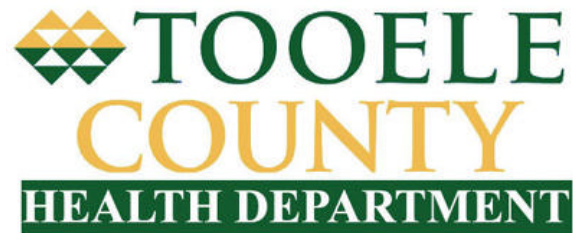


HEALTH REGULATION # 5
INDIVIDUAL WATER SYSTEMS



Adopted by the Tooele County Board of Health

March 13, 1997

Revisions made and adopted January 4, 2001

Under Authority of Section 26A-1-121
Utah Code Annotated, 1953, as amended

Certified Official Copy
Tooele County Health Department

By: _____
Director

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**TOOELE COUNTY HEALTH DEPARTMENT
REGULATIONS FOR INDIVIDUAL WATER SYSTEMS**

1.0 DEFINITIONS

As used in these regulations:

- 1.1 "Aquifer" means an underground formation that contains and transmits groundwater.
- 1.2 "Concentrated Sources of Pollution" means sources that include, but are not limited to septic tanks, drain field systems, drain lines, ordinary sewer lines, garbage dumps, pit privies, hazardous waste disposal systems and corrals.
- 1.3 "Grouted Well" means a well that has the following construction: The annular space between the drilled hole and the well casing shall be grouted or otherwise sealed to eliminate water of questionable quality from seeping alongside the casing into the water bearing aquifer. Such grouting shall be at least two inches thick, and extend a minimum of 100 feet below the surface, or into an effective geologic seal. The well casing shall extend to an elevation greater than the maximum flood water elevation, but not less than 18 inches above the surrounding ground. However, casings terminated in underground vaults may be permitted on a case-by-case basis.
- 1.4 "Department" means the Tooele County Health Department.
- 1.5 "Director" means the director/health officer of the Tooele County Health Department or authorized representative.
- 1.6 "Individual Wastewater and Drinking Water Permit" means a permit to construct an individual underground wastewater disposal system and has an approved on-site supply of potable water.
- 1.7 "Individual Water System" means any potable water system of one to 14 connections and which is not subject to the regulations of the Utah Drinking Water Board.

- 1.8 "Owner" means any person who alone, jointly or severally with others:
- a. has legal title to any premises, dwelling, or dwelling unit, with or without accompanying actual possession thereof, or
 - b. has charge, care, or control of any premises, dwelling, or dwelling unit, as legal or equitable owner, agent of the owner, lessee, or is an executor, administrator, trustee, or guardian of the estate of the owner.
- 1.9 "Person" means any individual, public or private corporation and its officers, partnership, association, firm, trustee, executor of an estate, the state or its departments, institution, bureau, agency, county, city, political subdivision, or any legal entity recognized by law.
- 1.10 "Pollution" means such contamination or other alteration of the physical, chemical or biological properties of any waters of the state or such discharge of any liquid, gaseous or solid substance into any waters of the state as will create a nuisance or render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.
- 1.11 "Potable Water" means water which is satisfactory for drinking, culinary, and domestic purposes and meets the requirements stated in these rules.
- 1.12 "Public Water System" means a potable water system subject to the jurisdiction of the Utah Drinking Water Board. As currently defined by the Division of Drinking Water, a public water system is a system either publicly or privately owned, providing water for human consumption and other domestic use, which:
- a. has at least 15 service connections, or
 - b. serves an average of at least 25 individuals daily at least 60 days out of the year.
- 1.13 "Recreational Property" means property that is primarily intended for recreational use and is not occupied on a year-round basis.
- 1.14 "Satisfactory Bacteriologic Sample" means a water sample that tests negative for coliform organisms. Samples shall be tested by a laboratory certified by the Utah State Department of Health.
- 1.15 "Shall" means a mandatory term.
- 1.16 "Ungrouned Well" means a well that does not meet the criteria for a grouted well as defined in 1.3.
- 1.17 "Spring" means a water source issuing from the ground that is fed by precipitation that travels from a higher elevation through natural soil.

- 1.18 "Well" means any excavation that is drilled, cored, bored, driven, dug, fitted, or otherwise constructed and the intended use of the excavation is to acquire groundwater.

2.0 PURPOSE

It is the purpose of these regulations to control the construction, location and use of individual water systems within the department ' s jurisdiction to:

- 2.1 protect and promote the public health, safety and welfare;
- 2.2 prevent damage to property;
- 2.3 prevent the spread of disease;
- 2.4 prevent the creation of nuisances; and
- 2.5 prevent water pollution.

3.0 GENERAL POWERS AND DUTIES

The department, by the director, shall be responsible for the administration of these rules and regulations and any other powers vested in it by law and shall:

- 3.1 require the submission of reports, plans and specifications for any use of individual water systems as necessary to implement the provision, requirements, and standards of these rules;
- 3.2 issue permits and charge fees as necessary to implement the provisions, requirements and standards of these rules;
- 3.3 make inspections of public or private property and issue orders as necessary to effect the purposes of these rules;
- 3.4 take samples and make analysis of soils, waters and other materials as necessary to effect the purposes of these rules;
- 3.5 review and comment on any proposed contract or agreement between any districts, city, county, governmental unit, or person for the use of individual water systems within the jurisdiction of the department; and
- 3.6 do any and all acts permitted by law that are necessary for the successful enforcement of these regulations.

4.0 EMERGENCY ORDER

- 4.1 If the department finds that an emergency exists requiring immediate action to protect the public ' s health, safety or well-being, the director may issue an order declaring the

existence of an emergency and requiring that remedial action be taken. The order shall be effective immediately. Upon application to the department, the recipient of the order shall be granted a hearing before the director within 48 hours. On the basis of the hearing, and not more than 24 hours after the adjournment of the hearing, the director shall continue, modify or revoke the order.

5.0 APPROVED POTABLE WATER SUPPLY REQUIRED

- 5.1 No person shall occupy, lease or permit the occupancy of any building or structure within the jurisdiction of the Tooele County Health Department, and no individual wastewater and drinking water permit shall be issued for a property:
- a. unless the building, structure or property is connected to a public water system and documentation is provided stating that the public water system agrees to provide the connection;
 - b. unless the building or structure is properly equipped with an individual water system that is in compliance with the rules stated herein; or
 - c. unless a variance from the rules specified in Sections 5.1(a) and 5.1(b) is granted by the director, but only for existing parcels of land that are recreational in nature and have no year-round maintained road access, or as a temporary means of providing culinary water in an emergency. Variances will be considered on a case-by-case basis in consultation with the local jurisdiction, city or county. Where water hauling is allowed, water must be hauled from a source and in a manner approved by the department and in accordance with the local jurisdiction. Water hauling will not be allowed for new platted subdivisions.
- 5.2 Proposed subdivisions shall have an adequate and safe water supply throughout the subdivision.
- a. When a public water supply is available, the subdivider shall provide the piped, public water supply to the property line of every lot in any subdivision. The water system shall meet all applicable state and local laws.
 - b. The supply of water from a source other than an approved public water system may be approved only if proof of adequate water rights and proof of water availability, flow and quality meeting the Safe Drinking Water Standards by a water sample from wells on ten percent of the lots rounded up to the next whole number. The department shall approve the location of the test wells prior to the subdivider drilling them. The samples shall be taken by, and have a complete chemical analysis performed and approved by the department

6.0 PLAN APPROVAL FOR INDIVIDUAL SYSTEMS

6.1 All information necessary for approval of an individual water system shall be submitted to the department. This information shall include, but is not limited to:

- a. a chemical analysis of the water that meets the following requirements, which are the maximum contaminant levels for inorganic chemicals that the department will allow in individual water supplies:

<u>CONTAMINANT</u>	<u>MAXIMUM CONTAMINANT LIMIT (mg/l)</u>
Arsenic	0.010
Barium	2.0
Cadmium	0.005
Chromium	0.1
Fluoride	4.0
Lead	0.15
Mercury	0.002
Nitrate (as N)	10.0
Nitrite	1.0
Selenium	0.05
Silver	0.05
Sulfate	1000.
Total Dissolved Solids	2000.
*Chloride	
*Ph.	
*Sodium	
Turbidity	**5NTU

*No maximum contaminant limit, but must monitor

**Nephelometric Turbidity Unit

- b. chemical analysis must be within two years from date requesting plan approval
- c. a satisfactory bacteriological sample taken from the water system within the last six months;

- d. a copy of the "Report of Well Driller" and evidence of a valid water right, in accordance with Section 11.0;
- e. a property map drawn to scale showing the site of the well or spring, established protection zone, and any existing or proposed individual wastewater system within 200 feet of the individual water system; and
- f. other plans and specifications that may be required by Section 11.0.

7.0 GENERAL REQUIREMENTS FOR APPROVED WELLS

- 7.1 All wells shall be constructed and maintained.
- 7.2 The well driller and drilling procedure shall meet the requirements of the Utah State Division of Water Rights.
- 7.3 Water not meeting the requirements of the Utah Division of Drinking Water shall not be introduced into a well during the drilling operation.
- 7.4 After drilling is completed, the well shall be pumped free of all mud and sand and then disinfected by the introduction of sufficient chlorine solution into the well to produce a chlorine residual of at least 50 mg. per liter. After the chlorine solution has remained in the well for at least twenty-four hours it shall be pumped out and the well water tested for bacteriological purity. Chlorine solution must not be discharged to any waterways unless the chlorine solution is first neutralized. Alternative methods of disinfection may be approved by the department.
- 7.5 The well casing shall be extended at least 18 inches above the surrounding ground surface elevation unless an approved pitless adaptor is used or the department approves an alternative method per Section 1.3.
- 7.6 All wells must be grouted as specified in Section 1.3.

8.0 PROTECTION ZONES

To ensure that protection is available for potable well water from concentrated sources of chemical or biological pollution, minimum allowable separation distances between the water and pollution sources are given in these regulations, Section 9.0. In addition, the water supplier shall either own the protection zone and not locate or permit concentrated sources of pollution within it; or, if the water supplier does not own the land in question, he shall obtain a land use agreement with the owner of the land by which the land owner agrees not to locate or permit concentrated sources of

pollution within the protection zone. In all cases, the restrictions shall be binding on all heirs, successors, and assigns. The land use agreement must be notarized and recorded with the appropriate county recorder.

9.0 APPROVED GROUTED WELLS

- 9.1 A grouted well shall be isolated from concentrated sources of pollution for a distance of at least 100 horizontal feet from the well head, except as allowed by Section 9.2.
- 9.2 The director/health officer, at his discretion, may permit specially constructed sewer lines to be located within the protection zone no less than ten feet from the well head.

10.0 APPROVED SPRINGS

- 10.1 Required Information for Submission Before Spring Development. Before commencement of construction of spring development or improvements the following information shall be submitted to and approved in writing by the director:
- a. detailed plans and specifications covering the development work;
 - b. a copy of an engineer's statement indicating the measured or anticipated flow from the spring source;
 - c. a copy of documentation indicating the water system owner's right to divert water for potable purposes from the spring source;
 - d. a copy of the complete chemical analysis performed by a State of Utah certified laboratory on water issuing from the spring;
 - e. a location map showing land ownership and location of all devices within the area that could concentrate pollution sources;
 - f. a copy of documentation indicating ability to protect the lands adjacent to the spring, as in Section 8.0 and
 - g. other information or tests required by the director.
- 10.2 Required Information for Submission After Spring Development. The spring water shall be introduced into an individual water system only after it has been approved, in writing, for such use by the director. Approval shall be given only if the following information has been submitted to the department and the director has determined that the water is and can be reasonably expected to remain satisfactory quality:
- a. proof of satisfactory bacteriological quality;
 - b. proof of chemical analysis as defined in Section 6.1 (a);
 - c. information on the rate of flow developed from the spring;
 - d. as-built plans of spring development; and

- e. other information required by the director.

10.3 Protection Zone for Spring Areas.

- a. All land at elevations equal to or higher than and within 200 feet horizontally in all directions from the spring source shall be protected against concentrated sources of pollution.
- b. All land at an elevation lower than and within 100 feet horizontal to the spring source shall be protected against concentrated sources of pollution.
- c. To ensure that protection is available, the water supplier shall do one of the following, and the restrictions shall be binding on all heirs, successors, and assigns:
 - 1. own the protection zone and agree not to locate or permit a concentrated source of pollution within it, or
 - 2. if the water supplier does not own the land in question, achieve a land use agreement with the owner of the land by which the land owner agrees not to locate nor permit a concentrated source of pollution within the protection zone. Such land use agreements must be binding on all heirs, successors, and assigns. The agreement must be notarized and recorded with the appropriate county recorder.

10.4 Spring Development. The development of a spring to serve four or more dwellings for potable purposes shall comply with the following:

- a. The spring collection device, whether it be collection tile, infiltration boxes, or tunnels shall be covered with a minimum of ten feet of relatively impervious soil cover, except as allowed in Section 10.4(b). Such cover shall extend a minimum of 15 feet in all directions horizontally from the spring collection device.
- b. If it is impossible to achieve the ten feet of relatively impervious soil cover, the director may approve the use of an impermeable liner that is acceptable for contact with potable water. The liner and liner installation shall meet the requirements of the Division of Drinking Water.
- c. Each spring collection area shall be provided with at least one access box to permit spring inspection and testing.
- d. All access boxes or collection boxes shall substantially comply with Utah Division of Drinking Water requirements concerning access manholes, air vents, and overflow piping. All lids for spring boxes shall have a gasket and the chamber adequately vented.
- e. The spring collection area shall be surrounded by a fence located approximately 50 feet from all collection devices on the land at an elevation equal to or higher than the collection device and 15 feet from the collection device, with allowances for adapting the fence to the natural terrain. The elevation datum to be

used is the surface elevation at the point of collection. The fence shall be at least stock tight. In remote areas where no grazing or public access is possible, the fencing requirements may be waived by the director. In populated areas, a six foot high fence with three strands of barbed wire may be required.

- f. All vegetation that has a deep root system shall be removed.
- g. A diversion channel capable of diverting all anticipated surface water runoff away from the spring area shall be constructed and located immediately inside the fenced area, unless another location or design is approved in writing by the director.
- h. The spring shall be developed as thoroughly as possible to minimize the possibility of excess spring water ponding within the collection area. If the ponding of spring water is unavoidable, the excess shall be collected by shallow piping or french drain and routed beyond the immediate collection area.

11.0 QUANTITY AND CONSTRUCTION REQUIREMENTS

- 11.1 Evidence of Water Rights. Where an individual water system is proposed as a water supply, evidence of a valid water right, as issued by the Division of Water Rights, shall be provided to the department.
- 11.2 Connection to Previously Existing System. Where it is proposed to connect to a previously existing individual water system, evidence shall be submitted to the director that the water system is a satisfactory source of water and evidence shall also be submitted that the owners of the water system agrees to allow the connection to the system and evidence that water rights are sufficient for more than one connection.
- 11.3 Fire Flows. Fire flow requirements shall be established by the local jurisdiction for a given water system. Once fire flow requirements are established by the local jurisdiction, the overall water system shall be designed and engineered to meet the prescribed fire flow requirements in addition to the indoor and outdoor use requirements, in accordance with the Utah Division of Drinking Water regulations. The minimum water main diameter for a system with fire hydrants shall be six inches.
- 11.4 Compliance with Plumbing Code. The construction of individual water systems shall be in compliance with the current plumbing code as adopted by the State of Utah and/or the local jurisdiction.
- 11.5 Compliance with Division of Drinking Water. The distribution system for individual water systems with five or more connections shall be constructed in accordance with the Division of Drinking Water regulations.

11.6 Water Storage Requirements.

a. Water storage amounts for indoor use for individual water systems shall be:

<u>Number of Connections</u>	<u>Required Storage for Indoor Use</u>
1 to 4 connections	No requirements
5 to 14 connections	400 gallons per connection

b. Water storage amounts for outside use for individual water systems serving five connections or more shall be calculated in accordance with the Utah Division of Drinking Water regulations governing water storage requirements for outside use.

c. Water storage requirements for fire flows shall be determined by the local jurisdiction, and shall be included in the total storage amount.

d. The total water storage requirements will be the sum of the indoor use requirement, the outdoor use requirement, and the fire flow requirement. Water storage shall be in compliance with the Utah Division of Drinking Water regulations governing water storage and water storage reservoirs shall be constructed in accordance with the Utah Division of Drinking Water regulations governing water storage.

11.7 Pressure Requirements. For individual water systems of five connections or more, the distribution system shall be designed to maintain a minimum pressure of 20 pounds per square inch at ground level at all points of connection to the distribution system during peak instantaneous flow conditions. Peak instantaneous flow conditions are defined as the sum of the peak flows for indoor use, outdoor use, and fire flow requirements in accordance with the Utah Division of Drinking Water regulations.

12.0 NOTICE

12.1 Department to Notify Owner of Violations. If the director inspects any property and finds it to be in violation of these rules, or has reasonable grounds to believe that there has been a violation of any part of these regulations, the director shall give notice of violation of any part of these rules to the owner or other responsible person.

12.2 Department to Issue Written Notice of Violations. Prior to initiating a court complaint for the violation of these regulations, the director shall issue a notice pursuant to Section 12.1 and shall:

- a. describes the property;
- b. give a statement of the cause for its issuance;
- c. set forth an outline of remedial action necessary to correct violations; and
- d. set a reasonable time for the performance of any required remedial act.

- 12.3 Department to Serve Notice. The department shall serve notice upon the owner of the property or other responsible person. Service shall be deemed complete if the notice is:
- a. served in person;
 - b. sent by certified mail to the last known address of the owner or other responsible person(s); or
 - c. published in a newspaper of general circulation.

13.0 ENFORCEMENT

- 13.1 Department to Ensure Compliance. It shall be the duty of the director, upon the presentation of proper credentials, to make inspections of any property containing an individual water system as is necessary to ensure compliance with these regulations.
- 13.2 Inspection Made With Consent. Departmental inspections may be made with the consent of the owner or other responsible person. If consent is not granted, an inspection may be made pursuant to an administrative search warrant issued by a court of competent jurisdiction based upon probable cause.
- 13.3 Owner(s) May Request a Factual Report of Inspections. The owner(s) of any property may request and shall be provided a report setting forth all facts found that relate to compliance with these rules.

14.0 RIGHT TO APPEAL

- 14.1 Within ten calendar days after the department has given a notice of condemnation, suspension, revocation, notice of violation or notice of any inadequacy to comply with any other requirements of these regulations, any person aggrieved by the action may request in writing a hearing before the department. The hearing shall take place within ten calendar days after notice is served. Any further appeal shall be made to the director personally or to the Board of Health if not otherwise involved in original hearings. A written notice of the director's final determination shall be given within ten calendar days after adjournment of the hearing. The director may sustain, modify, or reverse the action or order.

15.0 PENALTY

- 15.1 Any person who is found guilty of violating any of the provision of these regulations, either by failing to do those acts required herein or by doing a prohibited act, is guilty of a class B misdemeanor. Pursuant to Utah Code Annotated 26A-1-123. If a person is found guilty of a subsequent similar violation within two years, that person is guilty of a class A misdemeanor.

- 15.2 Each day a violation is committed or permitted to continue constitutes a separate violation.
- 15.3 The county attorney may initiate legal action, civil or criminal, requested by the department to abate any condition that exists in violation of these regulations.
- 15.4 In addition to other penalties imposed by a court of competent jurisdiction, any person found guilty of violating any of these regulations shall be liable for all expenses incurred by the department, including but not limited to the costs incurred for sampling and analysis, cleaning and disposal or any other costs incurred in abating the hazard or nuisance.

IN WITNESS WHEREOF, the Tooele County Board of Health has passed, approved and adopted this regulation this ____ day of _____, _____.

ATTEST:

TOOELE COUNTY BOARD OF HEALTH

MYRON E. BATEMAN,
Health Officer

KATHY TAYLOR,
Chairperson