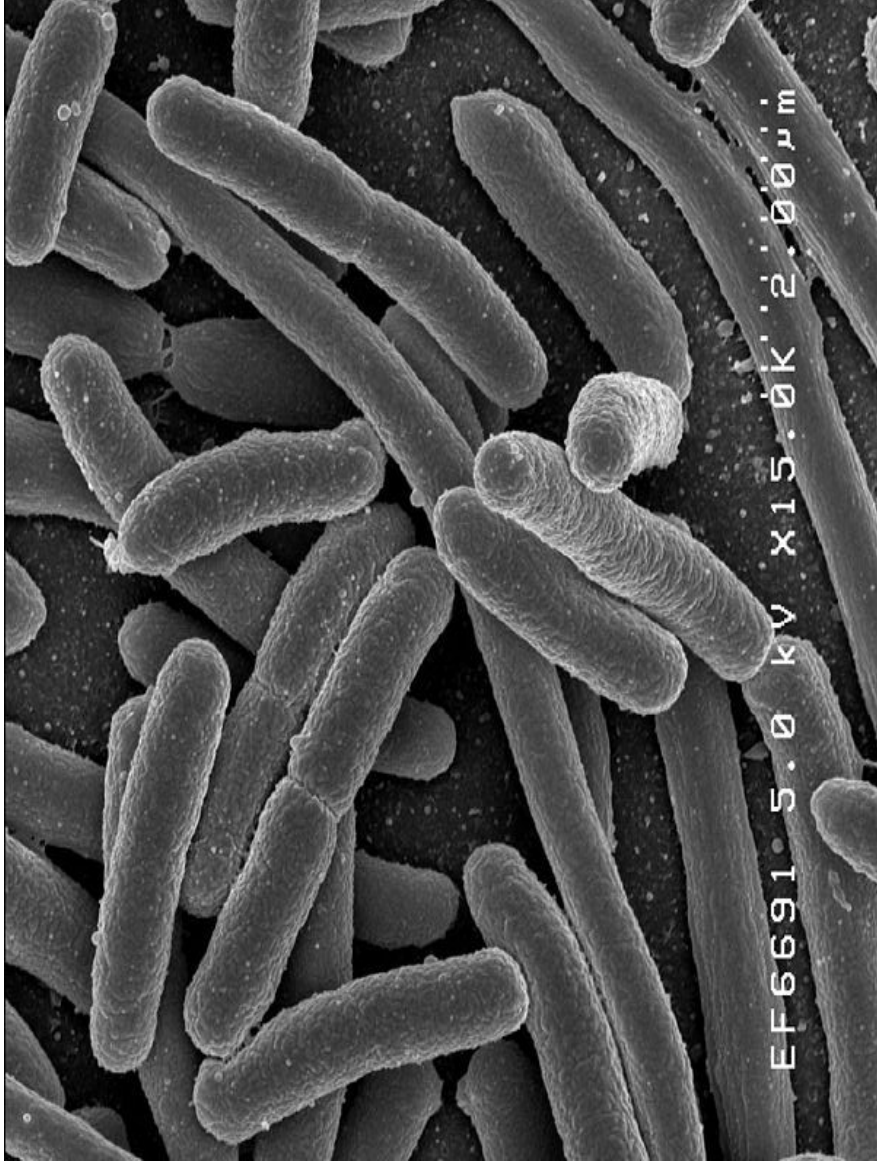
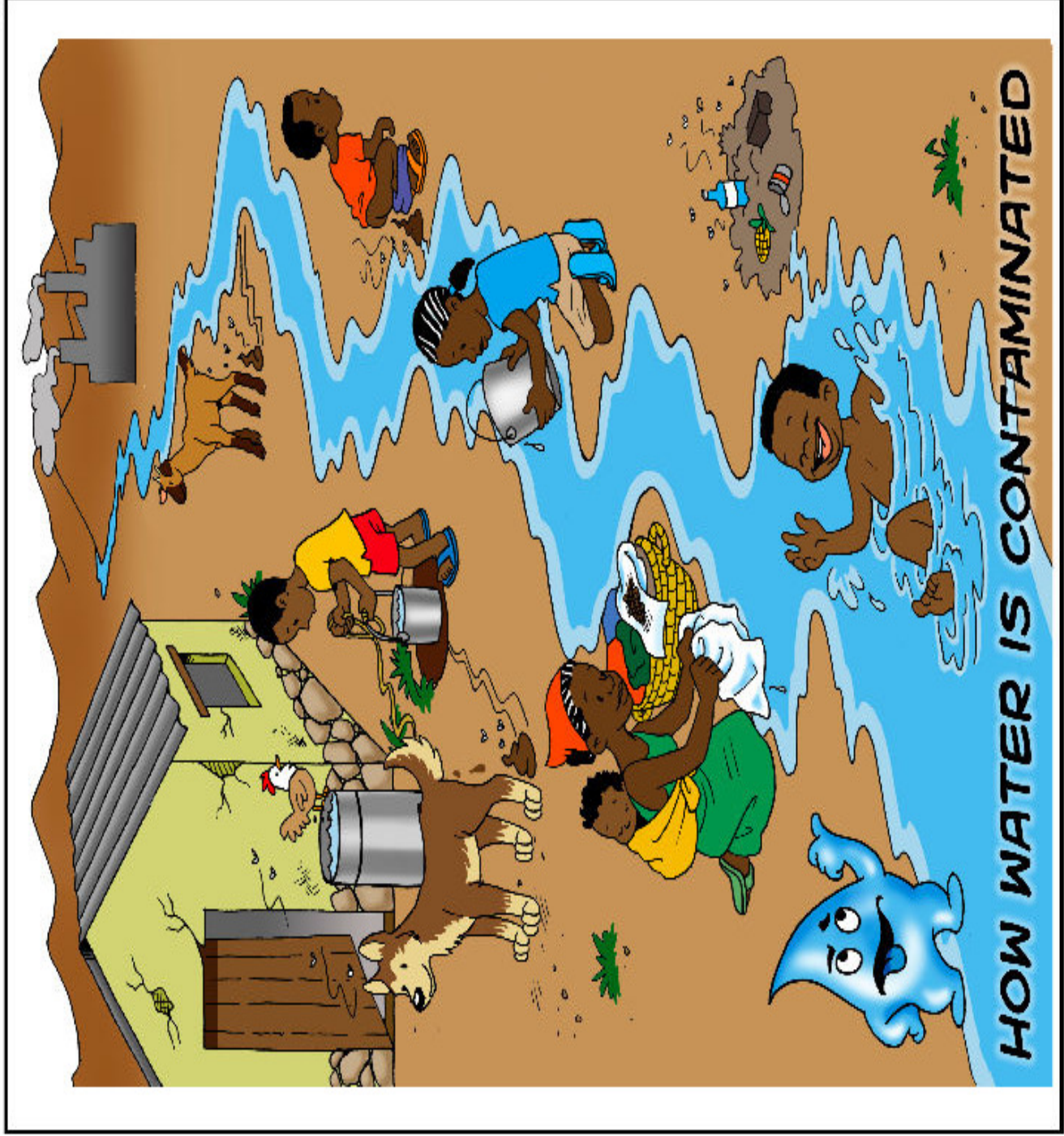


# Escherichia coli

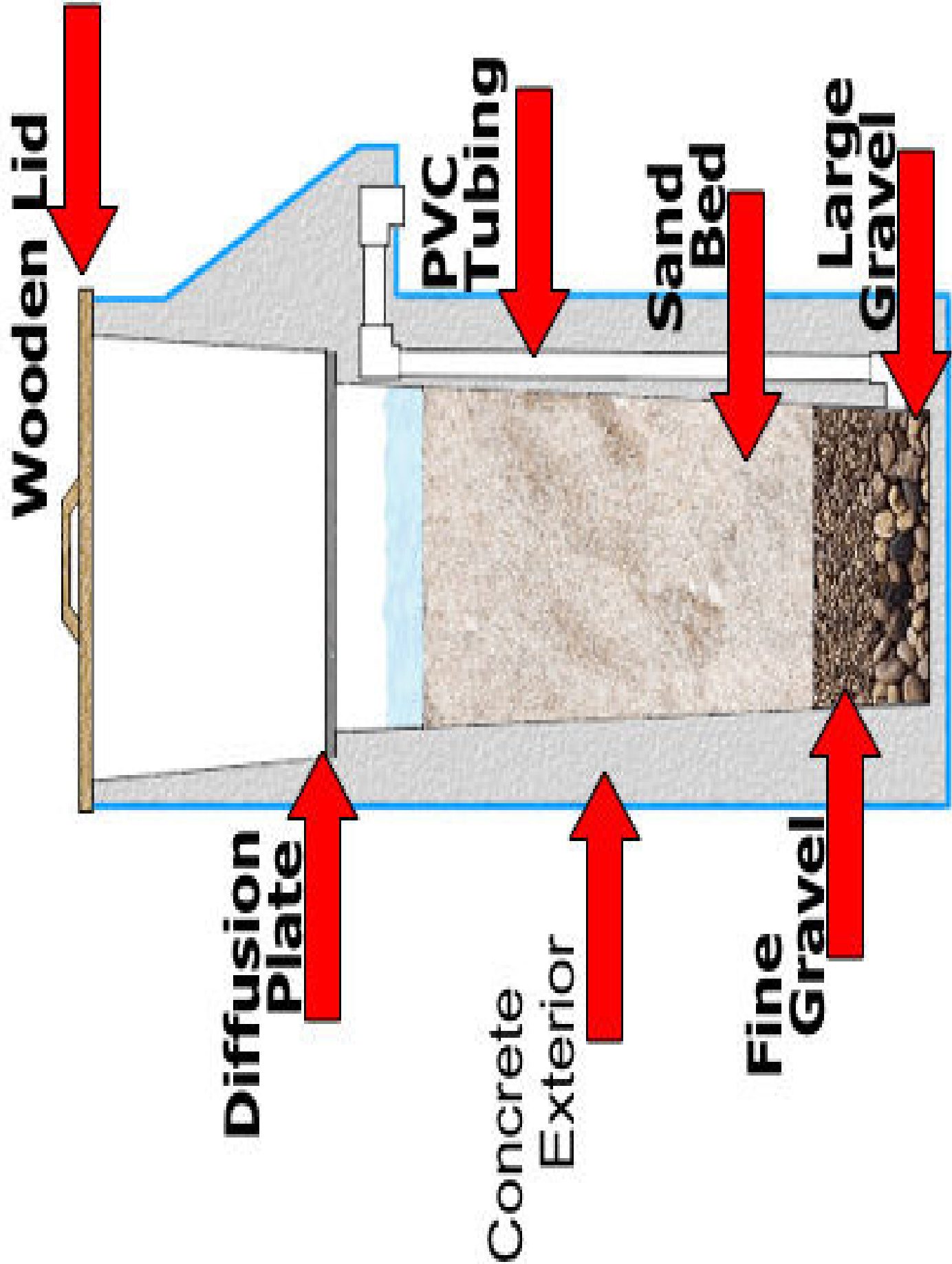


Credit: Rocky Mountain Laboratories, NIAID, NIH  
[http://en.wikipedia.org/wiki/Image:EscherichiaColi\\_NIAID.j](http://en.wikipedia.org/wiki/Image:EscherichiaColi_NIAID.j)  
pg



**What is a bio-sand filter?**

**How might we make such a filter?**

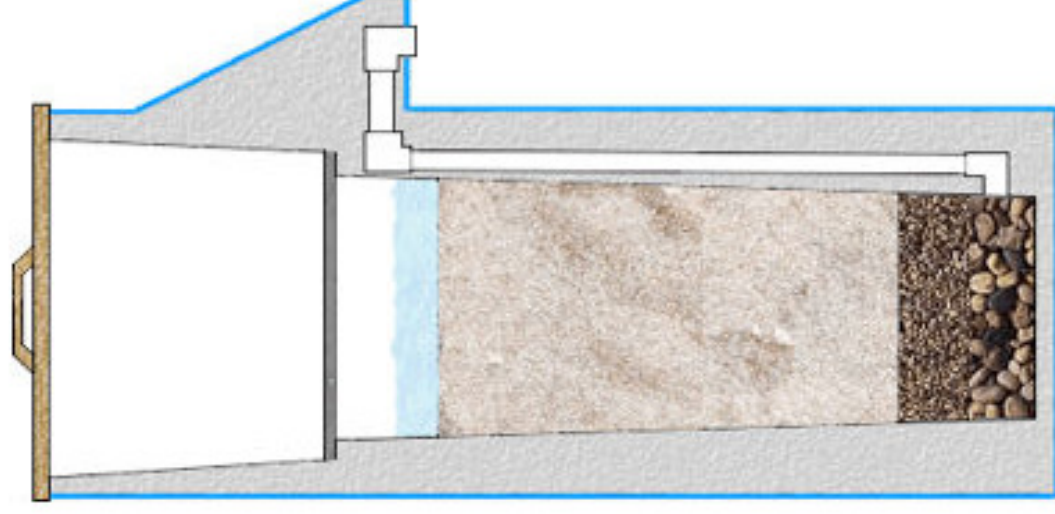


# Bio-sand Water Filtration

## How does it work?

### 4 Processes of Filtration

- 1. Predation**
- 2. Natural Death**
- 3. Adsorption**
- 4. Mechanical Trapping**

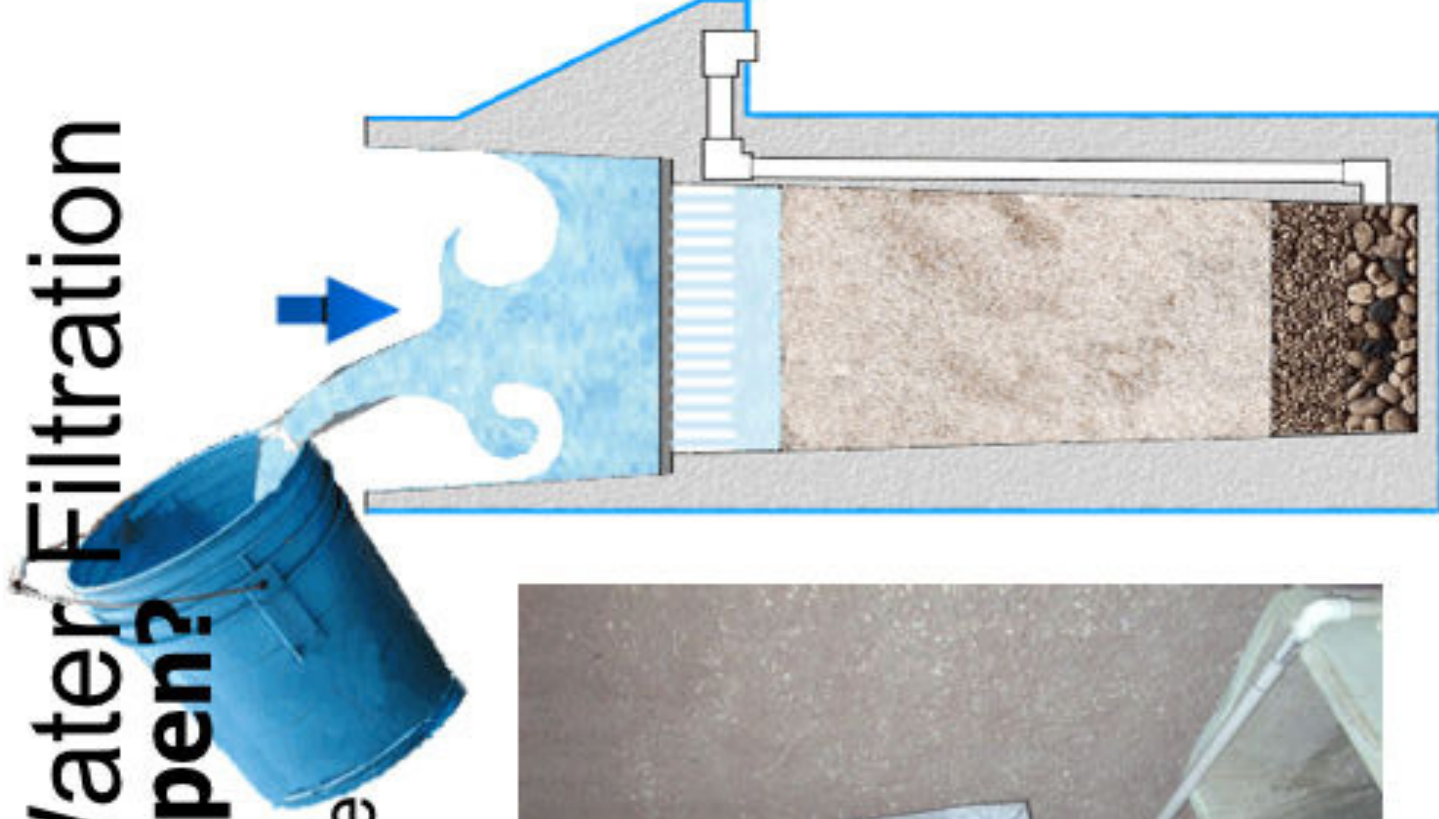




# Bio-sand Water Filtration

## How does it happen?

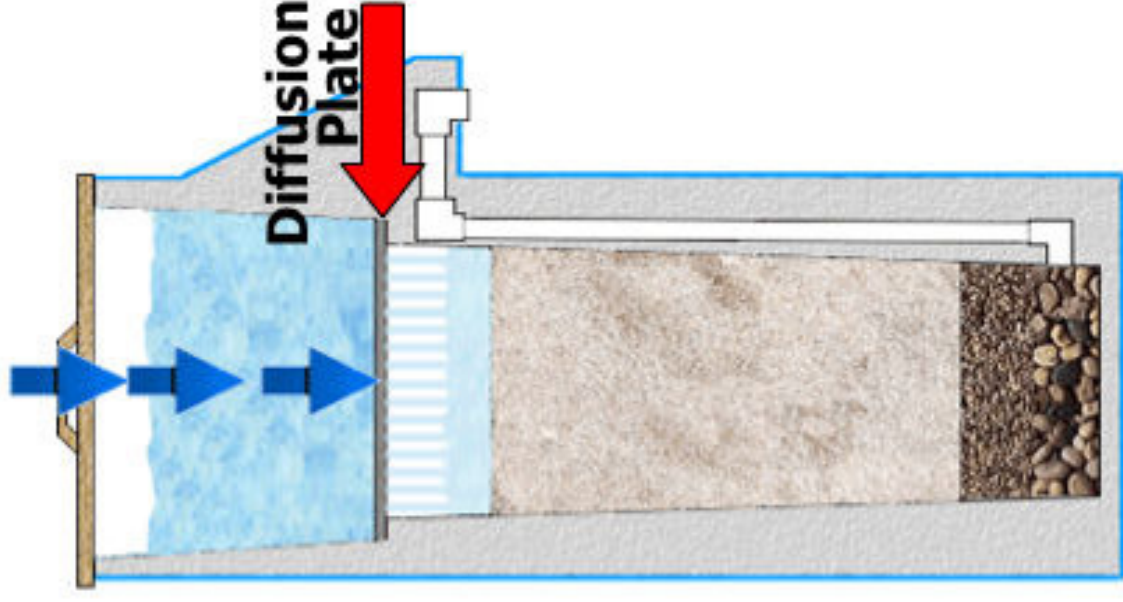
- Water is poured into the top of the Filter.



# Bio-sand Water Filtration

## How does it happen?

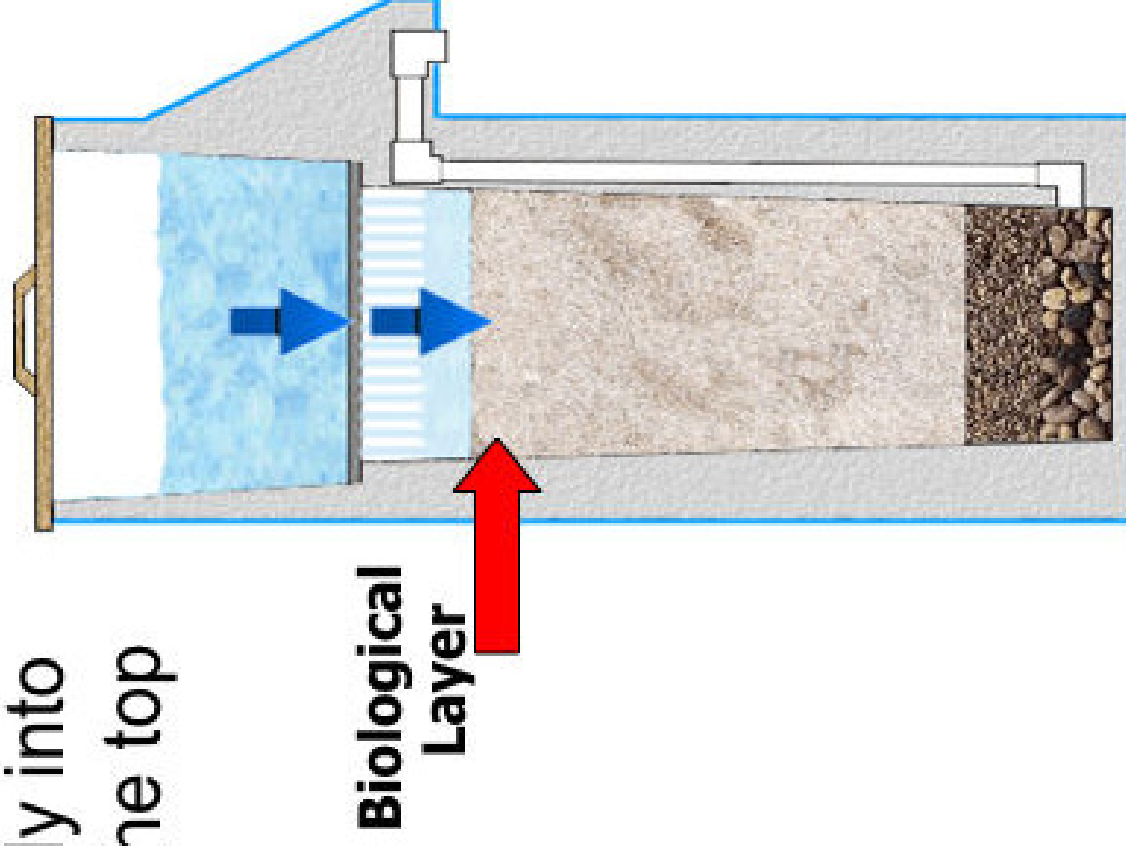
2. The Diffusion Plate slows the force of the water.



# Bio-sand Water Filtration

## How does it happen?

3. Water then travels slowly into the biological layer at the top of the sand.

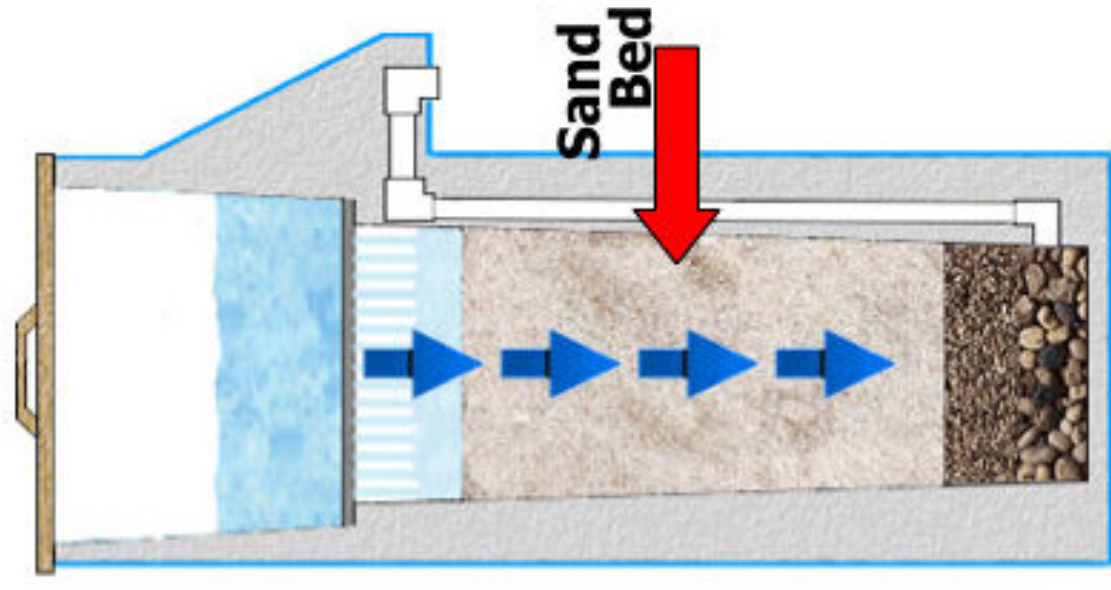




# Bio-sand Water Filtration

## How does it happen?

4. Water continues slowly through the sand bed.



# Bio-sand Water Filtration

## How does it happen?

5. After passing through both levels of gravel, the water is propelled up and out.

