Project Title: **Real time river water quality monitoring and control system** **Project Design Phase-I - Solution Fit Template**

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Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

CS

- Water quality checkers
- Enducers (public) , organizations responsible for supplying drinking water are the customer's

6. CUSTOMER CONSTRAINTS

CC

- Budget is the main factor which limits the customers in taking actions . The proposed project is cost effective .
- Man power is the another factor . The proposed system needs no man power

5. AVAILABLE SOLUTIONS

AS

The current water quality monitoring system is a manual system with a monotonous process and is very time consuming

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS

J&P

- The water quality parameters datas are obtained using the sensors and the datas are stored and monitored continuouslly
- If the water is polluted an sms alert will be sent to the specified customer

9. PROBLEM ROOT CAUSE

RC

Due to industrial waste and other polluntants such as plastics , nitrates , bacteria ,Fertilizers etc. The water is polluted very much so it is difficult to convert the river water into drinking water.

7. BEHAVIOUR

BE

If the water is polluted very much install the water quality monitoring system which is proposed in this project so that the customers gets the details about temperature, turbidity and pH of the water and with the help of those details necessary actions can be taken to improve the quality of the water.

Focus on J&P, tap into BE, understand RC

3. TRIGGERS

TR

- It reduces the time required to calculate the water quality
- It helps in reducing the water pollution

4. EMOTIONS: BEFORE / AFTER

EM

Before the implementation of this project the water quality parameters are calculated manually which needs more time and man power which makes the customers feel frustrated. After the implementation of this project The work pressure is reduced which makes the Customers feel happy .

10. YOUR SOLUTION

This project proposes a sensor-based water quality monitoring system. Using pH sensor, Turbidity sensor, and temperature sensor. The pH, turbidity and temperature of the water can be measured . If the acquired value is above the threshold value automated warning SMS alert will be sent to the specified customer.

8. CHANNELS of BEHAVIOUR

CH

ONLINE

Water quality details will be updated in website with respect to time.

OFFLINE

All the water quality details will be sent through SMS by using these details necessary cleaning actions can be taken.