

## Mike Nepple – Sample Professional Experience

**Owner:** City of Tumwater, Washington

**Projects:** 1987 to 1997 - Water System Improvements

**References:** Mr. John Norman, P.E., City Engineer - (360) 754-4180

Mr. Jay Eaton, P.E., Director of Public Works- (360) 754-4140

**Background:** While employed at the City, Mike served as project manager for a series of major water capital projects the City sponsored over the course of ten years.

### Challenges and Issues:

- Water system source capacity was barely equal to peak day demands.
- Aquifer contamination at Palermo Wellfield impacted 1/3 of the City's supply capacity.
- The airport water system acquired from the Port of Olympia was on a different pressure gradient; the airport wells were only available as supplemental sources by manual operation.
- The Trails End water system was acquired and needed to be integrated into the City system.
- A new pressure zone was developed to serve Tumwater Hill.
- The distribution system lacked sufficient transmission capacity, leading to pressure problems.
- Several zones lacked adequate storage capacity.

**Mike's Role:** Served as project engineer and manager to perform analysis and prepare designs for bidding. Directed consultants in preparation of Water System Plan amendment and various project designs. Administered construction phases for City sponsored work. Performed hydraulic analysis for reservoir sizing and development of the City's major pressure zone gradients.

### Project Outcomes:

- Four new supply wells with total of 5 MG capacity.
- Rehabilitation of existing wells to restore capacity.
- New 4 MG 350 Zone reservoir and associated demolition of the old 326 Zone tanks.
- 29 PLC telemetry units (including sewer facilities) & new SCADA headquarters computer.
- 6,000 linear feet of 16-inch water main, and various 8 to 12-inch distribution mains.
- Initial phases of 5-mile 24-inch distribution/transmission main.
- New 1.0 MG 549 Zone standpipe reservoir with elevated inlet and associated 12-inch transmission main, 326 to 549 Zone triplex booster station, and an automated emergency control valve facility to transfer water from 549 to 454 Zone.
- Integration of the airport water system by installation of hydraulic control valve facility to reduce stagnation of water-logged reservoir and allow full use of airport area supply wells.
- Full integration of the Trails End water system, including mechanical refitting to allow use of an existing system well as a source for the City system.