



Environmental Services Department
Water & Waste Management
On-Site Wastewater Program
www.maricopa.gov/envsvc/WATER/oswtf.asp

PHASE I

SITE INVESTIGATION AND SOILS EVALUATION

for an

ON-SITE WASTEWATER TREATMENT FACILITY (OSWTF)

This guide includes instructions on how to prepare for a site investigation and soils evaluation and to submit a complete application called the Phase I Application.

**Design requirements are subject to revision



Maricopa County

Environmental Services Department

1001 N. Central Ave. Suite 150
Phoenix, AZ 85004-1940
Phone: (602) 506-6681
Fax: (602) 506-6925
TTD: (602) 506-6704
www.maricopa.gov/envsvc

PERMIT APPLICATION PROCESS NOTICE

Onsite Wastewater Program

Steps required to obtain a Phase I (Site Investigation) approval are as follows:

1. **Submit Phase I application** Include all supporting documentation and applicable fees. The property owner or their agent can do this. A permit/tracking number will be issued. The permit/tracking number identifies the project. The number is used for rapid access to the file for: inquires, information, status, a voice mail message or when requesting inspections.
2. **Identify** the site by posting a sign at the entrance to the property. To make as easy to find the site the sign should be a minimum of 3' square with 4"-6" lettering. The lettering must state the owner's name, street address if available, and the permit/tracking number provided at Phase I application.
3. **Boldly** mark the property corners, proposed house corners and, if applicable, well sites.
4. **Prepare** three 12' deep test holes. Two (2) in the proposed primary disposal area and one (1) in the reserve area. Instructions for the preparation of test holes for evaluation are in the Site Investigation Packet.
5. **Inspection** request for the test holes is done by calling MCESD at 602-506-1787 Have the permit/tracking number and address available and be sure to leave any special instructions or requests e.g. call to meet at site, gate code, etc.
6. **Site and soil** evaluations are conducted by MCESD to establish the soil absorption rate (SAR). The SAR is used when designing and sizing the onsite system. The evaluation also includes a physical description of site. The inspector will leave a yellow tag at the site when finished.
7. **Property owner** is notified by MCESD of the SAR and any other limiting conditions at the site relating to the selection, design, and layout of the onsite system.
8. **Property owner** uses the information provided to select, design, and layout the septic tank and disposal areas on 2 site plans for the Phase II (NOID) submittal.

Per Maricopa County Health Code, this application will expire: a) one year from date of application, or b) one year from Phase I site plan approval.

Department contact information regarding your application

Telephone: 602-506-6616, ask for the Onsite Program

E-mail: septicquestions@mail.maricopa.gov

Website: <http://www.maricopa.gov/EnvSvc/WaterWaste/OWS/OWS.aspx>

You may request a clarification from the Department of its interpretation or application of a statute, ordinance, regulation, delegation agreement or authorized substantive policy statement as provided in A.R.S. §11-1609. Contact us by in by e-mail or telephone, or in person or mail at the address listed at the top of the page, marked attention Onsite Wastewater Program.

Licensing Time Frames Onsite Wastewater

Permit Category	Overall time (days)
Alteration	30
Alteration with Inspection	30
Composting Toilet <3000 Gal/Day	73
Septic Tank with Additional Alternative Features	95
Septic Tank, Conventional Disposal <3000 Gal/Day	73
Aerobic System with Surface Disposal	95
Onsite Wastewater Treatment Facility, Flow 3000 to <24000	136
Reconnect/Remodel Review (Minor Plan Review)	30
Reconnect/Remodel Review (Minor Plan Review) with Inspection	30

A.R.S. §11-1604. Prohibited acts by county and employees; enforcement; notice

- A. A county shall not base a licensing decision in whole or in part on a licensing requirement or condition that is not specifically authorized by statute, rule, ordinance or delegation agreement. A general grant of authority does not constitute a basis for imposing a licensing requirement or condition unless the authority specifically authorizes the requirement or condition.
- B. Unless specifically authorized, a county shall avoid duplication of other laws that do not enhance regulatory clarity and shall avoid dual permitting to the maximum extent practicable.
- C. This section does not prohibit county flexibility to issue licenses or adopt ordinances or codes.
- D. A county shall not request or initiate discussions with a person about waiving that person's rights.
- E. This section may be enforced in a private civil action and relief may be awarded against a county. The court may award reasonable attorney fees, damages and all fees associated with the license application to a party that prevails in an action against a county for a violation of this section.
- F. A county employee may not intentionally or knowingly violate this section. A violation of this section is cause for disciplinary action or dismissal pursuant to the county's adopted personnel policy.
- G. This section does not abrogate the immunity provided by section 12-820.01 or 12-820.02.



TYPICAL APPROVAL PROCESS FOR A CONVENTIONAL ONSITE WASTEWATER TREATMENT FACILITY

1. **Submit Phase I application** Include all supporting documentation and applicable fees. The property owner or their agent can do this. A permit/tracking number will be issued. The permit/tracking number identifies the project. The number is used for rapid access to the file for: inquires, information, status, a voice mail message or when requesting inspections.
2. **Identify** the site by posting a sign at the entrance to the property. To make as easy to find the site the sign should be a minimum of 3' square with 4"-6" lettering. The lettering must state the owner's name, street address if available, and the permit/tracking number provided at Phase I application.
3. **Boldly** mark the property corners, proposed house corners and, if applicable, well sites.
4. **Prepare** three 12' deep test holes. Two (2) in the proposed primary disposal area and one (1) in the reserve area. Instruction for the preparation of test holes for evaluation are in the Site Investigation Packet.
5. **Inspection** request for the test holes is done by calling MCESD at 602-506-1787 Have the permit/tracking number and address available and be sure to leave any special instructions or requests e.g. call to meet at site, gate code, etc.
6. **Site and soil** evaluations are conducted by MCESD to establish the soil absorption rate (SAR). The SAR is used when designing and sizing the onsite system. The evaluation also includes a physical description of site. The inspector will leave a yellow tag at the site when finished.
7. **Property owner** is notified by MCESD of the SAR and any other limiting conditions at the site relating to the selection, design, and layout of the onsite system.
8. **Property owner** uses the information provided to select, design, and layout the septic tank and disposal areas on 2 site plans.
9. **Submit Phase II (NOID) application--signed by the property owner.** Include all supporting documentation and applicable fees. The same permit/tracking number remains with the same project.
10. **Review** of the NOID packet in accordance to applicable rules and regulations is done by MCESD.
11. **A Construction Authorization** is issued by MCESD for the installation of the onsite system, citing any required stipulations. MCESD will release P&D Building Permit number, if applicable.
12. **Notification** of the owner by phone, fax or e-mail when the Construction Authorization is ready to be picked up at the office.
13. **A contractor**, licensed by the State of Arizona, installs the tank and disposal system according to approved plans.
14. **Submit** Request for Discharge Authorization (Yellow Form) for final inspection.
15. **Final inspection** by MCESD is to verify the installation has been done as described in the Construction Authorization, the water tightness test on the tank and open trench inspection
16. **Approved construction** inspection results in a White Tag placed at the site.
17. **Disapproved** construction inspection results in a Red Tag placed at the site.
18. **Corrections** or deficiencies are completed by the contractor and a request for a re-inspection is made.
19. **A Discharge Authorization** is issued to the owner by MCESD upon completion of an administrative review.
20. **Operation and Maintenance** by the owner keeps the onsite system in good operational condition for many years.



Maricopa County

Environmental Services Department

TYPES OF CONVENTIONAL ON-SITE WASTEWATER DISPOSAL SYSTEMS

Referenced from R18-9-E302, 4.02 general permit

General Information: Sewage disposal of individual homes that lie outside a public sewer district can be accomplished by on-site wastewater treatment facilities commonly called septic systems. A conventional septic system will consist of two parts: a tank to capture the solids and grease, and a drain field or disposal area to dispose of the liquid. The type of drain field will depend on the soil characteristics and site conditions. The most common type of drain field for disposal of wastewater from septic tanks are trenches, seepage pits, leach beds and chamber technology.

1. **SEEPAGE PITS, R18-9-A312(E)(1):** A seepage pit is a drilled pit, no less than 48" in diameter that is filled with aggregate. The depth of the pit, or pits, is based on the design flow and soil absorption rate (SAR) for that particular site. (Design flow means the daily flow rate a facility is designed to accommodate. See R18-9-10 for further definition). The seepage pit may only be installed in valley-fill sediments in a basin and range alluvial (moved by water) basin. It must also be established that the site satisfies the minimum vertical separation test. Once these criteria have been proven acceptable, the pit must then pass a seepage pit performance test. For a seepage pit to be considered for disposal, the following documentation must be submitted with the NOID:
 - a) A detailed engineered report, prepared by an Arizona-registered Engineer or Geologist, certifying the site has sufficient valley-fill sediments in a basin & range alluvial (moved by water) basin for the seepage pit to perform properly.
 - b) Written test procedures and results from a seepage pit performance test conducted in accordance with R18-9-A310. See R18-9-A312E for more information.
 - c) Site Investigation Report identifying any limiting conditions
 - d) Drill logs, well logs or records from Arizona Department of Water Resources identifying the depth of seasonal high water.
2. **TRENCHES, R18-9-E302(A)(2) and (C)(2):** One or more trenches filled with aggregate. Trenches may be 12" to 36" wide, have a maximum overall depth 5' less than the depth of the test holes and a maximum length of 100'. MCESD highly recommends that trenches over 50' in length be split into two or more trenches of lengths less than 50' to provide a more even distribution of wastewater and better absorption by the soils. Minimum separation between trench edges (undisturbed soil) is twice the effective depth (the distance between the bottom of the distribution pipe and the bottom of the trench) or 5', whichever is greater. See R18-9-A312(D) for more information.
3. **LEACH BED, R18-9-E302(A)(2) and (C)(3):** A shallow disposal field, which is filled with aggregate. The bed width is between 10' and 12' with 2 distribution lines. The maximum overall depth is 60" and the maximum length is 100'. MCESD highly recommends splitting up the system into multiple, shorter beds to provide more suitable distribution of wastewater than one long bed. In calculating the size of the leach bed use the soil absorption rate specified in R18-9-A312(D) for "SAR, Bed."
4. **CHAMBER TECHNOLOGY, R18-9-E302(A)(2) and (C)(4):** This method of disposal uses an ADEQ approved chamber as the filter media rather than aggregate. The chambers are placed in very shallow trenches. All chambers must be installed per Arizona Department of Environmental Quality approved directions.



Maricopa County

Environmental Services Department

SOIL EVALUATION and TESTING BY TYPE OF DISPOSAL SYSTEM

Referenced from R18-9-A310

MCESD Onsite Program technical staff members are qualified and approved to conduct all of the soil evaluations and testing for each type of disposal systems described below. At this time the MCESD staff conducts only the Phase I Investigation and Test Hole Evaluations for trench, chamber and bed disposal.

Site investigations and test hole evaluations conducted by other than MCESD Onsite Program *staff* must be persons who are qualified and approved, to use and submit the ADEQ Site Investigation Report. This form may be obtained at:

<http://www.azdeq.gov/environ/water/permits/download/investigation.pdf>

SITE INVESTIGATION R18-9-A310(C) and (D): A site investigation consists of a visual examination identifying any surface or subsurface limiting site conditions, as stated in R18-9-A310(B), that may interfere with the operation of an on-site wastewater disposal system. The information obtained from a site investigation is used in conjunction with the soil analysis to locate, select and design an on-site wastewater disposal system.

Site investigations conducted by other than MCESD Onsite Program staff must be persons who are qualified and approved to use and submit the ADEQ Site Investigation Report.

TEST HOLE EVALUATION R18-9-A310(C), (D) and (G): More complete Instructions for evaluation of three (3) test holes conducted by the MCESD Onsite Program are on a following page. The evaluation of three (3) test holes will determine the characterization of the soils and will establish a soil absorption rate (SAR) to be used in calculating the size of the septic system. The Aquifer Protection Permit Rule describes the approved methods for determining soil characteristics.

Test hole evaluations and characterization of soils conducted by other than MCESD Onsite Program staff must be persons who are qualified and approved to use and submit the ADEQ Site Investigation Report.

PERCOLATION TESTS R18-9-A310 (F): At this time Percolation Tests are conducted by persons who are qualified and approved to use and submit the ADEQ Site Investigation Report. A percolation test is a water absorption test conducted in the primary disposal (two test holes) and reserve disposal (one test hole) areas. Percolation test hole. The percolation test hole shall be 12"x12" square or 15" round, presoaked with clean water 16 to 24 hours in advance of the actual test as stated in Rule. This test may be used solely or in conjunction with a test hole analysis to determine the soil absorption rate (SAR) to be used in calculating the size of the disposal system. Report in minutes per inch.

SEEPAGE PIT PERFORMANCE TEST R18-9-A310 (G): (The full testing and reporting procedure is on a following page.) At this time Seepage Pit Performance Tests are conducted by persons who are qualified and approved to use and submit the ADEQ Site Investigation Report. The primary and reserve disposal areas must be noted on the site plans. In the primary area only, conduct the test in a hole, a minimum 18" in diameter and at least 30' deep, or to the depth of the proposed seepage pit, whichever is greater. Presoak the hole with clean water to a point 36" below the land surface. Observe as per R18-9-A310(G)(2). Conduct the actual test by refilling the hole with clean water to the same point as for the presoak and measure how far the water level drops in 10-minute increments. The final numbers will represent a soil absorption rate (SAR) to be used in calculating the size and number of seepage pits to be installed at the site. Report in minutes per inch.

R18-9-A310(G). Seepage Pit Performance Testing*

An investigator shall test seepage pits described in R18-9-E302 as follows:

1. Planning and Preparation. The investigator shall:
 - a. Identify primary and reserve disposal areas at the site. A test hole at least 18 inches in diameter shall be drilled in the primary disposal area to the depth of the bottom of the proposed seepage pit, at least 30 feet deep.
 - b. Scarify soil surfaces within the test hole and remove loosened materials from the bottom of the hole.
2. Presoaking procedure. The investigator shall: **(include details with the NOID submittal)**
 - a. Fill the bottom six inches of the test hole with gravel, if necessary, to prevent scouring;
 - b. Fill the test hole with clean water up to three feet below the land surface.
 - c. Observe the decline of the water level in the hole and determine the time in hours and minutes for the water to completely drain away.
 - d. Repeat the procedure if the water drains away in less than four hours. **If the water drains away the second time in less than four hours, then the seepage pit performance test shall be conducted following subsection (G)(3).**
 - e. Add water to the hole and maintain the water at a depth that leaves at least the top three feet of hole exposed to air for at least four more hours if the water drains away in four or more hours;
 - f. Not remove the water from the hole before the seepage pit performance test if there is standing water in the hole after at least 16 hours of presoaking.
3. Conducting the test. The investigator shall: **(include details with the NOID submittal)**
 - a. Fill the test hole with clean water up to three feet below land surface.
 - b. Observe the decline of the water level in the hole and determine and record the vertical distance to the water level from a fixed reference point every 10 minutes. The investigator shall ensure that the method for measuring water level depth is accurate and does not significantly affect the rate of fall of the water level in the test hole.
 - c. Measure the decline of the water level continually until three consecutive 10-minute measurements indicate that the infiltration rates are within 10%. **If measurements indicate that infiltration is not approaching a steady rate or if the rate is close to a numerical limit specified in R18-9-A312(E), an alternate method based on a graphical solution of the test data shall be used to approximate the final stabilized infiltration rate.**
 - d. Submit the seepage pit performance test results to the Department, including:
 - *
 - i. Data, calculations, and findings and all supporting on a form provided by the Department.
 - ii. The log of the test hole indicating lithologic characteristics and points of change; and
 - iii. The location of the test hole on the site investigation map.
 - e. Fill the test hole so that groundwater quality and public safety are not compromised if the seepage pit is drilled elsewhere or if a seepage pit cannot be sited at the location because of unfavorable test results.

*** In addition, MCESD requires that the following items are included with the seepage pit test results:**

1. **The field worksheets recording all procedures in detail.**
2. **Identification on the site plan where the seepage pit performance test(s) were conducted, including measurements to at least two adjoining property lines.**



Steven Goode, REHS, MA, Director
1001 North Central, Ste. 150
Phoenix, AZ 85004

Kevin S. Chadwick, P.E., Division Manager
(602) 506-6666
FAX (602) 506-6925
Web: www.maricopa.gov/EnvSvc/
E-mail: septicquestions@mail.maricopa.gov

(Permit / File #)

Phase I – Site Investigation or Inspection Submittal Checklist

INCOMPLETE APPLICATIONS WILL DELAY THE INVESTIGATION OR INSPECTION PROCESS

An application is required to license or permit an activity regulated though statute, rule, code or ordinance may require inspection(s) at the premises. An inspection report is provided as required by A.R.S. §41-1009; in person, via mail, e-mail, or FAX.

- Completed General application.
- Applicable fees, cash, check, Visa, MasterCard, or American Express due at time of submittal (see fee schedule).
- Vicinity map and detailed driving directions to the site, with distance from nearest paved cross streets. Sample attached.
- Recorded deed with legal description. Parcel number.
- Sewer Availability required for every application (see attached sewer determination sheet)

A permit/file number will be issued and the number will remain the same for all document submissions for this project.

SITE PLANS

Submit Two (2) complete site plans: indicating **north arrow**, scale of 1"=30', 1"=20', or 1"=10'. For larger parcels use appropriate scale to fit parcel on one sheet of paper. Maximum paper size is 24"x36". The location of the test holes for the proposed Onsite system, the structure(s) it serves, and the immediate area may be contained within the dimensions of the parcel drawing or on a separate sheet. Sample Site Plans are attached.

Site Plans shall include:

- Information Block with property owner, site address, permit number, subdivision name and lot number or legal description, and parcel number. See the sample site plan with an example of the information block.
- Indicate distance from at least two adjacent property lines the location of:
 - all 3 test holes - two in the primary disposal area one in the reserve area, minimum 12' deep
 - all easements and setbacks
 - any earth fissures (minimum setback of 100' required)
 - any well and water line from well or meter to building
 - any feature (well, wash, etc.) less than 200' from the proposed site including bordering lots either vacant or built-on which may impact the location of the proposed OSWTF or reserve areas
 - any structures, driveways, washes, and/or drainage easements on the site
- Water Source: Company or City Private Well Shared Well A Recorded Shared Well Agreement with survey OR Affidavit of Agreement to Encroach must be submitted. One of these may be submitted with the Phase I. One of these must be submitted with the Phase II application.
- Location of floodway and floodplain (See attached Floodway/Floodplain instructions)
- Lot split? A recorded survey with legal description of all lots involved in split
- If submitting a later version of any documentation, clearly label as REVISED, indicate the permit/ file number and the date of the revision in the top right corner of the document

This application will expire a) one year from the date of application if there is no activity, or b) one year from Phase I site plan approval

Applicant's Signature _____ Date _____

Maricopa County Environmental Services Department
 Water & Waste Management Division
 (Delegated Authority for ADEQ)
 1001 N Central Ave, Suite 150
 Phoenix, AZ 85004
 Phone: (602) 506-6666
 Fax: (602) 506 6925



GENERAL ONSITE APPLICATION

Web: www.maricopa.gov/EnvSvc/
 E-mail: septicquestions@mail.maricopa.gov

The undersigned hereby requests that the MCESD Water and Waste Management Division conduct the review or inspection selected below at the site named. An inspection report is provided as required by A.R.S. §41-1009; in person, via mail, e-mail, or FAX. Please indicate your preference by checking the boxes below.

- (Check one): **Site Investigation--\$325 per visit**
 Site and Test Hole Inspection--\$325 per visit
 Misc. Review/Reconnect Plan Review, existing permit # _____ --\$205
 Septic System Abandonment/Closure existing permit # _____ --\$175

SITE INFORMATION

Property Address: _____ Maricopa County, AZ _____

If no address has been assigned, leave blank Street Name and Number City (if applicable)

Cross Streets _____ Parcel Number _____ - _____ - _____

Subdivision Name (if applicable): _____ Lot#(s) _____

Legal Description: Section _____ Township _____ Range _____ Acreage _____

Sewer (circle one) **IS / IS NOT** available within 400'
 from the property.

Identified as (check one):

Single Family Residence

Commercial

Type of Establishment: _____

Maximum number of users: _____
 (Customers, employees, members, etc.)

For a Review/Reconnect, indicate reason for request:

Water Service will be provided by (check all that apply):

Water Company—Name _____

Holding Tank

Existing Well ID Number: _____

Proposed/Future Well

Shared? Yes No

MC P/D Tracking # B _____

Site Code: _____

Permit / File #

OWNER AND AGENT INFORMATION

Property Owner Name: _____

Complete Mailing Address: _____ Zip Code: _____

Owner's Phone: (required) _____ Owner's FAX _____ Owner's e-mail _____

Applicant/Agent Name: _____ Attention: _____

Complete Mailing Address: _____ Zip Code: _____

Phone: (required) _____ Applicant/Agent's Fax _____

Mobile: _____ Applicant/Agent's e-mail address _____

APPLICANT ACKNOWLEDGEMENT

I, the undersigned, agree it is my responsibility to comply with all applicable statues, rules, codes, ordinances and regulations for the work requested. Safety is the responsibility of property owner or their agent. **Request for inspection must be called in to the Inspection Request Line at 602-506-1787. To avoid additional inspection fees, be sure to include access information e.g. gate code and/or other special instructions or requests e.g. meet at site.**

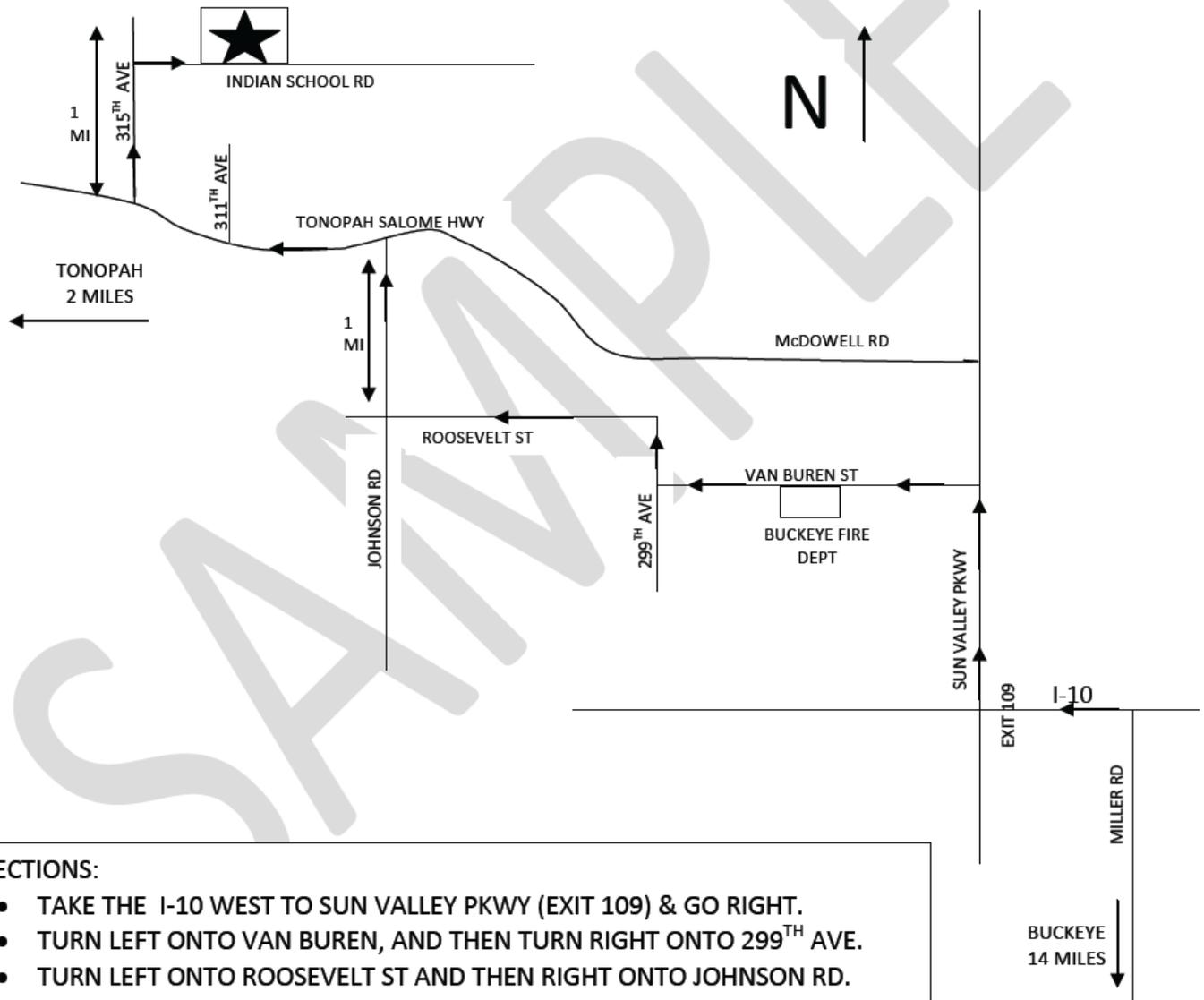
Per Maricopa County Health Code, this application will expire: a) one year from date of application, or b) one year from Phase I site plan approval.

Signature: _____ Date: _____

Amount: \$ _____ Date Issued _____ Issue Status _____ By: _____ Expiration Date: _____

VICINITY MAP WITH WRITTEN DIRECTIONS

**DIRECTIONS TO: 12345 W. INDIAN SCHOOL RD
BUCKEYE, AZ 85326
APN: 504-08-XXX**



DIRECTIONS:

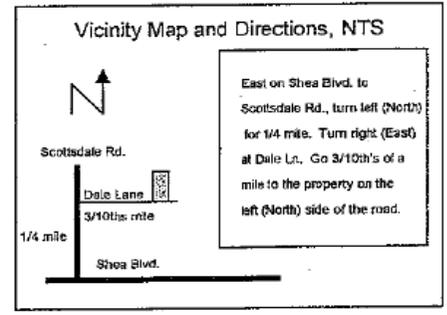
- TAKE THE I-10 WEST TO SUN VALLEY PKWY (EXIT 109) & GO RIGHT.
- TURN LEFT ONTO VAN BUREN, AND THEN TURN RIGHT ONTO 299TH AVE.
- TURN LEFT ONTO ROOSEVELT ST AND THEN RIGHT ONTO JOHNSON RD.
- GO 1 MILE AND TURN LEFT ONTO THE TONOPAH-SALOME HWY.
- GO 1 MILE TO 315TH AVE AND THEN TURN RIGHT ONTO INDIAN SCHOOL RD.
- THE SITE IS THE SECOND ON THE LEFT.
- THE LAST TWO MILES ARE ON DIRT ROAD.

SAMPLE SITE PLAN

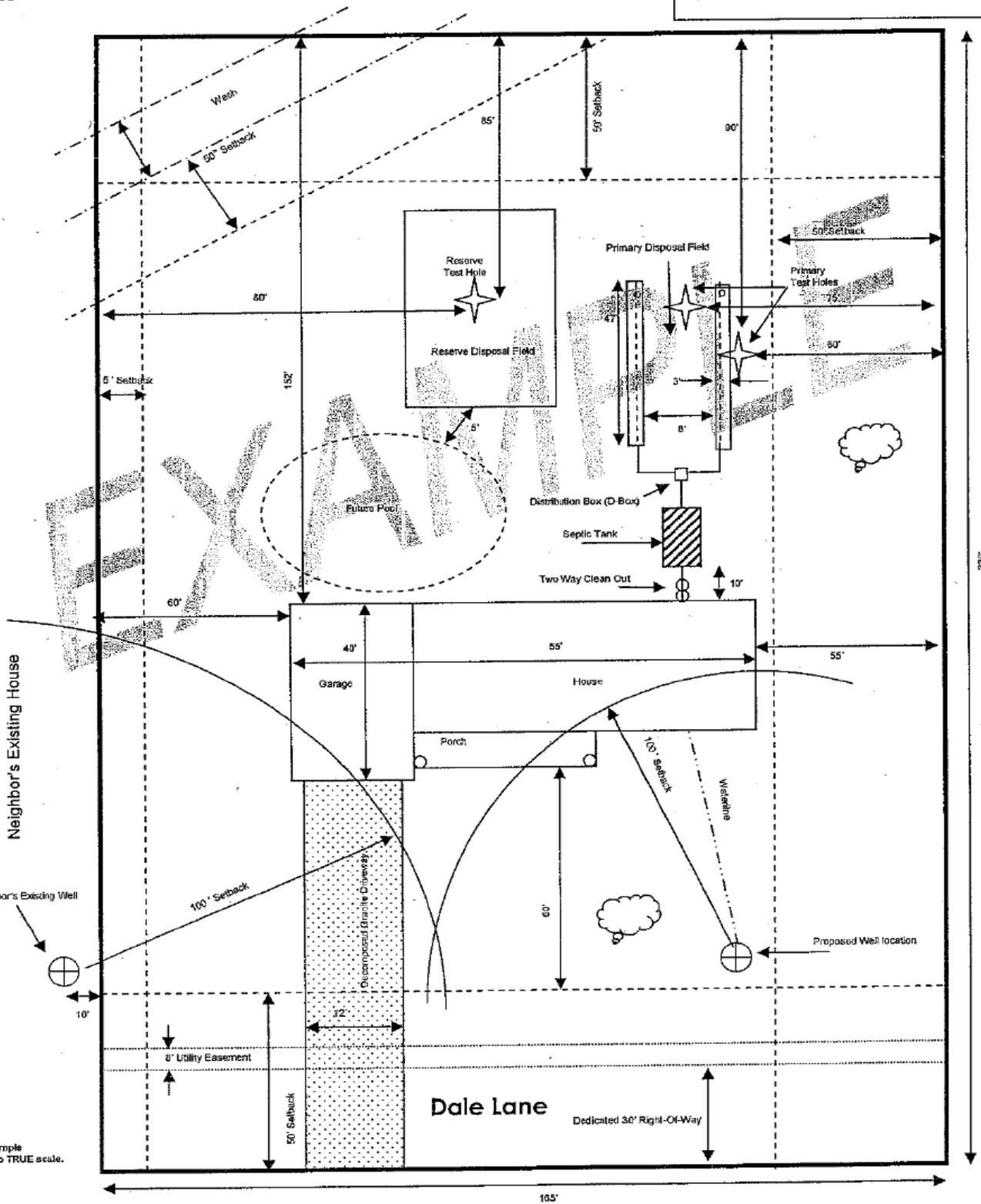
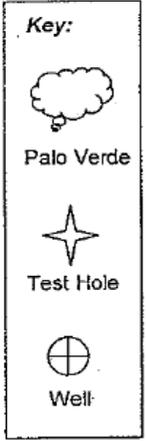
PERMIT/FILE # 00-0000

Owner: John Smith
 Site Address: 11111 E. Dale Lane
 Parcel # 222-22-001B
 Subdivision: Lost Acres, Lot 1023
 Legal Desc: E1/2, NW1/4, NE1/4, NE1/4, SW1/4 of Sec. 10,
 T5N, R4E of the Gila and Salt River Base and Meridian,
 Maricopa County, Arizona

OSWTF Design by: Mary Brown
 Hrn. Ph. # -602-333-5555
 Cell Ph. # - 602-444-9999
 Fax # - 623-546-6666
 Design/Revision Date: 1/1/10



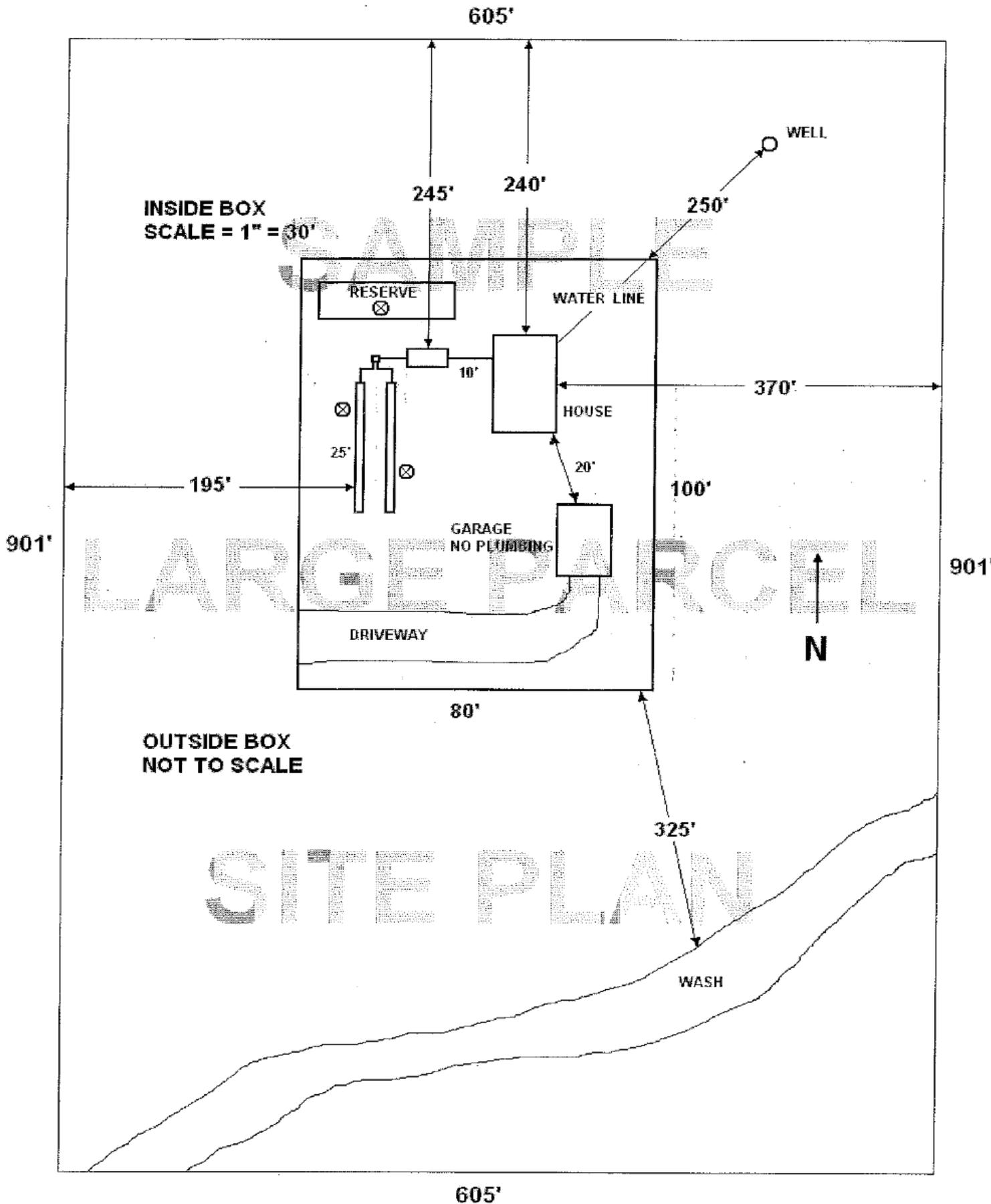
Note: all setbacks are minimums
 *Scale: 1" = 30'



Designed by: **Mary Brown** Date: **01/01/2010**

Vacant Lot

*This Site Plan is for example purposes only, it is not to TRUE scale.





Maricopa County

Environmental Services Department

Water and Waste Management Division
Onsite Program
1001 N. Central Avenue #150
Phoenix, Arizona 85004
Phone: (602) 506-6666
Fax: 602-506-6925
Web: www.maricopa.gov/EnvSvc/
E-mail: septicquestions@mail.maricopa.gov

SEWER DETERMINATION

REQUIRED

- Sewer Determination statement is required if the parcel is within city or town limits.

SUGGESTED

- Applicants living in close approximation to a city or town limits or the boundaries of a sanitary sewer district may want to get the sewer determination statement.
- Sewer Determination statement is suggested if the parcel is a county island within city or town limits.
- Sewer Determination statement is suggested if the parcel is in a sanitary sewer district service area.

OTHER

- During plan review there may be a request for a sewer determination statement on the parcel.

THE ONSITE PROGRAM REQUIRES A SEWER DETERMINATION WITH ALL APPLICATIONS. THIS REQUIREMENT IS TO ASSIST THE APPLICANT/OWNER AVOID DIFFICULTIES WITH A LOCAL SEWER AUTHORITY NOW OR IN THE FUTURE.

Both the Arizona Administrative Code and the Maricopa County Environmental Health Code have provisions where connection to a sewer collection system may be required.

The Maricopa County Environmental Health Code Chapter II, Section 8 Regulation 4 states:

- a. When connection may reasonably and practicably be made to an approved municipal, community, or similar sewerage system.....
- e. ...when an onsite wastewater treatment facility fails, ...

The Arizona Administrative Code R 18-9-A309 A. 5 states:

A person constructing a new on-site wastewater treatment facility or replacing the treatment works or disposal works of an existing on-site wastewater treatment facility shall connect to a sewage collection system **if**:

- a. **One** of the following applies:
 - i. A provision of a Nitrogen Management Area designated under R18-9-A317(C) requires connection;
 - ii. A county, municipal, or sanitary district ordinance requires connection; or
 - iii. The on-site wastewater treatment facility is located within an area identified for connection to a sewage collection system by a Certified Area-wide Water Quality Management Plan adopted under 18 A.A.C. 5 or a master plan adopted by a majority of the elected officials of a board or council for a county, municipality, or sanitary district; **or**
- b. A sewer line extension is available at the property boundary and both of the following apply:
 - i. The service connection fess is not more than \$6000 for a dwelling or \$10 times the daily design flow in gallons for a source other than a dwelling, and
 - ii. The cost of constructing the building sewer from the wastewater source to the service connection is not more the \$3000 for a dwelling or \$5 times the daily design flow for a source other than a dwelling.

NOTE: SOME MUNICIPALITIES HAVE STRINGENT REQUIREMENTS THAT MANDATE CONNECTION TO THE SEWAGE COLLECTION SYSTEM.

TO ASSIST YOU IN SEWER DETERMINATION, MARICOPA COUNTY ENVIRONMENTAL SERVICES IS PROVIDING CONTACTS, PHONE NUMBERS AND E-MAIL ADDRESSES ON THE FOLLOWING PAGE. A STATEMENT FROM THE LOCAL SEWER AUTHORITY INDICATING THEIR DETERMINATION OF CONNECTION OR NO CONNECTION TO THE SEWER IS ADVISED PRIOR TO ANY SUBMITTAL TO THE ENVIRONMENTAL SERVICES DEPARTMENT. MARICOPA COUNTY ENVIRONMENTAL SERVICES MAKES EVERY ATTEMPT TO PROVIDE ACCURATE INFORMATION. CONTACTS, PHONE NUMBERS AND E-MAIL ADDRESSES MAY CHANGE WITHOUT OUR KNOWLEDGE.

If you find errors in this list, please let us know at septicquestions@mail.maricopa.gov. Thank you.

City	Sewer Availability Contact Information	Web/Email Address
AVONDALE	Michael Yracheta, Wastewater Collections Supervisor, 623-333-4414	myracheta@avondale.org
BUCKEYE	Arnold Coronado, Water Distribution Supervisor, 623-349-6104	acoronado@buckeyeaz.gov
CAVE CREEK	Jessica Marlow, PE, Utilities Manager, 480-488-6618,	jmarlow@cavecreek.org
CAREFREE	Black Mountain Sewer Company, 480-488-4152	www.libertywater.com
CHANDLER	Warren White, P.E. Principal Engineer 480-782-3337, fax 480-782-3350	warren.white@chandleraz.gov
EL MIRAGE	Dave Emon, Wastewater Superintendent, 623-876-4251	demon@cityofelmirage.org
GILBERT	Tom Condit, PE, Development Engineer, 480-503-6815	tom.condit@gilbertaz.gov
GLENDALE	Mark Ivanich, Land Development Engineer, 623-930-3654	mivanich@glendaleaz.com
GOODYEAR	Engineering Office: Stephen Scinto or Plan Review Staff, 623-882-3110	gyeng@goodyearaz.gov
MESA	Beth Hughes-Ornelas, 480-644-3254	beth.hughes-ornelas@mesaaz.gov
PARADISE VALLEY	Richard Edwards, Senior Engineering Technician, 480-348-3528	redwards@paradisevalleyaz.gov
	<u>Note: No letter is required for Clearwater Hills Subdivision. No sewer is available.</u>	
PEORIA	Gary Lopez, Plan Review Supervisor, 623-778-7236	engineering.counter@peoriaaz.gov
PHOENIX	Arlene Torres-Guevara, 602-256-4296 or Vern Robins, 602-534-1653 Jesse Flores, 602-256-4149	arlene.torres.guevara@phoenix.gov vern.robins@phoenix.gov jesse.flores@phoenix.gov
QUEEN CREEK	Building Department, 480-987-0496	www.queenecreek.org
SCOTTSDALE	Ron Dolan, Water Resources Engineer, 480-312-5676	rdol@scottsdaleaz.gov
SURPRISE	James P. Shano, Utilities CIP – Division Manager, 623-222-7000	water@surpriseaz.com
TEMPE	Mark Weber, PE, Water Engineering Manager, 480-350-8526	mark_weber@tempe.gov
TOLLESON	David L. Tyler, Superintendent Wastewater Utilities - (623) 478-8722	dtyler@tollesonaz.org
WICKENBURG	Mark Lemon, Chief WWTP/WS/WD Operator, 928-684-5873	wwtp@ci.wickenburg.az.us

**MARICOPA COUNTY ENVIRONMENTAL HEALTH CODE CHAPTER 1
WATER WASTE MANAGEMENT DIVISION-ONSITE WASTEWATER AND WELL PROGRAM
FEE SCHEDULE EXCERPT*** EFFECTIVE AUGUST 1, 2010**

BASE ONSITE FEES

Onsite System Site Inspection	\$325
Onsite Additional Inspection	\$325
*Septic Tank Conventional Disposal, less than 3,000 gal/day	\$550
Onsite System Alteration Permit	\$205
Onsite System Alteration Permit and One Inspection	\$400
Onsite System Reconnect/Remodel Review (Minor Plan Review)	\$205
Onsite System Reconnect/Remodel review with one inspection	\$400
Aerobic System with Surface Disposal	\$1,050
Septic tank with one additional alternative element**	\$1,050
Septic tank with more than one additional alternative element**	\$1,050
each additional alternative element	\$250
Onsite System Design Requiring Interceptor	\$200 per interceptor
Onsite Facility with flow from 3,000 to less than 24,000 gal/day	\$1,800
Composting Toilet, less than 3,000 gal/day	\$400
Onsite System Abandon Site	\$175

DOMESTIC WELL APPROVAL

Domestic Well Location Approval (ADWR Form)	\$175
Domestic Well: drill, deepen, replace or modify - no inspection	\$175

REVIEW AND COMPARISON OF REVISIONS TO APPROVED CONSTRUCTION OR DISCHARGE AUTHORIZATION

Onsite System Plan Revision	\$205
Planning and Development Plan Review	\$80

REQUEST FOR CHANGE PERMITTED BY RULE

Onsite System Request for Alternate Design, Installation or Operational Feature (A 312 G)	\$75
--	------

TRANSFER OF OWNERSHIP

Onsite System Transfer of Ownership	\$50
-------------------------------------	------

OPERATING PERMIT FOR OPERATION AND MAINTENANCE RECORD REVIEW AND SYSTEM INSPECTION

Individual Onsite Treatment Plant Operating Permit (Alternative Systems)	\$100 per year
--	----------------

INVESTIGATION

Investigation: Onsite	\$130 per hour
-----------------------	----------------

EXPEDITED PLAN REVIEW

Expedited Plan Review Fees are twice the fee for that category Expedited Plan Reviews require prior Program Management Approval
--

* Gravity fed trenches, seepage pits, leach beds or chambers. Includes up to three (3) plan reviews and three (3) construction inspections.

** These alternative disposal elements are for all systems of less than 3,000 gal/day and include: pressure distribution, gravelless trenches, natural seal evapotranspiration beds, Wisconsin Mounds, engineered pad, intermittent sand filters, peat filters, Ruck® Systems, sewage vaults, aerobic systems with surface or with subsurface disposal, cap systems, constructed wetlands, sand lined trenches, disinfection devices, sequencing batch reactors, and subsurface drip irrigation systems.

***To see the entire fee schedule go to: www.maricopa.gov/envsvc

QUESTIONS REGARDING THESE FEES CONTACT MCESD, WWMD 602-506-6666



FLOODWAYS AND FLOOD PLAINS

The Arizona Aquifer Protection Permit Program (Rule) and the Maricopa County Environmental Health Code (Code) have regulations on where an Onsite Wastewater Treatment Facility, commonly known as a Septic System, can be installed.

It is important to determine if your parcel is in a floodway or floodplain.

Each submittal for a permit to install a septic system must identify all washes, drainage easements, floodway and flood plain boundaries. In some instances Grading and Drainage plans may be required.

No permit for an Onsite Wastewater Treatment Facility will be issued if the proposed structures are in the floodway.

A permit **may** be issued for an Onsite Wastewater Treatment Facility on the parcel if: 1) a flood plain use permit is approved by the Maricopa County Flood Control Department, 2) allowed by cities and towns that conduct their own floodplain management, and 3) the installation will meet all setbacks established by Rule and Code.

The cities and towns that conduct their own floodplain management are: Avondale, Gilbert, Glendale, Goodyear, Peoria, Phoenix, Scottsdale, Tempe and Youngstown. They should be consulted for floodway and floodplain issues for your parcel.

In unincorporated Maricopa County or in cities and towns that do not conduct their own floodplain management, go to the website below or call 602-506-1501 to determine if the parcel is in a floodway or floodplain:

<http://www.fcd.maricopa.gov>

This opens the Flood Control home page.

1. Click on MAPS tab located on the upper task bar to the right of the Flood Control Seal
2. Click on the View Current 100-Year FEMA Effective and Preliminary Flood Plain Maps
3. Click OK on the disclaimer page
4. A large map page will open
5. Click on Search by...on the top task bar
6. The parcel search page will open
7. Enter the parcel number and click on zoom to
8. On the next page on the right side click yes on Highlight Parcel
9. If there are blue, red or purple areas shown they note floodplains or floodways
10. On the top task bar, to the left of search by is the print icon-click, print and include it in the submission package

SETBACK DISTANCE CHART

The design of the On-Site Wastewater Treatment Facility shall comply with the setbacks indicated below.

Features Requiring Setbacks	Setback For An On-Site Wastewater Treatment Facility, Including Reserve Area (In Feet)	Special Provisions
1. Building	10	Includes porches, decks, and steps (covered or uncovered), breezeways, roofed patios, carports, covered walks, and similar structures and appurtenances.
2. Property line shared with any adjoining lot or parcel not served by a common drinking water system* or an existing drinking water well	50	<p>A person may reduce the setback to a minimum of 5 feet from the property line if:</p> <ul style="list-style-type: none"> a. The owners of any affected undeveloped adjacent properties agree, as evidenced by an appropriately recorded document, to limit the location of any new well on their property to at least 100 feet from the proposed treatment works and primary and reserve disposal works; and b. The arrangements and documentation are approved by the Department. <p>* A "common drinking water system" means a system that currently serves or is under legal obligation to serve the property and may include a drinking water utility, a well-sharing agreement, or other viable water supply agreement.</p>
3. All other property lines.	5	None
4. Public or private water supply well.	100	None
5. Perennial or intermittent stream	100	Measured horizontally from the high water line of the peak streamflow from a 10-year, 24-hour rainfall event.
6. Lake, reservoir, or canal	100	Measured horizontally from the high water line from a 10-year, 24-hour rainfall event at the lake or reservoir.
7. Drinking water intake from a surface water source (includes an open water body, downslope spring or a well tapping streamside saturated alluvium)	200	Measured horizontally from the on-site wastewater treatment facility to the structure or mechanism for withdrawing raw water such as a pipe inlet, grate, pump, intake or diversion box, spring box, well, or similar structure.
8. Wash or drainage easement with a drainage area more than 20 acres	50	Measured horizontally from the nearest edge of the defined natural channel bank or drainage easement boundary. A person may reduce the setback to 25 feet if natural or constructed erosion protection is approved by the appropriate floodplain administrator.
9. Water main or branch water line	10	None

10. Domestic service water line	5	<p>Measured horizontally between the water line and the wastewater pipe, except that the following are allowed:</p> <ul style="list-style-type: none"> a. A water line may cross above a wastewater pipe if the crossing angle is between 45 and 90 degrees and the vertical separation distance is 1 foot or more. b. A water line may parallel a wastewater pipe with a horizontal separation distance of 1 foot to 5 feet if the bottom of the water line is 1 foot or more above the top of the wastewater pipe and is in a separate trench or on a bench in the same trench.
<p>11. Downslopes or cut banks greater than 15 percent, culverts, and ditches from:</p> <ul style="list-style-type: none"> a. Treatment works components b. Trench, bed, chamber technology, or gravelless trench with: <ul style="list-style-type: none"> i. No limiting subsurface condition specified in R18-9-A310(D)(2), ii. A limiting subsurface condition. c. Subsurface drip lines. 	<p>10</p> <p>20</p> <p>50</p> <p>3</p>	<p>Measured horizontally from the bottom of the treatment works component to the closest point of daylighting on the surface.</p> <p>Measured horizontally from the bottom of the lowest point of the disposal pipe or drip lines, as applicable, to the closest point of daylighting on the surface.</p> <p>Measured horizontally from the bottom of the lowest point of the disposal pipe or drip lines, as applicable, to the closest point of daylighting on the surface.</p>
12. Driveway	5	<p>Measured horizontally to the nearest edge of an on-site wastewater treatment facility excavation. A person may place a properly reinforced and protected wastewater treatment facility, except for disposal works, at any location relative to a driveway if access openings, risers, and covers carry the design load and are protected from inflow.</p>
13. Swimming pool excavation	5	<p>Except if soil loading or stability concerns indicate the need for a greater separation distance.</p>
14. Easement (except drainage easement)	5	None
15. Earth fissures	100	None

Test Hole Instructions for Phase I Soil Evaluation

NOTE: For site investigations and test hole evaluations conducted by persons other than MCESD staff, use the ADEQ Site Investigation Report. This form may be obtained at:

<http://www.azdeq.gov/environ/water/permits/download/investigation.pdf>

- **IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER AND THEIR CONTRACTOR FOR KEEPING THE CONSTRUCTION SITE SAFE**

To keep humans and animals from harm: stake-off, secure, and protect the test holes and test hole area with caution ribbon, flags, wood planks, plywood, chain link fencing or any similar material which can be easily removed for the soil evaluation inspection and easily replaced when the inspection has been completed.

- Post a sign at the entrance to the property, minimum of 3' square with 4"-6" lettering. The lettering must state the septic permit number, the owner's name, the parcel number and street address if available.
- Excavate or contract to have three test holes 12' deep excavated on the site, two located in the proposed primary disposal area and one located in the proposed reserve disposal area. The test holes must be 5' deeper than the proposed overall depth of the disposal field but with a minimum 12' overall depth of each test hole. Stockpile the tailings from each of the test holes in two separate piles. The top ½ of the excavation must be placed closest to the hole and the bottom ½ of the excavation must be placed farthest from the hole, a total of six stockpiles. Mark each stockpile to indicate at what depth the material was excavated. Test holes should not be drilled.
- If test holes have not been excavated to a minimum of 12' and at least 5' deeper than the proposed overall depth of the disposal field, the effective depth for disposal will be limited and will increase the size of the disposal area. **ADDITIONAL TESTING AND FEES WILL BE REQUIRED** if the test holes must be re-inspected after additional excavation to the minimum depth because lot size or physical characteristics that restrict the usable area for primary and reserve disposal areas. Re-inspection will delay the approval process.
- If you encounter water or refusal, contact this office for further instructions.
- Clearly stake the corners of the property with markers that can be seen from the proposed disposal areas.
- Clearly stake corners of the proposed structure(s). Stake-off, secure, and protect the test hole area with caution ribbon, flags, wood planks, plywood, chain link fencing or any similar material which can be easily removed for the inspection and will keep animals or humans from harm.
- If required, stake the proposed well site with a marker that can be seen from the proposed disposal areas.
- When ready for inspection call 602-506-1787 record your request for an inspection. Have the permit number and address ready.
- If you have questions or need other assistance call 602-506-6616.