

UTILITY COMMITTEE MINUTES

October 2, 1996

The Utility Committee of the City of Mesa met in the lower level meeting room of the Council Chambers, 57 East 1st Street, on October 2, 1996 at 7:33 a.m.

COMMITTEE PRESENT

Dennis Kavanaugh,
Chairman
Pat Gilbert
Joan Payne

COMMITTEE ABSENT

None

COUNCIL PRESENT

Jim Stapley

STAFF PRESENT

C.K. Luster
Linda Crocker
Bill Haney
Mike Hutchinson
Harry Kent
Peter Knudson
Keith Nath
Denise Samuel
Ralph Wisz
Others

OTHERS PRESENT

Others

Chairman Kavanaugh excused Committeemember Payne from the beginning of the meeting. (Committeemember Payne joined the meeting at 7:50 a.m.)

1. Review and consider recommending adoption of the City of Mesa Water System Master Plan Update.

Deputy City Engineer Keith Nath and Senior Civil Engineer Peter Knudson provided the Committee with a brief synopsis of a proposal to adopt the City of Mesa Water System Master Plan Update.

Mr. Knudson informed the Committee that the last revision to the Mesa Water System Master Plan occurred in 1989 and noted that the recent update includes water quality standards for distribution systems, the State's second groundwater management plan, development, including Williams Gateway Airport, land use changes and population projection amendments.

Mr. Nath and Mr. Knudson highlighted a brief slide presentation relative to the proposed Water System Master Plan.

Discussion ensued relative to the fact that surface water is the City's primary source of water, reserve water supplies which are available from City wells, the Val Vista Water Treatment Plant, current water capacities and anticipated future usage, pressure zones, the Central Arizona Project (CAP) Water Treatment Plant, the City of Mesa's current water distribution system, and proposed system improvements.

Mr. Knudson informed the Committee that a majority of the Master Plan's revisions will occur in the southeast area of Mesa. Mr. Knudson added that a significant amount of the Plan's modifications involve Williams Gateway Airport and proposed geological locations for stored and recovered water. Mr. Knudson commented that the City of Mesa Water Master Plan Update does not contain a significant amount of revisions.

Committeemember Gilbert requested that future staff reports/executive summaries contain a glossary for easier reference.

In response to a question from Committeemember Gilbert relative to the quality of City water, Utilities Manager Ralph Wisz advised that the Utility Department's philosophy is to exceed all State and Federal standards. Mr. Wisz stated that the only concerns expressed by citizens regarding City water relate to odor and taste and added that although both of these concerns can be addressed, the process would be expensive.

Mr. Wisz stressed the importance of educating citizens on water issues. Mr. Wisz stated the opinion that citizens should be made aware of both the option of improving the odor and taste of City water as well as the costs involved in implementing those improvements.

It was moved by Committeemember Gilbert, seconded by Committeemember Payne, to recommend to the Council that the City of Mesa's Water System Master Plan Update be adopted.

Carried unanimously.

2. Review and consider recommending adoption of the City of Mesa Sewer System Master Plan Update.

Senior Civil Engineer Peter Knudson informed the Committee that the City of Mesa's Sewer System Master Plan has also been updated and noted staff's recommendation that the Plan be adopted as presented.

Mr. Knudson reported that the City's Sewer System Master Plan has not been revised since 1987 and noted that the recent update focuses on wastewater treatment and disposal, wastewater conveyance/effluent reuse and storage. Mr. Knudson referred to slides presented to the Committee and discussed the three locations where Mesa's wastewater is conveyed and treated: the regional wastewater treatment facility operated by Phoenix at 91st Avenue, the Northwest Water Reclamation Plant and the Southeast Water Reclamation Plant.

Mr. Knudson noted that the Sewer System Master Plan Update includes a number of proposed significant changes, including increasing the capacity at the Northwest Water

Reclamation Plant, eliminating a proposed water reclamation plant (Northeast Plant) between Lindsay Road and Val Vista Drive north of Thomas Road, adding a new subregional Water Reclamation Plant in the Town of Gilbert near Queen Creek and Greenfield Roads, directing the reuse of effluent for irrigation on lands serviced by the Roosevelt Water Conservation District (RWCD), and identifying parcels south and west of Mesa to be used in the future as effluent recharge sites.

Discussion ensued relative to water amenities, reclaimed and recycled water, and the possibility of future inter-ties with the proposed Rio Salado project.

It was moved by Committeemember Gilbert, seconded by Committeemember Payne, to recommend to the Council that the City of Mesa's Sewer System Master Plan Update be adopted.

Carried unanimously.

3. Review and consider recommendations concerning the proposed South Water Reclamation Plant.

Senior Civil Engineer Peter Knudson informed the Committee that staff has expended extensive effort to evaluate three options for the treatment of wastewater flows which will be generated as a result of future development in east and southeast Mesa. Mr. Knudson reported that Options 1 and 2 relate to the development of a joint facility with the Town of Gilbert, and Option 3 involves the development of a separate City of Mesa facility.

Mr. Knudson referred to slides presented to the Committee and discussed staff's recommendation to approve Option No. 2, (See Attachment) to develop a regional wastewater treatment plant in cooperation with the Town of Gilbert.

Discussion ensued relative to estimated costs, the fact that Option No. 2 is more cost effective, and the anticipated positive impacts to be realized as a result of the development of a regional facility.

It was moved by Committeemember Gilbert, seconded by Committeemember Payne, to recommend to the Council that staff be directed to proceed with the preparation of necessary documents and agreements to facilitate construction of a regional wastewater treatment plant in cooperation with the Town of Gilbert, (Option No. 2), as recommended by staff.

Carried unanimously.

4. Adjournment.

It was moved by Chairman Kavanaugh, seconded by Committeemember Payne, that the meeting adjourn at 8:29 a.m.

Carried unanimously.

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I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the Utility Committee meeting of the City of Mesa, Arizona, held on the 2nd day of October, 1996. I further certify that the meeting was duly called and held and that a quorum was present.

Dated this 22nd day of October 1996

BARBARA JONES, CITY CLERK

Attachment

ATTACHMENT

MEMORANDUM

Date: September 24, 1996
To: Utility Committee
Through: C.K. Luster - City Manager
From: Harry Kent - Public Works Manager
Subject: South Water Reclamation Plant

Purpose of Recommendation:

The purpose of this report is to review options for treatment of wastewater for east and southeast Mesa. It is recommend that staff be directed to proceed with the preparation of the necessary documents and agreements to facilitate construction of Option No. 2.

Background:

During the past months, staff has been working on options to treat wastewater flows that will be generated from future development in east and southeast Mesa. Two approaches to providing future waste water services to this area were explored. They are:

1. A regional facility with the Town of Gilbert (Option Nos. 1 and 2).
2. A separate City of Mesa facility (Option No. 3).

Discussion and Alternatives:

As mentioned previously, two approaches, a regional facility and a separate City of Mesa facility, were explored which resulted in the development of these options. The options evaluated are as follows:

Option No. 1:

This option would develop a regional treatment plant in cooperation with the Town of Gilbert and would serve the Town of Queen Creek as a customer. The initial phase of the plant would be a 4 M.G.D. facility (see Attachment A). The ultimate capacity of this plant would be 43 M.G.D. (see Attachment B) and would incorporate sludge handling beginning with the first phase.

The plant would be located at a site near Greenfield and Queen Creek Roads on lands currently owned by R.W.C.D. (see Attachment C). This site is currently in Maricopa County.

Engineering

20 East Main Street, Suite 500 • P.O. Box 1466 • Mesa, Arizona 85211-1466 • 602 • 644 • 2251

Discussion and Alternative: (Continued)

Option No. 1: (Continued)

Also, as part of this option, staff is proposing that additional land be purchased to provide a buffer (which would be used for some recreational purposes) around the plant. As proposed, the future ultimate plant would require approximately 40 acres and it is being recommended that an additional 130 acres be available as a buffer. The plant would be jointly owned by Gilbert and Mesa with Mesa being responsible for plant operation. The initial cost estimate for this option is \$30,000,000.00. In addition to the initial cost estimate, a present value analysis was also performed. Based on a 20-year projection, this option is estimated to have a present value of \$48,448,562.

Option No. 2:

This option would also develop a regional treatment plant in cooperation with Gilbert, but would initially construct a 4 M.G.D. pump station and equalization basins at the location noted in Option No. 1. Flow would then be delivered to Mesa's existing southeast plant located at Baseline Road and the R.W.C.D. canal through a new 10-mile force main (see Attachment D). In the future ($\pm 2,006$) the treatment plant would be constructed and the lift station would be eliminated. The force main could be used in the future to pump sludge from the Southeast Plant to the South Plant. As with Option No. 1, this option would purchase all land (approximately 40 acres) needed for the Ultimate 43 M.G.D. plant and 130 acre buffer but would defer all but minimal site work until future phases. Perimeter fencing would only be around actual construction. Most components under the first phase of this option would be designed to be used in subsequent phases (see Attachment A). Again, this facility would be jointly owned by Gilbert and Mesa. The initial cost estimate for this option is estimated at \$17,800,000.00. As with the previous option, a present value analysis was performed. Again, based on a 20-year projection, this option is estimated to have a present value of \$46,284,186.

Option No. 3:

This option would plan for a future, Mesa only, treatment plant in the vicinity of Power and Warner Roads. Mesa's ultimate capacity for this project would be 21 M.G.D. If Queen Creek was taken as a customer, the plant would increase in capacity to approximately 30 M.G.D. In the near future, 10 - 15 years, Mesa would only construct a pump station and force main necessary to decommission the existing Williams Gateway wastewater treatment plant. This would consist of a 1.5 M.G.D. pump station and 6 miles of force main to the existing gravity sewer at Power and Guadalupe Roads. This option would also purchase the land needed for the future plant site (see Attachment E).

Mesa would be the sole owner of this facility. The initial cost estimate for this option is \$3,700,000.00. As with Option Nos. 1 and 2, a present value analysis of this option again for a 20-year period was done and is estimated at \$35,378,906.

Discussion and Alternatives: (Continued)

Option No. 3: (Con't.)

As noted in the beginning, staff is recommending Option No. 2 over Option Nos. 1 and 3. Option No. 2 is being recommended over Option No. 1 because of its lower cost (both initial and present value). Option No. 2 is being recommended over Option No. 3 because of the following:

1. The public benefit of providing one regional wastewater facility versus one or more separate facilities in Mesa, Gilbert and Queen Creek.
2. More favorable public acceptance of the location of the proposed facility under Option No. 2 versus Option No. 3.
3. More favorable location of Option No. 2 versus Option No. 3 for future effluent recharge and reuse sites.
4. Option No. 2 eliminates the need to use industrial land within Mesa for a plant site.

Fiscal Impact:

As noted earlier, the estimated initial cost of the recommended option (Option No. 2) is \$17,800,000.00. At this time, it is anticipated the cost will be shared equally between Mesa and Gilbert so Mesa's cost would be \$8,900,000.00. Staff is proposing the use of sewer bond funds for Mesa's share of this cost.

Concurrence:

The Utility Department and the Town of Gilbert concurs with this recommendation.

Staff Originator

Department Manager

City Manager