

# ASTORIA PUBLIC WORKS

## *Facts About Astoria's Water System*

Astoria gets its entire water supply from the Bear Creek watershed located about 12 miles east of Astoria, near Svensen.

The 3700 acre watershed is entirely owned by the City.

Water is filtered at the slow sand filter located in the watershed. The slow sand filter was constructed in 1993.

There are three lakes that store water in the watershed. The Main Lake holds 200,000,000 gallons; Middle Lake 52,000,000 and Wickiup Lake 59,000,000 gallons.

There are two reservoirs in town. Reservoir 2 at 16<sup>th</sup> and James stores 5,500,000 gallons and Reservoir 3 located one mile east of Reservoir 2 on Pipeline Road, stores 20,000,000 gallons.

There are four booster pump stations and a 131,000 gallon tank to serve the higher elevations in town.

Water gets to town from the watershed through a 12 mile long, 21" diameter pipeline that is made of steel, lined on the inside and coated on the outside with concrete. On the way to town, the pipeline supplies water to seven other water districts.

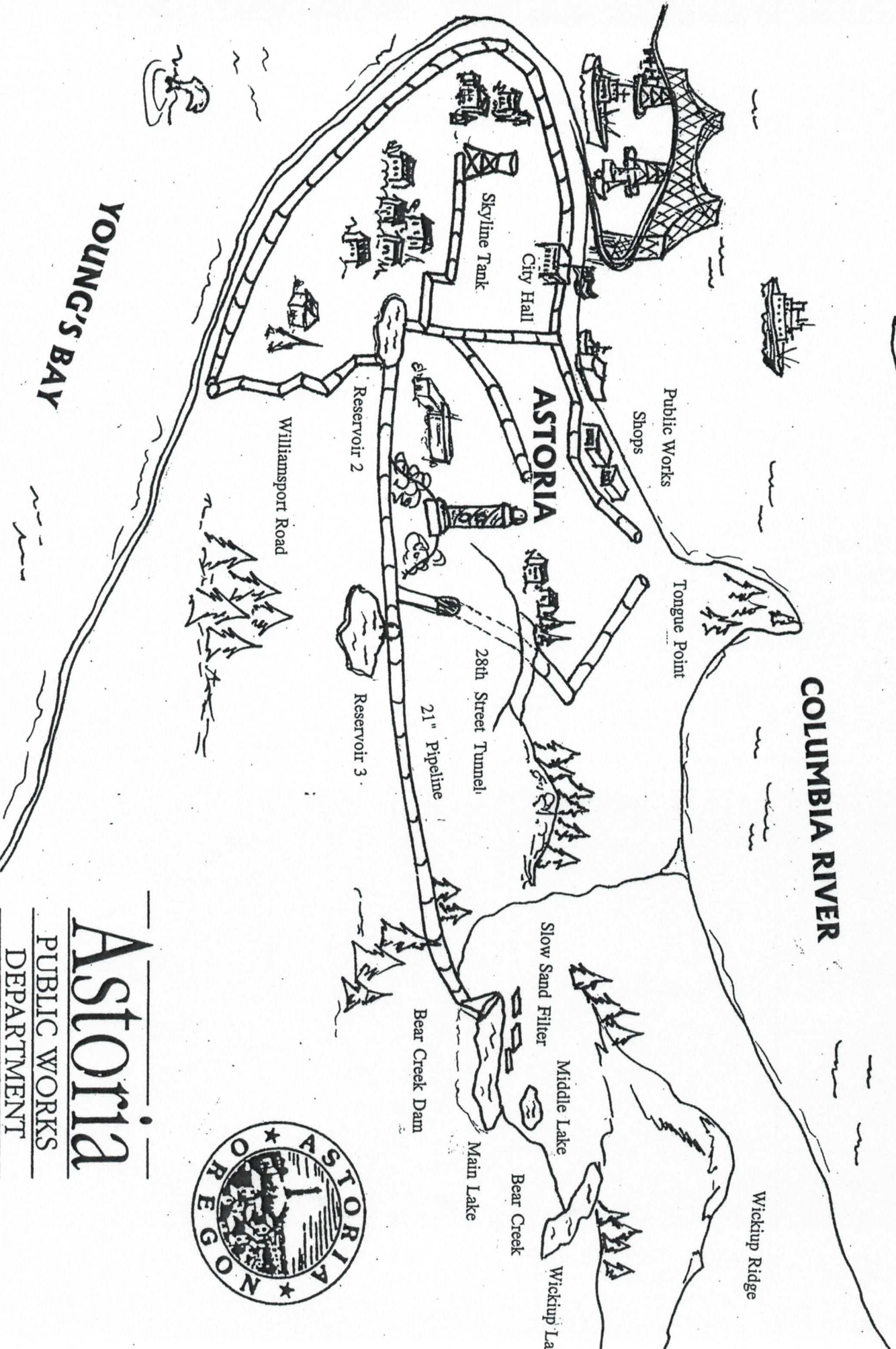
There are approximately 80 miles of water pipes in the City ranging in size from 1" service lines to 18" water mains. Most of the water mains are constructed of cast iron and were installed as far back as 1895. Newer water mains are generally constructed of PVC (Polyvinyl Chloride – a plastic product) or ductile iron.

There are 3,900 water meters, 448 fire hydrants and over a thousand control valves in the system.

The city and outlying water districts use an average of 2,500,000 gallons of water per day.

Astoria's water is continually tested for quality. Chlorine residual, pH and fluoride levels are tested daily. Turbidity levels are tested 3 times per day at the watershed and there is a meter that graphs turbidity and flow continuously. Bacteriological content is measured 14 times per month. Hardness and alkalinity are monitored once a week, along with algae levels. Chlorine disinfection by-products called trihalomethanes or THMs are measured quarterly. Volatile organic chemicals are monitored once a year. We have also tested the water for organic chemicals, inorganic chemicals, radiologicals, lead and copper.

# ASTORIA'S WATER SYSTEM



YOUNG'S BAY

COLUMBIA RIVER

Wickiup Ridge

Wickiup Lakes

Bear Creek

Main Lake

Middle Lake

Slow Sand Filter

Bear Creek Dam

21" Pipeline

28th Street Tunnel

Reservoir 3

Reservoir 2

Williamsport Road

Public Works

Shops

Tongue Point

ASTORIA

City Hall

Skyline Tank



# Astoria

PUBLIC WORKS

DEPARTMENT