RESOLUTION NO. 287

A RESOLUTION APPROVING STAFF TO ADVERTISE FOR BIDS THE ALTERNATE WATER SOURCE - CHLORINE MIXING - WASTE WATER TREATMENT PLANT

WHEREAS, the City Staff has prepared a report on the above captioned subject which is attached hereto as Exhibit "A", and

WHEREAS, the City Council has duly considered the subject and the recommendation(s) contained in the staff report, and

WHEREAS, interested parties, if any, have had an opportunity to be heard on the subject,

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Wilsonville does hereby adopt the staff report attached hereto as Exhibit "A", with the recommendation(s) contained therein and further instructs that action appropriate to the recommendation(s) be taken.

ADOPTED by the City Council of the City of Wilsonville at a regular meeting thereof this 7th day of February, 1983, and filed with the Wilsonville City Recorder this same day.

William G. Lowrie

WILLIAM G. LOWRIE, Mayor

ATTEST:

Deanna J. Thom

DEANNA J. THOM, City Recorder

CITY OF WILSONVILLE

MEMO

EXHIBIT "A"

Staff Report

February 3, 1983
DATE

Council Mtg: 2-7-83

Section: Consent Agenda

TO: Mayor and City Council

FROM: Larry R. Blanchard L.B.
Public Works Director

SUBJECT: Alternate Water Source - Chlorine Mixing - Wastewater Treatment Plant

During mid-summer of 1982 Jerry LaPierre and the Treatment Plant staff brought to my attention a concern regarding the amount of water being used for chlorine mixing. Mr. LaPierre suggested the possibility of utilizing treated effluent water for mixing chlorine prior to being pumped to chlorine contact chamber.

After a detailed investigation it was determined to be feasible, and the Public Works Department began assembling preliminary plans for the project. Once the preliminary plans were completed they were sent to Westech Engineering Inc. for their review, final approval, and preparation of specifications.

The final product is now before you for final approval. The system is so designed so that a low volume - low pressure pump is installed in the effluent manhole at the Wastewater Treatment Plant. Water is then pumped to the chlorine mixing area, and from there to the chlorine contact chamber. If a power failure should occur at the plant a solenoid valve will close and supply City water to the system so as not to disturb the purification cycle. If for some reason the water level in the effluent manhole should drop below the 2 feet level a teardrop low water sensor would automatically cut power to the pump which would in turn close the solenoid valve to the pump therefore allowing City water to flow to the chlorine mixing area. In any case, a backflow prevention device will be installed from the potable-water supply to eliminate the possibility of contamination of the Treatment Plant potable water supply.

The total cost to construct the alternate water source installation has been estimated at between $3,000 - $4,000. At the present consumption rate of approximately 145,500 cu.ft. per month the annual cost for water will be approximately $9,600. The average daily flow to the plant at the present time is 600,000 gallons per day and it has been estimated that the City would reach peak flow in approximately 10-15 years. Assuming a gradual increase in chlorine mixing requirements for flows between 600,000 gallons per day and peak flow of 2.5 million gallons per day is 1.9 million gallons

per day and would be a 190,000 gallon per day per year increase for 10 years. The costs are as follows:

Year	Average Plant Flow	Water Used (1) Chlorine Mixing	Charges For Supplying Water	Pumping Cost For Supplying Water (2)
1983	38,549,464ft^3/yr.	2,304,720ft^3/yr.	$ 12,675.96	$ 8,642.70
1984	47,820,854ft^3/yr.	2,751,553ft^3/yr.	$ 15,133.54	$ 10,318.32
1985	57,092,245ft^3/yr.	3,191,180ft^3/yr.	$ 17,551.49	$ 11,966.92
1986	66,363,635ft^3/yr.	3,637,945ft^3/yr.	$ 20,008.69	$ 13,642.29
1987	75,635,026ft^3/yr.	4,074,498ft^3/yr.	$ 22,409.73	$ 15,279.36
1988	84,906,416ft^3/yr.	4,519,414ft^3/yr.	$ 24,856.77	$ 16,947.80
1989	94,177,807ft^3/yr.	4,964,432ft^3/yr.	$ 27,304.37	$ 18,616.62
1990	103,449,190ft^3/yr.	5,409,935ft^3/yr.	$ 29,754.64	$ 20,287.25
1991	112,272,205ft^3/yr.	5,854,907ft^3/yr.	$ 32,201.98	$ 21,955.90
1992	121,199,197ft^3/yr.	6,299,879ft^3/yr.	$ 34,649.33	$ 23,624.54
	801,406,039ft^3	43,008,463ft^3	$236,546.51	$161,281.70

(1) Assuming no change in water rates
(2) .00375 per cu.ft.

The total estimated amount of water saved over the next 10 years would be 43,008,463ft^3 or 320,170,330 gallons. This would be equivalent to the usage for 300 single family homes. For an investment of between $3,000 - $4,000 and an estimated annual power and maintenance charge of $1,000/year the City would save approximately $236,546.51 in water user fees from the Sewer Plant.

Recommendation

1. Approve the plans and specifications for the Alternate Water Source for Chlorine Mixing as prepared by Westech Engineering Inc. and staff.

2. Approve staff to advertise this project for bids as soon as possible.

LRB:ks

cc:
40,023 S
4-4(g)