

# DESIGN OF WATER METERING JUNCTIONS



**Country:** Republic of Armenia

**Client:** World Bank, “Water Sector Development And Improvement Projects Implementation Unit” SE

**Duration:** October 2002 - January 2003

## Terms of Reference

1. Specification of places of water metering junctions organized on water pipelines.
2. Selection of water metering equipment dimension-types and technical solutions of installation.
3. Development of working design for water metering junctions establishment and preparation of 5 tender packages



## **Brief description of project and services provided**

- ✓ During field visits water supply systems under “Armenian Water and Sewerage” CJSC were investigated in the territory of Armenia.
- ✓ During investigations data on technical indices of the operating water supply systems’ technological elements (pipelines, valves, water metering junctions, etc.) were specified and collected.
- ✓ As a result of investigations, the locations of the designed water metering junctions were clarified, their geographical coordinates were determined by means of GPS-12 equipment; geodetic surveys of the areas were carried out.
- ✓ The preliminary design was discussed and agreed with the Client. The indices of the designed 639 water meters, their types, technological solutions of implementation thereof were clarified that made a basis for development of working design and tender documents.
- ✓ By working design 5 construction tender documents were developed, each of them including books of technical specifications, explanatory parts, working drawings, bills of quantities and confidential cost estimates.
- ✓ By drawing part of the working design technological, construction and power supply parts, standard and design solutions were developed.
- ✓ During the working design development AutoCAD drawing and ArcView GIS software were used.



## **The objective of the activity is.**

1. Assist in improvement of water supply level, increasing its management and operation efficiency for the Republic’s residential areas (out of Yerevan).
2. Establish a water quantity measurement system in water supply systems under “Armenian Water and Sewerage” CJSC (from water sources up to residential areas).