

## Project Design Phase-I Problem – Solution Fit

Date	09 October 2022
Team ID	PNT2022TMID30308
Project Name	Project – Real-time River Water Quality Monitoring and Control System
Maximum Marks	2 Marks

### Problem – Solution Fit:

Problem-Solution fit		Real-time River Water Monitoring and Control System	
Identify strong TR & EM	<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span>  Fisher-Man Making a life out of fishes  People who depend on river bodies	<b>6. CUSTOMER CONSTRAINTS</b> <span>CC</span>  The customers are sometimes unaware of the products like these The fear of cost and effectiveness are some factors Some might think that this system might affect the marine life	<b>5. AVAILABLE SOLUTIONS</b> <span>AS</span>  Water Quality monitoring system by Aeron System are the best solution available in the market today.  They monitor the water quality and report
	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <span>J/P</span>  For People: The river water which they consume is contaminated by formation of algae  For fisher-man: Marine lives are found dead	<b>9. PROBLEM ROOT CAUSE</b> <span>RC</span>  The main problem in this case is the Eutrophication, the process of formation of algae on the surface of the water bodies.  The Customers have to take action because they mostly try to run their lives out of the resources from water and the water its selves.	<b>7. BEHAVIOUR</b> <span>BE</span>  The customers find the best product to implement  They will calculate the effectiveness and efficiency of the product in both detection and Data delivery
Extract online & offline CH of BE	<b>3. TRIGGERS</b> <span>TR</span> Fisher-man is trying to make a life out of marine life, But the marine lives are affected by the Eutrophication, so they need to take action to avoid losses People need to consume water to survive and complete their day-to-day requirements	<b>10. YOUR SOLUTION</b> <span>SL</span>  The Product can be placed in line to the water flow, so that the water can be easily monitored and washed-off with the flow, ease to maintain. Create a design which handles the river environment and works in moist situation. Collect the data from the water and store in the cloud for processing.  Smart system to monitor the components and transmit the data without any errors. Set a threshold level for each component to identify harm or safe and notify at the instance of harm. 24/7 Monitoring with rechargeable battery system. All characteristics of water regarding should be noted and the set of data created can be used to predict the cause of the problem and provide a better solution.	<b>8. CHANNELS of BEHAVIOUR</b> <span>CH</span> <b>8.1 ONLINE</b> The customers try to search online about any products or methods to solve the problem  <b>8.2 OFFLINE</b> The customers try to implement the systems available by comparing the products available and tries to find the best method to solve the problem
	<b>4. EMOTIONS: BEFORE / AFTER</b> <span>EM</span> Fisher-man feel frustrated when they find dead fishes > They feel Satisfied The People feel downhearted when the find impurities in the consumable water		