

Water Distribution Management



Introduction

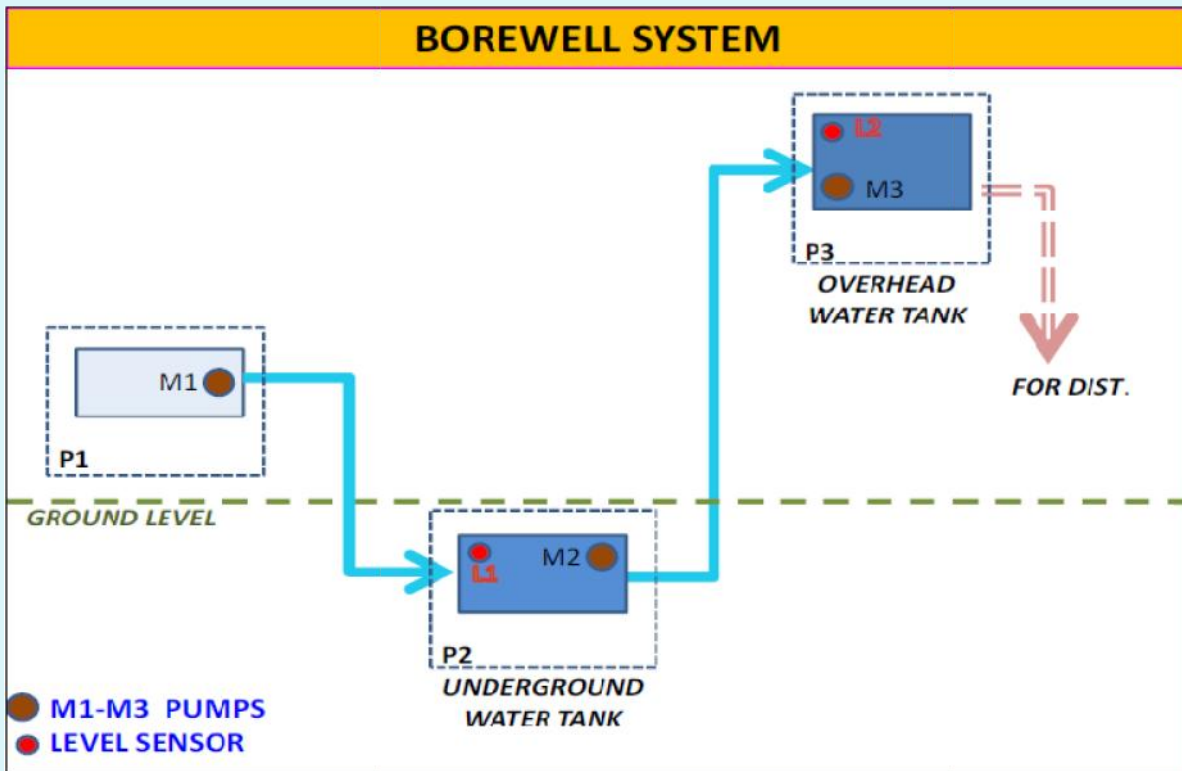
All water organizations generally face a Common problem, insufficient availability of water supply for drinking purpose. The causes for this problem can be stated as:

- Bore wells On/Off operation is operator dependent because of which, it has most often been observed, when Bore well operators are available, there is no power supply, or other times when power is available the operator is absent to start the Bore wells. Hence, there is inadequate operation.
- Due to many Bore wells scattered in a large area, it is very difficult to locate the problem and rectify.
- Generally manual system lacks protections like short circuit, overload, under load, stalled and phase failure so maintenance cost of the existing system is very high.
- No visibility of entire water supplying network.
- No continuous assessment of water quality.
- Increased energy intensity and cost of water pumping due to continuous falling Ground Water Table.
- Frequent pump motor burnout due to poor power quality.
- Poor pump performance due to low level of maintenance.
- Disproportionate matching (Based on availability) of pumps and motor during replacement.
- No monitoring of various pump parameters e.g. Head, Flow, Efficiency and Power consumed etc.
- No Proper pump scheduling.

Proposed Solution

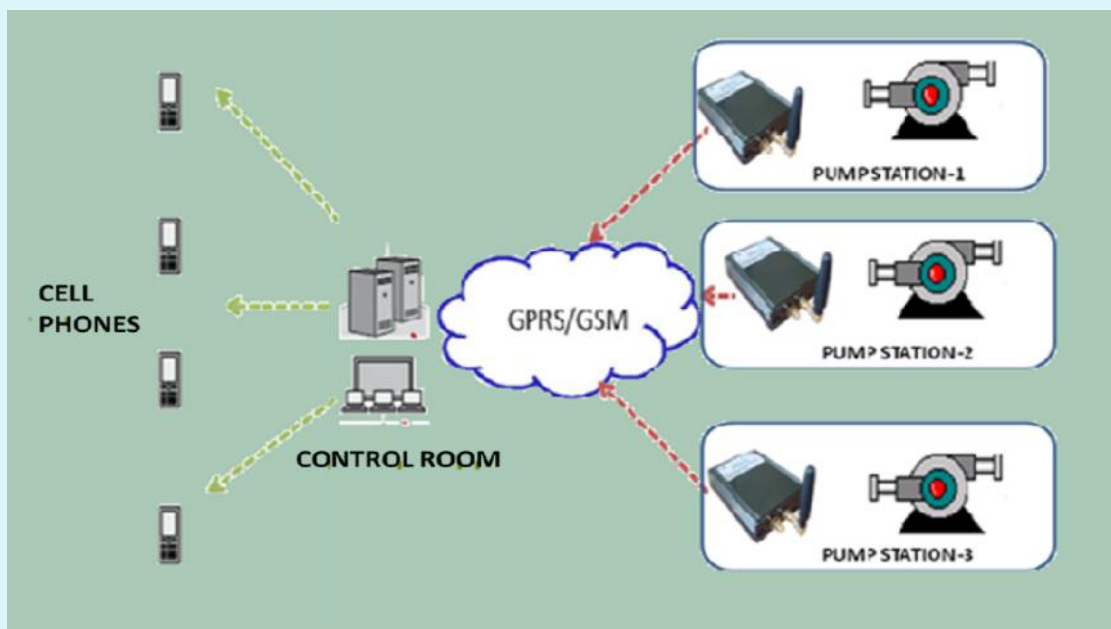
The Proposed scheme is intended to give better and more control options, performance, safety to equipment & people and help in reducing downtime by way of encouraging preventive maintenance & improving efficiency. The system is designed such to control the pump status (on/off) by using Level Sensor feedback and hence it makes easy to avoid continuous running of pumps due to the negligence of associated operator. Detailed proposed system is shown below in the system architecture.





System Architecture

As shown in the system architecture above from the location P1 the water flows to the underground tank situated at location P2 (Underground Water Tank) at some distance. And from the location P3 where water stored in overhead water tank, it is distributed further to different location all over the city. The Intelligent RTUs installed at locations P1, P2, P3 take feedback from level sensors mounted at all three locations to measure the tank water level, and hence pumps operation will be controlled accordingly to avoid the continuous running of pumps due to the negligence of associated operator.



Advantages and Benefits



Our Major Clients



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