TOWN OF GILBERT

RECLAIMED WATER USERS MANUAL

GILBERT
ARIZONA

APPROVED BY TOWN COUNCIL
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RECLAIMED WATER USERS MANUAL

INTRODUCTION

Background

Gilbert has taken a pro-active approach to the wise use of its water resources. This includes the goal of 100% reuse of its reclaimed water. This will be accomplished by either direct use for irrigation, industry and lakes maintenance or indirect use by recharging the water and storing it underground.

In accordance with this goal, Gilbert's Neely Wastewater Reclamation Plant and the Mesa/Gilbert/Queen Creek- shared Greenfield Wastewater Reclamation Plant produce class A+ effluent, satisfactory for open access landscape irrigation and groundwater recharge. Gilbert has obtained Reuse and Aquifer Protection Permits from the Arizona Department of Environmental Quality (ADEQ) and Storage and Recovery Permits from the Arizona Department of Water Resources (ADWR). Gilbert currently recharges (stores underground) all reclaimed water that cannot be used directly and recovers (pumps back) a portion of the recharged water for reuse.

Intent

The intent of this manual is to present the technical, contractual and regulatory requirements necessary for the safe use of reclaimed water. This manual also gives guidelines and procedures specific to the use of this water for irrigation and lakes maintenance. Specific guidelines for the non-irrigation/lake maintenance use of this water are not addressed in this manual and will be handled on a case by case basis.

REGULATORY

Within the State of Arizona, the reuse of reclaimed water for any purpose is regulated by the Arizona Department of Environmental Quality (ADEQ). The purpose of regulating the use of reclaimed water is to protect public health. The following site operation procedures are required by ADEQ when reclaimed water is used for lake maintenance and open access landscape irrigation.

a. ***Safety***

1. Personnel working in and about the reuse site shall be informed that reclaimed water is being used and shall take appropriate safety precautions. Adequate supervision and training shall be provided to ensure that all users of the system are aware of and understand the requirements of this permit and applicable ADEQ requirements.

2. Peddle powered, propeller driven boats may be used on lakes. Paddle driven boats shall not be used because they could cause aerosols and the

boater to be splashed. The boater shall be notified that reclaimed water is being used. Print on the ticket or a brochure received by the boater will be considered sufficient.

b. ***Irrigation Plan*** (as per R18-9-704F)

1. Shall not allow ponding or standing water and nuisance conditions;

2. Shall be by spray or drip irrigation systems for open access and restricted access landscaped areas;

3. Shall be limited to such times of the day as to preclude direct contact of the spray with users of the facility;

4. Shall not allow public drinking fountains, potable water hose bibbs, public use facilities and private residences to be exposed to wetting mist from the sprinklers; and hose bibbs discharging reclaimed wastewater shall be posted with signs reading "CAUTION: IRRIGATION WITH RECLAIMED WASTEWATER, DO NOT DRINK" and either the universal symbol of a glass of water with a slash through it, or the Spanish phrase, "No Beber", or be secured to prevent access.

c. ***Storage Requirements***

A holding pond, lake, or other containment may exist on reuse sites. These containments shall be lined to eliminate seepage/percolation.

d. ***Runoff Control***

1. Any reuse site on which construction started after the effective date of the permit shall be constructed to contain a ten (10) year/24-hour storm event as required by Town of Gilbert Ordinances and R9-20-403.C.5.a.

2. When considering runoff provisions for existing golf courses only: Prior to the delivery of reclaimed water irrigation system, the permittee or reclaimed water user shall identify those locations where significant runoff from a precipitation event shall occur and shall estimate the volume and fate of the runoff. It will then be determined if a health hazard or environmental hazard exists and if a NPDES permit is required.

3. Freeway medians and street medians are exempted from the requirement to retain runoff because the ADEQ has determined that runoff from these areas shall not pose a threat to health or the environment.

4. Reclaimed water shall not be allowed to run off any reuse site during periods of application.

e. ***Public Information Practices***

Signs reading “CAUTION: RECLAIMED WATER, DO NOT DRINK” and either the universal symbol of a glass of water with a slash through it, or the Spanish phrase, “No Beber” shall be prominently displayed on the premises of each reuse site in the following locations:

1. at all logical points of entry to the reuse sites;

2. at all entrances to all lakes, ponds, and impoundments

3. at all plumbing outlets (i.e. hose bibbs, etc.).

Golf Course score cards shall include information about reclaimed water.

Homeowners adjacent to golf courses and common areas must be informed of the use of reclaimed water. Notice within a Homeowners Association letter, or billing statements can be used to fulfill this requirement when applicable. Prospective buyers shall be notified upon sale/resale of property.

f. ***Dust Control***

Dust control with reclaimed water shall be performed by operators trained in the potential hazards involved with reclaimed water. All spraying with reclaimed water shall be done in a manner that prevents overspray or drift. Appropriate signs shall be displayed.

g. ***Cross-Connection Control and Engineering Plans***

Each future reuse site which currently uses drinking water for irrigation shall perform a dye test that demonstrates to the satisfaction of Gilbert Backflow Prevention and Maricopa County Department of Environmental Services, Water and Waste Management Division, that no cross-connections exist. This test shall be performed prior to the delivery of reclaimed water to the reuse site. This requirement does not apply to reuse facilities designed and constructed specifically to use reclaimed water. A color coding system shall be used on all new piping and outlets to prevent any accidental cross-connection between the potable and reclaimed water set forth by the Maricopa County Department of Environmental Services. Schematic plans for the location of sprinkler heads, valves, backflow devices, and any other ancillary equipment shall be provided to The Town of Gilbert Engineering Department, ADEQ and Maricopa County Health Department Department of Environmental Services for review by the reclaimed water user prior to delivery of water. These plans shall be available in the project file for each reuse site at the Water Permits Unit of ADEQ.

h. ***Portable Water Coolers***

Portable water coolers provided for drinking water on reuse sites (i.e. golf courses) shall be removed prior to sprinkler irrigation in the evening. Drinking water coolers shall be serviced in an appropriate kitchen, in accordance with the requirements of the Maricopa County Health Department, Bureau of Health Engineering.

The responsibility for ensuring that the regulations are met will be shared by Gilbert's Wastewater/Reclaimed Water Reuse Department (Gilbert), Maricopa County Environmental Services (MCES) and the reclaimed water users. To insure compliance with these regulations, the construction of these systems will be inspected by an authorized representative ofGilbert.

It is Gilbert's responsibility to maintain a reuse permit with the ADEQ and ensure that the reclaimed water is of a suitable quality for the irrigation of open-access landscaped areas. Gilbert also has the responsibility to maintain and operate the offsite reclaimed water distribution system that delivers the reclaimed water to the users' onsite reuse systems. In addition, Gilbert will conduct the required monitoring program to protect public health and the environment, including monitoring of the quantity and quality of the reclaimed water being delivered.

Gilbert and MCES's responsibility is to ensure that the user operates and manages its reuse site and facilities in conformance with regulatory requirements for the safe use of reclaimed water. The user may expect periodic inspections of the ongoing reuse site operations by MCES. The user is required to report all violations, emergency situations, and appropriate corrective measures to MCES and Gilbert.

It will be the responsibility of the individual reclaimed water users to ensure that their own private reclaimed water system meets all of the onsite requirements. Each user shall execute an agreement with Gilbert to install the proper facilities and to maintain and operate the site in compliance with applicable laws, regulations, and contractual provisions. This agreement is intended to ensure the safe use of reclaimed water for irrigation of their landscaped areas and lake maintenance.

GILBERT RECLAIMED WATER USE POLICY

Potential Reclaimed Water Users

The anticipated users of reclaimed water for open access landscape irrigation are the owners and operators of:

1. Golf Courses
2. Parks/Greenbelts
3. Cemeteries
4. Lakes
5. School Grounds/Athletic Fields
6. Churches

Reclaimed water may also be used by industry (including agriculture). Such use will be considered on a case by case basis.

Reclaimed Water Policy

Gilbert recognizes reclaimed water as a dependable supply source that will enable Gilbert to conserve potable water supplies. It is the policy of the Gilbert (See Sec 66-141) to, whenever possible, incorporate the use of reclaimed water. Gilbert will work actively to provide service to users that can be practically and economically served by the reclaimed water system. Gilbert's reclaimed water distribution system is continuously pressurized. System pressure is typically between 30 and 60 psi which may require the end user to install a reservoir and booster pump system if higher pressures are needed.

Metering

The reclaimed water user is responsible for the installation of a meter(s) to record the quantity of water delivered to its site. The meter shall be from a Gilbert approved manufacturer with +/- 3% accuracy. Meters in sizes greater than four (4) inches shall be the turbine type. Meters in sizes up to and including four (4) inches shall be the impeller type. All meters shall register the actual flow and totalize all flows. Gilbert staff shall have unobstructed access to the meter(s) for accuracy inspections and to determine the amount of water delivered to the site. Two (2) inch and smaller meters shall be housed in a MAG Detail 320, number four (4) meter box with raised lettering on the lid indicating "reclaimed water".

Unless otherwise approved by Gilbert's Wastewater Division, meters larger than two (2) inches in size will be set above ground in a six (6) foot walled masonry enclosure with a locking gate.

Above ground water meter installations will also include necessary pipe supports, a wheel operated gate valve on the supply side of the meter, six (6) inches of gravel or a concrete pad and be constructed of materials that are not affected by sun light. Meters shall be installed with a length of pipe of at least 5 pipe diameters preceding them and 1 diameter after or, straightening veins to ensure accurate flow measurement.

Pricing/Billing
The price of reclaimed water is set by the Town Council per Section 9 of the Gilbert Municipal Code. The price may be amended by Town Council to compensate for increased costs incurred by the Town in delivering the reclaimed water.

Gilbert will bill the customer once per month. Payment shall be received at the Town within 15 days of the date of the bill.
Failure to pay the water bill within 90 days will result in the termination of water service to the customer.

Distribution System Operation

Deliveries of reclaimed water must be scheduled and the end user must take delivery of the quantity of water requested. If necessary, it is the user's responsibility to further pressurize the water for the intended use.

If operationally feasible, Gilbert will try to accommodate delivery requests outside of normal delivery schedule.

Resale or further reuse of Reclaimed Water
The resale or further reuse of reclaimed water is not permitted and shall result in termination of the Reclaimed Water Use Agreement.

Emergency Situations
If an emergency situation occurs that places a reclaimed water user in violation of the requirements of this manual the user shall immediately verbally notify the Town's Effluent Reuse Section ((480) 503-6475) and the MCES. The nature of the problem, all pertinent information relating to the problem, and the course of action to bring the site into compliance will be discussed. After assessing the problem, Gilbert and MCES may discontinue the delivery of reclaimed water to the site until the problem is solved. Written notice of the problem together with all pertinent information and the solution to the problem will be transmitted to Gilbert and MCES within one (1) working day.

When an emergency situation occurs, the user shall immediately take steps to at least temporarily alleviate the effect(s) of the problem. If the problem cannot be immediately corrected, the user's entire reclaimed water irrigation system must be turned off until it can be safely and legally returned to service.

Containment Structures
All containment structures (lakes, ponds, etc.) must be lined to prevent seepage. A minimum six (6) inch air gap (above the high water line) and a check-valve, flapper, or other back-flow prevention device must be provided for all system discharges into a containment structure.

APPLICATION TO USE RECLAIMED WATER

Application Form Preparation

(Refer to Section R18-9-718, Part C of the ADEQ Unified Water Quality Permit Rules)

Each site owner desiring to use reclaimed water must submit an application toGilbert. An application form is included in the manual as Appendix A. The required information includes:

a. Name, address and telephone number of the end user
b. Legal description of each reuse site, including latitude and longitude coordinates
c. Description of each direct reuse activity, including:
    i. Type of vegetation
    ii. Acreage
d. Annual volume to be delivered
e. A copy of the signed Reclaimed water Users Agreement

Application Evaluation

Gilbert will evaluate the application and determine the feasibility of delivering reclaimed water to the site for the use(s) indicated. Gilbert staff will visit the proposed site with the applicant as part of the application review process. If the site is to be converted from a potable water supply to reclaimed water, Gilbert staff will require that the existing delivery system be operated so that it can be determined if ponding and/or overspraying occurs. If the project is feasible, Gilbert will instruct the applicant to prepare plans and specifications in accordance with this manual, for review and approval. If the project is an existing project, Gilbert will review the existing record (as-built) plans as part of the application process to ensure safety and compatibility in changing water supply sources. After Gilbert approval of the plans and specifications MCES must review and approve the plans and specifications prior to any construction or alterations occurring.

Concurrent with the preparation of plans and specifications, Gilbert will execute a user agreement with the applicant. This user agreement will go into effect upon successful construction, inspection and approval of the project by Gilbert and MCES.

User Agreement

The ADEQ regulations require that the owner or producer of reclaimed water enter into an enforceable contract with any user to whom reclaimed water is delivered for reuse. A form of agreement is included in Appendix B; the general terms and conditions of the agreement are discussed in this section.

The purpose of the user agreement is to state the requirements of reclaimed water use and define the responsibilities of Gilbert and the user. ADEQ has a regulatory interest in the safe use of reclaimed water and the Agreement shown in Appendix B meets their approval. No reclaimed water shall be resold to another party or delivered to another party for reuse.

The general terms of the agreement will state the agreed upon price, place of use, point of delivery, and date of commencement of service of the reclaimed water. The agreement also stipulates that all construction, maintenance, metering, and operation of the private reclaimed water system on the user's premises, including potable system backflow prevention and service connection, will be at the user's expense. If a special pipeline is required to deliver reclaimed water to the site, it will be provided at the user's expense.

The Gilbert Neely and Gilbert's shared interest Greenfield- Wastewater Reclamation Plants shall treat and disinfect the reclaimed water to the level required by the ADEQ regulations for irrigation of open access landscaped areas. To ensure the maintenance of this high quality reclaimed water, Wastewater Reclamations Plants are required to monitor the reclaimed water. This monitoring program consists of regular sampling with chemical and biological analyses to determine the quality of the reclaimed water following treatment and disinfection.

THE USER MUST RECEIVE AND APPLY THE RECLAIMED WATER AND MANAGE THE SITE IN ACCORDANCE WITH ALL REGULATORY AND CONTRACTUAL REQUIREMENTS. FAILURE TO COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS FOR REUSE OF RECLAIMED WATER SHALL RESULT IN TERMINATION OF THE USER AGREEMENT. It is important for the user to understand that, while the use of reclaimed water is beneficial in many respects and is safe to use, care must be taken to protect the public health. This is the reason for the special regulatory requirements. To ensure that these requirements are observed, Gilbert, ADEQ, and MCES are authorized by law and contract to inspect the initial construction or conversion and, periodically, the ongoing operation of the onsite reclaimed water system.

PREPARATION OF CONSTRUCTION PLANS

Construction Plan Submittal Requirements

The user shall submit construction plans to Gilbert and MCES showing existing and/or new facilities to be used for distributing, controlling, and applying reclaimed water on the proposed site. These plans shall be drawn to scale and shall also include all potable water lines and facilities, buildings, and other improvements, proposed reclaimed water use areas, and contiguous areas not intended for reclaimed water use and the use that these areas will have. The plans shall be accompanied by the necessary applicable specifications, both of which will show the methods and procedures to be used for constructing the

required facilities in conformance with regulatory and contractual requirements and with Gilbert's standard specifications. Some of the general requirements for private reclaimed water systems are presented in the following sections.

Reclaimed Water Reservoir Requirement

An on-site reclaimed water reservoir may be required. If the reclaimed water user contract provides for a peak day demand of greater than 10,000 gallons, the contract shall require construction and use of a reclaimed water reservoir on site with a capacity of one day's peak demand capacity. Gilbert may consider an exemption from the reservoir requirement based upon a customer's proximity to a Gilbert Reclaimed Water Reservoir and the user's peak flow demands.

If the reclaimed water use contract provides for a peak day demand of less than 10,000 gallons, the contract may require construction of a reclaimed water reservoir on-site with a capacity to meet one day's peak day demand if the location of the project on Gilbert's reclaimed water system is such that the average daily reclaimed water pressure at delivery to the development is below 20 psi.

Reservoir design must be approved by Gilbert prior to construction to ensure adequate water can be supplied to the development.

As-Built (Record) Plan and Operations and Maintenance Manual Submittal Requirements

The user shall submit as-built (record) construction plans to Gilbert and MCES showing prior-existing and new facilities to be used for distributing, controlling, and applying reclaimed water to the site. These plans must be drawn to scale and accurately dimensioned to indicate the as-built location of all facilities. Gilbert's copy of the as-built (record) plans shall be submitted on 24" x 36" (4 ml) archival quality, photo mylars. All as-built (record) plans shall contain the following statement, stamped and signed by a registered Engineer: "As-Built measurements as shown or noted hereon were made by myself or under my supervision and are correct to the best of my knowledge and belief."

Construction Materials and Procedures

To effect the safe onsite use of reclaimed water, and to satisfy the requirements of its use, certain facilities must be installed onsite. The acceptable materials and procedures for construction of these facilities will be defined byGilbert. Standard details, materials and workmanship specifications, including requirements for separation from other utilities, are included in Gilbert's standard specifications, which will be made available by theGilbert. This is to ensure that adequate protection of public health is maintained by requiring the use of proven materials and procedures, and to simplify the efforts of the users in planning, designing, and installing the reclaimed water system.

The user must determine the specific data required by Gilbert to be placed on plans and drawings for reclaimed water systems. All installations of onsite reclaimed water systems shall be inspected and approved by Gilbert, MCES, and by ADEQ, if required.

GENERAL RECLAIMED WATER SYSTEM REQUIREMENTS

Backflow Prevention

The reclaimed water user shall be responsible to prevent contaminants from entering the potable water system. This responsibility begins at the user's potable water service connection and included all potable water piping on the premises. All potable water service connections to a site where reclaimed water is used shall be equipped with a reduced-pressure-principle backflow prevention device, approved byGilbert, to prevent backflow into the potable water system. After the user has installed the device, Gilbert will test it at the user's expense; the user will be responsible for its ongoing maintenance. The required annual testing of the device shall be performed by an agency certified by Gilbert and/or MCES and the results shall be provided to Gilbert and MCES.

No backflow prevention device will be necessary for the reclaimed water system.

Cross-Connection Control

No cross connection between the reclaimed water and potable water lines will be permitted. It is the responsibility of the user to ensure proper cross-connection control, and it must be verified by the user, Gilbert and MCES. For new developments, it can be verified by review of the construction drawings and inspection of the construction by Gilbert and MCES. For existing developments where conversion of the irrigation system to the reclaimed water source is necessary, all connections to the irrigation system shall be located and physically disconnected. Record (as-built) drawings can be used to locate these connections.

In every case where reclaimed water is used on a site, the new or converted system shall be tested for cross-connection control after construction or conversion is completed, and tested periodically thereafter as requested by Gilbert and MCES. The testing procedure is discussed in a later section of this manual. Test results shall be provided to Gilbert and MCES.

Valves and Controllers

No unauthorized use of the reclaimed water system is to occur. All valves on the reclaimed water system shall be secure from unauthorized use. The valves shall be keyed to be operable by special tools that are available only to authorized

personnel. All reclaimed water systems must have a master cutoff valve located near the reclaimed water service connection.

All main line valves shall use a valve detail 391-1-C valve box with a square frame and cover with the words “Reclaimed Water” in raised letters on the cover.

If automatic irrigation controllers are used, a drawing of the area served by the controller shall be sealed in plastic and placed in the controller box. The controller box shall be keyed so that only authorized user personnel have access to the controller.

Irrigation System

The irrigation system is typically designed to apply the peak moisture demand of the vegetation on the site. To minimize ponding or runoff, the reclaimed water shall be applied at a rate that does not exceed the infiltration rate of the soil. If the site has an existing system that will be converted to reclaimed water, and ponding or runoff is a problem, alterations to the system, such as different sprinklers nozzles or a change in operating pressure, may be required. Evidence that soil infiltration capacity and water application rates have been assessed shall be included in the facilities design and on the construction drawings.

The irrigation system shall be designed with part-circle sprinklers along boundaries, sidewalks, and buildings so that there is essentially no over-spraying on bordering property or unintended-use areas. Systems on existing developments shall be modified if necessary, to satisfy this requirement.

System Identification

All reclaimed water system facilities shall be identified by the color code and marking system specified in MAG section 616 to differentiate it from the potable water system. Irrigation piping less than one inch in diameter, that is not continuously pressurized is not required to be marked.

For new developments or system extensions on existing developments, all new subsurface piping and fixtures shall be marked as specified by MAG Section 616 specifications. Also, all subsurface piping and fixtures exposed and/or modified during conversion of an existing potable water irrigation system to a reclaimed water system must be marked in the same manner. All above-ground parts of the reclaimed water system, including valves, backflow prevention devices, valve boxes and covers, controllers, piping, and hose bibs or other outlets, shall be painted in accordance with the MAG Section 616 standard specifications.

Design Protection of Certain Facilities

Drinking fountains on the sites shall be protected from overspray of reclaimed water. On new developments, and where relocation is feasible for existing developments, protection may be best accomplished by placement of the drinking fountain out of the irrigated area. For existing developments, and where

this is inconvenient on new developments, adequate protection can be accomplished by providing a protective shield or cover for the drinking fountain.

Over-spraying on any outside area where food is prepared or eaten must be avoided. Also, precluding over-spraying on buildings where food is commonly prepared and/or eaten is advisable.

Public Notification

The general public using the sites shall be informed that reclaimed water is used for irrigation of the site. Caution signs reading "IRRIGATION WITH RECLAIMED WASTEWATER, DO NOT DRINK" shall be prominently displayed throughout the premises. For golf courses, a similar warning shall be included on the score cards. It is of particular importance to place the caution signs around any above-ground or in-ground reclaimed water reservoir. The purpose and intent of properly notifying the public is to ensure that the reclaimed water is not misused.

INSTALLATION AND STARTUPOF RECLAIMED WATER SYSTEM

Following the approval of the project by Gilbert and MCES for use of reclaimed water, approval of plans and specifications, receipt of any and all necessary building and/or use permits from appropriate Gilbert and/or other agencies, and the execution of the user agreement, the user may install the necessary facilities. All construction materials and procedures shall meet Gilbert's standard specifications.

Inspections During Construction

The site shall be open to representatives ofGilbert, ADEQ, and MCES for inspection during installation of the facilities. The user shall notifyGilbert, and the other agencies as they require, at critical points during installation as defined and requested byGilbert. These critical points shall include, but are not limited to, the following:

- Construction Materials--When materials are delivered to the site
- Backflow Prevention--After the device has been installed and is ready for testing
- Cross-Connection Control--When points of disconnection are open and permanent disconnection has been made, and when cross-connection testing is to be performed
- Valves--After valve installation while excavations are still open
- Controllers--After installation and before system startup

- Irrigation System--After marking has been completed and while all excavations are still open

- System Identification--After marking has been completed and while all excavations are still open

- Protection of Certain Facilities--After protection has been installed, and during system startup

- Public Notification--After proper signs are in place, and additionally for golf courses, when new score cards are printed

System Startup and Required Testing

After all of the site development activities have been completed and approved, the appropriate signs notifying the public that reclaimed water is being used on the site must be installed and inspected and approved byGilbert. After the user has installed the backflow prevention device on the potable water service line(s), Gilbert will test the device and, when acceptable, will allow connection of the reclaimed water source to the irrigation system. The system is then ready for testing. Three critical tests of the system are required:

- The backflow prevention device

- Cross-connection control

- Ponding, runoff, and over-spraying

The testing will be observed by Gilbert and MCES (if they choose) . It is the responsibility of the user to make arrangements for inspection and testing.

Cross-Connection Control Testing

Following the testing of the backflow prevention device, testing for cross connection shall be conducted. A dye test is an accepted method of testing. For such a test, the potable water system would be closed at the service connection(s) and one or more potable outlets on the premises would be opened. The reclaimed water system would then be turned on, and an innocuous dye would be introduced into the operating system. Over a period of several hours, the opened potable water outlets would be monitored for appearance of water containing the dye. If the dye appears, there is a cross connection. If the cross connection cannot be found and severed, either the potable water or the reclaimed water system on the site shall be completely replaced.

The cross-connection test shall be repeated each time a system change is made following a positive dye test. Periodic tests may be required by Gilbert or MCES. All tests are the responsibility of the user and the results of the tests shall be provided to Gilbert and MCES.

Ponding, Runoff, and Over-spraying Testing

After the backflow prevention device and the cross-connections control testing has been completed and approved byGilbert, the irrigation system will be activated to initiate application of reclaimed water. Observations for ponding, runoff, and/ or over-spraying on unintended-use areas will be made. If excessive ponding or runoff occurs, the system shall be changed to irrigate for a shorter duration and/or more frequent application periods. This may be effective because the water intake rate of the soil is greater during the early portion of the application period. A change in the application rate by changing sprinkler nozzle size or altering the operating pressure may also be effective.

If over-spraying on unintended-use areas is observed, it shall be necessary to change the system or its operation to eliminate the over-spraying. These changes may include relocation of certain sprinkler heads, readjusting the part-circle sprinklers, not irrigating during windy periods, or a combination of these measures.

RECLAIMED WATER SYSTEM SITE OPERATION

When onsite development and startup and testing have been completed and approved by Gilbert and, as necessary, MCES, the site is ready for normal ongoing operation, and the applicant may begin delivery of reclaimed water under the previously executed agreement. Each user must understand the need for special handling of the reclaimed water and accept the responsibility to maintain and operate the private reclaimed water system in accordance with the regulatory and contractual requirements, in a manner that protects the health and safety of all persons visiting, occupying, and/or using the site. The user can expect, and shall permit, Gilbert, MCES, and ADEQ to visit the site periodically to monitor the site operations.

Each user must have a designated irrigation manager who shall be completely familiar with the reclaimed water use requirements and the “Operation and Maintenance Manual” for the user’s system. This manager shall be responsible for coordination with Gilbert and MCES, and for managing and training user’s employees involved in irrigating with reclaimed water.

It is critical that the user’s irrigation personnel be completely familiar with the special requirements of using reclaimed water. All reclaimed water facilities shall be inspected by responsible user management during operation to be assured that the requirements of the Operations and Maintenance Manual and Gilbert’s Reclaimed Water User’s Manual are being continually met.

APPENDIX A

INITIAL APPLICATION FORM

APPLICATION FOR THE USE OF RECLAIMED WATER

TOWN OF GILBERT
900 E. Juniper Ave.
GILBERT, AZ 85234
PHONE: 480-503-6840

CONTACT: WATER RESOURCES ADMINISTRATOR

Date: _____

Applicant: _____

Applicant Address: _____

Applicant Contact Person: _____

Contact Person's Phone Number: _____

Please mark all that apply of the appropriate type of development(s) and site use(s).

	Type of Development(s)		**Site Use(s)**		
	Conversion of Existing System		Golf Course Irrigation		Park/Common Area Irrigation
	New Development		Lake Water Supply		School Grounds Irrigation
	Other:		Cemetery Irrigation		Industrial Process Water
			Agriculture Irrigation		Cooling Tower Water
			Other:		

Site Address (if different from above) and Location Description: _____
_____

Date that reclaimed water service is desired: _____

List existing and planned potable water uses on the site: _____
_____

Site area in acres to be irrigated with reclaimed water:_____
Lake surface area in acres:_____

Estimated reclaimed water requirement:

Annual _____million gallons
Peak Month _____million gallons

APPLICATION FOR THE USE OF RECLAIMED WATER, PAGE 2

Submit construction or record drawings showing all existing and proposed potable and reclaimed water pipelines and facilities.

Please describe Applicant's Training and Experience with the use of reclaimed water:

_____

_____

_____

_____

_____

Prepared and Submitted by (print name & title): _____

_____

Signature and Date: _____

FOR TOWN USE:

This application is _____ approved _____denied.

Reason for denial and proposed remedies:

APPENDIX B

RECLAIMED WATER USE AGREEMENT

RECLAIMED WATER USE AGREEMENT

This Agreement ("Agreement") made the _____ day of _____, 20____, by and between _____ ("User"), and the Town of Gilbert, a municipal corporation ("Town").

WHEREAS, User wishes to become a customer of Town to purchase reclaimed water for the uses set forth in this Agreement; and

WHEREAS, on or about the 14th day of July, 2006, the Arizona Department of Environmental Quality issued to Town Wastewater Reuse Permit No. R-105757 ("Permit"), permitting and allowing Town to reuse its reclaimed water and contract with other parties for their use of Town's reclaimed water; and

WHEREAS, Town either now owns and operates a delivery system capable of delivering reclaimed water meeting the quality standards set forth below; and

WHEREAS, User intends to construct or has constructed and will operate an onsite private reclaimed water system and has read and understands Gilbert's Reclaimed Water Users' Manual; and

WHEREAS, User has agreed to construct or pay for the construction of extensions and improvements to Gilbert's reclaimed water delivery system, as Gilbert deems necessary, to permit Gilbert to deliver reclaimed water to User's Point(s) of Delivery as set forth below.

NOW THEREFORE, for and in consideration of the mutual covenants set forth herein, including the recitals set forth above, as well as in consideration of continued receipt of water and in further consideration of such other values as may inure to User from the use of reclaimed water, Gilbert hereby agrees to sell and User hereby agrees to purchase reclaimed water on the following terms and conditions:

1. Definitions:

A. "Directly Delivered Reclaimed Water" means reclaimed water produced at Gilbert's wastewater reclamation facilities that is determined by Gilbert to be available for non-potable uses and is directly delivered to User's Point(s) of Delivery through Gilbert's reclaimed water distribution system pursuant to this Agreement.

B. "Effective Date" means the date set forth above.

C. "Point(s) of Delivery" means the place(s) depicted on the map attached as Exhibit A and generally described on Exhibit C indicating where Town is to deliver reclaimed water to User pursuant to this Agreement when the necessary onsite and offsite reclaimed water facilities have been installed by User, and when reclaimed water is available for delivery. The Point(s) of Delivery applicable to Directly Delivered Reclaimed Water and Recovered Reclaimed Water shall be specifically set forth on Exhibits A and C. The Point(s) of Delivery may be modified from time to time by mutual agreement of the Parties and Exhibits A and C shall be amended to reflect any such modification.

D. "Place of Use" means the Property, or portion thereof designated on the map attached hereto as Exhibit A where reclaimed water delivered pursuant to this Agreement may be used. The Place of Use may be modified from time to time by mutual agreement of the Parties, and Exhibit A shall be amended to reflect such modification.

E. "Property" means the property depicted on the map attached hereto as Exhibit A and generally described on Exhibit B.

2. Commodity Rate. The rate to be paid by User for reclaimed water delivered by Gilbert shall be the same as is applicable to that type of water as set forth in the Gilbert Town Code, as may be amended from time to time. If there are additional costs to provide Directly Delivered Reclaimed Water or Recovered Reclaimed Water, User shall be charged the appropriate and commensurate fee, proportional to the amount of reclaimed water user is authorized to order under this Agreement.

3. User to Provide Necessary Infrastructure.

A. User shall construct to Gilbert's standards and specifications all onsite facilities necessary to receive and deliver the reclaimed water to be delivered by Gilbert pursuant to this Agreement; and

B. To the extent additional extensions and improvements to Gilbert's offsite reclaimed water delivery system are necessary in order for Gilbert to deliver reclaimed water to User's point(s) of delivery, User shall construct or pay for the construction of such offsite facilities to Gilbert standards and specifications in accordance with the Development Agreement dated _____ and Ordinance No._____, adopted} _____ and this Agreement.

C. Gilbert shall have no obligation to deliver reclaimed water to User pursuant to this Agreement until all onsite and offsite facilities necessary for Gilbert to deliver and User to receive reclaimed water scheduled pursuant to Paragraph 9, hereof have been constructed and either accepted or approved by

Gilbert in writing; provided, further, the delivery of reclaimed water to User shall not constitute a waiver of User's obligations to construct the reclaimed water facilities required by this Paragraph 3. Notwithstanding the foregoing, it is recognized that the onsite facilities will be built in phases as agreed between the Parties.

4. Quality Standards. The reclaimed water delivered to User shall meet federal and state standards set for open access landscape irrigation, as amended from time to time. User shall not be obligated to accept reclaimed water that does not meet this standard.

5. Use. Reclaimed water delivered under this Agreement shall be stored and used only at the Place of Use. Further, the reclaimed water delivered pursuant to this Agreement shall be used solely for the following purpose:

_____

No other use shall be permitted of the reclaimed water and Gilbert shall not be liable for such use.

6. Delivery. Gilbert shall make delivery of reclaimed water to the Point(s) of Delivery, as and when installed by User. User shall be responsible for and accepts all liability related to use of reclaimed water beyond the Point(s) of Delivery.

7. Metering. User shall pay for and install as many meters as Gilbert determines are necessary to record the quantity of Directly Delivered and Recovered Reclaimed Water delivered to the Place(s) of Use. The meter(s) shall meet standard Gilbert specifications and be placed at location(s) acceptable to Gilbert. Gilbert shall own and be responsible for operation and maintenance of all meters installed pursuant to this Paragraph, except for meters installed at User owned recovery wells. User shall own and be responsible to operate and maintain all meters located at User owned recovery wells. User shall provide, in a form acceptable to Gilbert, easements or rights-of-way for ingress and egress to all meters installed pursuant to this Paragraph and shall be responsible for providing Gilbert safe and unobstructed access to such meters; provided, however, no easement or right-of-way shall be required for meters installed at User owned recovery wells, so long as User provides Gilbert reasonable access to the meters at regular monthly intervals during normal business hours.

8. Quantity.

A. To the extent Gilbert determines Directly Delivered Reclaimed Water is available for non-potable uses and there are no operational problems precluding delivery of such Directly Delivered Reclaimed Water to the Point(s) of Delivery, Gilbert shall deliver to User up to _____acre feet annually, up to a maximum of _____for use only at the Place of Use (the "Maximum") and, to the extent scheduled by and delivered to User, User shall purchase all such Directly

Delivered Reclaimed Water. Directly Delivered Reclaimed Water shall be taken and used first by User.

B. To the extent Gilbert determines Directly Delivered Reclaimed Water is available for use under this Agreement, then, commencing with the eleventh anniversary after the execution of this Agreement, User shall schedule and take delivery of not less than 57.3% of the annual Maximum or _____ acre feet of Directly Delivered Reclaimed Water, subject to the availability of Directly Delivered Reclaimed Water for use on the Property, any adjustment pursuant to subparagraph D hereof, and any restrictions placed on the amount of use by ADEQ (the "Minimum").

C. Gilbert reserves the right to alter the Maximum quantity of reclaimed water to be delivered under this Agreement, after the ten year anniversary of the execution of this Agreement, and thereafter once every five years, to an amount equal to the highest annual usage during the immediately preceding five calendar years (the "Adjusted Maximum"). The Minimum shall be adjusted to equal 57.3% of the Adjusted Maximum.

D. In the event of a shortage of Directly Delivered Reclaimed Water available for delivery to the reclaimed water users in Gilbert, priority in delivery shall be given to users based on the date of their Reclaimed Water Use Agreements, with the earlier agreements having priority over later agreements for the delivery of the respective contract amounts.

9. Scheduling. Annually, on or before December 1st of each year, User shall provide Gilbert with a schedule of delivery indicating the quantity of reclaimed water to be delivered each month in the following calendar year, subject to the terms and conditions of this Agreement. User may modify this schedule by providing 24 hours' written notice to the Wastewater Superintendent that the User is unable to accept the scheduled delivery or requires an additional quantity of water. The Wastewater Superintendent will make a good faith effort to accommodate the request for additional reclaimed water based on operational conditions and User's priority established pursuant to this Agreement. The Wastewater Superintendent will make a good faith effort to cancel a delivery upon timely notification that User is unable to accept the scheduled delivery.

10. Cost of User. Any costs arising out of the use of reclaimed water by User and from the maintenance or operations of the reclaimed water delivery system at User's Place of Use shall be the sole responsibility of User. User shall pay all costs of maintaining and operating User's Recovery Wells.

11. Compliance with Regulations. User agrees to comply, at its sole cost, with all state, federal, and local laws, regulations and standards, as now exist, and are later

lawfully enacted, relating to the use of reclaimed water. Such laws, regulations and standards may include, but are not limited to, requirements and restrictions governing use of the reclaimed water; limits on reclaimed water contact with employees, members, guests, members of the public and adjoining properties; control of access to the reclaimed water, its delivery system, and the area of storage and use; and warning signs on the delivery system, and the area of storage and use; and making reports to Gilbert and other governmental agencies.

12. Commencement of Service. User agrees to give Gilbert not less than 15 days notice prior to the need for initial reclaimed water service under this Agreement and service shall begin on or date service is requested to begin subject to the provisions of this Agreement. In no event shall Service begin prior to effective date of agreement. User and Gilbert acknowledge reclaimed water service is to be phased in as the Place of Use is developed. User shall provide not less than 60 days notice of the initiation of reclaimed water service to the subsequent phases of the Place of Use and service shall begin on the date service is requested to begin subject to the provisions of this Agreement.

13. Term. The term of this Agreement shall be coterminous with the term of the Permit and any renewal or replacement thereof; provided, however, that:

A. Gilbert shall use its best efforts to maintain and renew its Permit.

B. Gilbert shall notify User within 10 days of receipt of a notice from the Arizona Department of Environmental Quality that the Permit will be terminated or not renewed.

14. Resale of Reclaimed Water; Further Reuse. User shall not resell reclaimed water delivered under this Agreement, except that User may deliver the reclaimed water delivered pursuant to this Agreement to other property owners on the site including, but not limited to homeowner associations, community councils, educational institutions and other entities formed to serve uses within the Place of Use and require reimbursement of the costs thereof charged by Gilbert and User has incurred associated with delivery, provided User submits to Gilbert, at least fifteen days before deliveries of reclaimed water is to commence, evidence acceptable to Gilbert that the entity has entered into a written agreement with User in a form acceptable to Gilbert agreeing: a) to comply with all the obligations of User and b) to indemnify, defend and hold harmless Gilbert against claims for loss or damages which may result from the use of reclaimed water by that entity.

15. Transfer of Property. This Agreement shall be binding upon the heirs, successors and assigns of the Parties, provided no transfer or assignment by User shall be binding upon Gilbert unless and until written notice thereof has been provided to Gilbert and Gilbert has consented thereto in writing. Gilbert shall not unreasonably withhold consent, provided the assignee or transferee has agreed to be bound by this Agreement and has demonstrated financial and technical ability to comply with its terms. This

Agreement is intended to run with the Property and the benefits and burdens contained in this Agreement shall run with the Property. User further acknowledges and agrees that all leases, sales, and other disposal or transfer of ownership or control of those portions of the Property that contain a Place of Use shall be in writing, made expressly subject to this Agreement, shall incorporate this Agreement by reference, and shall make all successors and assigns expressly subject to this Agreement. When User no longer owns any portion of the Property and, in compliance with this Paragraph, has assigned or otherwise transferred all its rights and obligations under this Agreement, User no longer has any obligation associated with this Agreement.

16. Approval. The parties hereby agree to modify this Agreement, in writing, to the extent that such Amendment is necessary in order to comply with Arizona Department of Environmental Quality requirements or regulations promulgated by Arizona Department of Environmental Quality or other state, federal or local laws and regulations relating to the delivery, receipt and use of reclaimed water.

17. Inspection. User acknowledges and agrees that in order to verify compliance with this Agreement or with applicable laws and regulations, Gilbert, State, County or other agency with jurisdiction may inspect the premises being served reclaimed water at reasonable times. User specifically acknowledges that it has the responsibility to inform, notify, and/or request inspection and approvals from various agencies, including Gilbert, Maricopa County Environmental Services, Arizona Department of Environmental Quality, and Town of Gilbert Building Department, for certain activities relating to the construction, maintenance, and operation of its private reclaimed water system, including, but not necessarily limited to, materials, construction, facility testing, violations, and emergency situations as will be outlined by Gilbert.

18. Termination. This Agreement may be terminated by Gilbert if the User fails to comply with state, federal and local laws, regulations and standards related to reclaimed water; fails to comply with any provisions of the Reclaimed Water Users' Manual;, or violates any provision of this Agreement. The User may terminate this Agreement if the purpose(s) for the use of reclaimed water, as described in Paragraph 5 of this Agreement, no longer exist or if Gilbert materially breaches its obligations to provide reclaimed water under this Agreement.

19. Indemnification. Gilbert shall be responsible for delivery of water to the point(s) of delivery set forth in Paragraph 1 herein. User shall indemnify, defend and hold harmless Gilbert against claims for loss or damages which may result from the use of reclaimed water by User, except to the extent arising from Gilbert's failure to deliver water fit for the purposes set forth in Paragraph 5 above. Gilbert reserves the right to require User, upon thirty (30) days notice, to post reasonable evidence of User's ability to indemnify and hold Gilbert harmless up to one million dollars. User may post security (e.g., insurance, a letter of credit, a bond, etc.) in a form acceptable to Gilbert to demonstrate its ability to indemnify and hold Gilbert harmless hereunder.

20. Excusable Nonperformance. In the event of an Act of God, natural catastrophe, war, civil insurrection, accidents, acts of governmental or judicial bodies other than Gilbert, or any unexpected occurrences beyond the control of either party which shall materially interfere with the ability of Gilbert to deliver reclaimed water, or the ability of User to accept, transmit to distribute reclaimed water, the failure of either party to perform its obligation under this Agreement shall be excused so long as the condition interfering with performance continues. The maintenance and operation of Gilbert's sewerage system and of the Gilbert Wastewater Reclamation Facility(ies) shall be solely within the discretion of Gilbert; and in the event Gilbert discontinues the treatment operations and the treatment operations are not replaced by other Gilbert treatment facilities, all obligations of either party to perform shall cease without prejudice to any claimed or asserted rights of either party existing prior to the execution of this Agreement.

21. Attorneys' Fees. Should litigation, or other form of formal conflict resolution, such as, but without limitation, mediation and arbitration, be necessary to enforce any term or provision of this Agreement, or to collect any damages claimed or portion of the amount payable under this Agreement, then all litigation and collection expenses, witness fees, court costs, and attorneys' fees shall be paid to the prevailing party. Nothing herein shall preclude nonbinding arbitration if the parties so elect in the event of a dispute hereunder.

22. Amendments to Reclaimed Water Users' Manual. No amendment to Gilbert's Reclaimed Water Users' Manual shall amend or modify any express provision of this Agreement except to the extent such amendment to the Manual is necessary in order to comply with Arizona Department of Environmental Quality requirements or regulations promulgated by Arizona Department of Environmental Quality. Amendments and modifications to Gilbert's Reclaimed Water Users' Manual that do not conflict with the express provisions of this Agreement shall be binding on User. Gilbert shall notify User of any revision to the Reclaimed Water Users' Manual within thirty (30) days of the revision becoming binding on User.

23. Billing and Payment. Gilbert shall bill User each month for reclaimed water delivered to User in the immediately preceding month, at the Commodity Rate and a base charge in effect in the month in which the reclaimed water was delivered to User. Bills for reclaimed water shall be due and payable on receipt by User and delinquent from and after 30 days after User's receipt of Gilbert's bill. Gilbert may require User to post and maintain a deposit equal to two and one-half times the highest estimated monthly billing anticipated under this Agreement based upon the developed portion of the Property. Unless otherwise mutually agreed in writing, User shall pay Gilbert for Long Term Storage Credits prior to Gilbert applying to transfer the LTSC's to User.

24. Other Water Sources. Nothing in this Agreement shall preclude User from using other sources of water legally available to User to serve the uses contemplated by this Agreement, and thereby reduce the amount of reclaimed water purchased by User from Gilbert, subject to User taking and paying for the Minimum imposed upon User pursuant

to Paragraph 8 hereof. This Paragraph shall not be construed to limit, in any manner, any authority of Gilbert to require or preclude the use of specific sources and types of water for particular uses; nor shall this Agreement be construed to create any vested right to continue to use specific sources or type of water at the Place(s) of Use.

25. Notice. Any notice or payment to be given or made hereunder shall be considered to have been given or made if hand-delivered to an officer of Gilbert or User, or if deposited in the United States mail, certified or registered, postage pre-paid to the following:

If to Gilbert: Town Manager
and
Director of Public Works
Town of Gilbert
1025 S. Gilbert Road
Gilbert, AZ 85296

If to User: _____
_____
_____

or directed to such different address as is set forth in a notice given as provided in this Paragraph 25.

Unless expressly stated otherwise, this Agreement constitutes the complete and entire agreement between the parties, and concludes collective bargaining between the parties for its term. This Agreement supersedes and cancels all prior agreements relating to this subject, whether written or oral, unless expressly stated in this Agreement.

APPROVALS:

_____, User

_____
Town of Gilbert
Director of Public Works

By _____
Authorized Agent for User

_____
Title of Authorized Agent

Attest:

_____
Town Clerk

Approved as to Form:

_____

Town Attorney

APPENDIX C

ADEQ REGULATIONS

ARTICLE 6. RECLAIMED WATER CONVEYANCES

R18-9-601. Definitions

In addition to the definitions provided in R18-9-701, the following terms apply to this Article:

1. "Open water conveyance" means any constructed open waterway, including canals and laterals that transports reclaimed water from a sewage treatment facility to a reclaimed water blending facility or from a sewage treatment facility or reclaimed water blending facility to the point of land application or end use. An open water conveyance does not include waters of the United States.
2. "Pipeline conveyance" means any system of pipelines that transports reclaimed water from a sewage treatment facility to a reclaimed water blending facility or from a sewage treatment facility or reclaimed water blending facility to the point of land application or end use.

Historical Note

New Section adopted by final rulemaking at 7 A.A.R. 758, effective January 16, 2001 (Supp. 01-1).

R18-9-602. Pipeline Conveyances of Reclaimed Water

A. Applicability.

1. Any person constructing a pipeline conveyance on or after January 1, 2001, whether new or a replacement of an existing pipeline shall meet the requirements of this Article.
2. Any person who has constructed a pipeline conveyance before January 1, 2001, is considered to be in compliance with this Article.

B. A person shall design and construct a pipeline conveyance sys-tem using good engineering judgement following standards of practice.

C. A person shall construct a pipeline conveyance so that:

1. Reclaimed water does not find its way into, or otherwise contaminate, a potable water system;
2. System structural integrity is maintained; and
3. The capability for inspection, maintenance, and testing is maintained.

D. A person shall construct a pipeline conveyance and all appurtenances conducting reclaimed water to withstand a static pressure of at least 50 pounds per square inch greater than the design working pressure without leakage as determined in A.A.C. R18-9-E301(D)(2)(j).

E. A person shall provide a pipeline conveyance with thrust blocks or restrained joints where needed to prevent excessive movement of the pipeline.

F. The following requirements for minimum separation distance apply.

A person shall:

1. Locate a pipeline conveyance no closer than 50 feet from a drinking water well unless the pipeline conveyance is constructed as specified under subsection (F)(3);
2. Locate a pipeline conveyance no closer than two feet vertically nor six feet horizontally from a potable water pipe-line unless the pipeline conveyance is constructed as specified under subsection (F)(3);
3. Construct a pipeline conveyance that does not meet the minimum separation distances specified in subsections (F)(1) and (F)(2) by encasing the pipeline conveyance in at least six inches of concrete or using mechanical joint ductile iron pipe or other materials of equivalent or greater tensile and compressive strength at least 10 feet beyond any point on the pipeline conveyance within the specified minimum separation distance; and
4. If a reclaimed water system is supplemented with water from a potable water system, separate the potable water system from the pipeline conveyance by an air gap.

G. A person shall:

1. For a pipeline conveyance, eight inches in diameter or less, use pipe marked on opposite sides in English: "CAUTION: RECLAIMED WATER, DO NOT DRINK" in intervals of three feet or less and colored purple or wrapped with durable purple tape.
2. For a mechanical appurtenance to a pipeline conveyance, ensure that the mechanical appurtenance is colored purple or legibly marked to identify it as part of the reclaimed water distribution system and distinguish it from systems for potable water distribution and sewage collection.

Historical Note
New Section adopted by final rulemaking at 7 A.A.R. 758, effective January 16, 2001 (Supp. 01-1).

R18-9-603. Open Water Conveyances of Reclaimed Water

A. This Article applies to an open water conveyance, regardless of the date of construction.
B. A person shall maintain an open water conveyance to prevent release of reclaimed water except as allowed under federal and ***Arizona Administrative Code*** **Title 18, Ch. 9** Department of Environmental Quality Water Pollution Control December 31, 2002 Page 71 Supp. 02-4 state regulations. The maintenance program shall include periodic inspections and follow-up corrective measures to ensure the integrity of conveyance banks and capacity of the conveyance to safely carry operational flows.
C. Signage for Class B+, B, and C Reclaimed Water. A person shall:

1. Ensure that signs state: "CAUTION: RECLAIMED WATER, DO NOT DRINK," and display the international "do not drink" symbol;
2. Place signs at all points of ingress and, if the open water conveyance is operated with open access, at least every 1/4-mile along the length of the open water conveyance; and
3. Ensure that signs are visible and legible from both sides of the open water conveyance.

Historical Note
New Section adopted by final rulemaking at 7 A.A.R. 758, effective January 16, 2001 (Supp. 01-1).

ARTICLE 7. DIRECT REUSE OF RECLAIMED WATER

R18-9-701. Definitions
Unless provided otherwise, the definitions provided in A.R.S. § 49- 201, A.A.C. R18-9-101, R18-9-601, R18-11-301, and the following terms apply to this Article:

1. "Direct reuse" means the beneficial use of reclaimed water for a purpose allowed by this Article. The following is not a direct reuse of reclaimed water:
   a. The use of water subsequent to its discharge under the conditions of a National Pollutant Discharge Elimination System permit;
   b. The use of water subsequent to discharge under the conditions of an Aquifer Protection Permit issued under 18 A.A.C. 9, Articles 1 through 3; or
   c. The use of industrial wastewater or reclaimed water, or both, in a workplace subject to a federal program that protects workers from workplace exposures.
2. "Direct reuse site" means an area permitted for the application or impoundment of reclaimed water. An impoundment operated for disposal under an Aquifer Protection Permit is not a direct reuse site.
3. "End user" means a person who directly reuses reclaimed water meeting the standards for Classes A+, A, B+, B, and C, established under 18 A.A.C. 11, Article 3.
4. "Gray water" means wastewater collected separately from a sewage flow that originates from a clothes washer, bathtub, shower, and sink, but does not include wastewater from a kitchen sink, dishwasher, or toilet.
5. "Industrial wastewater" means wastewater generated from an industrial process.
6. "Irrigation" means the beneficial use of water or reclaimed water, or both, for growing crops, turf, or silviculture, or for landscaping.
7. "Open access" means that access to reclaimed water by the general public is uncontrolled.
8. "Reclaimed water" means water that has been treated or processed by a wastewater treatment plant or an on-site wastewater treatment facility. A.R.S. § 49-201(31).

9. “Reclaimed water agent” means a person who holds a permit to distribute reclaimed water to more than one end user.
10. “Reclaimed water blending facility” means an installation or method of operation that receives reclaimed water from a sewage treatment facility or other reclaimed water blending facility classified to produce Class C or better reclaimed water and blends it with other water so that the produced water may be used for a higher-class purpose listed in 18 A.A.C. 11, Article 3, Appendix A.
11. “Restricted access” means that access to reclaimed water by the general public is controlled.

Historical Note
Former Section R9-20-401 repealed, new Section R9-20- 401 adopted effective May 24, 1985 (Supp. 85-3). Former Section R9-20-401 renumbered without change as Section R18-9-701 (Supp. 87-3). Amended by final rulemaking at 7 A.A.R. 758, effective January 16, 2001 (Supp. 01-1).

R18-9-702. Applicability and Standards for Reclaimed Water Classes

A. This Article applies to:
1. An owner or operator of a sewage treatment facility that generates reclaimed water for direct reuse,
2. An owner or operator of a reclaimed water blending facility,
3. A reclaimed water agent,
4. An end user,
5. A person who uses gray water,
6. A person who directly reuses reclaimed water from a sewage treatment facility combined with industrial waste-water or combined with reclaimed water from an industrial wastewater treatment facility, and
7. A person who directly reuses reclaimed water from an industrial wastewater treatment facility in the production or processing of a crop or substance that may be used as human or animal food.

B. Reclaimed water classes A+, A, B+, B, and C specified in this Article shall meet the standards established in 18 A.A.C. 11, Article 3.
C. Nothing in this Article exempts the disposal of reclaimed water from the Aquifer Protection Permit requirements under A.R.S. Title 49, Chapter 2, Articles 1, 2, and 3.

Historical Note
Former Section R9-20-402 repealed, new Section R9-20- 402 adopted effective May 24, 1985 (Supp. 85-3). Former Section R9-20-402 renumbered without change as Section R18-9-702 (Supp. 87-3). Section repealed; new Section adopted by final rulemaking at 7 A.A.R. 758, effective January 16, 2001 (Supp. 01-1).

R18-9-703. Transition of Permits

A. A person may directly reuse reclaimed water under an individual Aquifer Protection Permit or a Permit for the Reuse of Reclaimed Wastewater issued by the Department before January 1, 2001 if the person meets the conditions of the permit and the permit does not expire.
B. A person meeting the requirements of subsection (A) may apply for a new reclaimed water permit under this Article.
1. To obtain a reclaimed water permit, a person shall submit a Reclaimed Water Individual Permit application, required under R18-9-705(B), a Notice of Intent for Direct Reuse of Reclaimed Water, required under R18-9-708(B)(2), or a Notice of Intent to Operate, required under R18-9-708(C)(1) to the Department at least 120 days before the current permit expires.
2. The Department shall continue the terms of the individual Aquifer Protection Permit or the Permit for the Reuse of Reclaimed Wastewater beyond the stated date of expiration if:
a. The permitted direct reuse is of a continuing nature; and
b. The permittee submits a timely and complete application for a new permit.

C. Sewage treatment facility generating reclaimed water.
1. At the request of a permittee, the Department shall amend an individual Aquifer Protection Permit issued before January 1, 2001 if the permittee adequately demonstrates that the applicable quality of reclaimed water produced for direct reuse is achieved. The Department shall review:

a. The information in the individual Aquifer Protection Permit application and the water quality test results from the previous two years to determine the classification of reclaimed water generated by the sewage treatment facility; and

b. The available water quality data if the sewage treatment facility has operated for less than two years.

2. The Department shall ensure that an amended individual Aquifer Protection Permit contains:

a. Identification of the class of reclaimed water generated by the facility;

b. Requirements for monitoring reclaimed water quality and flow at a frequency appropriate to demonstrate compliance with this Article and 18 A.A.C. 11, Article 3;

c. Requirements for quarterly reporting of the following data to the Department, any reclaimed water agent who has contracted for delivery of reclaimed water from the facility, and any end user who has not waived interest in receiving this information:

i. Water quality test results demonstrating that reclaimed water produced by the facility meets the applicable standards for the class of water identified in subsection (C)(2)(a), and

ii. The total volume of reclaimed water generated for direct reuse.

d. Provision for cessation of delivery, if necessary, and storage or disposal if reclaimed water cannot be delivered for direct reuse.

Historical Note

Former Section R9-20-403 repealed, new Section R9-20- 403 adopted effective May 24, 1985 (Supp. 85-3). Former Section R9-20-403 renumbered without change as Section R18-9-703 (Supp. 87-3). Editorial change to labels in subsection (c)(8) (Supp. 89-4). Section repealed; new Section adopted by final rulemaking at 7 A.A.R. 758, effective January 16, 2001 (Supp. 01-1).

R18-9-704. General Requirements

A. Sewage treatment facility. Except for permits continued under R18-9-703(A), a sewage treatment facility owner or operator shall provide reclaimed water for direct reuse only under an individual Aquifer Protection Permit amended under R18-9- 703(C)(2).

B. Additional treatment. If an owner or operator of a facility accepts reclaimed water and provides additional treatment for a higher quality direct reuse, the facility is considered a sew-age treatment facility and shall operate under the requirements of an individual Aquifer Protection Permit amended under R18-9-703(C)(2).

C. Reclaimed water blending facility. An owner or operator of a reclaimed water blending facility shall not conduct blending operations without obtaining a Reclaimed Water Individual Permit or Reclaimed Water General Permit.

D. Reclaimed water agent. A person shall not operate as a reclaimed water agent without obtaining a Reclaimed Water Individual Permit or a Reclaimed Water General Permit.

E. End user. A person shall not directly reuse reclaimed water unless permitted under this Article.

F. Irrigating with reclaimed water. A permittee irrigating with reclaimed water shall:

1. Use application methods that reasonably preclude human contact with reclaimed water;

2. Prevent reclaimed water from standing on open access areas during normal periods of use;

3. Prevent reclaimed water from coming into contact with drinking fountains, water coolers, or eating areas; and

4. Secure hose bibbs discharging reclaimed water to prevent use by the public.

G. Prohibited activities.

1. Irrigating with untreated sewage;

2. Providing or using reclaimed water for any of the following activities:

a. Direct reuse for human consumption;

b. Direct reuse for swimming, wind surfing, water ski-ing, or other full-immersion water activity with a potential of ingestion; or

c. Direct reuse for evaporative cooling or misting.

3. Misapplying reclaimed water for any of the following reasons:

a. Application of a stated class of reclaimed water that is of lesser quality than allowed by this Article for the type of direct reuse application;

b. Application of reclaimed water to any area other than a direct reuse site; or

c. Allowing runoff of reclaimed water or reclaimed water mixed with storm water from a direct reuse site, except for agricultural return flow that is directed onto an adjacent field or returned to an open water conveyance.

H. A permittee shall place and maintain signage at locations specified in Table 1 so the public is informed that reclaimed water is in use and that no one should drink from the system.

Table 1. Signage Requirements for Direct Reuse Sites

Reclaimed Water Class *	**Hose Bibbs**	**Residential Irrigation**	**School-ground Irrigation**	**Other Open Access Irrigation**	**Restricted Access Irrigation**	**Mobile Reclaimed Water Dispersal**
A+ & A	Each bibb Front yard, or all entrances to a subdivision if the signage is Supplemented by written yearly notification to individual homeowners by the homeowner's association.	Front yard, or all entrances to a subdivision if the signage is supplemented by written yearly notification to individual homeowners by the homeowner's association.	On premises visible to staff and students	None	None	Back of Truck or on tank

***Note: All impoundments with open access including lakes, ponds, ornamental fountains, waterfalls, and other water features shall be posted with signs regardless of the class of reclaimed water.**

Historical Note

Former Section R9-20-404 repealed, new Section R9-20-404 adopted effective May 24, 1985 (Supp. 85-3). Former Section R9-20-404 renumbered without change as Section R18-9-704 (Supp. 87-3). Section repealed; new Section adopted by final rulemaking at 7 A.A.R. 758, effective January 16, 2001 (Supp. 01-1).

R18-9-708. Reusing Reclaimed Water Under a General Permit

A. Type 1 Reclaimed Water General Permit. A person may directly reuse reclaimed water without notice to the Department if:

1. The direct reuse is specifically authorized by and meets the requirements of this Article, and
2. Complies with the requirements of the Type 1 Reclaimed Water General Permit under R18-9-711.

B. Type 2 Reclaimed Water General Permit.

1. A person may directly reuse reclaimed water under a Type 2 Reclaimed Water General Permit if:
   a. The direct reuse is authorized by and meets the requirements of this Article;
   b. The direct reuse meets all the conditions of the applicable Type 2 Reclaimed Water General Permit under R18-9-712 through R18-9-716;
   c. The person files a Notice of Intent for Direct Reuse of Reclaimed Water under subsection (B)(2); and
   d. The person submits the applicable fee established in 18 A.A.C. 14.
2. Notice of Intent for Direct Reuse of Reclaimed Water.
   a. A person shall submit, by certified mail, in person, or by another method approved by the Department, the Notice of Intent for Direct Reuse of Reclaimed Water on a form provided by the Department.
   b. The Notice of Intent for Direct Reuse of Reclaimed Water shall include;
      i. The name, address, and telephone number of the applicant;
      ii. The social security number of the applicant, if the applicant is an individual;
      iii. The name, address, and telephone number of the contact person;
      iv. The source, volume, and class of reclaimed water to be directly reused;
      v. A legal description of the direct reuse site, including latitude and longitude coordinates;
      vi. The description of the direct reuse activity, including a description of acreage and the type of vegetation to be irrigated, if applicable to the type of direct reuse activity; and
      vii. The permittee's signature certifying that the permittee agrees to comply with all requirements of this Article, including specific terms of the applicable Reclaimed Water General Permit.

R18-9-712. Type 2 Reclaimed Water General Permit for

Direct Reuse of Class A+ Reclaimed Water

A. A Type 2 Reclaimed Water General Permit for Direct Reuse of Class A+ Reclaimed Water allows any direct reuse application of reclaimed water listed in 18 A.A.C. 11, Article 3, Appendix A, if the conditions in this Article are met.

B. Record maintenance. A permittee shall maintain records for five years that describe the direct reuse site and the total amount of reclaimed water used annually for the permitted direct reuse activity. The records shall be made available to the Department upon request.

C. A permittee shall post signs as specified in R18-9-704(H).

D. No lining is required for an impoundment storing Class A+ reclaimed water.

Historical Note
New Section adopted by final rulemaking at 7 A.A.R.
758, effective January 16, 2001 (Supp. 01-1).

R18-9-713. Type 2 Reclaimed Water General Permit for

Direct Reuse of Class A Reclaimed Water

A. A Type 2 Reclaimed Water General Permit for the Direct Reuse of Class A Reclaimed Water allows any direct reuse application of reclaimed water listed in 18 A.A.C. 11, Article 3, Appendix A, if the conditions in this Article are met.

B. Records and reporting. A permittee shall:

1. Maintain records containing the following information for five years, and make them available to the Department upon request:
   a. The direct reuse site,
   b. The volume of reclaimed water applied monthly for each category of direct reuse activity listed in 18 A.A.C. 11, Article 3, Appendix A,
   c. The total nitrogen concentration of the reclaimed water applied, and
   d. The acreage and type of vegetation to which the reclaimed water is applied.

2. Report annually to the Department on or before the anniversary date of the Notice of Intent:
   a. The volume of reclaimed water received,
   b. The type of reclaimed water application, and
   c. If used for irrigation, the vegetation and acreage irrigated.

C. Nitrogen management. A permittee shall ensure that:

1. Impoundments storing reclaimed water allowed by the general permit are lined using a low- hydraulic conductivity artificial or site-specific liner material achieving a calculated discharge rate less than 550 gallons per acre per day; and
2. The application rates of the reclaimed water are based on one of the following:
   a. The water allotment assigned by the Arizona Department of Water Resources;
   b. A water balance that considers consumptive use of water by the crop, turf, or landscape vegetation; or
   c. An alternative method approved by the Department.

D. In addition to the Notice of Intent for Direct Reuse of Reclaimed Water specified in R18-9-708(B)(2), the applicant shall provide a list of impoundments and the liner characteristics and the method chosen from the list in subsection (C)(2).

E. The permittee shall post signs as specified in R18-9-704(H).

Historical Note
New Section adopted by final rulemaking at 7 A.A.R.

758, effective January 16, 2001 (Supp. 01-1).