June 24, 1985

Subject: AMENDMENT TO MAYOR AND COUNCIL WATER POLICIES--EFFLUENT POLICIES

This Communication presents additional policies on the control and reuse of effluent for inclusion in the Mayor and Council Water Policies. A resolution is attached for adoption.

BACKGROUND INFORMATION
The Mayor and Council, on April 22, 1985, reviewed a series on effluent policies (Attachment 1) that expanded upon those adopted on December 17, 1984. The proposed policies were on outgrowth of the 1979 City-County Sewer Transfer Intergovernmental Agreement. They were developed in recognition that continued rapid urban growth necessitates specific effluent policies in order to accommodate coordinated water and sewer planning and development by the City of Tucson and Pima County.

The Mayor and Council referred the policies to the Citizens' Water Advisory Committee. The CWAC considered the policies at their May meeting and directed staff to forward them to the County for review by the Board of Supervisors.

BOARD OF SUPERVISORS INPUT
The Board of Supervisors reviewed the proposed policies on May 7, 1985. The Board of Supervisors concurred with the concepts set forth in the policies. Subsequently, City and County staff agreed upon several changes in the original proposal which are intended to provide additional clarification. These changes are noted with underscoring on Attachment 2.

CWAC RECOMMENDATION
The CWAC, on June 5, 1985, considered the policies as modified by City and County staff. The Committee voted unanimously to recommend Mayor and Council adoption of the expanded effluent policies.

RECOMMENDATION
It is recommended that the Mayor and Council adopt the proposed effluent policies.

Respectfully submitted,

Joel D. Valdez, City Manager

JDV:FB:KD:ka/Frank Brooks
Tucson Water
JUNE24-85-54
Attachments: Mayor and Council Memo April 22-85-228 (1)
Proposed Policies (2) SAME AS EXHIBIT A TO RESOLUTION Resolution
Mayor & Council Memorandum

April 22, 1985

Subject: EFFLUENT POLICIES

This Memorandum proposes the establishment of additional policies regarding
the control and reuse of effluent.

The policies contained herein are an outgrowth of the terms of the 1979
City-County Sewer Transfer Intergovernmental Agreement (IGA) and recognition
that continued rapid urban growth necessitates specific effluent policies in
order to accommodate coordinated water and sewer planning and development by
the City of Tucson and Pima County. They expand upon the effluent policies
adopted by the Mayor and Council on December 17, 1984.

BACKGROUND INFORMATION ON EFFLUENT

A brief description of existing and future effluent availability and its
importance to water resource management is provided as a basis for a better
understanding of the proposed effluent policies which follow:

Within the metropolitan area, the current annual effluent flow is 53,000
acre feet. This amount is projected to increase to 144,000 by the year 2030.
Outside of the existing metropolitan area, existing effluent flows are rela-
tively small, less than 5,000 ac/ft per year, but will become more significant
in the future.

Control of effluent in the metropolitan area rests with the Secretary of the
Interior - 30,000 ac/ft.; the City of Tucson - 21,000 ac/ft.; and Pima County
2,000 ac/ft. The effluent controlled by the Secretary is pursuant to the
Southern Arizona Water Rights Settlement Act (Papago Settlement). Although
the Secretary has not yet determined the use to be made of the effluent he
controls, his options would appear to be either to sell to the City or to
the farmers in Avra Valley or Cortaro-Marana.

The effluent controlled by the City will be used within the metropolitan area
for M & I purposes. The City has expended $12 million toward completion of a
$54 million wastewater reuse system. Included in this cost is $1 million to
demonstrate the feasibility of recharging effluent. The County's portion of
the effluent was set aside for their own use, such as for the Arthur Pack
Golf Course. Effluent in the areas outside the metropolitan area will likely
be used by irrigators in close-proximity to the treatment plants.

In future years, as effluent flows increase, the effluent will become one of
three available major water resources needed to meet our water demands and to
avoid continuing to overdraft the aquifer. The City intends to continue the
expansion of the Metropolitan Wastewater Reuse System, to recharge effluent
if shown to be feasible and safe and to manage and require beneficial use of
the effluent in areas outside the metropolitan area.

SS/APR22-85-228
1979 City-County Sewer Transfer Intergovernmental Agreement

Under the terms of the City-County Sewer Transfer IGA, the City transferred to the County all of the City's sewage transmission and treatment facilities and the County agreed that effluent from all County treatment plants would be controlled by the City.

As a matter of background, the below quotations from the 1979 City-County Sewer Transfer Intergovernmental Agreement are provided:

"As a basis for agreements on effluent, the City and County agree that effluent is a major water resource that must be controlled by the City of Tucson in order to maintain management of total water resources of the Santa Cruz and adjacent water basins. It is further agreed that the City will endeavor to use effluent in such a manner as to preserve the underground water supply and to minimize costs to water rate payers in the City and County."

"County agrees to relinquish, quitclaim, and transfer to the City, all of County's interest, estate, right title, claim, or lien in effluent which is discharged from metropolitan treatment facilities. The term 'metropolitan' means the area which is or may be served by the Roger Road, Ina Road, or Randolph Park Treatment Plants, or by any additional collection and treatment facilities hereafter constructed which are physically integrated into the existing metropolitan sewerage system. The City shall have unilateral control, without limitation, over the use and disposition of all such effluent discharged from any and all treatment facilities so located. City shall take delivery of its effluent at any or all of the said treatment facilities at no cost to County."

"City and County agree that the City shall have unilateral control, without limitation, over the use and disposition of all effluent discharged from County treatment plants located outside of the metropolitan area. City shall take delivery of such effluent at any or all of said treatment facilities at no cost to County."

1. In the event that disposition by the City of effluent to which it is entitled within the non-metropolitan area results in a net profit, the net profit shall be divided as follows:

50% of the net profit will be treated as water revenues and deposited to the same accounts and funds as receipts from City water sales; 50% of the net profit will be treated as sewer user fee revenues and deposited to the same accounts and funds as sewer user fee revenues."

"County agrees not to provide or divert wastewater from any portion of its collection and treatment systems to any person or other entity without the prior written consent of the City."

"In order to assure that the full potential quantity and quality of City effluent is not reduced, the County agrees to the following:

SS/APR22-85-228
"1. Maintain effluent quality at the Ina Road, Roger Road, Randolph Park Treatment Plants and other treatment plants within the metropolitan area, regardless of whether or not there is a discharge into the waters of the United States, in accordance with Federal and/or State standards for discharge into the waters of the United States within the State. The disposition of treated wastewater from a treatment plant shall not constitute a part of the treatment process.

2. At other treatment facilities outside the metropolitan area, the treatment processes will be maintained in accordance with EPA and State requirements.

3. Except as may be required in Article III M, City agrees County shall not be required by City to exceed NPDES Permit Standards. City further agrees that County shall not be responsible for any additional treatment costs required by City to meet its reuse plans which is in excess of NPDES Standards."

Further Considerations Related to the Proposed Policies

Under its subcontract for CAP water, the City has the right to make beneficial reuse of effluent derived from CAP water. In the first year of CAP water delivery to Tucson, such water will provide two-thirds of the City's total water supply. The area for which Tucson's CAP allocation has been made is larger than either the metropolitan area as defined in the sewer transfer IGA or the existing Tucson Water service area. It was intended to reflect our service area 50 years in the future.

After the City has received its entire Central Arizona Project allocation, the only identified major additional long-term water resource to meet Tucson's growing demand for water will be treated and reclaimed water.

The City has the strongest incentives and greatest capability of any entity in the basin to implement long-term water management policies in the Tucson AMA.

Proposed Policies

Within the Tucson AMA, where the City currently has the right of control of effluent, such right should be maintained. This is the first proposed policy and would exclude areas such as Ajo and Mt. Lemmon which are included in the Sewer IGA.

The City's control over effluent would be exercised in differing ways depending upon circumstances as outlined in the following proposed policies:
I. Effluent from City Developed Water

The use of all effluent derived from water developed by the City including the City's allocation of CAP water, shall be directly controlled and put to beneficial use by the City in accordance with water policies established in Resolution 12990, adopted by the Mayor and Council December 17, 1984.

II. Effluent from Water Developed by Others

Effluent from any County treatment plan derived from water developed by others may be controlled in alternate ways by the City and put to beneficial use on a case-by-case basis:

A. The City may directly control in accordance with the Water Policies established in Resolution No. 12990, adopted by the Mayor and Council December 17, 1984; or

B. Control through contracts between the City and County under the terms of which the County would control the effluent under conditions mutually agreed upon, with no payment by the County to the City except for sharing of net profits as provided in the Sewer Transfer IGA; or

C. Control through long-term contracts between the City and others (private water companies) subject to conditions acceptable to the City. These conditions shall include:

1. Such conditions as may be requested by Pima County, in the development of their wastewater systems, provided, however, that such conditions are not inconsistent with the water management plans and goals of the Tucson AWA.

2. The effluent shall be put to beneficial use and shall offset and reduce the amount of groundwater which the other party could otherwise lawfully have pumped and put to such use. In the event that the beneficial use is recharge, such offset and reduction may not be required.

3. Where the beneficial reuse of effluent may require capital investments in conveyance, treatment, and storage facilities, the term of the contract should be sufficient to allow amortization of the cost of such facilities. Where the beneficial reuse of effluent is an aspect of land development of an area, planning horizons consistent with the proposed development schedule shall be considered in setting the term. However, the long-term need for additional water resources in the Tucson AWA and the probability that changing conditions and new technology will provide new opportunities for effluent reuse dictate that the term of such contracts not be unlimited.
4. In determining whether to require the other party to pay for the effluent, and, if so, the price to be charged, the City will consider:

a. The market value of the effluent
b. The cost to the contracting party of facilities necessary to effectively reuse the effluent
c. The benefits of such reuse to the City's management of its water resource
d. Alternative available uses for the effluent
e. The cost to the contracting party of alternative available water resources
f. The terms of the subcontract for CAP water

Pima County Concerns

The City's understanding of the County staff position on effluent reuse is as follows: They wish to amend the Sewer Transfer IGA and have the City agree to their control of the use of all effluent from all County Treatment Plants that are located outside the metropolitan area. They believe effluent control is important to proper management of the sewer systems in those areas.

A specific issue raised by the County staff is that private developers that wish to use the reclaimed water seek to avoid paying the high price charged by the City from our effluent delivery system. In this regard, it should be recognized that the City makes almost no charge for the resource (the effluent); the charge that is made is almost entirely for the cost of additional treatment and delivery. The question must be asked: If the user of the effluent does not pay for the added cost, if any, after secondary sewerage treatment, who does? Obviously, either the sewer or water rate payer would be required to pay. We believe the user of the effluent should pay the cost. Furthermore, the proposed effluent policies with regard to effluent from water developed by others take into account the legitimate economic concerns of developers.

The County's unwillingness in the past to lay down firm policies in the 208 Plan appear to have been fundamental. The County and City, working together, could establish policies in the 208 Plan that would require developers to conform to both City water and County sewer requirements. In this way, County staff would not be confronted with difficult negotiations each time a developer comes in for sewer services. This appears to be the crux of the County problem, not the control of the effluent.

City and County staff have been working to resolve differences in the 208 Plan. Progress has been very good. It has been agreed that plans for wastewater and effluent reuse will be jointly developed and implemented. This should lead to agreements in specific geographic areas where previously there have been questions or disagreements.
The policies proposed in this Memorandum, together with the improved 208 Planning activities, offer the likelihood of resolving City-County differences on effluent and meeting the County's concerns. It is neither to the best interest of the City nor necessary to the County to make changes in the Sewer Transfer IGA.

Implementation of the Proposed Policies

There are geographic areas where the City should move forward with decisions on the manner in which effluent should be handled. These include: Green Valley, where the City and County staff have already initiated discussions with the Farmers Investment Company regarding effluent from the Green Valley Treatment Plant; Marana, where the City has been negotiating with the MSP Companies in connection with a proposed development within the Cortaro-Marana Irrigation District; Rancho del Lago, where discussions have been held with the private water company serving that area. With the adoption of the proposed policies and revised 208 Planning procedures, the City will be able to bring to a conclusion, the discussions and negotiations that have been conducted to date.

RECOMMENDATION

It is recommended that the Mayor and Council provide any desired policy direction at this time and that the proposed policies be referred to the Citizens Water Advisory Committee for evaluation and recommendations.

Joel D. Valdez
City Manager

JDV:eaq
SS/2022-85-228
RESOLUTION NO. 132/6

RELATING TO WATER; APPROVING AMENDMENTS TO CITY WATER POLICIES.

WHEREAS, from time to time the Mayor and Council has, by resolution adopted water policies as recommended by the Citizens' Water Advisory Committee; and

WHEREAS, the Citizens' Water Advisory Committee has reviewed those policies and recommends that additions be made to them to reflect current concerns;

NOW THEREFORE, BE IT RESOLVED by the Mayor and Council of the City of Tucson, Arizona, as follows:

SECTION 1. That the water policies set forth on pages 4 and 5 of Exhibit A under Proposed Policies are incorporated as if fully set forth herein and are hereby approved. The policies are captioned "3. Alternative Methods of Controlling Effluent" and "4. Conflict with other Policies." These policies are added to those water policies previously adopted and approved.

SECTION 2. WHEREAS, it is necessary for the preservation of the peace, health, and safety of the City of Tucson that this resolution become immediately effective, an emergency is hereby declared to exist, and this resolution shall be effective immediately upon its passage and adoption.
PASSED, ADOPTED AND APPROVED by the Mayor and Council of
the City of Tucson, Arizona, ____________________________

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM: REVIEWED BY:

CITY ATTORNEY     CITY MANAGER

6/12/85
IV. WATER SUPPLY AND DEVELOPMENT

A. BASIN-WIDE MANAGEMENT

(1) The City of Tucson shall continue to take a leadership role in the quest for basin-wide groundwater management in conjunction with the Department of Water Resources Tucson Active Management Area staff. This effort shall focus on cooperation between the various water users and agencies of government. The City, in anticipation of the Central Arizona project being completed to Pima County, shall continue to work in cooperation with all potential users of C.A.P. water in Pima County and with all agencies of government to facilitate implementation of the Project in Pima County.

(2) The City of Tucson shall systematically purchase and retire irrigated farmland in the Avra Valley for the ultimate purpose of developing a new wellfield or wellfields and transmission system. This new system will augment Central Arizona Project supplies in times of shortages and allow a reduction in the pumpage of groundwater from the Upper Santa Cruz basin of the Tucson Active Management Area. Remaining Central Avra Valley farms shall be purchased first proceeding thereafter to northern Avra Valley.

B. REUSE

All water that can be reused shall be fully utilized to reduce groundwater pumping, evaporation and evapotranspiration.

(1) Effluent Reuse (adopted by the Mayor and Council on July 6, 1982, Resolution 11955 except as otherwise noted)

(a) Effluent is water which has received primary or secondary wastewater treatment.

(b) In considering proposals for the use of effluent geographical priorities of effluent use shall be as follows:

(1) Tucson Water Service Area

(2) Upper Santa Cruz subbasin of the Tucson Active Management Area

(3) Avra Valley subbasin of the Tucson Active Management Area

(4) Outside the Tucson Active Management Area
(c) All effluent sales contracts shall specify a minimum and maximum annual effluent use.

(d) Contracts for effluent uses outside the Upper Santa Cruz subbasin shall provide that, in the subject and subordinate, on a pro-rata basis among users outside the Upper Santa Cruz subbasin pursuant to existing or future effluent sales contracts.

(e) All future effluent sales contracts shall be subordinate to any negotiated settlement, existing or future, with the Papago Indians and/or the United States. Said contracts shall provide for a pro-rata reduction in quality where the Indians take delivery from the City leaving insufficient effluent to satisfy the then existing effluent sales contracts.

(f) The price of effluent shall be based on market value. Market value is initially defined as current cost of an alternative source for each user. Effluent sales prices shall be adjustable periodically to reflect changes in effluent market value.

(g) The price of effluent may be adjusted to account for capital costs for constructing transmission and treatment facilities. Sales of effluent from such facilities shall be controlled by the City.

(h) While contract terms can vary, unit prices for effluent shall be adjusted annually proportional to a negotiated and appropriate index.

(i) As a condition of effluent contracting, pending or threatened lawsuits relating to effluent ownership or appropriation shall be dismissed.

(j) The length of term for effluent sales agreements shall take into account the negotiated financial arrangements and facility requirements.

(k) Changes in the Groundwater Management Act of 1980 shall be sought to allow credits to the City for recharged effluent and to allow exchanges of effluent for groundwater.

(l) Contractual rights to the use of effluent may result in added value to a user's property. Contracts should recognize this possibility and shall require waiver by the owner of any such added value in the event of purchase of the property by the City through negotiation or condemnation.

(m) Effluent application shall protect and preserve the existing quality of groundwater insofar as practical.
(n) The City shall monitor effluent sales and deliveries by the Pima County Wastewater Management Department to assure compliance with the sewer system transfer intergovernmental agreement, and where necessary, shall take steps to correct any failure to so conform.

2. Reclaimed Water

(a) Reclaimed water is effluent that receives post-secondary treatment.

(b) All reclaimed water sales contracts shall specify a minimum and maximum annual reclaimed water use.

(c) The price of reclaimed water may be adjusted to account for capital costs for constructing transmission and treatment facilities. Sales of reclaimed water from such facilities shall be controlled by the City.

(d) While contract terms can vary, unit prices for reclaimed water shall be adjusted proportional to a negotiated and appropriate index.

(e) Irrigation of existing golf courses, parks, cemeteries, and schools, should be accomplished through the use of reclaimed water whenever feasible to preserve potable water resources.

New golf course development shall only be permitted using effluent or reclaimed water. Whenever feasible, new parks, cemeteries, and schools shall also be required to use effluent or reclaimed water for irrigation purposes. Potable water may be used on an interim basis provided that the developer agrees to use effluent or reclaimed water when available and assist the City in facilitating the construction of regional delivery system. Incentives to encourage prompt action by developers in switching to effluent or reclaimed water use shall be part of water service agreements and other appropriate contracts.

(f) Tucson Water shall actively work with the community, particularly industrial and large multiple family complexes, to provide service to users that can be practically and economically served by the reclaimed water system. (Resolution 13124, April 22, 1985.)

(g) Changes in the Groundwater Management Act of 1980 shall be sought to allow credits to the City for recharged reclaimed water and to allow the exchanges of reclaimed water for groundwater.

(h) Reclaimed water applications shall protect and preserve the existing quality of groundwater insofar as practical.
(i) The potential for utilizing reclaimed water shall be evaluated and included in all new area plans and in existing ones as they are updated. (Resolution 13124, April 22, 1985.)

PROPOSED POLICIES

3. Alternative Methods of Controlling Effluent

(a) Within the Tucson AMA, where the City currently has the right of control of effluent, such right should be maintained. Areas such as Ajo and Mt. Lemmon which are included in the Sewer IGA are excluded from this policy.

(b) The City's control over effluent would be exercised in differing ways depending upon circumstances as outlined in the following proposed policies:

(1) Effluent from City Developed Water

The use of all effluent derived from water developed by the City including the City's allocation of CAP water, shall be directly controlled and put to beneficial use by the City in accordance with water policies established in Resolution 12990, adopted by the Mayor and Council December 17, 1984.

(2) Effluent from Water Developed by Others

Effluent from any County treatment plant derived from water developed by others may be controlled in alternate ways by the City and put to beneficial use.

i. On a case by case basis, the City may directly control in accordance with the Water Policies established in Resolution No. 12990, adopted by the Mayor and Council December 17, 1984; or

ii. Control through long-term contracts between the City and others (private water companies) subject to conditions acceptable to the City. These conditions shall include:

iii. Such conditions as may be requested by Pima County, in the development of their wastewater systems; provided, however, that such conditions are not inconsistent with the water management plans and goals of the Tucson AMA.

iv. The effluent shall be put to beneficial use and shall offset and reduce the amount of groundwater which the other party could otherwise lawfully have pumped and put to such use. In the event that the beneficial use is recharge, such offset and reduction may not be required.
v. Where the beneficial reuse of effluent may require capital investments in conveyance, treatment, and storage facilities, the term of the contract should be sufficient to allow amortization of the cost of such facilities. Were the beneficial reuse of effluent is an aspect of land development of an area, planning horizons consistent with the proposed development schedule shall be considered in setting the term. However, the long-term need for additional water resources in the Tucson AMA and the probability that changing conditions and new technology will provide new opportunities for effluent reuse dictate that the term of such contracts not be unlimited.

vi. In determining whether to require the other party to pay for the effluent, and if so, the price to be charged, the City will consider:

- The market value of the effluent
- The cost to the contracting party of facilities necessary to effectively reuse the effluent
- The benefits of such reuse to the City's management of its water resource
- Alternative available uses for the effluent
- The cost to the contracting party of alternative available water resources
- The terms of the subcontract for CAP water
- The benefits to public waste water facilities

(c) In cases where the City is not using the effluent, has no plans to use the effluent, has no contract with another for the use of effluent and has no plans for entering into a contract with another for the use of effluent, the City shall enter into a contract with the County under the terms of which the County would control the effluent under conditions mutually agreed upon, with no payment by the County to the City except for sharing net profits as provided in the Sewer Transfer IGA.

(d) The City will not quitclaim effluent which it owns to another without charging fair market value for the resource.

*Underscore indicates changes from policies considered by Mayor and Council on 4/22/85.

4. Conflict with other Policies

(a) In instances where other adopted effluent or reclaimed water policies conflict with those in Section IV.B.3, Section IV.B.3 shall prevail.
C. RECHARGE

(a) Recharge will be utilized as a strategy for augmenting the groundwater and for providing long term operational flexibility to Tucson Water's supply system.

(b) A demonstration recharge project will be implemented to further assess the viability of retaining reclaimed water within an underground aquifer.

(c) A demonstration recharge project will be implemented to develop operational data relating to the feasibility of large scale recharge projects to enhance the utility's service capabilities.

(d) Tucson Water will work with other agencies involved in recharge and provide technical and policy input as appropriate to pursue the common goal of water resource management and safe yield.

(e) Tucson Water is willing to assume regional accountability and responsibility for the planning and implementation of basinwide recharge programs.

(f) Tucson Water will fully participate with other agencies to develop augmentation to positively impact the region's water resources.