A
Brief presentation on
Scaling up sustainable SSHE, TSC & fluoride mitigation (Water Safety Approach) in Ujjain & Jhabua Districts of M.P.

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Main Objectives

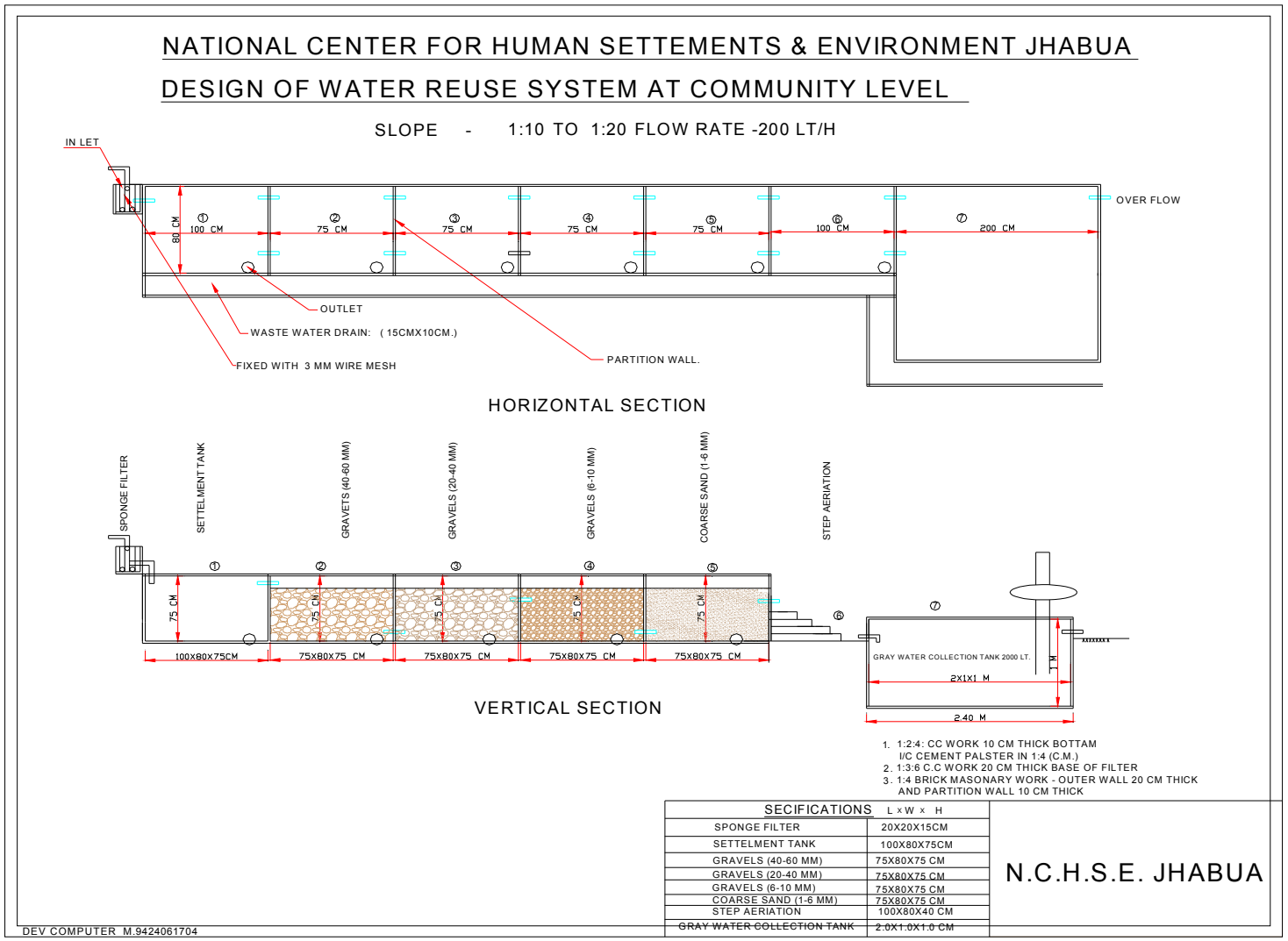
1. To achieve the availability of safe & sufficient water for drinking, bath, sanitation and other purposes in school/ashram, hostel & village level.
2. Scaling up the activities of WWM & fluorosis mitigation in districts, state ,national & international level to achieve objective one.
3. To reduce the effect of fluorosis through rain water harvesting, recharging, dilution technique and alternative measures.
4. Use of grey water for gardening to provide appropriate quantity of vegetable and fruits for nutritional support.
5. To improve the health and sanitation status of children and peoples through motivation & other IEC activities.

Major Activities

To achieve the above objective following activities has been taken-

- Reuse of grey water at Community (school, ashram & hostel) level.
- Rain water harvesting and recharging.
- Reuse of grey water at house hold level.
- Dilution of fluoride water through dilution technology & other alternative measures.
- Water safety plan for O & M of all systems.

Reuse of grey water at Community level



Check List For Water Reuse System

- 20cm.thick base concrete of 40 mm metal in 1:3:6 ratio
- 10C.M.thick base concrete of 12-20 mm metal in 1:2:4 ratio
- Brick masonry work in 1:4 cement mortar
- Cement plaster in 1:4 cement mortar in all side
- Thickness of outer wall will be of 20 cm and partition wall of 10cm.
- 1:10 to 1:20 slope to be maintain from settlement tank to aeration chamber.
- Flow of grey water from one chamber to another chamber should be alternate one up & one down. Two outlet in each chamber at 10cm above of the base & 15 cm from the top
- Total length of water use system will be 8.20m

Check List for Water Reuse System

- Flow rate 200 liter per hour
- Outlet at the base of each chamber for cleaning of filter media.
- Color coding must be for different type of water
- Direct flushing system is safe process.
- Separate water supply should be for anal cleaning
- Electric pump must be covered.
- All chamber should be covered by GI wire mesh cover.
- Steel sieves must be in outlet of each bathroom.
- Construction time required for WRS system from 5-7 days.
- Bunkers are required to store filter material .
- Avoid PVC pipe in open place.

Operation & maintenance of systems

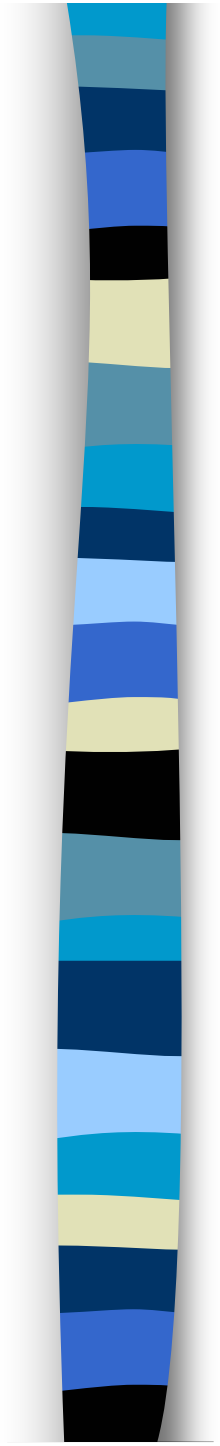
- O&M of the systems is designed on the basis of QCRA& QMRA findings.
- O & M of the systems is carried out by WSC, PTA, PRI & waterman, etc.
- Cartoon matrix, written matrix and sanitary inspection format have been developed.
- Water safety kit (turbidity tube,testing kit for fluoride, ph,turbidity for drinking & grey water with O & P manual has been provided to the water safety club.

Operation & maintenance of systems

- Sponge filter should be clean in every day .
- Chlorination is required in every alternate day.
- Filter chamber should be flush weekly with the support of provided out let in each chamber .
- The whole filter material should be clean and replace once in a month. Only coarse send should be clean and replace forth- nightly.
- Cleaning work should be only wearing hand globs.
- Grey water collection tank & Grey water roof tank should be clean weekly by providing outlet in lower side.Bathroom should not be use for urinal, cleaning bounds, vomiting & menses period and also avoid to clean bathroom with phenyl.
- Time to time checking of water quality by PHED.

Benefits:

- Available of Grey water for flushing of toilet is making sustainability for sanitation.
- Children are saving 750 to 1000 liter water per day .
- Saving of drinking water by reuse of grey water.
- Children are effectively using toilets due to availability of water for toilet flushing.
- Rest of Grey water is using for gardening
- Wastage water is not stagnant near by Hostel. So,system is helping to reducing diseases like Dengue, Chicken guniya, viral fever, etc.



Thanks