
- Determination of saving potential for water and electrical energy vis-a-vis investments.
- Annual financial savings, payback periods & ROI for the various water & waste water saving initiatives suggested.
- Budgetary offers for suggested improvements as applicable.
- Determination of areas for training of staff & systems awareness programs.

Water audits facilitate laying foundation of Water Management by '5R' Principle

Rethink, Reduce, Recycle, Reuse & Recover

To know more get in touch with us!!

- +91 9819 9976 49
- +91 9821 0736 36
- businessbgs13@gmail.com
- www.blueandgreensolutions.org



"think green & save blue"
"a water engineering company"