

Water & Energy

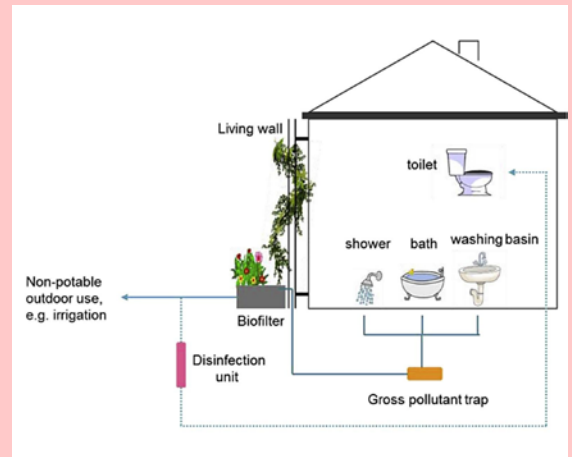
Greywater treatment by living wall and green roof systems

Wastewater reuse, energy saver

Integrated Grey Water Treatment (GWT) using green building vegetated structures provides buildings water recycling and urban cooling to conserve water and reduce energy requirements. Vegetation in living walls and green roofs are passive methods for energy savings in buildings. Integration with the GWT system fulfills the vegetation's water requirements that water scarce arid regions generally lack, while offering simultaneous water treatment.



Fig 1: living wall



Potential Use in Hotel Industry

- Grey Water Treatment
- Passive cooling
- Improved air quality

Disadvantages

Knowledgeable personnel required for site-specific installation

Specific light requirements

May require additional ventilation

Advantages

Cost-savings from energy and water conservation

Aesthetically appealing

Long lifespan and low maintenance

Minimal component replacement

Improves air quality