**Report on field visit**

**PCMC water tretment plant (Nigdi)**

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Introduction:

1)within these ,we decided to plan our visit on 30/11/2018 to our desired water treatment plant.

2)it is location at end of pimpri chinchwad city having area of around 10 acres and having various phase for treatment of water.

3)Next to that, we arrived their around 8:45 and ended up around 12:00 clock

4)when we arrived their it is divided into two part,within first part we have given an brief introduction to infrastructure as well as process ,stages in water treatment

Observation:

1)understand how theories apply to the real world situations.

2)observe things,activities and process from system point of view.

3)understand fie deired steps in brief they are as follows:

1)collection(aeration):the rawwater which is supplied to water tretment plant comes from rawal lake which is there in pune.

2)coagulation:the raw-water is first filtered with chemical coagulant alum was in range of 5-4.0mg/L of water.the dose of alum varies depending upon the turbidity,colour,temperature and ph of water.

3)flash mixing:treatment water subject to 'mixing chamber' for few minutes.

4)sedimentation:the water is now lead into sediment tanks where it is detained for 2-6 hrs when the flocullent precipitate together with impurities and bacteria settle down the tank.

5)filtration and last step is chlorination and finally water is distributed allover the city .

Development of ideas with respect to system thinking:

1) within these ,we have designed an system thinking whch can be considered as combination of all social,biological,and environmental

2)by low consumtion of electricty and more usage of machineries and increasing outcome may lead to better development of overall system

3)they should use solar panels for production of electricity

4)less use of chemicals in order to disinfect water with lot more purity.

5)increase supply of water and plantation of trees in order to increase rain which ultimately lead to increase in level of water.

Suggestions:

1)I think they should develop a wastewater recycling stream which reduced 27% of household waste water.

2)to devlop an desaliation membrane reactor for industrial wastewater treatment with forward osmosis technology.

3)provide strategy for further usage of the drawn solution in forward osmosis reaction and sludge produced in wastewater treatment.

4)fundings from goverment is also essential in order to develop a better infrastructure and havind well and less used or consumption of electricity.