

# Buraidah Water Network

## Client

Engineering & Technical Services Bureau

## Scope of Work

Hydraulic analysis for water networks including the following:

- Reviewing and verifying the project data .
- Comparing the drawings of ground levels of the city water network with the hydraulic analysis.
- Reviewing population distribution over the consumption points in the hydraulic analysis.
- Verifying hydraulic analysis and checking used consumption rate so that the review includes the 3 phases of the project:
  - Phase (1): until the year 2019.
  - Phase (2): from the year 2019 to the year 2034.

- Phase (3): from the year 2034 to the year 2075.
- The report includes the outputs of the review works along with identifying the differences in the input data of the study elements.
- Making the required amendments of the project data including the amendments of the report, drawings and hydraulic analysis.

## Location

Al-Qassim, KSA

## Types of Activities

Civil works

Directorate of Water at the Ministry of Water and Electricity in Al-Qassim Province assigned the Engineering & Technical Services Bureau to conduct a study with a view to develop and upgrade the water networks of Buraidah City with to meet the demand of both current areas and future expansions until the year 2054.

Serving an approximate population of 1.26 million persons, the project comprises a network of total length 863,437 m (574,640 m distribution network with pipes diameters ranging from 150 mm to 300 mm, and

288,797 m transmission mains with pipes diameters ranging from 400 mm to 1,200 mm), two pump stations (King Faisal 2,000 m<sup>3</sup> / day and Al Hadya 43,500 m<sup>3</sup> / day) and four Water Treatment Plants (Al-Muataa 160,000 m<sup>3</sup> / day, Al-Shamal 100,000 m<sup>3</sup> / day, Al-Shaqa 100,000 m<sup>3</sup> / day and Al-Tawasouaat 80,000 m<sup>3</sup> /day).

Engineering & Technical Services Bureau (ETSB) entrusted ECG Engineering Consultants Group with reviewing the "Buraidah Water Networks" study developed by ETSB.

