

## Project Design Phase-II

### Solution Requirements (Functional & Non-functional)

Date	14 October 2022
Team ID	PNT2022TMID08171
Project Name	Project - Real-time River Water Quality Monitoring And Control System
Maximum Marks	4 Marks

#### Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	SMS alert	The system should provide notifications timely
FR-2	App	Login credentials required to use the App
FR-3	Quality check	The system should check the water quality by threshold values detected by sensors
FR-4	Propagation of Wildlife and Fisheries	PH between 6.5 and 8.5, dissolved oxygen 4 mg/l and more, free from ammonia
FR-5	Buzzer	Alert if the threshold value is high
FR-6	Sensors used	pH sensor, Temperature sensor, Humidity sensor, Turbidity sensor

#### Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	The system should be easy to install and simple to use
NFR-2	<b>Security</b>	The system should authenticate users
NFR-3	<b>Reliability</b>	The system should perform the intended tasks for a specific time
NFR-4	<b>Performance</b>	The system should perform well under different conditions
NFR-5	<b>Availability</b>	The system should be available all the time when required
NFR-6	<b>Scalability</b>	The system should be able to add new features

