PROJECT BRIEF
The Valley School (Krishnamurti Foundation India) is located on Bengaluru’s Kanakapura Road, 20 km south of the city’s center. It is a co-educational day and residential school.

The school had a reed-based greywater treatment system – to treat the wastewater generated from the school’s kitchen and dining hall. However, the system had not been working for a while; it also needed to be modified so that the treated water would meet the new discharge standards and be reused.

PURPOSE
• Modify the existing reed bed chambers greywater treatment system to make the system functional again, meet the required discharge standards as well as prevent odours (which was an issue with the previous system).
• To treat all the greywater generated from the kitchen and dining hall in the modified treatment system and reuse for irrigation on the campus.

SYSTEM IN BRIEF
The wastewater streams are conveyed from the kitchen and dining hall to the modified greywater treatment system, which includes:

1. A Screen Chamber, Oil and Grease Trap: as preliminary treatment to trap any solid waste, oil and grease generated from the kitchen.
2. Settler: a sedimentation tank for retaining particles by settling over a specific time frame.
3. Anaerobic Filter: up flow chambers connected in series, partially filled with filter media.

The treated water is used for gardening and irrigation of crops, on the campus.
OPERATION AND MAINTENANCE

This greywater treatment system is operated and maintained by the school authorities which costs them Rs 35,400 annually.

A regular schedule should be followed for maintenance and involves the following:
(a) Cleaning of screen, oil and grease chamber
(b) Removal of sludge in settler and anaerobic filter once in 1.5 years and 4-5 years, respectively.
(c) Washing of filter media in the filter chamber and gravel filters based on requirement or once in 5 years
(d) Periodical cleaning of gravel filter top surface off leaf litter.

REUSE OPTIONS

The treated water is reused for gardening and irrigation of crops, on the school’s campus.

PERFORMANCE OF SYSTEM (as per 05/03/2021)

<table>
<thead>
<tr>
<th>Samples</th>
<th>pH</th>
<th>TSS</th>
<th>BOD</th>
<th>COD</th>
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<td>Date of sampling:</td>
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<td></td>
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<tr>
<td>05/03/2021</td>
<td></td>
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<tr>
<td>Inlet to Grease Trap</td>
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<td>614</td>
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<td>589</td>
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<td>Final Effluent</td>
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PHOTOGRAPHS