**Title: Water Management**

**Abstract:**

Currently our city faces water shortage in several areas. Each area have different amount of water in lakes, ground level water. Water supply depends on population density and water requirement.

This project calculates water availability, population, water requirement of the people and informs the Metropolitan Water Supply Board that which area requires immediate water supply thereby preventing unforeseen problems to the public.

**Solution Approach:**

The city is divided into different areas and population density, water availability is calculated in each area based on the water level in rivers, lakes, reservoirs, ground water level. Water requirements are based on water availability, population in that area and also based on season.

An algorithm is used to calculate which area is scarce of water and requires immediate attention. These are the areas where the demand/requirement of water is more than the availability of water. When this reaches a fixed level, the water supply board is notified that this particular area requires immediate supply of water.

**Design Architecture**

This project follows the below Data life cycle steps.

1. Data Loading
2. Data Analysis
3. Reporting
4. Data Decision
5. Data Archival

**Technologies Used :**

1. Oracle 11g
2. .Net
3. Tableau
4. AWS S3

**Business Impact**

Most of the times Water Board takes last minute decisions in supplying water due to lack of proper figures which creates lot of problems to the public and industries. As result Public suffer mostly in summer seasons. Water Management application helps in analyzing exact demand and availability of water at each area and the most affected areas based on the water levels present at lakes and reservoirs. So Water Board can take effective decisions by identifying areas that will be affected mostly and can take precaution or can make alternative arrangements.