# NAALA CLEANING

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## ABSTRACT

*One of the most significant issues of the present is water contamination. In addition to causing water poisoning that makes people sick, it also has an impact on the ecosystem. It is crucial to concentrate on the fundamental problem because maintaining the cleanliness of these water bodies is our primary goal. The additional water bodies can be kept clean by cleaning the first water bodies from the ground up. We chose the naala in Laxmi Nagar because we want to clean the naalas as part of this project. By lowering the pH levels and chloride contamination, our main goal is to maintain the water bodies usable. In order to assess the water's quality, we will additionally test its BOD, COD and other essential water tests.*

*Using no fine concrete that will serve as filter mesh and a particular kind of bacteria that feeds on sewage present in the water and plant roots that thrive on sewage, we will evaluate the cleaning procedure.*

**Keyword :** Water contamination, no fine concrete mesh, aerobic bacteria , plant roots and naalas.

## 1. Introduction :

Water pollution is the contamination of water sources by substances that form them water is not used for drinking, cooking, cleaning, swimming, and other activities. Contamination includes chemicals, dirt, bacteria, and parasites. The result is all kinds of pollution they are swimming. Air pollution ends up in lakes and oceans. Lander contamination may occur into underground streams, then rivers, and finally oceans. Therefore, the waste is thrown away the waste can eventually contaminate the water supply. Contamination of water can cause disease or become toxic. Untreated bacteria and parasites Sewage can get into drinking water supplies and cause cholera and digestive problems diarrhea From industry, garden, home and golf course can cause acute poisoning and lead to immediate death or chronic poisoning neurological problems or cancer. Many water pollutants enter our bodies when we use them water for drinking and preparing food. Pollutants enter the digestive system. From there, it can spread to other organs of the body and cause various diseases. Chemistry included Skin contact can occur from washing clothes or swimming in contaminated water cause skin irritation. Harmful chemicals in water systems can also affect animals plants that live there. Sometimes these organisms will live with chemicals The system should only be consumed by people with mild or severe illness toxic symptoms. Animals and plants themselves cannot die or reproduce properly.

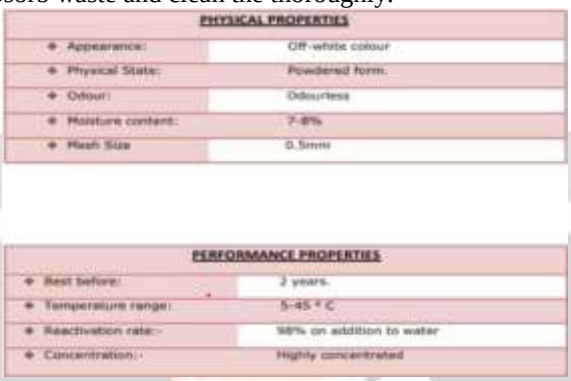
### 1.1 No Fine Concrete:-

In today's world, we are very interested in sustainable and environmentally friendly resources construction Especially in countries like India that are prone to floods and floods issues that are key environmental issues and sustainable development has become a the need for Various sustainable and environmentally friendly methods are implemented to solve this problem This is a problem where there is no concrete pavement. Working on a good Concrete Raindrop Concept allows a large amount of storm water to pass through. soil, thereby increasing groundwater and reducing storm water runoff. Fine concrete is lightweight concrete produced by removing fines conventional concrete. Fine concrete (sometimes called porous or open-faced concrete) concrete consists of cement, coarse aggregate and water. No penalty concrete is a continuous mixture of coarse aggregate, hydraulic cement, etc

cement materials, admixtures and water. A place that can pass through, make a storm allows for filtration through water, asphalt, and the ground below The base soil is suitable for drainage. Allow possible filtering pollutant.
The advantages of no-fine concrete are: 1.)Water treatment by pollutant removal. 2.) Less need for curbing and storm sewers. 3.)Improved road safety because of better skid resistance. 4.) Recharge to local aquifers.

**1.2 Bacteria :-**

Bacta Cult (aerobic) is a specially formulated microorganism containing aerobic bacteria. If added to the waste, it can grow over a wide temperature range of 5-45°C. Bakta-Kultus water treatment system started direct propagation to produce high biomass. It contributes to the biodegradation of the BOD content of wastewater. Within an hour of sending the down the drain, the bacteria began eating the until the sides and top of the drain were covered in dust. This is his natural food They absorb waste and clean the thoroughly.



| PHYSICAL PROPERTIES | |
|---|---|
| Appearance: | Off-white colour |
| Physical State: | Powdered form. |
| Odour: | Odourless |
| Moisture content: | 7-8% |
| Mesh Size | 0.5mm |

| PERFORMANCE PROPERTIES | |
|---|---|
| Best before: | 2 years. |
| Temperature range: | 5-45 ° C |
| Reactivation rate:- | 98% on addition to water |
| Concentration:- | Highly concentrated |

**Chart -1:** Bacteria Properties

**1.3 AAC:**

AAC is a foam concrete building material that is precast and lightweight and can be used to create blocks like concrete masonry units.
Benifits -
• They are environment friendly blocks and they produce lesser emission of green house gases and lesser curation of solid waste.
• Due to it's light weight, it starts floating on water.
• The micro pores in AAC blocks ensure low absorption of water, providing better moisture protection.
• The porous and airy material last really long and are not much affected by any climate change.

**1.4 Eucalyptus trees:**

These plants can easily absorb the water at a faster rate and release pure water vapour into the atmosphere, acting as a natural purifier.
They can be planted all along sewage ponds as they absorb the surplus waste water rapidly and release pure water vapour into atmosphere. In addition to this, they add plenty of oxygen into the atmosphere.

**1.5 Fly ash:**

The use of fly ash, a finely seperated by-product of the burning of pulverized coal , can improve the strength and workability of concrete while lowering permeability.
Fly ash benifits -
• It is is more affordable to produce than traditional cement, making it an attractive option for concrete manufacturers.
• It is environmental friendly as it reduces CO2 emissions.
• It reduces soil erosion.
• It is low shrinkage material.
• It's microporous structure enhances water retention capacity by retaining water in structure, leading to prevention of soil erosion.

## 2. Literature Review:

- By Rajeev Bhattacharya (July 2022) A new study casts doubt on Indians Clean Ganga Mission Govt. Although implemented, the results of the survey Several schemes have been launched to clean the Ganga river, but its lower reaches remain the most polluted.
- Ganges River (Reclamation, Conservation and Management) Authority (II)(Amendment) Order, 2019 Central Government to adopt Jal Shakti Department Measures to prevent, control and abate environmental pollution in the Ganga River and ensure a continuous flow of sufficient water to rejuvenate the Ganga River natural state.
- Mr. Abhijeet and River Treatment System Design and Manufacturing Team (Nov 2018) IJRCT This article states that India is a holy country with many festivals like Ganesh. Visarjan, Navratri Durga Pooja & especially in Siahnsth Kumbhmela, there is a lot of water pollution and then give insight using River Cleaning Machines to reduce water pollution
- Hussain Md Anawar and Rezaul Chowdhury (August 2020) Fix Search Gate River water is polluted by biological, chemical, ecological and engineering processes- It is important to choose suitable river water treatment methods for restoration river ecosystem.
- Li Jiahao, F Chin Lian, Farzad Hejazi and Noor Azline Mohd Nasir - Study Properties and Strength of Concrete Aggregates (November 2019) Research Gateway This article examines and examines the performance characteristics and strength of any concrete previous researcher's conclusion.
- Prof. A. Alam Experimental study on the properties of good concrete (IJIFR. 2015) No. Precast concrete has been used in many countries for more than a century. A high aperture it helps to convert rainwater directly into the soil and thus helps to recharge it ground water. In this study, 3 concrete blocks each of two different sizes was prepared to find the mixture that produces the highest overall compressive strength and Study the effect of the percentage of fine aggregate on the compressive strength of fines concrete.
- Rajnikant Prasad, Dayanand Sharma, Kunwar D. Adadaw and Hussameldin Ibrahim - A preliminary study on gray water treatment using water hyacinth (May 2021). The purpose of this research is to evaluate the potential of water treatment phytoremediation for freshwater treatment based on optimal growth of aquatic microphytes and harvest frequency. The water treatment plant was found to be a phytoremediation plant for water treatment to ensure the quality of treated water.
- Sonali Bhavsar - Anaerobic, Aerobic and Strict Facultative Bacteria (Feb 2019) Research Gate is a favorable environment for the growth of microorganisms such as Lag protozoa, algae, fungi, yeast, bacteria and viruses. Bacteria from the nose are pathogenic, non-pathogenic, saprophytic, autotrophic, heterotrophic, facultative, obligate, aerobic or anaerobic species. Millions of bacteria are counted per milliliter of fluid sample sample. Common sewage bacteria..

- Literature Gap: Many studies have been done on river cleaning but nothing bad results, they have more dust or mud than they need This was initially implemented to reduce pollution in additional water bodies.

## 3. Methodology:

The effluent water comes through the intake at the beginning of this procedure, where a No Fine beam serves as a filter mesh and a conveyor belt is positioned next to it to collect the trapped rubbish. The next step is to arrange three bricks in a zigzag pattern, beginning with a No Fine block and moving on to Flyash and AAC blocks. A bacteria that feeds on sewage gathered at the beam is injected close to a no-fine beam. These blocks serve as a kind of housing for the bacteria where they are also put. The bacteria then travels with the water's flow and consumes any remaining garbage that is there. Thus, clean water is obtained from the outlet.

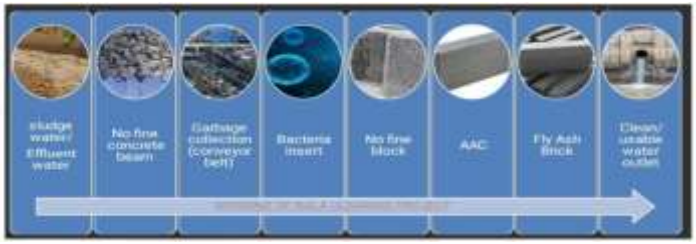



Fig: Methodology

## 4. CONCLUSIONS

- It transforms waste water into drinkable water.
- Lowers the water's BOD and COD levels.
- The pH is also lowered.
- Brings the aquatic ecosystem's ecology back into balance.

## 5. REFERENCES

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