

In response to the input we have received during previous stakeholder meetings, the Maricopa County Environmental Services Department has drafted changes to the Maricopa County Health Code in the areas dealing with the direct reuse of reclaimed water. The changes include creating a new Section 11 to Chapter 2 of the Health Code in order to bring the requirements together in one location. Several other Sections of Chapter 2 were also modified so as to break the newly defined “end use sites” out as a separate category. A copy of the revised documents follows this announcement.

After the code revisions are approved, the Department will propose fees based on the costs to perform the service.

To get stakeholder input on our ideas and efforts before the changes are submitted to the Board of Health, the Department is holding a stakeholders meeting on Tuesday April 26. The meeting will be held from 9:00 until 10:00 In Room 560 of our offices which are located at 1001 N Central Ave. in Phoenix (It’s on the NE corner of Central and Roosevelt). There is free visitor parking in the garage located to the east of the building.

We hope that you can join us and provide your valued comments on how we can build a better regulation. If you cannot attend, the Department would still like to hear from you and will accept written comments. The comments can be delivered either by email to dlieb@mail.maricopa.gov or by US mail to our office at 1001 N Central Ave. Suite 150, Phoenix 85004. Please include your contact information along with your comments.

Thank you for your interest and we hope to see you on the 26th

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MARICOPA COUNTY ENVIRONMENTAL HEALTH

CODE CHAPTER II

SEWAGE AND WASTES

SECTION 1

GENERAL

REGULATION 1. Definitions

- A. "A.A.C." MEANS THE ARIZONA ADMINISTRATIVE CODE.**
- B. "ADEQ" MEANS THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY OR ITS SUCCESSOR OR DELEGATED AGENCY.**
- C. "APPROVAL TO CONSTRUCT" MEANS A WRITTEN APPROVAL FROM THE DEPARTMENT AUTHORIZING THE CONSTRUCTION OR MODIFICATION OF A SYSTEM, FACILITY OR OTHER ITEM OR PROCESS THAT IS REGULATED BY THIS CHAPTER.**
- D. "APPROVAL OF CONSTRUCTION" MEANS WRITTEN APPROVAL FROM THE DEPARTMENT THAT IT HAS APPROVED THE CONSTRUCTION OR MODIFICATION OF A SYSTEM, FACILITY OR OTHER ITEM OR PROCESS THAT IS REGULATED BY THIS CHAPTER.**
- E. "AQUIFER PROTECTION PERMIT (APP)" MEANS AN INDIVIDUAL OR GENERAL PERMIT**

ISSUED UNDER ARIZONA REVISED STATUTES (A.R.S.) §§ 49-203, 49-241 THROUGH 49-252, AND ARIZONA ADMINISTRATIVE CODE (A.A.C.) TITLE 18, CHAPTER 9, ARTICLES 1, 2, AND 3.

- F. **“ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (AZPDES)” MEANS A PERMIT ISSUED UNDER ARIZONA REVISED STATUTES (A.R.S.) §§ 49-255.01 AND ARIZONA ADMINISTRATIVE CODE (A.A.C.) TITLE 18, CHAPTER 9, ARTICLE 10.**
- G. "Ashes" means any residue other than salvage from the burning of any combustible material.
- H. Certified Operator" means an operator who holds a current certificate issued by the Arizona Department of Environmental Quality in the field of wastewater treatment, or wastewater collection.
- I. "Certified ~~w~~**Water** ~~q~~**Quality** ~~m~~**Management** ~~p~~**Plan**" means a plan prepared by the designated water quality management planning agency pursuant to Section 208 of the Federal Water Pollution Control Act (P.L. 92-500) as amended by the Clean Water Act of 1977 (P.L.92-217), adopted by the Water Quality Control Council, and certified by the Governor.
- J. "Collection System" means pipelines, conduits, pumping stations, force mains, and all other devices, appurtenances and facilities used for collecting and conducting wastewater to a central point for treatment and disposal.
- K. "Composting" means the biochemical degradation of organic materials to a stable, sanitary, nuisance-free, humus-like material.
- L. "Designated ~~M~~**management** ~~a~~**Agency**" means those entities designated in the certified water quality management plans to manage ~~sewerage~~ **WASTEWATER COLLECTION** systems and sewage treatment works in respective areas.
- M. "Direct Responsible Charge" means day-to-day decision making responsibility for a wastewater treatment plant, collection system, or effluent distribution system, or a major portion of such a facility.
- N. "Director" means the Director of the Maricopa County **ENVIRONMENTAL SERVICES** Department of ~~Health Services~~ or his authorized agent.
- O. "Disposal ~~s~~**System**" or "~~sewage works~~" means any system for the disposal of sewage and other wastes, either by surface **OR SUBSURFACE** ~~or underground~~ methods, including, but not limited to, ~~individual sewage disposal systems, waste treatment works, privies, chemical toilets, incinerator toilets or privies, and public or franchised sewerage~~ **AND INDIVIDUAL SEWAGE DISPOSAL** systems and ~~wastewater reclamation systems~~ **BUT DOES NOT INCLUDE RECLAIMED WATER END USE SYSTEMS.**
- P. "Dump" means a place where refuse is disposed of on or in the ground in a manner other than that described in these regulations for a sanitary landfill.

- Q. "Effluent" ~~means wastewater that has completed its passage through a wastewater treatment plant.~~ **MEANS WASTEWATER THAT HAS BEEN TREATED OR PROCESSED BY A WASTEWATER TREATMENT PLANT OR AN ON-SITE WASTEWATER TREATMENT FACILITY.**
- R. "Effluent Distribution System" **OR "RECLAIMED WATER DISTRIBUTION SYSTEM"** means the pipelines, appurtenances, devices and facilities of an effluent distribution system which convey reclaimed water from a wastewater treatment plant to effluent disposal or **END USE SYSTEMS.**
- S. **"END USE SYSTEM" OR "RECLAIMED WATER END USE SYSTEM" MEANS A SYSTEM, WHICH UTILIZES RECLAIMED WATER FOR BENEFICIAL REUSES SUCH AS, BUT NOT LIMITED TO, IRRIGATION, COOLING, DECORATIVE WATER FEATURES, IMPOUNDMENTS, EQUIPMENT WASHING, PUMP SEALS OR DUST CONTROL. END USE SYSTEMS DO NOT INCLUDE RECHARGE SYSTEMS.**
- T. "Engineer" means the person or firm which designed the sewage works and conceived, developed, executed, or supervised the preparation of the plan documents.
- U. "Facility" means a wastewater treatment plant, effluent distribution system, or collection system.
- V. "Facility ~~Plan~~" means the plans, specifications, and estimates for proposed sewage **COLLECTION** systems, ~~and~~ sewage treatment works, **AND RECLAIMED WATER DISTRIBUTION, DISPOSAL AND END USE SYSTEMS** prepared pursuant to Sections 201 and 203 of the Federal Water Pollution Control Act (P.L. 92-500) as amended by the Clean Water Act of 1977 (P.L. 92-217), and submitted to the Department by and for a designated management agency.
- W. "Garbage" means swill and any accumulation of animal, vegetable and other matter that attends the preparation, handling, consumption, storage or decay of plant and animal matter including meats, fish, fowl, birds, fruit, vegetable or dairy products and the waste wrappers or containers thereof.
- X. "General Plan" means a plan prepared by a responsible government entity.
- Y. "Hazardous ~~w~~**Waste**" means any waste so defined by the provisions of A.A.C. Title 18, Chapter 8, Article 2.
- Z. "Human ~~e~~**Excreta**" means human fecal and urinary discharges and includes any waste containing such material.
- AA. "Industrial ~~w~~**Waste**" means the liquid, gaseous, or solid wastes or combinations produced thereof as a result of any industrial operation.

BB. "INSPECTION VARIANCE" MEANS WRITTEN APPROVAL FROM THE DEPARTMENT FOR A SINGLE MUNICIPALITY OR RECLAIMED WATER SUPPLIER FOR CONDUCTING AN INSPECTION AND COMPLIANCE OVERSIGHT PROGRAM FOR END USE SITES THAT IS AT LEAST AS STRINGENT AND EFFECTIVE AS THE DEPARTMENT'S PROGRAM.

CC. "Manure" shall mean animal excreta, including cleanings from barns, stables, corrals, pens, or conveyances used for stabling, transporting, or penning of animals or fowl.

DD. "Nonhazardous Liquid Waste" means human excreta and liquid or semi-solid wastes that include, but are not limited to, sludges, septic wastes, grease trap wastes, grit traps waste, wastewaters and other liquid wastes that do not contain hazardous wastes.

EE. "Nonhazardous Liquid Waste Transfer Facility" means a facility or any site owned, operated or utilized by any person where nonhazardous liquid waste is removed from containment and/or processed for the purpose of subsequent transfer or disposal of the waste.

FF. "NONHAZARDOUS SOLID WASTE" MEANS ANY GARBAGE, TRASH, RUBBISH, INDUSTRIAL WASTES, REFUSE, OR OTHER DISCARDED MATERIAL THAT DOES NOT CONTAIN HAZARDOUS WASTES OR IS NOT CLASSIFIED AS BEING EXEMPT FOR THE DEFINITION OF SOLID WASTE PER THE ARIZONA REVISED STATUTES.

GG. "ON-SITE OPERATOR" MEANS AN OPERATOR WHO VISITS A FACILITY AT LEAST DAILY, FOR THE PURPOSE OF ENSURING THAT IT IS OPERATING PROPERLY.

HH. "OPERATOR" MEANS A PERSON WHO IS RESPONSIBLE FOR THE ACTUAL DAY-TO-DAY OPERATION OF A FACILITY OR A PORTION THEREOF. THIS INCLUDES THE OPERATOR OF A REMOTE CONTROL SYSTEM IN WHICH THE OPERATOR IS IN DIRECT CONTROL OF THE ENTIRE SYSTEM OR A PORTION THEREOF FROM A CENTRAL LOCATION. IT ALSO INCLUDES THE CHIEF OPERATOR WHO SUPERVISES THE OPERATION OF THE FACILITY. THE TERM OPERATOR INCLUDES BOTH ON-SITE AND REMOTE OPERATORS AS DEFINED IN THIS SECTION.

II. "Plan **DOCUMENTS** documents" means reports, proposals, preliminary plans, survey and basis of design data, general and detail construction plans, profiles, specifications, and all other information pertaining to sewage works planning.

JJ. "Pollution" means such contamination, or other alteration of the physical, chemical, or biological properties of any waters of the County, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the County which will or is likely to create a public nuisance or render such waters harmful, detrimental, or injurious to public

health, safety, or welfare, or to domestic, agricultural, commercial, industrial, recreational, or other beneficial uses, or to livestock, wild animals, birds, fish, or other aquatic life.

KK. "Population Equivalent" means the population which would contribute an equal amount of biochemical oxygen demand (BOD) computed on the basis of 0.17 pounds of five-day, 20-degree centigrade BOD per capita per day.

LL. "Public ~~SEWER sewer~~" means a sewer, located in a road, street, alley, easement, or right-of-way, used to convey sewage to community treatment and disposal facilities.

MM. "PURPLE" MEANS PANTENE COLOR 512 OR A SIMILAR COLOR THAT IS ACCEPTABLE TO THE DEPARTMENT.

NN. "RECLAIMED WATER" MEANS WASTEWATER THAT HAS BEEN TREATED OR PROCESSED BY A WASTEWATER TREATMENT PLANT OR AN ON-SITE WASTEWATER TREATMENT FACILITY.

OO. "RECLAIMED WATER DISTRIBUTION SYSTEM" SEE EFFLUENT DISTRIBUTION SYSTEM.

PP. "RECLAIMED WATER SUPPLIER" MEANS THE INDIVIDUAL, PRIVATE OR PUBLIC UTILITY OR GOVERNMENT AGENCY THAT OWNS AND/OR OPERATES A RECLAIMED WATER DISTRIBUTION SYSTEM THAT SERVES END USE SYSTEMS.

QQ. "Refuse" shall mean all putrescible and nonputrescible solid and semisolid wastes, including garbage, rubbish, ashes, manure, street cleanings, dead animals, abandoned automobiles, and industrial wastes, but not human excreta or sewage.

RR. "Remote Operator" means an operator who is not an on-site operator.

SS. "Rubbish" ~~MEANS~~ means nonputrescible solid wastes excluding ashes, consisting of both combustible and noncombustible wastes, such as paper, cardboard, waste metal, tin cans, yard clippings, wood, glass, bedding, crockery, and similar materials.

TT. "Service Area" means that geographic region specified for a designated management agency by the applicable certified water quality management plan or by a subsequent facility plan.

UU. "Sewage" means the wastes from toilets, baths, sinks, lavatories, laundries, and other plumbing fixtures in residences, institutions, public and business buildings, mobile homes, watercraft, and other places of human habitation, employment or recreation.

~~uu. "Sewerage system" means the pipeline or conduits, pumping stations, force mains, and all other structures, devices, appurtenances, and facilities used for collecting, or conducting wastes to a~~

~~point of treatment.~~

~~VV. "Dump" means a place where refuse is disposed of on or in the ground in a manner other than that described in these regulations for a sanitary landfill.~~

uu. "Treatment ~~w~~Works" shall mean any treatment plant, disposal system **OTHER THAN AN END USE SYSTEM**, lagoon, or other works used for the purpose of treating, stabilizing, holding, or disposing of sewage or industrial wastes.

vv. "Wastes" means sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive, or other substances which may pollute or tend to pollute any waters of the County. The term "wastes" does not include agricultural irrigation and drainage waters, for which water quality standards shall have been established by the state.

ww. "Wastewater" means sewage and waterborne industrial wastes.

~~"Wastewater Reclamation or Reuse System" means the wastewater treatment works and the entire Reuse/Reclamation and Distribution System for the use of reclaimed wastewater.~~

XX. "Wastewater Treatment Plant" means processes, devices and structures used for the purpose of treating or stabilizing wastewater or industrial waste **BUT DOES NOT INCLUDE END USE SYSTEMS**.

yy. "Waters of the County" means all waters within the jurisdiction of this County including all streams, perennial or intermittent, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulation of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the County.

REGULATION 2. General Provisions

a. All sewage, refuse, human excreta, and other wastes shall be kept, transported, treated, disposed of, or reclaimed by a method or methods which are in compliance with these regulations, and at sites which are approved by the Department.

The owner, agent or occupant responsible for the sanitary condition of any place, premises, business establishment or industry shall handle, store and dispose of all refuse accumulated there by approved methods; and any person handling, storing, transporting or disposing of garbage and rubbish or refuse shall do so in such a manner and by such means that it shall not be prejudicial to life or health for any reason including, but not limited to, the breeding of insects or harboring of rodents or the pollution of water. All hazardous waste shall, where necessary, be rendered harmless prior to collection and disposal.

b. Sewage, reclaimed ~~w~~astewater, refuse, human excreta, or other wastes shall not be placed or deposited into any ~~w~~Waters of the County or upon or under any land within the County, except as approved by the Department and in accordance with the provisions of

the Arizona Administrative Code, Title 18, Chapter 9, Section C305 including all revisions, technical corrections, and supplements published as of November 12, 2005.

- c. The owner of each device, method, or system used for the storage, collection, transportation and disposal of any waste material shall be responsible for the proper construction, maintenance, and operation of the facilities.
- d. The design and location of any system of wastes storage, collection, transportation, or disposal shall take into consideration proximity to wells or other sources of water supply, topography, water table, soil characteristics, available area, etc., and shall provide for adequate handling, treatment and disposal facilities for the amount and nature of waste material anticipated.
- e. No new refuse disposal site shall be established or operated, or any method for the disposal of refuse employed without approval and such approval shall be obtained prior to the start of operation.
- f. No new open refuse dump, dumpsite or dumping area shall be started or maintained, nor shall any such refuse disposal operation be reinstated after having once been discontinued.
- g. No person shall install, permit to be installed, or maintain a cross connection, submerged inlet or similar connection between any part of a waste disposal system **OR A RECLAIMED WATER SYSTEM** ~~or wastewater reclamation system~~ and a potable water supply, in such manner that sewage, waste, or reclaimed wastewater may enter into or otherwise contaminate, the potable water supply.
- h. Minimum design guidelines for sewage systems, including septic tank systems, and treatment works are found in the engineering bulletins of the Department, and Arizona Departments of Health Services and Environmental Quality.
- i. No ~~privy contents~~, drainage from a building, **RECLAIMED WATER** or the effluent from any waste treatment device shall be discharged into any well, either abandoned, or constructed for that purpose, that is carried to such a depth as to penetrate water bearing strata.
- j. No ~~privy contents~~, drainage from a building, **RECLAIMED WATER** or the effluent from any waste treatment device shall be discharged into any crevice, sinkhole, or other opening, either natural or artificial, or in a rock formation which will or may permit the pollution or contamination of ground water.
- k. No boat, houseboat, or watercraft of any type, shall be equipped with a marine toilet so constructed and operated as to discharge any sewage directly or indirectly into the ~~w~~Waters of the County, nor shall any container of sewage be placed, left, discharged, or caused to be placed, left, or discharged in or near any ~~w~~Waters of the County by any person at any time.

- l. Watercraft with marine toilets so constructed as to permit sewage to be discharged directly into the waters of the County shall be locked and sealed to prevent usage. Chemical or other type marine toilets with approved type storage containers shall be permitted where adequate, dockside disposal facilities are provided.

- m. Dockside Facilities
 - (1) Every dock servicing watercraft shall have, conveniently located thereto, approved type toilet facilities for men and for women.

 - (2) Every dock servicing watercraft equipped with toilets shall provide approved sanitary facilities at dockside for the disposal of sewage from watercraft toilets.

- n. The Environmental Health Officer shall be permitted to make and he shall make such inspections of any place, premises, container, process, equipment or vehicle used for the collection, storage, transportation, treatment, disposal, **RECLAMATION** or reclamation of sewage, industrial wastes, **RECLAIMED WATER** or refuse as are necessary to insure compliance with these regulations.

- o. **OWNERSHIP TRANSFER. HOLDERS OF PERMITS THAT ARE ISSUED UNDER THIS CHAPTER ARE REQUIRED TO NOTIFY THE DEPARTMENT IN WRITING WHEN OWNERSHIP OF THE PERMITTED SITE IS BEING TRANSFERRED. THE DEPARTMENT MAY REFUSE, AT ITS DISCRETION, TO ISSUE AN OPERATING PERMIT TO THE NEW OWNER IF VIOLATIONS OR ENFORCEMENT ACTIONS AGAINST THE EXISTING OPERATING PERMIT ARE OUTSTANDING. THE DEPARTMENT MAY ELECT, AT ITS DISCRETION, TO CONDUCT AN INSPECTION OF THE END USE FACILITY TO ASCERTAIN IF THE FACILITY IS IN COMPLIANCE WITH THIS CODE PRIOR TO ISSUING AN OPERATING PERMIT TO THE NEW OWNER. ANY APPLICABLE OWNERSHIP TRANSFER FEES AS SPECIFIED IN CHAPTER 1 OF THIS CODE MUST BE PAID BEFORE A NEW OPERATING PERMIT MAY BE ISSUED.**

- p. Discontinued facilities.
 - ~~(1) Earth Pit Privies. Whenever any earth pit privy is discontinued, the pit shall be filled in and covered as outlined in Engineering Bulletin Number 2.~~

 - (1) Every cesspool, septic tank and seepage pit and waste treatment works which has been abandoned or has been discontinued otherwise from further use or to which no waste or soil pipe from a plumbing fixture is connected, shall have the sewage removed there from and be completely filled with the earth, sand, gravel, concrete or other approved material.

 - (2) The top cover or arch over the cesspool, septic tank, seepage pit or waste treatment works shall be removed before filling and the cesspool, septic tank or seepage pit shall be filled to the level of the top of the ground.

 - (3) No person owning or controlling any cesspool, septic tank, or seepage pit on the

premises of such person or in that portion of any public street, alley or other public property abutting such premises, shall fail, refuse or neglect to comply with the provisions of this Section or upon receipt of notice so to comply from the department having jurisdiction.

(4) Where disposal facilities are abandoned consequent to connecting any premises with the public sewer, the permittee making the connection shall fill all abandoned facilities as required by the administrative authority within thirty (30) days from the time of connecting to the public sewer.

(5) Other facilities. Whenever any other type of ~~privy~~, chemical toilet, method or system for storage or disposal of human excreta is discontinued, all excreta remaining shall be collected and disposed of in accordance with this article. All boxes, cans, and other receptacles from any discontinued ~~privy~~, chemical toilet, method or system shall be disposed of in a manner that does not endanger the public health or create a nuisance.

REGULATION 3. Enforcement

Any person who violates any provision of this chapter is subject to the penalties provided by law.

REGULATION 4. Permit Required

No waste treatment works or ~~wastewater reclamation~~ **RECLAIMED WATER END USE** system shall be operated or maintained in Maricopa County without a permit in force by the Department.

MARICOPA COUNTY ENVIRONMENTAL HEALTH CODE

CHAPTER II

SEWAGE AND WASTES

SECTION 2

SEWAGE AND WASTE TREATMENT WORKS

REGULATION 1. General Considerations

- a. All ~~sewerage~~**SEWAGE** and ~~disposal systems and~~ **INDUSTRIAL** waste treatment works, **INCLUDING BUT NOT LIMITED TO SEPTIC SYSTEMS, COLLECTION SYSTEMS, WASTE TREATMENT WORKS, RECLAIMED WATER DISTRIBUTION AND END USE SITES** shall conform to the applicable general provisions relating to ~~sewerage~~**SEWAGE** and waste disposal, listed in Section 1 of this Chapter, and to the specific provisions of this ~~s~~Section.
- b. Design, operation, and maintenance of ~~sewerage~~**SEWAGE** systems shall be in general conformance with the criteria contained in Engineering Bulletin No. 11 and this Code.
- c. Preliminary plans. Design or consulting engineers should confer with the Department before proceeding with detailed designs of major waste treatment works. It is advisable to submit, for preliminary consideration, tentative plans containing a general description of the existing or proposed plant, works, or systems ~~or~~ **AND THE** proposed changes therein.
- d. Tests and records. The owner or operator of each waste treatment works shall have equipment for and make such tests and keep such records as are necessary to assure efficient operation of the treatment works. Records of plant operation shall be transmitted to the Department monthly on forms approved by the Department and as it may specify.
- e. Operation. All sewage and industrial waste treatment works shall be operated at their highest practical efficiency at all times. If, after investigation by the Department it is determined that any treatment or disposal works is causing unsatisfactory conditions in the waters or stream course or on or under any land into which the ~~effluent~~ **RECLAIMED WATER** is discharged, or is otherwise interfering with the legitimate uses of such waters or lands or is creating a nuisance or a menace to public health, the owner shall make such changes in the plant or its operation as are necessary to produce

satisfactory results. These changes shall be made within such time limits as are set by the Department.

- f. Inspection. Inspections of sewage and industrial waste treatment works, **RECLAIMED WATER DISTRIBUTION SYSTEMS** and ~~wastewater reclamation-~~ **RECLAIMED WATER END USE** systems shall be made by personnel of the Department. Appropriate person or persons shall be notified of any unsatisfactory conditions with recommendations for corrections.
- g. ~~Approval required. No sewage or industrial waste treatment effluents shall be reclaimed without written approval from the Department. The reclamation of sewage or industrial waste treatment effluents for irrigation of crops used for human consumption, watering of cattle, full body contact, or drinking purposes is prohibited. A.A.C. Title 18, Chapter, 11, Sections 301 through 309 govern reuse of waste treatment effluent.~~
- Gh. Bypassing of untreated sewage from sewage treatment systems is prohibited.

REGULATION 24. Approval to Construct

- a. No person may begin construction of any ~~Ssewerage~~ system, septic tank system, treatment works, ~~Nnonhazardous Lliquid Wwaste Ttransfer Ffacility,~~ ~~reclamation—system~~ **RECLAIMED WATER DISTRIBUTION SYSTEM, RECLAIMED WATER END USE SYSTEM** or extensions of works or systems, or make any change that affects capacity, quality, flow, or location or operational performance of a system, and no person may install any process, device, or equipment, either in whole or in part, prior to receiving an "Approval to Construct" document from the Department. ~~AN~~ Application for an "Approval to Construct" shall be submitted to the Department at least 30 days prior to the date upon which Department approval is desired. For septic tank systems, the application shall be submitted at least ~~5~~ **10** working days prior to the date upon which Department approval is desired.
- b. All applicable fees **AS SPECIFIED IN CHAPTER 1 OF THIS CODE** must accompany the application.
- c. All applications ~~except those for septic tank systems~~ shall be accompanied by the following plan documents ~~in duplicate~~:
 - (1) **DESIGN** ~~Prints or~~ drawings of the work to be done. Sufficient detail shall be shown on the drawings to make clear to the Department the scope of the work. **SEPTIC TANK APPLICATIONS REQUIRE TWO SETS OF DRAWINGS.**
 - (2) ~~Complete specifications to supplement the drawings~~ **COMPLETE SPECIFICATIONS FOR THE PROJECT. THE SPECIFICATIONS MAY BE CONTAINED IN THE DESIGN DRAWINGS, OR SUBMITTED AS A**

SEPARATE DOCUMENT TO SUPPLEMENT THE DESIGN DRAWINGS.

- (3) Additional data as may be required by the Department.
- d. The plan documents shall be accompanied by an engineering report, prepared by the design or consulting **PROFESSIONAL** engineer which presents a description of the project together with all pertinent data upon which the design is based and other information necessary to permit a clear and full understanding of the work proposed to be undertaken.
- e. All plan documents submitted to the Department, except septic systems less than 2,000 gallons per day, must have been prepared by, or under the supervision of a **CURRENTLY REGISTERED ARIZONA PROFESSIONAL ENGINEER, OR IN THE CASE OF AN END USE SYSTEM, A CURRENTLY REGISTERED ARIZONA LANDSCAPE ARCHITECT** ~~currently registered Arizona professional engineer.~~ The engineer **OR LANDSCAPE ARCHITECT** shall affix his signature and Arizona seal of registration to all plans submitted for approval and shall certify in writing that the plan documents comply with these regulations and in principle with the ~~criteria contained in the Engineering Bulletins.~~

A non-registrant may design **AND SUBMIT** a wastewater treatment plant, or extensions, additions, modifications or revisions, or extensions to collection systems, **OR DESIGN FOR A RECLAIMED WATER DISTRIBUTION OR END USE SYSTEM, OR EXTENSIONS, ADDITIONS, MODIFICATIONS OR REVISIONS TO ONE**, if the total ~~cost~~ **VALUE** of such construction does not exceed twelve thousand five hundred dollars. **IF PLANS ARE SUBMITTED BY A NON-REGISTRANT UNDER THIS EXEMPTION**, as ~~A~~ cost estimate for material and labor shall be submitted with **THE** plan documents.

- f. Plans and specifications submitted to the Department **WITH AN APPLICATION FOR AN APPROVAL TO CONSTRUCT** will be reviewed and, if found satisfactory **AND FOUND TO DEMONSTRATE COMPLIANCE WITH THIS CODE**, the Department will issue an "Approval to Construct". If construction has not substantially started within one year after the date of issuance of the "Approval to Construct", or if there is a halt in construction of more than one year, or if construction is not completed within three years after the date of issuance, the "Approval to Construct" will be void, unless an extension of time has been granted in writing by the Department.
- G. IF THE APPLICATION FOR AN APPROVAL TO CONSTRUCT SUBMISSION DOES NOT COMPLY WITH APPLICABLE RULES AND REGULATIONS OF THIS ENVIRONMENTAL HEALTH CODE, THE APPROVAL TO CONSTRUCT MAY BE DENIED BY THE DEPARTMENT. IF THE APPLICATION IS DENIED, THE APPLICATION WILL BE CLOSED AND ANY ADDITIONAL FEES FOR SERVICES PERFORMED BY THE DEPARTMENT WILL BE IMMEDIATELY DUE.**
- g. All work shall conform to the approved plans and specifications. Should it be

necessary or desirable to make any change in the design that will affect the capacity or sanitary features of the proposed work, revised plans and specifications, ~~together with a written statement of the reasons for such change,~~ shall be submitted to the Department for review. **THE SUBMISSION MUST INCLUDE A WRITTEN STATEMENT PROVIDING THE REASONS FOR THE CHANGES.** ~~, and~~ **Approval OF THE CHANGES shall be obtained FROM THE DEPARTMENT** in writing before the work affected by the change is undertaken. Structural changes, maintenance repairs, or minor revisions not affecting capacity, quality, flow, location, or operation are allowed during construction without further approval. ~~A set of "as built" drawings showing all changes made during construction shall be filed with the Department upon completion of the project as part of the required Approval of Construction package.~~

- h. A sewage system owner shall notify the Department of the date when construction will begin on the sewage system, or of any change made which will affect capacity, quality, flow or operational performance of a sewage system, authorized by an "Approval to Construct", and of the date when installation of any process, device, or equipment authorized by an "Approval to Construct" will begin. Notification of completion of construction shall be given to the Department at least ten working days prior to the expected completion date to permit the scheduling of a final inspection. For a septic tank system, the notification shall be given at least five working days prior to the expected completion date.
- i. The Department shall not issue approval for any sewerage system or waste and/or sewage treatment works which is not in conformance with the certified water quality management plan and facility plan that prescribes a particular sewerage **WASTEWATER COLLECTION** system and waste and/or sewage treatment work configuration for sewage management by a designated management agency within a service area. If no facility plan is applicable, the certified water quality management plan shall be utilized by the Department to determine conformance.
- j. The Department may issue an approval for a sewerage **WASTEWATER COLLECTION** system or waste and/or sewage treatment works which is consistent with general plans prepared for an area when no sewerage system and waste and/or sewage treatment works configuration is prescribed in the certified water quality management plan. The Department shall confer with both the designated water quality planning agency for the area and the responsible and impacted governmental units to determine consistency with the general plans.

REGULATION 32. ~~Final~~ Approval of Construction

- a. The Department must have approved construction prior to initial operation of any system approved for construction under Regulation 1 of this Section, except septic tank systems as specified in this regulation, or if interim Approval has been issued by the Department.

b. The following requirements shall be satisfactorily met before an approval of construction will be issued by the Department on a newly constructed, altered, or expanded sewerage system or waste and/or sewage treatment works, ~~including wastewater reclamation~~ **RECLAIMED WATER DISTRIBUTION AND RECLAIMED WATER END USE** systems, but excluding septic tank systems.

(1) A final inspection has been completed: (a)

By the Department; or

(b) With the approval of the Department, by a Registered Engineer; or

(c) With the Approval of the Department, by a registered landscape architect for reclaimed water ~~distribution~~ **END USE** systems.

(2) An ~~o~~Operator, certified by the State of Arizona pursuant to A.A.C. R18-5-105, ~~is~~ **SHALL BE** employed to operate the ~~S~~sewerage system or waste and/or ~~S~~sewage ~~T~~treatment ~~W~~works pursuant to the General Requirements in A.A.C. R18-5-104 and in compliance with Chapter II, Section 9 of this Code. **THIS REQUIREMENT DOES NOT APPLY TO END USE SYSTEMS.**

(3) An Operation and Maintenance manual is submitted to and approved by the Department for newly constructed, altered, or expanded ~~S~~sewerage ~~S~~systems (except municipal collection systems), ~~or~~ waste and/or ~~S~~sewage ~~T~~treatment ~~W~~works, ~~including Wastewater Reclamation~~ **RECLAIMED WATER DISTRIBUTION SYSTEMS, RECLAIMED WATER END USE SYSTEMS**, new sewage treatment systems, or substantial modifications thereto **THAT PROVIDES:**

(A) **NORMAL AND EMERGENCY OPERATING PROCEDURES,**

(B) **SAFETY PROCEDURES AND PRACTICES, AND**

(C) **EACH MANUFACTURER'S OPERATION AND MAINTENANCE INSTRUCTIONS FOR THE SPECIFIC EQUIPMENT USED IN THE PROJECT.**

(4) Construction generally conforms to the plans and specifications approved by the Department. A set of as-built drawings showing all changes made during construction shall be filed with the Department. **AS-BUILT DRAWINGS SHALL BE SIGNED, SEALED AND CERTIFIED BY A CURRENTLY REGISTERED ARIZONA PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT AND DATED AFTER COMPLETION OF CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF REGULATION 2 OF THIS SECTION.**

(5) **A CERTIFICATE OF COMPLETION SHALL BE SUBMITTED TO THE DEPARTMENT USING A FORM SUPPLIED BY THE DEPARTMENT, WHICH HAS BEEN SIGNED AND SEALED BY A CURRENTLY**

REGISTERED ARIZONA PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT IN ACCORDANCE WITH THE REQUIREMENTS OF REGULATION 2 OF THIS SECTION.

- (6) ALL FEES REQUIRED BY CHAPTER 1 OF THIS CODE HAVE BEEN PAID.**
- (7) IF THE DEPARTMENT DETERMINES THE APPLICANT'S SUBMITTAL FOR APPROVAL OF CONSTRUCTION IS INCOMPLETE, THE DEPARTMENT WILL REQUEST ADDITIONAL INFORMATION. IF THE APPLICANT DOES NOT RESPOND TO THE DEPARTMENT'S WRITTEN REQUEST FOR ADDITIONAL INFORMATION WITHIN 90 CALENDAR DAYS, THE PROJECT WILL BE CLOSED BY THE DEPARTMENT, THE APPROVAL TO CONSTRUCT WILL BE RESCINDED, AND ANY ADDITIONAL FEES FOR SERVICES PERFORMED BY THE DEPARTMENT TO DATE WILL BE IMMEDIATELY DUE. IF THE PROJECT IS CLOSED, THE OWNER SHALL NOT OPERATE ANY FACILITY THAT WAS CONSTRUCTED UNDER THE RESCINDED APPROVAL TO CONSTRUCT UNTIL A THE OWNER COMPLETES ALL REQUIREMENTS FOR APPROVAL TO CONSTRUCT AND APPROVAL OF CONSTRUCTION AS A NEW PROJECT, INCLUDING PAYMENT OF ALL FEES.**

c. Approval of septic tank systems is regulated under Section 8 of this Chapter.

D. APPROVAL OF END USE SYSTEMS IS REGULATED UNDER SECTION 11 OF THIS CHAPTER.

REGULATION 4 Separation of Potable Water, Reclaimed Wastewater-Water DISTRIBUTION and Sewer Lines

- a. In order to protect potable water systems from possible contamination, a sewer or reclaimed ~~wastewater~~ **WATER DISTRIBUTION** line shall not:
 - (1) Be installed within six feet of either side of a water line and shall not be above, at the same level as, or less than two feet below the bottom of the water line, unless extra protection is provided. Extra protection shall consist of constructing the sewer line with mechanical joint ductile iron pipe or with slip-joint ductile iron pipe if joint restraint is provided or shall consist of encasing both the water and sewer lines in at least six inches of concrete.
 - (2) Under any circumstances, infringe upon an area which is within two feet of either side of or two feet above the water line.
- b. When unusual conditions, such as highway or bridge crossings, prevent a water line from being separated from sewer or reclaimed ~~wastewater~~ **WATER DISTRIBUTION** lines as required by subsection a above, the Department shall review and may approve requests for authorization to use alternate construction

techniques, materials, and joints on a case-by-case basis. Requests for Approval of alternate construction techniques, materials, and joints shall be made in compliance with A.A.C. R18-9-A312.G.

- c. No water line shall pass through, or come into contact with any part of a sewer manhole. The minimum horizontal separation between water lines and sewer manholes shall be six feet, measured from the center of the manhole.
- d. The minimum separation between force mains or pressure sewers and water lines shall be two feet vertically and six feet horizontally under all conditions. Where a sewer force main crosses above, or less than six feet below, a water line, the sewer line shall be encased in at least six inches of concrete for 10 feet on either side of the water line.
- e. Sewer lines (gravity, pressure, force) shall be kept a minimum of 50 feet from drinking water wells, unless the following conditions are met:
 - (1) Gravity sewers, pressure tested in place to 50 psi without excessive leakage, may be used at distances greater than 20 feet from drinking water wells.
 - (2) Sewage force mains and pressure sewers, pressure tested in place to 150 psi without excessive leakage, may be used at distances greater than 20 feet from drinking water wells.
- f. No septic tank/disposal field system shall be constructed within 100 feet of a drinking water well.
- g. All distances are measured horizontally from the outside of the pipelines.
- h. Pipelines conveying a higher quality of water shall be located above pipelines conveying a lower quality of water. That is, potable water lines shall be installed above non-potable ~~sewer~~ **WATER** lines, which shall be installed above reclaimed **WATER DISTRIBUTION** lines and reclaimed ~~wastewater~~ **WATER DISTRIBUTION** lines shall be installed above sewer lines. The decreasing quality order of pipeline is: potable water lines, non-potable water lines, reclaimed water lines, and sewer lines.
- i. For the purpose of establishing separation when reclaimed ~~wastewater~~ **WATER DISTRIBUTION** lines are installed adjacent to potable water lines, the reclaimed ~~wastewater~~ **WATER DISTRIBUTION** system shall be considered a sewer.
- j. For the purpose of establishing separation when reclaimed ~~wastewater~~ **WATER DISTRIBUTION** lines are installed adjacent to sewer lines, the reclaimed ~~wastewater~~ **WATER DISTRIBUTION** system shall be considered potable water.
- k. Horizontal and vertical separations between potable water, non-potable water, reclaimed ~~wastewater~~ **WATER DISTRIBUTION** lines and sewer **LINES** shall be in strict accordance with ~~Engineering Bulletin No. 10 and this regulation~~ **MARICOPA**

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WITH REVISIONS THRU 2011.**

1. These separation requirements do not apply to building plumbing or individual house service connections. These shall ~~conform to~~ **COMPLY WITH** the current **LOCAL Uniform**-Plumbing Code and/or Maricopa Association of Governments (MAG) Standards. **END USE SYSTEMS SHALL COMPLY WITH SECTION 11 OF THIS CHAPTER.**

REGULATION 5. Minimum Design Requirements for Sewerage Systems

- a. ~~Sewerage systems~~ Wastewater collection systems serving condominiums, mobile home parks, travel trailer parks, shopping centers, and recreational vehicle parks shall be designed in compliance with the Arizona Administrative Code, Title 18, Chapter 9.
- b. For systems that treat, or which are designed to treat greater than 10,000 gallons/day, a standby power source shall be provided at all sewage treatment systems and/or pump stations where a temporary power failure may allow a discharge of raw or partially treated sewage. Standby power may be via a standby generator, separate feeders from ~~separate~~ **DIFFERENT** substations, a loop feeder on separate transformers from a common substation, or a high-level alarm with portable generators. Standby power also shall be provided to any sewage treatment systems and/or pump stations, regardless of size, if a temporary power failure may allow a discharge into surface waters classified as "Unique Waters", by the Arizona Department of Environmental Quality.
- c. The structures and electrical and mechanical equipment of sewage treatment systems and pump stations shall be protected from physical damage from a 100-year flood, if the plans for such were submitted for approval after the effective date of this Regulation. Flood protection shall be designed such that treatment works and pump stations will remain fully operational during a 25-year flood. Walls or berms of adequate size may be constructed where necessary to provide protection. Flood protection approval must be obtained from the appropriate Flood Control District before an approval to construct will be issued.
- d. All treatment works with greater than 100,000 gallons/day capacity shall be provided with the necessary equipment to indicate record and totalize the volume of wastewater being treated. Treatment plants with less than 100,000 gallons/day capacity are required to indicate flow.

MARICOPA COUNTY ENVIRONMENTAL HEALTH CODE

CHAPTER II

SEWAGE AND WASTES

SECTION 9

CLASSIFICATION OF WASTEWATER TREATMENT PLANTS AND
REQUIREMENTS FOR CERTIFIED OPERATORS

REGULATION 1. Definitions

- ~~a. "Certified Operator" means an operator who holds a current certificate issued by the Arizona Department of Environmental Quality in the field of wastewater treatment, or wastewater collection.~~
- ~~b. "Collection system" means pipelines, conduits, pumping stations, force mains, and all other devices, appurtenances and facilities used for collecting and conducting wastewater to a central point for treatment and disposal.~~
- ~~c. "Director" means the Director of the Maricopa County Department of Health Services or his authorized agent.~~
- ~~d. "Direct Responsible Charge" means day to day decision making responsibility for a wastewater treatment plant, collection system, or effluent distribution system, or a major portion of such a facility.~~
- ~~e. "Effluent Distribution System" means the pipelines, appurtenances, devices and facilities of a reclaimed wastewater system which conduct effluent from a wastewater treatment plant to a~~

~~point of final reuse.~~

~~f. "Facility" means a wastewater treatment plant, effluent distribution system, or collection system.~~

~~g. "On-site Operator" means an operator who visits a facility at least daily, for the purpose of ensuring that it is operating properly.~~

~~h. "Operator" means a person who is responsible for the actual day to day operation of a facility or a portion thereof. This includes the operator of a remote control system in which the operator is in direct control of the entire system or a portion thereof from a central location. It also includes the chief operator who supervises the operation of the facility. The term operator includes both on-site and remote operators as defined in this section.~~

~~i. "Population Equivalent" means the population which would contribute an equal amount of biochemical oxygen demand (BOD) computed on the basis of 0.17 pounds of five day, 20-degree centigrade BOD per capita per day~~

~~j. "Remote operator" means an operator who is not an on-site operator.~~

~~k. "Wastewater Treatment Plant" means processes, devices and structures used for the purpose of treating or stabilizing wastewater or industrial waste and disposing of the effluent.~~

REGULATION 1. Exemptions

Owners of the following facilities are exempt from the requirements of this Section:

- a. "Non-Community" septic tanks and collection systems discharging to "Non-Community" septic tanks.
- b. Any collection system serving a population of fewer than 2,500 persons which discharges into a facility which is operated by a certified operator.

- c. Any collection system serving a nonresident population and discharging into a collection system operated by a certified operator.
- d. Agricultural or industrial wastewater facilities used to treat, recycle, or impound industrial or agricultural wastes **GENERATED** within the boundaries of the industrial or agricultural property.
- e. Industrial waste pretreatment facilities in which treated wastewater is released to a collection system or wastewater treatment plant which is regulated by these regulations.
- f. Facilities for treating industrial wastes which are not treatable by biological means.
- g. Wastewater treatment devices serving an individual home.
- h. **RECLAIMED WATER END USE FACILITIES.**

REGULATION 2. General Requirements

- a. The **FACILITY** owner ~~or the purveyor of services~~ shall utilize the services of a certified operator of the required classification for each facility for the purpose of assuring that the facility is operating properly. The certified operator shall have direct responsible charge of the operation of the **COLLECTION SYSTEM**, wastewater treatment plant, ~~or the collection or effluent RECLAIMED WATER~~ distribution system **OR RECLAIMED WATER DISPOSAL SYSTEM**. Any owner or purveyor who meets the requirements for certification may become certified as operator of the facility for which he has direct responsible charge. The Chief Operator or Superintendent in direct responsible charge shall be certified at the grade of the facility. Shift foremen or other operators in charge of the facility in the absence of the Chief Operator or Superintendent shall be certified at a grade no lower than one grade below the grade of the facility.
- b. It is the facility owner's responsibility to ensure that the name of the required certified operator **IN DIRECT RESPONSIBLE CHARGE OF THE OPERATION OF THE FACILITY** is on file at all times with the Department. If the owner of a facility replaces the designated operator with another operator, the new operator shall be properly certified at the time he begins operation of the facility. The owner shall notify the Department in writing within ten days of the date of the replacement. The certified operator shall notify the Department in writing within ten days of the

date he ceases operation of a facility and within ten days after he commences operation of any facility.

c. There are **FOUR** ~~three~~ types of facilities:

- (1) **COLLECTION SYSTEMS,**
- (2) Wastewater Treatment Plants,
- (32) **RECLAIMED WATER DISTRIBUTION** ~~Collection~~ Systems, and
- (43) ~~Effluent~~ **RECLAIMED WATER DISPOSAL** ~~Distribution~~ Systems.

All facilities shall be classified according to type of facility, population or population equivalent served, **RATED** flow **CAPACITY**, and complexity of treatment as described in these regulations.

d. There are four grades of classification, with grade-4 being the highest. The Department may change the classification of a particular facility by reason of the incorporation in the facility of special features of design or characteristics more difficult to operate than usual, or by reason of wastewater unusually difficult to treat, or by reason of ~~effluent~~ **RECLAIMED WATER** reuse or other potential health factors. In multi-facility systems, each facility shall be classified according to complexity and the total population or population equivalent served or **RATED** flow **CAPACITY** ~~rate~~.

e. A person holding certification in any particular type and grade is permitted to operate all facilities **OF** ~~in~~ that particular type and grade and any lower grade.

f. Each facility requires the services of an on-site operator certified at the grade of the facility. An operator may operate one or more facilities as a remote operator under the following conditions:

- (1) The remote operator is certified at or above the grade of the facility.
- (2) Each facility, except a grade-1 facility, has an on-site operator certified at a level no lower than one grade below the grade of the facility. A grade-1 facility requires an on-site representative, who is not required to be certified.
- (3) The remote operator personally instructs the on-site operator or representative in proper operation and maintenance of each facility, provides him with written instructions, and assures that adequate records are kept.
- (4) The remote operator provides the on-site operator or representative with a telephone number

or numbers at which he can be reached at all times.

- (5) The remote operator resides no more than three hours travel time from any facility which he serves as remote operator.
- (6) The facility ~~operated by the remote operator~~ is operating in compliance with all applicable regulations.
- (7) The remote operator personally inspects a facility as often as necessary to assure proper operation and maintenance, but in no case less than the following:
 - (a) Grade-1 wastewater treatment plants - monthly.
 - (b) Collection systems serving fewer than 2,500 people - bimonthly.
 - (c) Grade-2 wastewater treatment plants serving less than 1,000 people - weekly.
 - (d) Grade-2 wastewater treatment plants serving greater than 1,000 people, and all grade-3 and grade-4 wastewater treatment plants - daily.

g. The owner ~~or the purveyor of services for any~~ of a facility is in violation of this section if the facility is operated in a manner which violates County or State Rules and Regulations for the protection of **PUBLIC HEALTH**, water quality ~~and~~ or the environment.

h. TREATMENT PLANTS SHALL BE OPERATED BY AN APPROPRIATELY GRADED WASTEWATER TREATMENT CERTIFIED OPERATOR.

I. DISTRIBUTION SYSTEMS SHALL BE OPERATED BY AN APPROPRIATELY GRADED WASTEWATER COLLECTION CERTIFIED OPERATOR.

REGULATION 34. Classification of Wastewater Treatment Plants, Collection Systems, and ~~Effluent~~ RECLAIMED WATER Distribution Systems

- a. Treatment plants shall be classified according to population equivalent served, **RATED** flow **CAPACITY**, degree of hazard to public health, type of facility and degree of treatment, as specified in this section.
 - (1) Grade-1 includes:
 - (a) Stabilization ponds serving fewer than 2,000 persons and treating a flow of 200,000

gallons per day or less.

- (b) Any wastewater treatment ~~facility~~ **PLANT THAT IS** not designated as grade-2-3, ~~or 4~~ **OR HIGHER.**
- (2) Grade-2 includes:
 - (a) Stabilization ponds serving more than 2,000 persons or treating a flow greater than 200,000 gallons per day, and
 - (b) All aerated lagoons, and
 - (c) All facilities employing biological treatment based upon the activated sludge principle, or trickling filters, designed to serve a population equivalent of fewer than 5,000 persons and treating a flow of 500,000 gallons per day or less, except as provided in Paragraph a.(3) (c) of this regulation.
 - (3) Grade-3 includes:
 - (a) All facilities employing biological treatment based upon the activated sludge principle designed to serve a population equivalent of 5,000 to 20,000 persons or treating a flow between 500,000 and 2,000,000 gallons per day, and
 - (b) All facilities employing trickling filtration designed to serve a population equivalent of 5,000 to 25,000 persons, or treating a flow between 500,000 and 2,500,000 gallons per day, and
 - (c) Variations of activated sludge requiring specialized knowledge including, but not limited to, contact stabilization and sequencing batch reactors serving any population equivalent of up to 20,000 persons and treating a flow rate of up to 2,000,000 gallons per day.
 - (4) Grade-4 includes:
 - (a) All facilities employing biological treatment based upon the activated sludge principle designed to serve a population equivalent greater than 20,000 persons, or treating a flow greater than 2,000,000 gallons per day, and
 - (b) All facilities employing trickling filtration designed to serve a population equivalent greater than 25,000 persons, or treating a flow greater than 2,500,000 gallons per day, **AND**
 - (c) Variations of activated sludge requiring specialized knowledge including, but not limited to, contact stabilization and sequencing batch reactors serving any population equivalent greater than 20,000 persons or treating a flow rate greater than 2,000,000 gallons per day.
 - (5) ~~GRADE-1 THRU GRADE-3~~ **GRADE-1 THRU GRADE-3** Facilities requiring tertiary treatment or nutrient removal shall be graded one level higher than the minimum grade based upon population equivalent or

flow.

~~b. Until July 1, 1991, the following classification of collection and effluent distribution systems shall apply. Ordinarily, collection and effluent distribution systems are considered as a part of the treatment facility; however, where such a conveyance facility is separated from treatment, either in jurisdiction or in responsibility, the collection and/or effluent distribution system is classified as grade 1.~~

~~b.e. Classification of wastewater collection and effluent distribution systems. Effluent distribution systems shall be operated by a graded wastewater collection operator. Beginning July 1, 1991, **WASTEWATER** collection and effluent **RECLAIMED WATER** distribution systems shall be classified by population served, as follows:~~

<u>GRADE</u>	<u>POPULATION</u>
1	0 - 2,500
2	2,501 - 10,000
3	10,001 - 25,000
4	More than 25,000

~~d. By July 1, 1991, each owner or a purveyor of services for a collection or effluent distribution system shall have the services of an operator certified at the grade of the system as reclassified under these regulations.~~

~~e. Effluent distribution systems shall be operated by a graded wastewater collection operator.~~

MARICOPA COUNTY ENVIRONMENTAL HEALTH CODE

CHAPTER II

SEWAGE AND WASTE

SECTION 11

RECLAIMED WATER END USE SYSTEMS

REGULATION 1 GENERAL REQUIREMENTS

- a. All end use systems shall comply with the requirements of this Section. However, if a portion of an end use system is covered by any of the following authorizations, then that portion of the end use system is exempt from the requirements of this Section:
 - (1) Facilities and/or systems authorized to recharge to an aquifer by an Underground Storage Facility (USF) or a Water Storage permit issued by the Arizona Department of Water Resources or by an Aquifer Protection Permit (APP) issued by ADEQ,
 - (2) Reclaimed water disposal systems authorized to discharge to the 'Waters of the United States' by an Arizona Pollution Discharge Elimination System (AZPDES) permit issued by ADEQ, or
 - (3) Reclaimed water disposal systems authorized to recharge to an aquifer by an Aquifer Protection Permit (APP) issued by ADEQ.
- b. For reclaimed water entering a building, the requirements of this Section do not apply if covered by an applicable plumbing code.
- c. The owner/operator of an end use system is responsible for assuring that the system is constructed, operated and maintained in a manner that assures compliance with the requirements of this Section.
- d. Reclaimed water shall be stored and used in a manner that does not create a public nuisance or create a health hazard.
- e. Each potable water line entering an end use site must be equipped with either a reduced pressure principle backflow prevention device or an acceptable air gap. To be acceptable as the sole means of protection, an air gap must be located at the user connection to the potable water system.
 - (1) If potable water and reclaimed water may be mixed, the mixing must occur after an air gap in the potable water supply piping.
 - (2) Any air gap must be at least two pipe diameters above the highest water level that can be reached by the receiving vessel but in no case less than one inch.
 - (3) New installations shall locate the backflow preventer as near as is reasonable to the site's takeoff point from the potable water supply main.
- f. No person shall install, permit to be installed or maintain a cross connection, submerged inlet or similar connection between any part of a system containing reclaimed water and a potable water supply.
- g. The use of reclaimed water is prohibited for:
 - (1) direct human consumption,
 - (2) swimming, wind surfing, water skiing, or other full-immersion water activity with a potential of ingestion, and
 - (3) in a misting system for cooling.

REGULATION 2 APPROVAL TO CONSTRUCT

Before a reclaimed water end use system may be constructed or significantly modified, an Approval to Construct must be obtained from the Department in accordance with Chapter I Regulation 4 and Chapter II Section 2 Regulation 1 of this Code.

REGULATION 3 APPROVAL OF CONSTRUCTION

- a. A reclaimed water end use system shall not begin operation other than for brief periods of time for the purpose of testing or performing necessary adjustments to the system until Approval of Construction is obtained from the Department in accordance with Chapter II Section 2 Regulation 2 of this Code.
- b. A copy of the results of any cross-connection testing that was performed at the site shall be provided to the department together with the certificate of completion.
- c. If the site is authorized to use reclaimed water by issuance of a Type 2 Reclaimed Water Permit from ADEQ, provide a copy of the Verification of General Permit Conformance from ADEQ. If the site is covered by a Type 3 permit held by their reclaimed water provider, provide a copy of the user agreement between the reclaimed water provider and the site.
- d. The end use site shall be made available in a safe and reasonable manner for any inspections that the Department or its designee wishes to perform.
- e. Documentation shall be provided of the underground pipe identification of a newly constructed end use system.

REGULATION 4 OPERATING PERMIT REQUIRED

- a. No end use system shall be operated without a valid operating permit issued and in force from the Department. This requirement does not apply:
 - (1) During the construction phase when the system is operated for brief periods for the purpose of testing or performing necessary adjustments to the end use system, nor
 - (2) During the period between when the Department has issued an Approval of Construction and the payment due date for the initial operating permit.
- b. For end use systems served by a supplier with a valid inspection variance issued by the Department, operating permits will be issued at no cost, with indefinite expiration.

REGULATION 5 CONSTRUCTION STANDARDS

- a. Identify all newly installed reclaimed water piping using one of the following methods:
 - (1) New PVC piping shall have an integral purple color.
 - (2) New non-PVC piping shall be enclosed in a sock or wrapped with tape. The sock and tape shall be a minimum thickness of 4 mils, shall have the words "CAUTION RECLAIMED WATER – DO NOT DRINK" or similar wording acceptable to the Department in black

- letter along the entire length and shall be made of polyethylene designed to withstand the relevant environmental conditions.
- (3) New non-PVC above ground piping may also be identified by being painted PURPLE AND by having the WORDS "CAUTION RECLAIMED WATER – DO NOT DRINK" stenciled, at regular intervals, along the length of the exposed pipe.
- b. above ground components of an end use system shall have a purple color. This includes, but is not limited to:
 - (1) Valve boxes and covers. The covers shall state that they are in reclaimed water service
 - (2) Fire hydrants
 - (3) Blow off and air/vacuum relief valves
 - (4) Sprinkler heads
 - c. Components of a drip irrigation system that are less than 0.75 inches in diameter do not need to meet the identification requirements of this section.
 - d. Hose bibs dispensing reclaimed water shall be restricted from public use either by being placed in a secure area which is not in use by the general public or by requiring the use of a special tool for operation that is not commonly found among the general public. Hose bibs shall also meet one of the following criteria:
 - (1) Above ground hose bibs shall be painted a purple color and shall have a sign posted stating "CAUTION RECLAIMED WATER – DO NOT DRINK";
 - (2) Hose bibs located below ground level must be installed inside of a purple valve box with a purple cover that states that it is in reclaimed water service.
 - e. The following piping separation requirements must be met:
 - (1) Potable water, reclaimed water and wastewater lines shall all be spaced at least one foot apart at all points both vertically and horizontally when measured from the outside of the pipe.
 - (2) Piping containing a higher quality of water shall be located above piping carrying a lower quality of water. The quality of water, from highest to lowest, is potable water, reclaimed water/other non-potable water and then wastewater.
 - (3) Pipes carrying various qualities of water may be installed in a common trench if:
 - (a) The separation and location requirements listed above are maintained, and
 - (b) The piping carrying the lowest quality of water is placed in the trench and the piping for each additional quality level is placed on a separate, solid shelf excavated at one side of the common trench.
 - (4) If any of the vertical separation requirements of this section cannot be met, compliance may be achieved by separating the piping for each nonconforming category by at least five feet of undisturbed or compacted soil.
 - (5) The Department may approve an alternative but equally protective method, such as encasement in concrete or sleeving, on a case-by-case basis.
 - f. Drinking fountains, water coolers and eating areas may not be impacted by reclaimed water.
 - g. The end use system shall be designed, installed and maintained in a manner that contains the reclaimed water within the designated areas.

REGULATION 6 CONSTRUCTION STANDARDS FOR RETROFITTING EXISTING SYSTEMS

- a. The following requirements apply to existing components when an existing irrigation system is converted into an end use system:
 - (1) Existing in-ground piping that is not exposed during the conversion does not have to be replaced or further identified. Existing underground piping that is exposed during the

- conversion must meet the requirements for newly installed. All above ground piping shall meet the piping identification requirements listed above for newly installed piping.
- (2) Valve boxes in reclaimed water service shall be identified using one or more of the following methods:
 - (a) Replace the valve box and cover with ones having an integral purple color. The cover must specify that the valve box is in reclaimed water service, or
 - (b) Paint and maintain the inside of the valve box and its cover a purple color and permanently place a tag on all valves identifying them as being in reclaimed water service. Any future replacements of painted valve boxes or covers shall be an integral purple color and state that the valve box is in reclaimed water service.
 - (3) Install purple sprinkler heads if spray irrigation is used.
 - (4) All other above ground components of an end use system shall have a purple color.
- b. If an existing irrigation system is being converted from potable water use to reclaimed water use, cross connection testing must be performed on the constructed end use system and the potable water system. The owner shall submit The cross connection testing plan to the department for approval prior to TESTING. The test results shall be submitted to the Department for review and approval with the request for approval of construction.

REGULATION 7 SIGNAGE REQUIREMENTS

The following signage requirements apply to all end use sites:

- a. Signs shall be of a size that makes them easily readable in their intended use but in no case shall they be less than 12" wide by 9" high.
- b. Though not required, it is encouraged to have purple as the prominent color for signs.
- c. The required advisory signage must inform the public that reclaimed water is in use and that they should not drink from the system. The preferred format is to state what the reclaimed water is being used for, such as "TURF IRRIGATED WITH RECLAIMED WATER", followed by "DO NOT DRINK" and include an equivalent graphic message enclosed in the international "do not" symbol. Additional positive message about conserving water may also be added as well as additional cautions such as no swimming, as may be appropriate. If the signage will be located in an area where a dominant language other than English is expected to be spoken, inclusion of additional language(s) in the signage is ALLOWED BUT not required.
- d. Signs shall be kept legible and unobstructed. They shall be placed in locations and at a height where they are clearly visible but in no case shall the bottom of the sign BE MORE than seven feet or less than six inches above the ground. Signs shall be posted at sites using spray irrigation, AT water features, IMPOUNDMENTS, facilities where a mist from the use of reclaimed water is likely to occur during periods of normal use, at school yards, and on water trucks. At a minimum, signage shall be located:
 - (1) For facilities using spray irrigation, at all normal pedestrian entrances to the end use site.
 - (2) In the case of small areas such as neighborhood parks of less than 1/4 acre, a single sign may be utilized if it can be read from all areas of the turf.
 - (3) For large facilities requiring vehicular access but having undefined pedestrian entrances, such as a sports complex, on site signage may consist of signage along the entrance roads if the signage:
 - (a) does not create a traffic hazard,

- (b) is large enough and placed in a position that it can be read by automobile occupants passing by at the road's posted speed limit or 25 mph if no speed limit is posted.
- (4) At the approaches to impoundments storing reclaimed water and spaced no more than 100 yards apart when measured along the shoreline. Impoundment signs must also carry a no swimming statement and an equivalent graphic message enclosed in the international "do not" symbol. These requirements do not apply to impoundments inside a wastewater treatment facility.
 - (5) If a picnic area is located near an impoundment, along the impoundment in proximity to the picnic area.
 - (6) At the approach to water features including fountains, streams and waterfalls.
 - a. If the water feature includes a reservoir which could be used for full body immersion, the signage must also have a "DO NOT SWIM" statement and an equivalent graphic message enclosed in the international "do not" symbol.
 - b. Streams must have signs posted no more than 100 yards apart. If a stream can be approached from either side, this signage requirement applies independently to each side of the stream.
 - (7) At schools, in locations where the signage will be visible to both students and staff, and at public entrances, when applicable.
 - (8) For residential spray irrigation, in the front yard of the residence. The requirement to post individual signs at residences may be waived by the Department if signs are posted at each entrance to the neighborhood and the home owners association notifies each resident annually in writing that reclaimed water is in use. The signs at the entrances must be large enough and placed in a position that they can be read by automobile occupants passing by them at the road's speed limit.
 - (9) At a minimum, on the back or sides of water trucks that haul reclaimed water and at water truck loading stations which can supply reclaimed water.
 - (10) At all hose bibs supplying reclaimed water.
 - (11) For golf courses, at the first and tenth tees and reclaimed water usage notification must be included on scorecards. If a rental cart is required for play, signage in the golf cart can substitute for the scorecard notification.
 - (12) At reclaimed water storage tanks.
 - (13) For applications where spray misting is likely to occur and which are not covered above, in areas that can reasonably be expected to be exposed to the mist under normal conditions.
 - (14) If irrigation for overseeding for winter grass will be used, additional notification must be given to individuals who are likely to be exposed to the spray irrigation. Notification at meetings, newsletters, door hangers, additional temporary signage or other equivalent methods may be used. The owner must maintain a record of the notification method, program or material used for one year and provide the record to the department upon request.

If Class B or Class C reclaimed water is used for any purpose, signs must be placed at all points of ingress as well as on the premises and spaced at distances not to exceed $\frac{1}{4}$ mile, as applicable to the use.

REGULATION 8 OPERATING REQUIREMENTS

- a. Based on the following table, an end use system shall use reclaimed water only for an approved end use and must use reclaimed water with a class that is at least as high as the one specified for that end use:

APPROVED END USE	MINIMUM RECLAIMED WATER CLASS REQUIRED
IRRIGATION OF FOOD CROPS	A
RECREATIONAL IMPOUNDMENTS	A
RESIDENTIAL LANDSCAPE IRRIGATION	A
SCHOOLGROUND LANDSCAPE IRRIGATION	A
OPEN ACCESS LANDSCAPE IRRIGATION	A
TOILET AND URINAL FLUSHING	A
FIRE PROTECTION SYSTEMS	A
SPRAY IRRIGATION OF AN ORCHARD OR VINEYARD	A
COMMERCIAL CLOSED LOOP AIR CONDITIONING SYSTEMS	A
VEHICLE AND EQUIPMENT WASHING (DOES NOT INCLUDE SELF-SERVICE VEHICLE WASHES)	A
SNOWMAKING	A
SURFACE IRRIGATION OF AN ORCHARD OR VINEYARD	B
GOLF COURSE IRRIGATION	B
RESTRICTED ACCESS LANDSCAPE IRRIGATION	B
LANDSCAPE IMPOUNDMENT	B
DUST CONTROL	B
SOIL COMPACTION AND SIMILAR CONSTRUCTION ACTIVITIES	B

PASTURE FOR MILKING ANIMALS	B
LIVESTOCK WATERING (DAIRY ANIMALS)	B
CONCRETE AND CEMENT MIXING	B
MATERIALS WASHING AND SIEVING	B
STREET CLEANING	B
PASTURE FOR NON-DAIRY ANIMALS	C
LIVESTOCK WATERING (NON-DAIRY ANIMALS)	C
IRRIGATION OF SOD FARMS	C
IRRIGATION OF FIBER, SEED, FORAGE, AND SIMILAR CROPS	C
SILVICULTURE	C

- b. The owner and/or operator of an end use system shall install and maintain the system so that:
- (1) application methods are used that reasonably preclude human contact with reclaimed water,
 - (2) there is no standing reclaimed water in open access areas during periods of normal use,
 - (3) reclaimed water is not allowed to come into contact with drinking fountains, eating areas, hose bibs in potable water service or water coolers,
 - (4) hose bibs which provide reclaimed water are secured to prevent their use by the public, and
 - (5) The owner and/or operator of a facility using reclaimed water shall not allow reclaimed water or reclaimed water mixed with stormwater to leave the site unless the discharge is covered by an Arizona Pollution Discharge Elimination System (AZPDES) Permit issued by ADEQ.
- c. If reclaimed water or reclaimed water mixed with stormwater leaves the approved site, a spill report must be filed with the Department as soon as practicable using the spill reporting form approved by the DEPARTMENT. THIS is in addition to any reporting required under an approved AZPDES permit issued by the ADEQ.

REGULATION 9 INSPECTIONS

- a. The Department reserves the right to conduct inspections of end use facilities when complaints are received.
- b. The end use site shall be made available in a safe and reasonable manner for any inspections that the Department or its designee wishes to perform.
- d. The owner, operator, or their designated representative shall be notified of any nonconformance with this Section.

- e. The requirement for the Department to make inspections may be suspended by the Department if the reclaimed water supplier or applicable municipality obtains an inspection variance from the Department.

REGULATION 10 INSPECTION VARIANCES

- a. The Department may grant an inspection variance to cover the inspection and compliance oversight of end use sites that are either within a single municipality or those serviced by a single reclaimed water supplier. To obtain an inspection variance, the municipality or reclaimed water supplier must:
 - (1) Submit a complete inspection variance application including any required documentation. The application must be on a form supplied by the Department.
 - (2) Receive written approval of the inspection variance from the Department.
- b. Before the Department may issue an inspection variance, the applicant must demonstrate:
 - (1) That it will conduct an inspection and compliance oversight program of all applicable end use sites that is at least equivalent in all aspects to the inspection program administered by the Department.
 - (2) That it will maintain records of each inspection for a period of at least five years and make these records available to the Department within 10 business days of receiving a written request from the Department.
 - (3) That it will put into place an acceptable compliance plan for any end use site that is not in full compliance with this Section. The plan will detail the steps that will be taken to bring any out of compliance facilities back into compliance with this Section and will contain reasonable timeframes that will be followed each step.
 - (4) The applicant may submit alternative proposals to the above 3 requirements if it can demonstrate to the satisfaction of the Department that the proposal is equivalent to the requirements of this Section.
- c. The applicant must pay any fees to the Department that may be specified in Chapter 1 of this Code.
- d. Variances will include the following stipulated requirements for the applicant:
 - (1) the applicant will file an annual report for each calendar year with the department listing the name, type of facility, and address of all of its end use sites by March 30 of the following year.
 - (2) annual reports shall include:
 - A. narrative report of inspection activities,
 - B. list of facilities inspected
 - C. number of violations or failure to meet conditions of a compliance plan at end use sites,
 - D. summary of compliance ACTIVITIES and / or referrals to the department for enforcement FOLLOW-UP.
 - (3) the department reserves the right to:
 - A. carry out compliance inspections on all end use sites, both in the company of the applicant, as well as INDEPENDENTLY,
 - B. investigate complaints concerning reclaimed water usage at end use sites,
 - C. carry out enforcement actions independently of the applicant,

- D. rescind an inspection variance for cause at any time.
- e. An inspection variance shall remain in effect for a period of five years unless it is revoked at an earlier date by the Department. The inspection variance may be renewed upon filing of a complete renewal application, including any required documentation, and any applicable fees at least three months prior to expiration of the variance. The application must be on a form supplied by the Department.

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