City of Vancouver Water System History

Tyler Clary

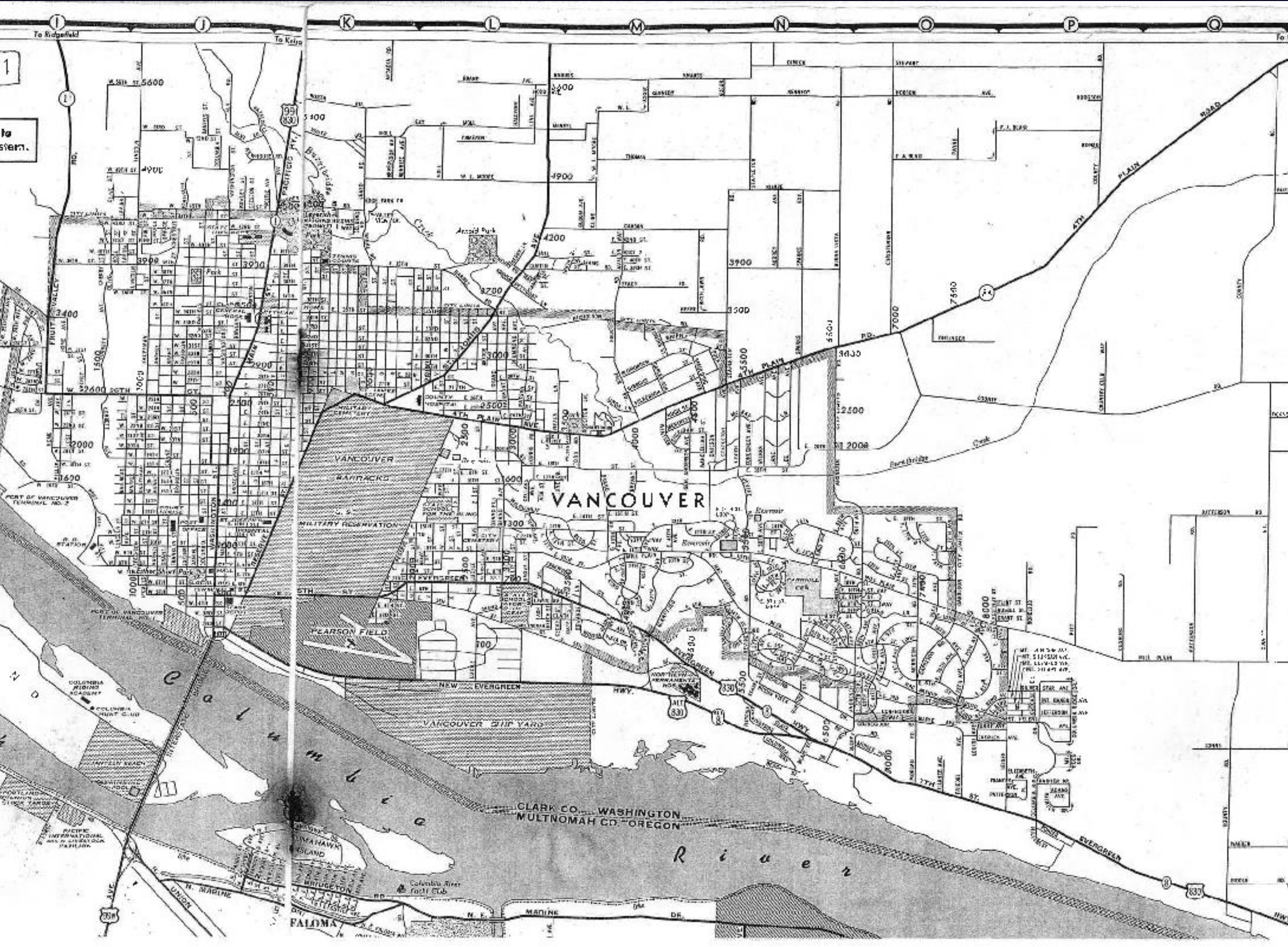
City of Vancouver

Historical Milestones

- 1792 Robert Gray was first non-native up Columbia
- In 1806 Lewis and Clark camped near the location of Vancouver and called it "the only desired situation for settlement west of the Rocky Mountains"
- In 1825 the HBC moved headquarters from Astoria to Fort Vancouver
- In 1846 US/Canada border moved north
- In 1849 US Army barracks

Historical Milestones

- 1857 Vancouver incorporated
- 1889 Washington becomes 42nd state
- In 1868 the Vancouver Water Company established
- 1908 first rail line to Vancouver
- 1908 railroad bridge opened across Columbia
- 1917 first span of Interstate Bridge constructed



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J
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To Ridgefield
To Kelso
VANCOUVER
VANCOUVER BARRACKS
U.S. MILITARY RESERVATION
PEARSON FIELD
NEW EVERGREEN
HWY.
VANCOUVER SHIP YARD
EVERGREEN
4TH PLAIN
PLAIN ROAD
CLARK CO. WASHINGTON
MULTNOMAH CO. OREGON
Columbia
River
PORT OF VANCOUVER TERMINAL NO. 2
PACIFIC AVE.
Arnold Park
Burnt Bridge Creek
Columbia River Yacht Club
BRIDGETON
FALOMA
MARINE DR.
UNION

1870 Military post description by the Surgeon General's Office

- "Water supply of the post has always been bad"
- "Water hauled in water wagons from the river and stored in casks"

CITY OF Vancouver WASHINGTON

1870 Military post description by the Surgeon General's Office

- "A company (Vancouver Water Company) has brought water from a brook 6 miles by pipe" (Ellsworth Springs)
- "The supply is sufficient for 10,000 people and is pure, cool and well aerated"
- "Use of water from the main is allowed as a favor"

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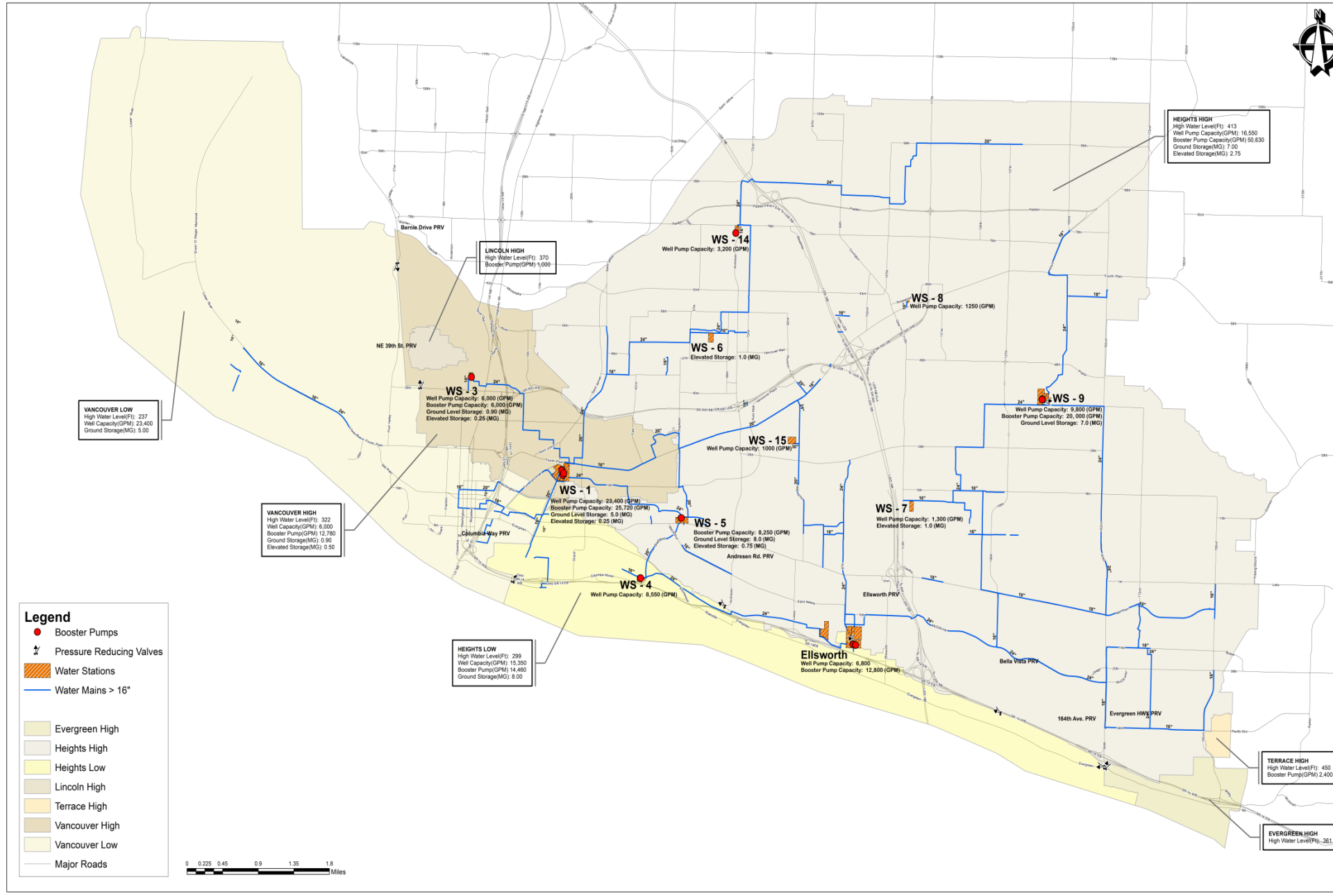
City of Vancouver Pressure Zone Data
Water Stations and Transmission Mains



1870 Military post description by the Surgeon General's Office

- "Water is distributed from the pipe by use of water wagons"
- "Cisterns holding 1000 gallons are attached to each set of quarters and the hospital"

CITY OF Vancouver WASHINGTON

1875 Surgeon General's Report

- "There is neither springs nor ponds near the post"
- "Water has been found by boring to a depth of 100 feet"
- "Post is supplied with muddy and impure water from the Columbia brought by wagon and emptied into barrels; also with drinking water from the main of the Vancouver Water Company"

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1884 Surgeon's General Report

- "Good, pure water furnished from the Vancouver Water Company from their reservoir and springs" (Ellsworth Springs)

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1891 Surgeon General's Report

- "Water supply has improved considerably in the past few years"
- "Independent of the civilian supply"
- "2 artesian wells"
- "2 pumps with daily power of 650,000 gallons"
- "A tank of 50,000 and a reservoir of 626,000 gallons"

CITY OF Vancouver WASHINGTON

U. S. Garrison Waterworks, Vancouver, Wn.

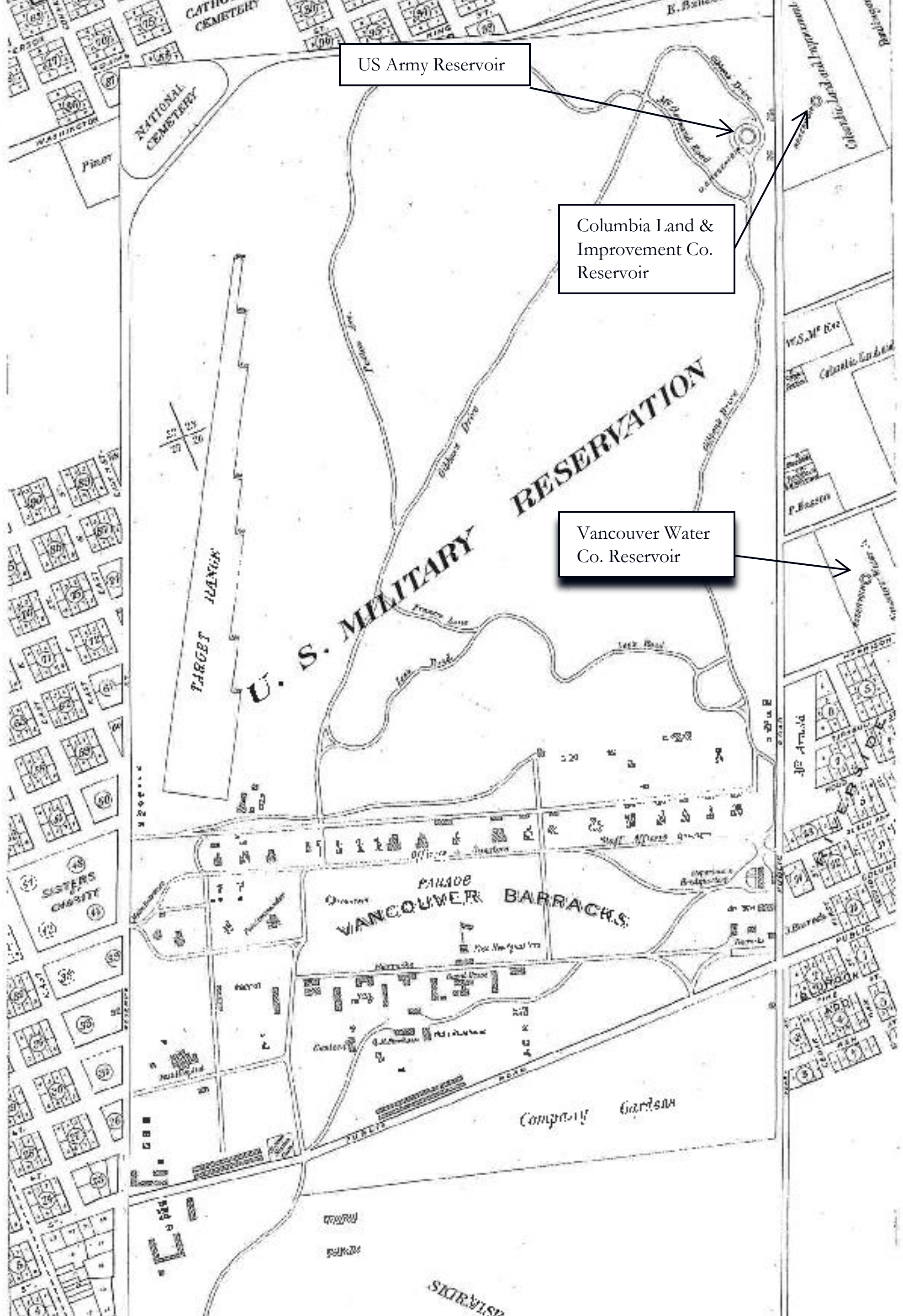
626,000 Gallon Reservoir

Early 20th Century

- Army had their well supply
- Two competing water companies serving 9,300 residents
  - Vancouver Water Co. with spring supply
  - Columbia Land & Improvement Co. with well supply
- Rate war ensued

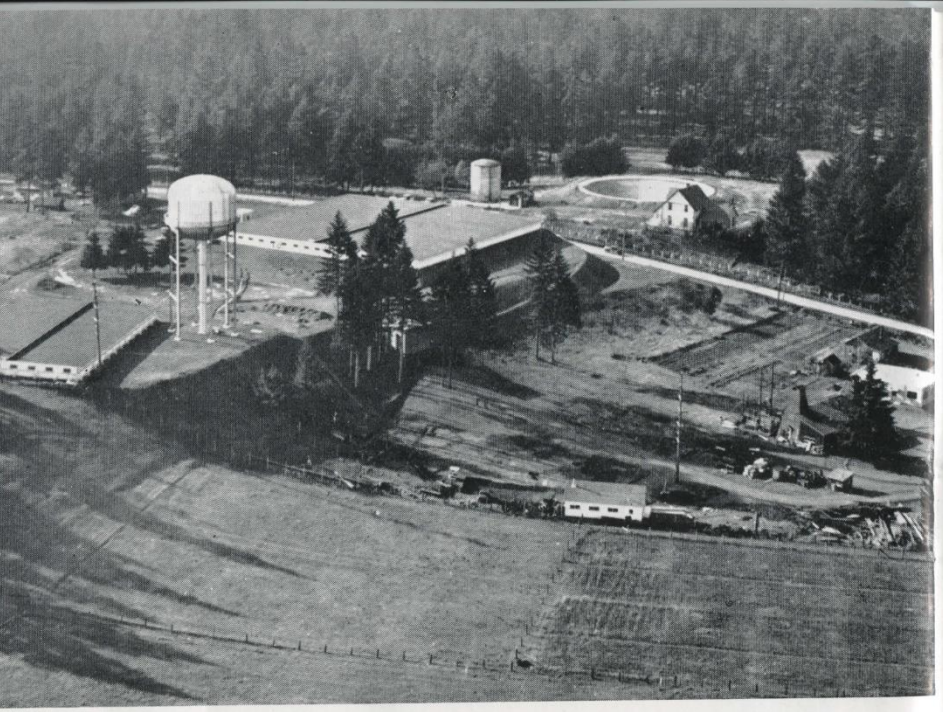
Early 20th Century

- Both companies purchased in 1901 and formed the Vancouver Water Works Company
- Primary supply from Ellsworth Springs with gravity system with use of reservoirs as high elevation supply
- 1908 Columbian article discusses the supply from Ellsworth
- In 1909, a 16" wood transmission main and a one million gallon reservoir were constructed



US Army Reservoir
Columbia Land & Improvement Co. Reservoir
Vancouver Water Co. Reservoir
NATIONAL CEMETERY
TARGET RANGE
U. S. MILITARY RESERVATION
PARADE
VANCOUVER BARRACKS
SISTERS CHARITY
Company Gardens


NO 710 PACIFIC HIGHWAY INTERSTATE BRIDGE LENGTH INCLUDING APPROACHES 4 MILES,
MAKING IT ONE OF THE LONGEST STEEL BRIDGES IN THE WORLD. VANCOUVER WN~ PORTLAND ORE.



Station No. 1, reservoirs and tank on hill; well and meter lab on right.

THE WATER SUPPLY

LIFE BLOOD OF THE CITY

Without water there would be no city. Old timers still remember when the precious fluid was peddled through the rutted streets by wagon. But the horse-and-wagon days are gone forever. In the past three years the city has bought and built a $2,000,000 water system, equal to any of like size, for an expenditure of about $1,000,000. This feat of finance was accomplished by careful planning, skilled engineering and by the use of WPA labor.

The history of water in Vancouver has been a troubled one. The first system, privately owned, was organized in March 19, 1868 with a capital stock of $50,000. Water was brought from the present springs to the city by means of a flume. During the next 60 years the system changed hands ten times, growing up like Topsy as it did so.

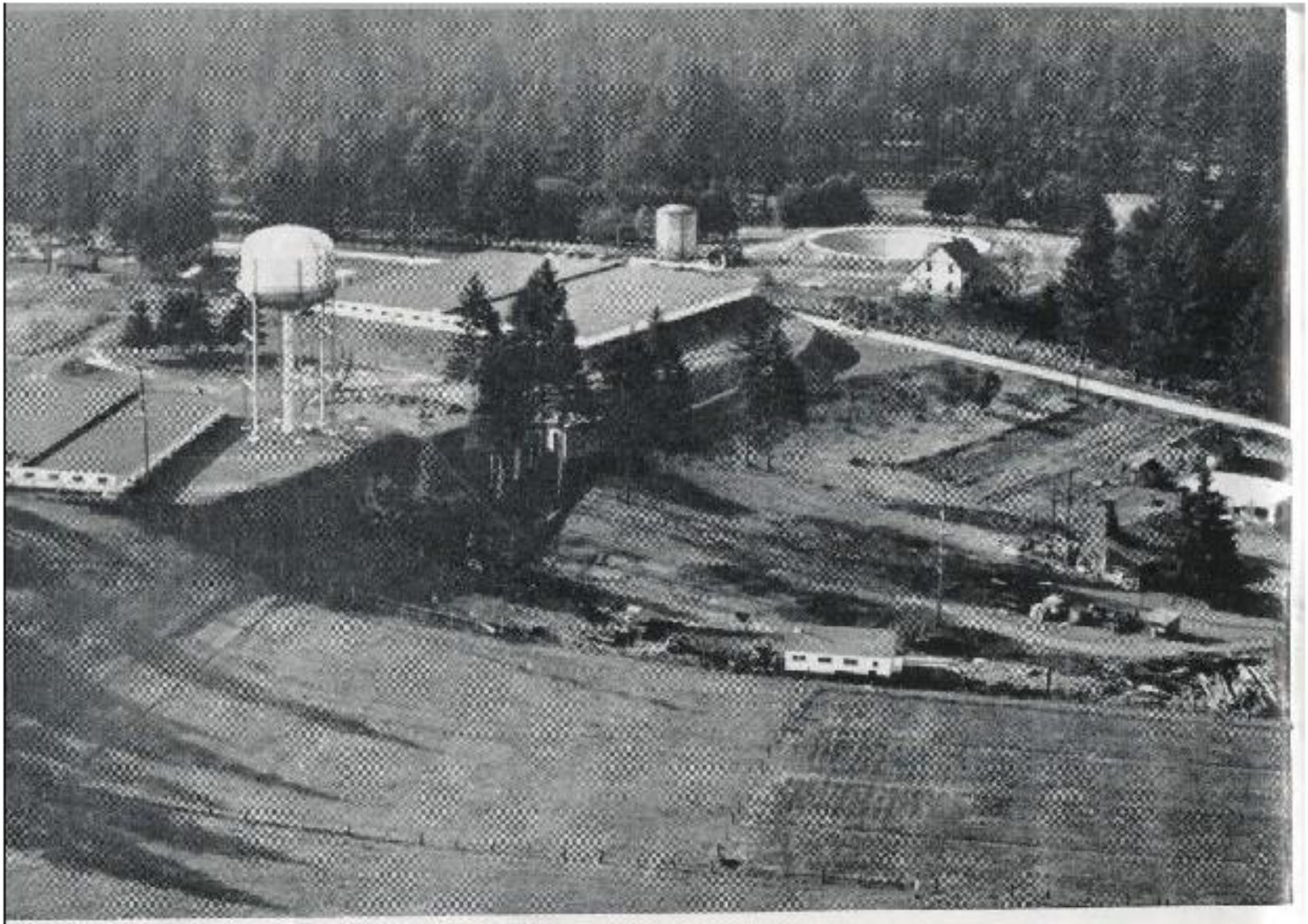
Water service was never adequate. In the 20 years prior to 1933 ten complaints were lodged against the private owners and ten times the state department of public works investigated and ordered remedial action. Finally in 1933 the department itself initiated an action challenging the Oregon-Washington Water Service Company's rates, charges, rules and regulations and proceeded to launch an investigation into the company's rates and the adequacy of its service. Upon the findings of its engineers the department based an order placing the value of the company for rate-making purposes at $350,000 and commanding the company to adopt new, reduced rate schedules effective June 1, 1934.

Water service continued to be inadequate and on September 1, 1936 the city council notified the People's Water and Gas Company (the then owners) of the city's intention to purchase the system under terms of an option embodied in the franchise. The franchise provided for a board of appraisers, including two engineers hired by the city, two by the company and a fifth agreeable to all.

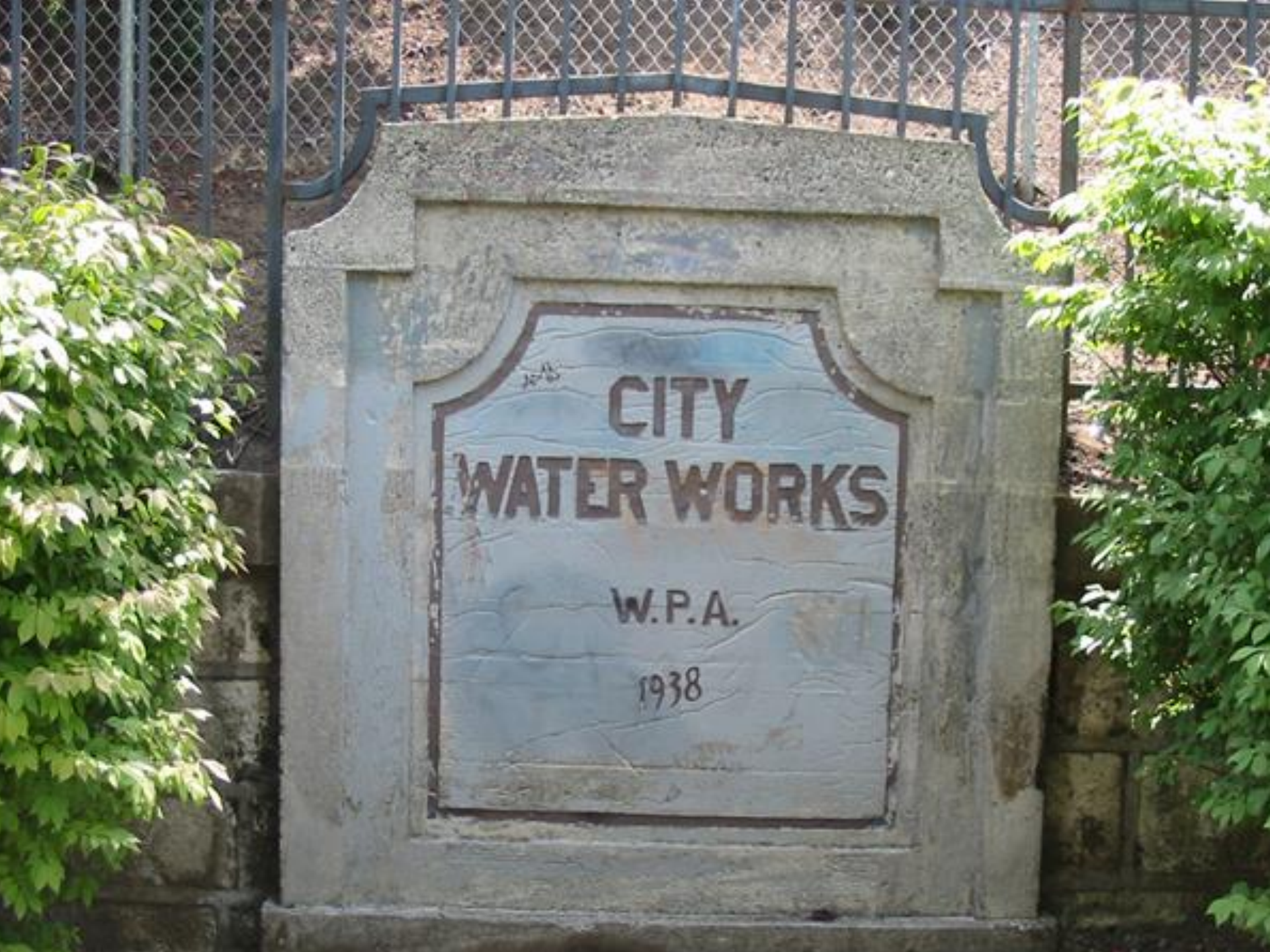
After an independent appraisal this board agreed upon a price of $610,000 for the system, which was accepted by the council. The city voted to issue $610,000 in water revenue bonds for purchase of the system and an additional $240,000 for improvements, replacements and extensions necessary to make the system usable.

On June 1, 1937 the purchase was consummated. Before the deal could be closed the roof on the old 1,000,000 gallon reservoir caved in. A couple of months later the old 100,000 gallon elevated wooden tank tower began to collapse.

Old wooden water tower collapses, making way for new steel tank.



Station No. 1, reservoirs and tank on hill; well and meter lab on right.


CITY
WATER WORKS
W.P.A.
1938

Mid 20th Century

- 1942 Kaiser ship yards
- Population went from 25,000 in 1942 to 95,000 in 1944
- Many water mains built in this era still in service


GORDON STUART
VIEW OF SHIP YARDS AND A PORTION

1942 Water Tower

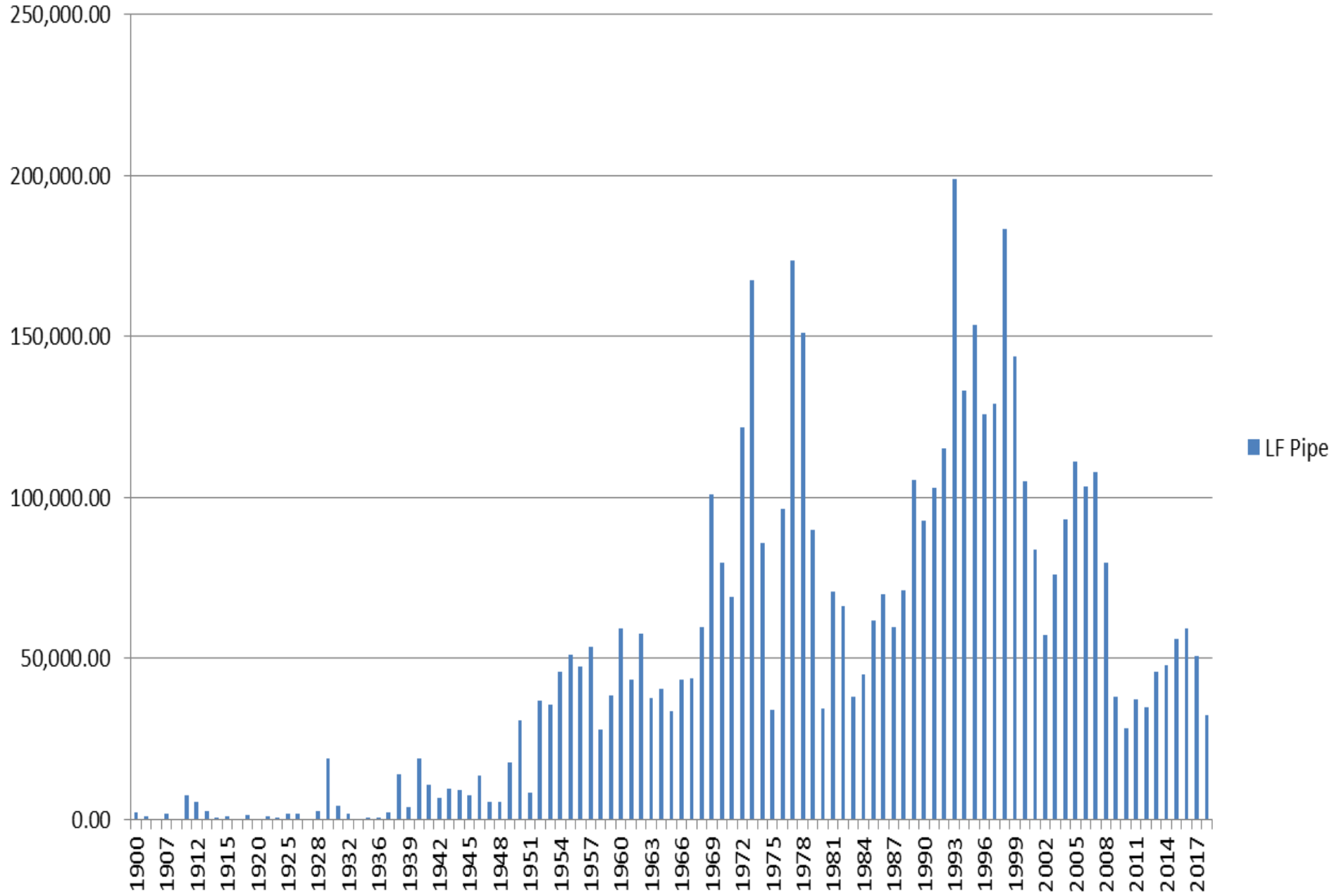

MAY 10 19
WASH 45
YARCOU
VIEW LOOK
BATHUR
56, 657 I

1940s

- 1944 document indicated majority of water from deep wells
- 1948 article indicated 3 MGD from Ellsworth and eight additional deep wells, 8,500 services
- Government deeded their water station to the City in 1949

CITY OF Vancouver WASHINGTON

Existing Pipe by Year Installed




LUCKY
LAGER
IT'S LUCKY when you live in America
FURS


LUCKY
BEER


Lucky
Lager Beer
NET CONTENTS 11 FL OZ
This traditional Lager Beer owes its distinctive
to our long lagering, a process of aging and maturing
cold cellars. The result is a fine balance of smoothness
beer flavor. This is the reason Lucky has sold more
West in the last 30 years than any other West Coast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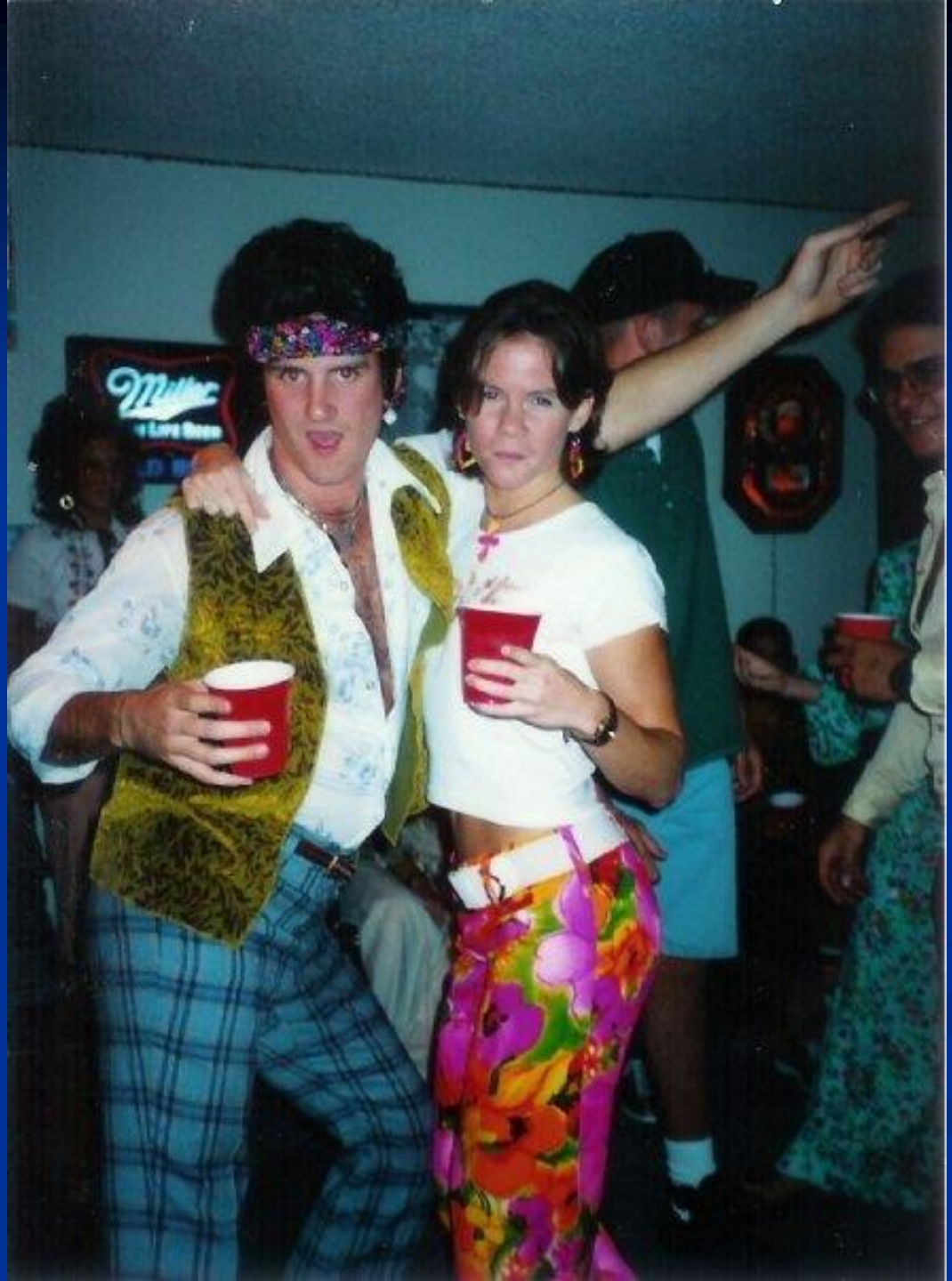
Miller

Current System Overview

- 3rd Largest Utility in Washington
- Service area of 72-square-miles serving about 253,000 people
- 40 wells (depth range 100 ft to 1065 ft) from 3 aquifers
- 1,035 miles of water distribution pipe
- 9.8 billion gallons per year
- 73,000 customers
- ADD of 27 MG

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Questions/Discussion

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