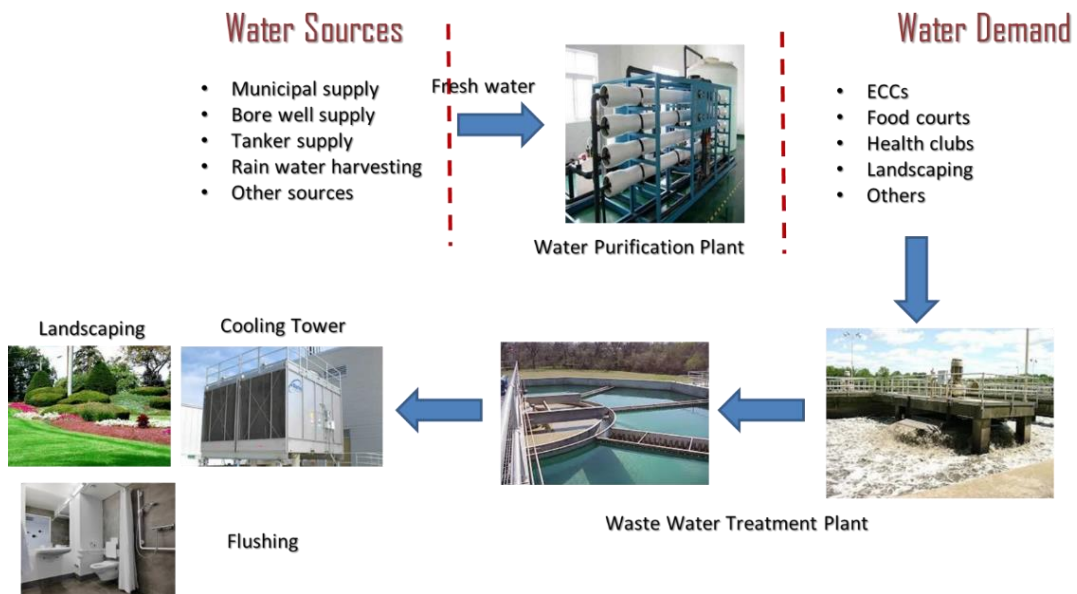


## Infosys Smart Water Solution

More than half the world already lives in urban areas, and by 2050, it is expected that more than two-thirds of the global population of nine billion will be living in cities. Furthermore, most of this growth will happen in developing countries, which have limited capacity to deal with this rapid change, which often have very poor living conditions, including inadequate water and sanitation facilities. Therefore, the development of sustainable water management for economic growth and environmental sustainability will be closely linked with the sustainable development of a country. Sustainable water management means effective and holistic management of water resources.

A typical water system in a campus comprises of multiple raw water sources, water treatment or purification plant, a distribution system, and a wastewater treatment system to recycle the water. A typical schematic diagram of water system shown in below diagram.



### Why do need Infosys Smart water Solution?

Today, off-the-shelf water management software products are available in the market, used just to connect and show the water meters/sensors value at regular interval for visualizing the raw data. They don't provide real value proposition to the users to rectify issues and improve the efficiency of water management system. Features like, loss analysis, demand forecasting, economic analysis and revenue projections, auto maintenance scheduler to address the issues with ease were missing in the software tools widely used in water management industry. With exponential increase in water demand, organizations may not have SMEs on water management system. Therefore, the aim is to make the information/action understandable to a lay user with the help of automation. In order to develop a best-in-class solution for enhanced and accurate monitoring and analysis of the water management system and to setup a benchmark in water monitoring and diagnostics, we innovated a software concept with advanced analytical capabilities. This will cut down the dependency on subject matter experts and will

enable even a technician with limited knowledge to handle the operation of the water management system in an effective way.

### Where can we use?

Infosys Smart Water Solution can be used in commercial smart spaces, manufacturing plants, process industries, water supply municipals, smart cities etc., Some of the application areas of this solution is given below.

1. **Real Time Water Monitoring:** With the help of sensors, water management system can enable users to collect real-time data—information that helps visualize water distribution across the network. Building owner with smart flow Meters and level transmitters can make more informed decisions as a result, leading to a more sustainable building overall
2. **Water Wastage control and Maintenance:** By Comparing the value of water flow rates and total volume flow, in each header and summation of its associated branches, total wastage water volume for certain period can be retrieved. With water loss analysis in Water Management software, water leakage in any header or any branch can be identified and automatically alerts the concerned person for required maintenance of any node
3. **Water distribution Control:** There will be water flow meters installed in pipelines and level transmitters are installed in water storage tanks associated with the system. There will be associated water pumps for every system for water distribution to end consumer. Each pump will have Pump Command contacts which will be integrated with facility BMS system.

### What are the unique features available?

1. The solution works with multiple hardware with wide range of communication protocols, integrating various third-party hardware (energy meters, weather sensors, data loggers, inverters etc.,).
2. Industry benchmarkable KPIs based dashboards and analytics that will give insights to improve efficiency / reduce losses from the water system. The application analyzes the impact of environmental parameters like temperature, humidity, rain fall etc. on the performance of the water management system.
3. Water loss analysis helps users to quantify the various losses across the campuses include water leakages, non-revenue water loss, evaporation loss, etc.,
4. Water demand forecast with regression analysis and various adoptive statistical models
5. Alerting mechanism that not only sends an email alert, but also the methods to resolve the issues. It will assist the ground staff by providing the reason for performance degradation along with step-by-step trouble shooting guidelines
6. Performance monitoring of real time water quality parameters against the industry standards
7. Data genie concept is an advanced reporting feature which fetches the required information for the relevant people in different formats
8. Auto maintenance scheduler to assign and keep the track of maintenance activities till it gets closed
9. Dynamic financial analysis
10. Dashboards will be customized as per user needs