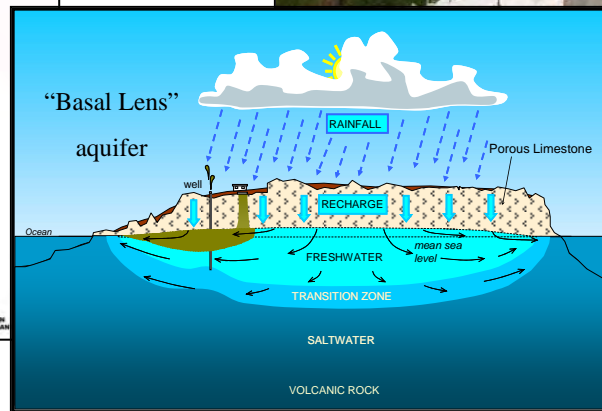
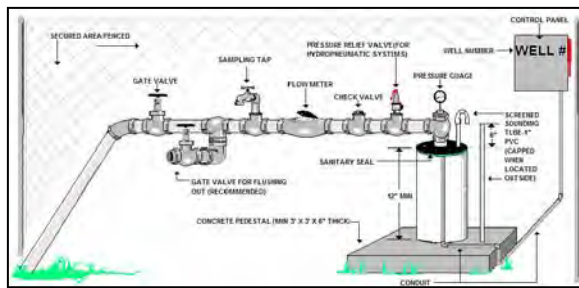




# Well Drilling and Well Operation Regulations



September 2005



# Commonwealth of the Northern Mariana Islands Well Drilling and Well Operation Regulations

## Preface

Under the Commonwealth Groundwater Management and Protection Act of 1988, Public Law 6-12, the Division of Environmental Quality (DEQ) is authorized to (a) permit the siting, design, construction, testing, and repairs or improvements of wells; (b) manage the withdrawal and use of groundwater through well operation permits; and (c) promulgate rules and regulations to implement the Act. All regulations are published in the *Commonwealth Register*.

As of September 2005, well drilling and well operation regulations have been printed in the following *Commonwealth Registers*:

09/15/1992, Vol. 14, No. 09, Page 09704 (Final)  
02/15/1994, Vol. 16, No. 02, Page 11705 (Final)  
10/26/2004, Vol. 26, No. 10, Page 22996 (Proposed)  
12/17/2004, Vol. 26, No. 12, Page 23759 (Final)

## Disclaimer

This document is a compilation of the CNMI Well Drilling and Well Operation Regulations. It has been developed by the CNMI Division of Environmental Quality to provide the public with one document of regulations that is complete, ordered and up-to-date.

The *Commonwealth Register* is the ultimate reference for these regulations. Misprints and typographical errors that may be found in this document do not modify or amend the requirements of the regulations as they appear in the *Commonwealth Register*.

In this document, no attempt was made to correct typographical errors that appeared in the original *Commonwealth Registers*. Amendments shall be made in future rulemakings to revise any such errors found in past *Commonwealth Registers*.

*Editorial note: Text that is in italics, such as this note, is not part of the Commonwealth Register, but is provided for informational purposes only.*

## Availability

An electronic version of this book is available for downloading from the CNMI Division of Environmental Quality website located at: <http://www.deq.gov.mp>

## Credits

The bulk of the typing for this document was performed by Ms. Julie De La Rosa, DEQ Safe Drinking Water Program. Thank you Ms. De La Rosa for laboring over the keyboard to bring a quality product to the people of the CNMI.

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**Section 1. Authority**

These rules and regulations have been promulgated by the Department of Public Health and Environmental Services, in accordance with Public Law 6-12 of the Commonwealth of the Northern Mariana Islands. These rules, regulations, technical provisions, and specifications, to be adopted by the Department of Public Health and Environmental Services as necessary, shall have the force and effect of law, and shall be binding on all persons and other legal entities subject to the jurisdiction of the Commonwealth of the Northern Mariana Islands.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992]*

**Section 2. Purpose**

Whereas the Commonwealth is almost entirely dependant upon groundwater for its drinking water supplies; and whereas the unregulated use of the Commonwealth's groundwater resources threatens the quality and availability of this resource; and whereas the general welfare requires that groundwater resources be put to the highest beneficial use for which they are capable, the purpose of these regulations is to:

- 2.1 Promote the long-term ability of the Commonwealth to provide reliable and potable water to the public;
- 2.2 Establish a water well permitting system designed to monitor and regulate the use of the Commonwealth's groundwater resources;
- 2.3 Codify well drillers' licensing requirements;
- 2.4 Promote the non-degradation and rational utilization of the Commonwealth's groundwater resources;
- 2.5 Promote public awareness of the critical importance of protecting the Commonwealth's groundwater resources from contamination and degradation;
- 2.6 Provide that groundwater resources be put to the highest beneficial use for which they are capable; and,
- 2.7 Protect public health by protecting and enhancing the quality of existing and potential groundwater resources used for human consumptive purposes.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992]*

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**Section 3. Definitions**

- 3.1 “Abandoned Well” is a well whose use has been permanently discontinued or which is in such a state of disrepair that no water can be produced. For the purposes of these regulations, any well that has not reported production for two (2) consecutive years shall be considered abandoned unless otherwise amended by the Chief (also referred to as Plugging and Abandonment).
- 3.2 “Abutter” is a person that owns or leases land adjacent to or directly across a public right-of-way forms a parcel of land in question.
- 3.3 “The Act” means the Commonwealth Groundwater Management and Protection Act of 1988, also known as Public Law 6-12.
- 3.4 “Active Well” is an operating water well or an active monitoring well.
- 3.5 “Annular Space” is the space between the wall of the drilled hole and the outside diameter of the well casing.
- 3.6 “Aquifer” is a geologic formation, group of formations, or part of the formations that is water bearing and which transmits water in sufficient quantity to supply springs and pumping wells.
- 3.7 “Aquifer Test” is a test involving the withdrawal of measured quantities of water from a well and the measurement of resulting changes in water level in the aquifer both during and after the period of discharge or addition (see Pumping Test).
- 3.8 “ASTM” is the American Society for Testing and Materials.
- 3.9 “AWWA” is the American Water Works Association.
- 3.10 “Basal Groundwater Lens” is groundwater floating on sea water.
- 3.11 “Beneficial Use” shall include the use of water reasonably required for domestic, agriculture, commercial, industrial, recreational, and other purposes on both public and private lands. The use of water for domestic purposes is defined as the highest beneficial use of water.
- 3.12 “Bentonite” is a highly plastic colloidal clay composed largely of montmorillonite used as a drilling additive or as a sealant.
- 3.13 “Casing” is a tubular retaining structure which is installed in the well bore to maintain the well opening.
- 3.14 “Chief” means the Chief of the Division of Environmental Quality within the Department of Public Health and Environmental Services.
- 3.15 “Commonwealth” means the Commonwealth of the Northern Mariana Islands (also CNMI).
- 3.16 “Community Water System” is a public water system serving at least 15 service connections or 25 of the same individuals year round.
- 3.17 “Cone of Depression” is a depression in the water table that is in the shape of an inverted cone and develops around a well which is being pumped. The outer edge of the cone of depression defines the Radius of Influence of the pumping well.
- 3.18 “Confined Aquifer” is groundwater under pressure, whose upper surface is the bottom of an impermeable bed.
- 3.19 “Contamination” means the introduction of any physical, chemical, biological, or radiological substance into water which has the potential to pose a threat to human health or the environment or to impede the most beneficial use of water.

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- 3.20 “Department” means the Department of Public Health and Environmental Services, unless otherwise specified.
- 3.21 “Degradation” is change in the quality of water which makes it less suitable for the highest beneficial use.
- 3.22 “Director” means the Director of the Department of Public Health and Environmental Services, or his duly authorized representative, unless otherwise specified.
- 3.23 “Division” means the Division of Environmental Quality (DEQ) unless otherwise specified.
- 3.24 “Drilling Fluid” or “Driller’s Mud” is a fluid composed of water or water and clay used in the drilling operation.
- 3.25 “Drinking Water Quality Standards” as defined and established in the Commonwealth’s Drinking Water Regulations, latest revision.
- 3.26 “Duplex” means a building which is designed exclusively for the occupancy of one family in each of the two units which are attached to each other and separate from other buildings.
- 3.27 “EPA” is the United States Environmental Protection Agency.
- 3.28 “Groundwater” is that part of the subsurface water which is in the zone of saturation.
- 3.29 “Hazardous Material” is any material because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or pose a substantial present or potential hazard to human health or to the environment when improperly contained, stored, transported, processed, handled, manipulated, or otherwise accidentally released into the environment.
- 3.30 “Hazardous Waste” is any waste because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or pose a substantial present or potential hazard to human health or to the environment when improperly collected, contained, stored, transported, processed, recovered, treated, disposed, handled, manipulated, or otherwise accidentally released into the environment. This is inclusive of any waste described or identified as such under either EPA or DEQ regulations.
- 3.31 “Head” is the energy contained in a water mass, produced by elevation, pressure, or velocity.
- 3.32 “High Level (Perched) Groundwater” is groundwater encountered above the general zone of phreatic water and is more or less isolated body groundwater whose position is controlled by structure or stratigraphy.
- 3.33 “Hydraulic Conductivity” is the rate of flow of water in gallons per day through a cross section of one square foot under a unit hydraulic gradient (gpd/sq ft).
- 3.34 “Hydraulic Gradient” is the rate of change in total head per unit of distance of flow in a given direction. For the purposes of these regulations, “upgradient” shall imply the direction from a reference point toward a higher hydraulic grade; and “downgradient” shall imply the direction from a reference point toward a lower hydraulic grade.
- 3.35 “Individual Wastewater Disposal System” means a system designed and installed to dispose of sewage from a single structure or group of structures using a disposal method other than discharge into a public sewer. Such a system may consist of a septic tank, together with a leaching field or seepage pit, or other treatment unit.

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- 3.36 “Leaching Field” means a buried system of perforated pipes, bedded in crushed rock or coral, through which treated or partially treated sewage effluent may seep or leach into the surrounding porous soil.
- 3.37 “Monitoring Well” is a well constructed for the purpose of observing subsurface hydrologic conditions and collecting hydrologic or water quality data, and not for use in extracting water for a beneficial use.
- 3.38 “Non-Community Water System” is a public water system serving at least 25 individual daily at least 60 days out of the year.
- 3.39 “Non-Public Water Supply” means the source(s) of water for any water system not meeting the definition of a Public Water System.
- 3.40 “NWWA” is the National Water Well Association.
- 3.41 “Overpumping” means a groundwater withdrawal rate which causes saltwater intrusion and increases the chloride ion and total dissolved solids concentration in the well water discharge.
- 3.42 “Parabasal Groundwater” is groundwater continuous with basal groundwater, but is not directly in contact with sea water; volcanic formations typically support parabasal groundwater.
- 3.43 “Permeability” is the capacity of a geologic material for transmitting fluid.
- 3.44 “Permit” as used in these regulations shall mean a Well Drilling or a Well Operations permit.
- 3.45 “Person” means any individual, firm, partnership, association, corporation, both public and private; and any entity or agency of the Commonwealth Government of the United States of America.
- 3.46 “Potable Water” means water that is of a quality that meets the requirements of the Commonwealth’s Drinking Water Regulations, latest revisions.
- 3.47 “Public Water Supply” means the source(s) of water for a public water system (see definition of Public Water System).
- 3.48 “Public Water System” means a system for the provision to the public of water through a pipe or pipes, faucet(2), and/or valve(s) for human consumption, if such a system has at least fifteen (15) service connections, or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. Human consumption includes such normal uses as drinking, cooking, bathing, showering, dishwashing, and/or oral hygiene.
- 3.49 “Pumping Test” is a test that is conducted to determine aquifer or well characteristics (see Aquifer Test).
- 3.50 “Recharge Well” or “Injection Well” means a well constructed for the purpose of introducing water or other liquid substances into the ground as a means of replenishing groundwater basins or repelling intrusion of sea water, or of disposing of a liquid waste stream. (See the Commonwealth’s Underground Injection Control Regulations, latest revision, for a more complete definition of an underground injection well.)
- 3.51 “Saltwater Intrusion” means the inland and upward movement of the fresh water – salt water boundary, usually caused by a disruption in the equilibrium of the two water bodies resulting from excessive withdrawal from the basal water lens.
- 3.52 “Seawater Well” means a water well equipped with full well casing down to depth at least 150 feet below sea level. The well screen or open hole portion of the well shall begin at least 150 feet below sea level. “Seawater well” also means any water well with

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- full well casing down to the well screen or open hole portion of the water well, with the screened or open hole portion located within groundwater having a chloride ion concentration of 10,000 ppm (1/2 isochlore) or a conductivity reading of 20,000 umoh's under static (non-pumping) conditions.
- 3.53 "Screen" or "Well Screen" is filtering device used to keep sediments from entering a water well or monitoring well.
- 3.54 "Seepage Pit" means a covered pit with open-jointed or perforated lining through which treated or partially treated sewage effluent may seep or leach into the surrounding soil.
- 3.55 "Sewage" or "Wastewater" means untreated or insufficiently treated human excreta; food wastes disposed of through sewers; wash water; or liquid wastes from residences, commercial buildings, agricultural operations, industrial establishments, or places of assembly.
- 3.56 "Single Family Dwelling" means a building designed exclusively for the occupancy of one family which is detached from any other dwelling or commercial building.
- 3.57 "Significant Well Modification" means any change, replacement, or other alteration of any well, pump, or pumping equipment which involves drilling or redevelopment activities, changing the depth of water withdrawal, or changing the capacity of the well or equipment in order to withdraw more or less water.
- 3.58 "Specific Capacity" is the rate of discharge of a water well per unit of drawdown expressed in gpm/ft.
- 3.59 "Sustainable Yield" means the water supply that may normally be withdrawn from a water source at the maximum rate which will not unduly impair or degrade source utility or source quality, including yield from an undeveloped or partially developed source.
- 3.60 "Test Well" or "Exploratory Well" is a well constructed for geologic or hydrologic exploration and not intended for use as a water well (see Section 19).
- 3.61 "Transmissivity" is the rate at which water is transmitted through a unit width of an aquifer under a unit hydraulic gradient, given in gallons per minute through a vertical section of an aquifer one foot wide and extending the full saturated height of the aquifer (gpd/ft).
- 3.62 "Unconfined (free) Groundwater" means groundwater that has a free groundwater table; i.e., water not confined under pressure.
- 3.63 "Water Supply" means the water withdrawn from a water source, or that might feasibly be withdrawn from an undeveloped or partially developed water source.
- 3.64 "Water Well" is any hole drilled, dug, or bored at any angle, either cased or uncased, and includes water wells, test wells, and monitoring wells.
- 3.65 "Well" is any hole drilled, dug, or bored at any angle, either cased or uncased, and includes water wells, test wells, and monitoring wells.
- 3.66 "Well Seal" means an approved arrangement or device used to cap a well or to establish and maintain a junction between the casing or the curbing of a well and the piping or equipment installed therein, the purpose of which is to prevent pollutants from entering the well.
- 3.67 "Yield" is quantitative term, expressed as a rate of volume over a unit of time, such as millions of gallons per day ("MGD").
- 3.68 "Zone of Contribution" is the land area which contributes recharge, and therefore potential contaminants, to an existing or proposed water well or well field.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992]*



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*as amended by Vol.16, No. 02, February 15, 1994]*

**Section 4. Well Driller's License Requirements**

4.1 Any person, public or private, who is engaged or intends to engage in the drilling of wells, is required to apply for a Wells Driller's License. Such licenses are required not only of those who make a regular business of well drilling, but all who may construct wells for their own purposes, for others as an incident to any lien of business activity, or for the exchange or barter of services. A copy of the Well Driller's License application form is available from the Division. The application shall be submitted to the Chief on forms supplied by the Division, and shall include at a minimum the following information:

- a. Name and business address/telephone number of well drilling company;
- b. Name of duly authorized individual representing well drilling company;
- c. Commonwealth Contractor and Business license numbers;
- d. Documents detailing the applicant's bonding and financial capability, and insurance for comprehensive and general liability coverage;
- e. Evidence of the applicant's qualifications and experience in conducting well drilling activities in the CNMI;
- f. Signature of the applicant or authorized representative thereof indicating under penalty of perjury that the information provided in the application is true and accurate to the best of his or her knowledge.

4.2 A non-refundable fee of ten thousand dollars (\$10,000), payable to the Division, shall accompany each application for a new Well Driller's License. A non-refundable fee of one thousand dollars (\$1,000), payable to the Division, shall accompany each Well Driller's License renewal application.

The fee may be waived for Government Agencies. However, the license for these agencies shall be limited to wells for government usage approved by DEQ. Failure to comply will result in the revocation of the license.

4.3 No well drilling of any kind shall be performed except by those well drillers with a valid license. The well driller's license number shall be prominently displayed on the side of the drill rig.

4.4 An applicant for a Well Driller's License must prove the following to the satisfaction of the Chief. The Chief shall have the discretion to require additional information as deemed necessary for a specific application.

- a. The applicant is in possession of the necessary equipment to properly perform well drilling work and related tasks.

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4.5 An applicant for a Well Driller's License must obtain a Performance Bond in the amount of Seventy-Five Thousand Dollars (\$75,000), to remain in effect for the full period in which the Well Driller's License is to be valid. The Bond shall be made payable to the Division, and the Chief shall use the proceeds from the Bond to pay for any corrective action to any well(s) not located or constructed in accordance with these Regulations.

The requirement may be waived for Government Agencies. However, the license for these agencies shall be limited to wells for government usage approved by DEQ. Failure to comply will result in the revocation of the license.

4.6 An applicant's field crew chief(s) (those individuals with actual direct supervisory authority over well drilling activities in the field) must have the following qualifications:

- a. Have at least two (2) years continuous work experience in well drilling and field testing techniques;
- b. Demonstrates knowledge of lithologic sampling methods; aquifer testing; pump testing; and water quality sampling through trial demonstration under the direct supervision of Division staff.

4.7 The Chief shall deny an application for a Well Driller's License or renewal thereof if the information submitted by the applicant does not demonstrate that the applicant satisfies the requirements pertinent to the license. The applicant may appeal the Chief's decision in accordance with the provisions of Section 16 of these Regulations.

4.8 A well driller's license shall not, under any circumstances, be transferable from one location to another, or from one person to another, without the approval of the Chief.

4.9 The license shall be valid for a period of one (1) year starting from the date of issuance.

4.10 A fully completed well drilling license application shall be submitted to the Chief for review at least thirty (3) calendar days prior to the scheduled start of any well drilling business activities.

4.11 Renewal application of a well driller's license shall be submitted at least thirty (30) calendar days before expiration of such license.

4.12 Failure to apply for renewal of a well driller's license within one (1) year after its expiration will result in the requirement to apply for a new Well Driller's License, and to pay the new well driller's license fee.

4.13 Reinstatement of any well driller's license which has been revoked by the Chief, as provided for under Section 17 of these Regulations, requires the submission of a new well driller's license application, and payment of the new well driller's license fee.

4.14 All current well driller's licenses shall remain valid until their stated expiration date, after which all currently licensed well drillers must apply for license renewal pursuant to these regulations. Current well driller's licenses failing to meet the minimum requirements set

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forth in this section shall not be granted renewal of their well drilling license. Individuals not employed by the well driller on a full-time basis (i.e., consultants) may not be used to satisfy the personnel qualifications requirements of this section.

- 4.15 “Provisional” or “temporary” well driller’s licenses shall not be issued by the Chief, with the exception of such licenses to Local and Federal Agencies for studies on a case by case basis by the Chief.
- 4.16 No person shall deface, alter, forge, counterfeit, or falsify a well driller’s license.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992  
as amended by Vol.16, No. 02, February 15, 1994]*

*See Appendix A for a copy of the Well Driller’s  
License Application form.*

### Section 5. Well Drilling Permit Application Requirements

No well may be drilled unless the owner of the land upon which the well is to be drilled, or the Lessee of said land (to be known hereinafter as “the applicant”), has obtained a Well Drilling Permit from the Chief. **It the responsibility of the licensed well driller to confirm that a valid well drilling permit has been issued to the applicant by the Division. Administrative penalties may be imposed upon both the applicant and the well driller, as per Section 17 of the Regulations, if any well is drilled without first obtaining a Well Drilling Permit.** A Well Drilling Permit application shall be completed and submitted to the Chief for all new wells, or significant modification to any existing well(s). Water wells, test wells, and monitoring wells, provided they are on the same parcel of land, and will be constructed within 180 days, require submission of only a single Well Drilling Permit application.

Application for drilling an Underground Injection Well shall be made in accordance with the regulations established by the Division, entitled “Underground Injection Control” (UIC), a copy of which can be obtained at the office of the Division.

The well drilling permit covers well siting and design criteria, and well construction, testing, and development activities. The well drilling permit application shall be submitted to the Chief and shall include at a minimum the information covered in this Section.

The requirements of this Section apply to all applicants that have not received a Well Drilling Permit as of the date these regulations become effective. A copy of the Well Drilling Permit application form is available from the Division.

The application may be filled out by the applicant or his authorized representative. In either case, the applicant shall sign and date the application, and shall be responsible for all statements made therein:

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Information to be provided in the well drilling permit application form shall include:

- 5.1 Name, addresses, and telephone number of the applicant. If the applicant is not the owner of the land, a lease or other title document must be provided with the application to prove the applicant’s legal right to use the property.
  
- 5.2 Type of application (new, revision, or renewal).
  - a. A new application is for those applicants who seek to construct new well(s) or make significant modification to existing well(s).
  - b. A revised application is for those applicants who seek to make a substantial change to the scope of work as described in the original permit application. Substantial changes to original permit application. Substantial change to original scope include but are not limited to the number of wells, the discharge rate requested, the location of the well(s), or the intended uses(s) of the proposed well(s).
  - c. A renewal application is for those applicants who’s well drilling, development, testing, and reporting activities are not completed within 180 days from the date of issuing the original well drilling permit.
  
- 5.3 Well drilling permit application fees shall be in accordance with the following fee schedule. Payment of fees is required at the time of submitting each permit application, and is non-refundable. Fees shall be paid by check, and made payable to the Division. The Commonwealth Utilities Corporation is exempt from payment of permit application fees.

WELL DRILLING PERMIT APPLICATION FEE TABLE

Application Type	Total Well Discharge Capacity Requirements <sup>1</sup>	Application Fee <sup>2</sup>
Test & Monitoring		\$100.00
New	less than 20 gpm	\$ 50.00
	21 gpm to 100 gpm	\$200.00
	101 gpm to 200 gpm	\$1,000.00
	201 gpm to 350 gpm	\$2,000.00
	351 gpm to 500 gpm	\$4,000.00
	Over 500 gpm	\$8,000.00
Revised	If discharge capacity requirements changes, the final cost to the applicant shall be based upon the above. If well location changes, no adjustment in fees is necessary, but applicant is required to obtain DEQ written approval.	

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Renewal                      There is no well drilling permit renewal fee.

### NOTES FOR FEE TABLE:

- (1) See Section 11 defining total well discharge capacity requirement.
  - (2) Fees for significantly modified wells shall be the incremental new application fee. For example, if a project is to be expanded, involving a well discharge capacity requirement increase from 80 gpm to 120 gpm, the fee is \$800.00
  - (3) Lab Fees are not included in the above. If the applicant wishes to utilize the Division's laboratory services for certain water quality sampling and analysis, the appropriate laboratory fees shall be paid to the Division at the time of application.
- 
- 5.4 Well driller's name, address, telephone number, and well driller's license number (with expiration date).
  - 5.5 Type of well drilling equipment and drilling method to be employed.
  - 5.6 Proposed well drilling start date (for references only).
  - 5.7 Intended use for the proposed well.
  - 5.8 Schematic design of the proposed well construction.
  - 5.9 Calculated well production capacity requirement (see Section 11 of these regulations for requirements of well production capacity for various intended uses).
  - 5.10 A map drawn at a scale of not more than one (1) inch equals one hundred (100) feet showing the following data **FOR BOTH PUBLIC AND NON-PUBLIC WATER SUPPLIES**:
    - a. Location of property lines and survey monuments with ties to proposed well location.
    - b. Name of property owner upon which well is to be located, and name of abutters of said property.
    - c. A site location plan (no scale required) sufficiently accurate to allow Division staff to find the site.
    - d. Describe existing land use(s) and proposed land user (Must be to scale of no more than 1 inch equals 100 feet)
    - e. Sketch of existing and/or proposed access to well site(s).
    - f. Ground surface topography, with contour intervals not to exceed ten (10) feet, within 150 feet of the proposed well location.
    - g. Location of all existing or proposed public sewer lines, sewer pump stations, and other sewerage facilities, individual waste disposal systems, intermittent or perennial streams, ponding basins, other wells (either active or abandoned), buildings, storm water drains, and wetlands within a 2,500 foot radius of the proposed well location. In addition, the applicant is responsible for certifying that the proposed PUBLIC WATER SUPPLY meets the minimum set-back requirements outlined in Section 6 of these regulations.

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- h. Location and elevation of a temporary benchmark established by a registered land surveyor.
- i. A statement as to whether the proposed well is to be constructed within the 100-year flood plain area.
- j. Location of pump test well water discharge.

The map must be certified to be complete and accurate. In the event that items represented on the map as required in 5.10 (f) or (g) change, a revised map must be submitted to DEQ within thirty (30) calendar days identifying the changes.

- 5.11 The proposed well location shown on a United States Geological Survey map, scale 1:25,000. Indicate on the map the latitude and longitude (to the nearest second) of the proposed well site(s).
- 5.12 If available at the time of submitting the well drilling permit application, provide other project information, including the following:
  - a. A brief description of the project the well is a part of; i.e., project name, project scope (number of rooms, housing units, etc.).
  - b. Other permits required, such as a Coastal Resources Management permit (including major siting projects), an individual wastewater disposal system permit, and earth moving permit, and any federal permits. The applicant shall provide permit numbers, application dates, special permit conditions, and other permit information available at the time of applying for the well drilling permit.
- 5.13 The proposed well site shall be inspected by the Chief or Division staff member prior to issuance of a well drilling permit. The applicant shall provide a physical marking (i.e., stake the flagging) prior to field inspection by the Division. The applicant or his authorized representative shall accompany the Division Chief or staff member during the field inspection.
- 5.14 A fully completed well drilling permit application shall be submitted to the Chief for review at least thirty (3) calendar days prior to the scheduled start of any well drilling activities.
- 5.15 A well drilling permit shall remain valid for a period of 180 calendar days from the date of issuance. All well drilling, development, testing, and reporting activities must be completed within the 180 calendar day period.
- 5.16 If the original permit expires prior to completion of all well drilling, testing, and reporting activities, the applicant may apply for a renewal of a well drilling permit. An application for renewal shall include all data required for a new permit, and shall be submitted at least thirty (30) calendar days prior to expiration of the original permit. A permit that expires without renewal shall require resubmission of a new permit application and application fees.

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5.17 As a condition to all well drilling permits, the well driller and permittee are responsible for supplying to DEQ legible copies of drilling logs, pump test results, and other data as required by DEQ. Based on this information and any additional information required by DEQ, a determination shall be made on the pumping capacity of the well. There is no right to the operation of a well. Well operation shall be determined based on intended use and the wells possible degradation of groundwater quality.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992  
as amended by Vol.16, No. 02, February 15, 1994]*

*See Appendix B for guidelines on the well drilling permit application process and the Well Drilling Permit Application form.*

**Section 6. Well Siting Criteria**

All new public and non-public water supply wells shall be setback a distance from potential sources of contamination. The setback distances shall define a wellhead protection area. There shall be an established wellhead protection area around each new public and non-public groundwater supply. The wellhead protection area is defined by a downgradient and side dimensions from the well, and upgradient dimension from the well normally equal to twice the downgradient dimension. Paragraph 6.1 shall be used in siting a new public water supply well.

6.1 PUBLIC WATER SUPPLY well head protection area requirements are:

EXISTING LAND USE	MINIMUM DOWN/UPGRADIENT DIMENSIONS OF WELLHEAD PROTECTION AREA
Above/Below Grade Structures	10/10
Road Drainage Course/Roadside	50/100
Surface Water Body	150/150
Public/Private Sewer Line <sup>1</sup>	100/200
Sewage Pump Station	150/300
Seepage Pit, Outhouse, Cesspool, Leachfield, Wastewater Treatment Facility	150/300
Underground Fuel Storage Tank	500/500
Auto, Heavy Equipment, Engine Repair Facility	250/500
Underground Injection Well	250/500
IWDS Effluent Disposal (≥5,000 gpd)	500/500
Above Ground Fuel Storage Facility (≤ 2,000 gal) <sup>2</sup>	250/500
Above Ground Fuel Storage Facility (> 2,000 gal) <sup>3</sup>	1000/2000
Above Ground Fuel Storage Facility <sup>4</sup>	500/500
Above Ground Fuel Storage Facility <sup>5</sup>	200/400
Landfill or Hazardous Waste Storage/Treatment Facility	1000/2000
Unsewered Industrial Process	1000/2000

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**Notes:**

<sup>1</sup> This distance may be reduced to 50 feet provided monitoring and additional safety measures as prescribed by DEQ are put into place and maintained. Tests will typically include increase nitrate monitoring and increase monitoring of sewer line.

<sup>2</sup> This requirement pertains to existing tanks, constructed prior to the revision of these regulations. Depending on the terrain and site characteristics the Chief may impose additional measures to protect the groundwater. In the event that DEQ promulgates Above Ground Storage Tank regulations, they shall supersede these requirements.

<sup>3</sup> This requirement pertains to existing tanks, constructed prior to the revision of these regulations. Depending on the terrain and site characteristics the Chief may impose additional measures to protect the groundwater. In the event that DEQ promulgates Above Ground Storage Tank regulations, they shall supersede these requirements.

<sup>4</sup> All existing and new tanks must be suitable as confirmed by the manufacturer for above ground use for the storage of the product to be stored. Tank and ancillary equipment must be of materials industry recognized and compatible with the product to be stored. Plastic or fiberglass shall not be permitted for flammable or combustible liquids. Tanks must have secondary containment as approved by DEQ. Corrosion protection must be provided for the entire system. Piping shall be double walled, piping below grade shall be equipped with automatic leak detection. Adequate collision protection must be provided. Depending on the terrain and site characteristics the Chief may impose additional measures to protect the groundwater. In the event that DEQ promulgates Above Ground Storage Tank regulations, they shall supersede these requirements.

<sup>5</sup> In addition to the requirements in note 3 above, only double walled tanks shall be installed. All tanks shall be precision/strength tested. Each tank shall be surrounded by a secondary containment berm that provides a containment of volume of at least 110% of the AST storage volume plus four (4) inch freeboard. All double wall ed piping shall be placed in a below grade vault to capture any leaks that may occur. Depending on the terrain and site characteristics the Chief may impose additional measures to protect the groundwater. In the event that DEQ promulgates Above Ground Storage Tank regulations, they shall supersede these requirements.

These setbacks shall not apply to monitoring wells. Setbacks for monitoring wells shall be as prescribed by the Chief of DEQ. In the event that a well is in existence, the above criteria shall limit the distance the above items may be constructed from the well head.

### 6.2 NON-PUBLIC WATER SUPPLY wellhead protection area requirements are:

Road Drainage Course	25/50
Surface Water Body	75/75
Public/Private Sewer Line	75/150
Sewage Pump Station	75/150
All other set back distances shall be as listed in 6.1 above	

6.3 In addition to the above, well shall be setback a minimum of 25 feet from property lines, and a minimum of 25 feet from overhead power lines. Well drillers are encouraged to contact the local telephone, water, sewer, and power authorities to determine the presence of buried utilities in the area of any proposed drilling activities. All damages sustained to property as a result of well drilling activities shall be the responsibility of the well driller performing the work.

6.4 The Chief may order an applicant to conduct a comprehensive hydrogeologic investigation if any of the above listed land uses pose a threat to a proposed public water supply, even if the potential contamination source is located outside the designated wellhead protection area. Refer to Section 20 of these regulations regarding such an investigation.



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- 6.5 For water supply wells located downgradient of a known or potential source of contamination, or whose Zone of Contribution is occupied by a known or potential source of contamination, the Chief may require the installation of one or more monitoring wells, and require the establishment of a groundwater monitoring program. The cost of all groundwater monitoring related costs shall be borne by the applicant. See Section 20 of these regulations for information pertaining to the requirements for monitoring wells and hydrogeologic investigations.
- 6.6 Set back distances from other possible sources of contamination will be established on a case by case basis.
- 6.7 For all known or potential sources of contamination the Chief may require greater set-back distances than those listed in Paragraph 6.1, should the prevailing hydrogeology of the proposed well site (such as within geologic formations known to have very high transmissivity values) warrant such measures.
- 6.8 Wherever possible, wells shall be located upgradient (upstream of the area's prevailing groundwater flow pattern) of any known or potential source of contamination.
- 6.9 If the ground water gradient cannot be reasonable estimated, then the wellhead protection area shall be a circle with the well at its center, and with a radius equal to the average of the downgradient and upgradient dimensions listed above.
- 6.10 The top of the casing shall terminate a minimum of 12 inches above any known conditions of flooding by drainage or runoff from the surrounding land.
- 6.11 The siting of underground injection wells shall be in accordance with the regulations established by the Division, entitled "Underground Injection Control" (UIC), latest revision, a copy of which can be obtained at the office of the Division.
- 6.12 See Sections 14 and 15 of these Regulations for allowed exemptions from the above requirements.
- 6.13 Applicants for new public and non-public groundwater supplies proposed within 250 feet of the CUC water distribution system must submit a letter or statement from the CUC Water Division Chief with the Well Drilling permit application, stating that CUC is not capable of providing water service at the applicant's property. No well drilling permit shall be issued for projects located within 250 feet of a CUC distribution main unless a denial letter from CUC Water Division is submitted.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992]*

### **Section 7. Well Construction Criteria**

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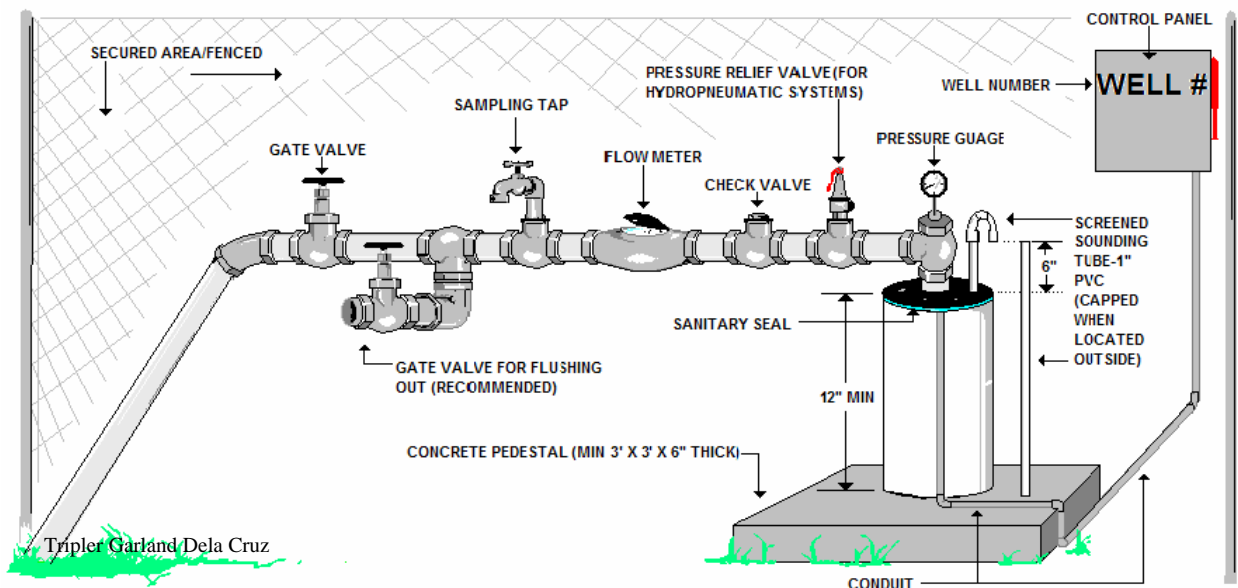
- 7.1 The annular space on all wells shall be sealed to protect the well and/or the aquifer from entrance of surface or shallow contaminants. The minimum distance for sealing off the annular space shall be 50 feet, unless otherwise provided for below.
- a. For well constructed in very shallow aquifers (less than 50 feet deep to the water table), the applicant may seal the annular space to a lesser depth provided the applicant can demonstrate to the Chief that the well construction will provide protection from entrance of surface or shallow contaminants. In no instance shall the annular seal be constructed to a depth less than 25 feet. The annular seal shall not be placed until Division personnel perform a site inspection.
  - b. For wells constructed in unconsolidated material, prone to collapsing, a conductor casing shall be installed to the depth of the seal specified above. The 2-inch (min) space between the conductor casing and production (well) casing shall be filled with sealing material.
  - c. The sealing material shall conform to the latest revision of the NWWA specification for well sealants, or shall be made up of Cement grout – 2 ½ parts by volume of sand to one part by volume of cement, with 5 to 7 gallons of water per bag.
  - d. High sulfate resistant cement (Type V Portland Cement) shall be used for sealing mixtures, due to its corrosive resistant properties.
  - e. The sealant shall be allowed to “set” in-place at least 24-hours before well construction operations may resume.
  - f. Before placing sealant material, the annular space shall be flushed.
  - g. An approved filter pack of rounded pea gravel or sand sized for screen shall be installed between the bore hole and the well casing wherever grout is not placed.
- 7.2 Openings into the well seal shall be protected from entrance of surface waters or foreign matter. Well casing air vents shall be quipped with stainless steel insect screen and shall have downturned “U” bend.
- a. A 1.0-inch diameter PVC schedule 40 pipe (Sounding Tube) shall extend from a point at least 6-inches above the top of the well down to the bottom of the well in order to facilitate water level measurements. If the sounding tube is installed on the inside of the well casing, then each time the well undergoes significant modification, the sounding tube shall be properly reconstructed before the well is put back into service.
  - b. Each well equipped with submersible pump shall have a properly constructed well cap and gasket installed (sanitary seal).
  - c. Each well equipped with a turbine pump shall have its pump head base plate properly gasketed to the well casing top flange.
- 7.3 Each well shall have a reinforced concrete pedestal constructed around the well head. The pedestal shall be a minimum of 6-inches thick, 3 feet by 3 feet in dimension, constructed continuous with the grout seal, and set into the ground several inches, sloping gently away from the well cap. The ground around the concrete pedestal shall be sloped away from the well.

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7.4 All water wells shall be equipped with the following:

- Sounding tube
- Well casing air vent (bent downward, screened)
- Check valve
- Pressure gauge
- Gate valve
- Sample tap (If well is equipped with a chlorination system, the sample tap shall be located upstream of the chlorine injection point.)
- Flow meter
- Pressure relief valve, if well is made part of a hydropneumatic system.

### WELL HEAD CONFIGURATION AS CITED IN SECTION 7 OF THE WELL DRILLING AND OPERATIONS REGULATIONS



*[The illustration above did not appear in the Commonwealth Register, and is not a part of the official regulations. It is provided in this document to describe the common arrangement of items mentioned in paragraph 7.4]*

7.5 Minimum inside diameters for well casing shall be based on the required installed capacity of the well, as defined in Section 11 of this regulations, and shall be in accordance with the table below:

Capacity of Well (gal/min)	Min Inside Diameter of Well (inches)
less than 30	5
30 to 100	6

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100 to 199	8
200 to 349	10
350 to 650	12
Above 650	As directed by Chief

- a. Minimum wall thickness for steel well casing and conductor casing shall be ¼ inches. Steel casing joints shall be screwed type with external sleeves, or welded. Steel casing shall conform to ASTM A-53 or A-120. Use of steel well casing is discouraged, due to the highly corrosive nature of much of the Commonwealth’s groundwaters.
  - b. Minimum wall thickness for PVC well casing shall be schedule 40 for wells with depths up to 75 feet, and schedule 80 for wells with depths from 75 feet to 350 feet. PVC may not be used for well casing in wells deeper than 350 feet, or for conductor casing, or under conditions requiring driven well casing unless certification by the manufacturer is given for the specific application. PVC well casing shall conform to ASTM F-480.
  - c. Reinforce fiberglass casing may be suitable for casing depths of up to 500 feet, provided the manufacturer certifies that the casing has the required strength.
  - d. No casing material other than steel, stainless steel, PVC, or fiberglass shall be permitted unless granted special approval by the Chief.
- 7.6 Dug wells and driven wells are prohibited for use of drinking water supplies (public or non-public), unless otherwise granted special permission by the Chief.
- 7.7 The construction of underground injection wells shall be in accordance with the regulations established by the Division, entitled “Underground Injection Control” (UIC), a copy of which can be obtained at the office of the Division.
- 7.8 Only clean, potable water shall be used in drilling fluids whether employed alone or in combination with drilling additives. Only high grade clays or commercial chemicals, proposed by the applicant and given prior approval by the Chief, shall be used in make-up of any drilling fluid.
- 7.9 Whenever there is an interruption in work on the well, such as an overnight shutdown, during inclement weather, or period between testing, etc., the well opening shall be closed and secured (by tack welding or other approved means) with a cover designed to insure the public safety, prevent damage to the well, and prevent the introduction of unwanted materials into the well.
- 7.10 Lead, all alloys/materials containing lead, and paints and coatings containing lead or mercury shall be strictly prohibited from introduction into any new or existing water well.
- 7.11 All wells should be constructed both straight and plumb. Plumbness should provide for the proper installation of equipment.

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7.12 For wells constructed in unconsolidated or incompetent geologic structures, well screens will likely be required. Well screens shall have the following properties:

- a. Constructed with slot openings continuous around the circumference of the screen, allowing for efficient well development and operation.
- b. Constructed with slot openings spaced to provide maximum open area consistent with strength requirements and well packing (or native earth) grain size distribution. Slot openings should be V-shaped and widen inward.
- c. Constructed of a single, corrosion resistant metal.
- d. Screen design shall be submitted to the Chief for review and approval prior to installation.

7.13 Monitoring Wells

Monitoring wells shall be designed and installed in conformance with EPA Manual *Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells*, EPA/600/4-89/034, March 1991, or latest revision. The design and installation of the monitoring well must be approved by DEQ prior to installation.

7.14 Materials for Construction

Materials associated with the well and appurtenances for all wells (monitoring, water, and seawater) shall be described in the application. Construction materials shall be consistent with the environmental conditions in the CNMI and approved by DEQ.

7.15 The following is for water wells only

Within thirty (30) days of the completion of the well construction and prior to the application for a pump test, the applicant shall submit to the agency for review and approval a well construction report. The well construction report shall include the following information:

- a) Name of driller, geologist and other personnel on site during drilling;
- b) Date/time to start and finish the well;
- c) Location of the well (include diagram of site in accordance with section 5.10)
- d) Elevation of ground surface;
- e) Type of drilling equipment;
- f) Diameter of boring hole;
- g) Depth to water encountered during drilling;
- h) Depth to standing water;
- i) Well boring log that shows soil/rock classification and description;
- j) Total well depth;
- k) Well completion information to include:
  - i). A description of the well casing (include type of material, casing diameter, total length of casing, depth below ground surface, how sections are joined, and if an end cap was provided)

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- ii). a description of the well screen (include the type of screen material, screen diameter, slot size and length, and the depth to the top and bottom of the screen),
- iii). A description fo the filter pack (include the type/sizew of pacl material, volume of material used, the depth to the top of the filter pack, and the method of placement),
- iv). A desription fo grout and/or sealant (include amterial composition, method of placement, volume placed, and the depth (top and bottom) of the grout interval in the well),
- v). A description of the backfill material (include the type of material, and the depth (top and bottom) of the backfilled interval),
- vi). A description of the surface seal (include the type of seal, and the dimensions of the seal),

This information in not required for exploratory pump test. The Chief may require on a case by case basis that additional information be obtained and submitted for review and approval. Soil samples are required to be collected every ten (10) feet, labeled stated depth sample was obtained, and put in clean containers (plastic bags are acceptable) so that they be inspected by DEQ.

- 7.16 Wells located near areas of traffic must be provided with appropriate collision protection to ensure the security of the well-head.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992  
as amended by Vol.16, No. 02, February 15, 1994]*

### **Section 8. Well Development and Disinfection**

- 8.1 Developing, redeveloping, or conditioning of a well shall be done with care and by methods which will not cause damage to the well or its casing or cause adverse subsurface conditions that may destroy or damage barriers to the vertical movement of water between aquifers.
- 8.2 Where chemical agents have been introduced into the well or surrounding area in the course of well construction, development, and/or redevelopment, the well shall be pumped until these agents have been removed. Sampling may be required to verify removal.
- 8.3 Upon completion of well development and flushing, but before the start of the pump test, the well driller shall disinfect the well and discharge piping. Disinfection shall be accomplished by maintenance of a free chlorine residual of at least 100 part per million (ppm) for a period of at least 24 hours. See the following table for guidance in determining the necessary chlorine does to achieve a chlorine concentration of 100 ppm in the well water. After first application of chlorine into the well, the well driller shall momentarily operate the test pump in order to mix the chlorine solution in the well water

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and to introduce chlorine into the discharge piping. A chlorine solution shall be applied to the interior of the well casing above the water level.

**CHLORINE COMPOUND REQUIRED TO PRODUCE A 100 MG/L  
SOLUTION PER 100 FEET OF WATER-FILLED CASING**

Well Casing Diameter	65% HTH dry wt. (1)	5.25% Commercial Bleach Liquid Measure
6 inch	4.0 oz.	40 oz.
8 inch	6.0 oz.	64 oz. (1/2 gallon)
10 inch	8.0 oz.	112 oz.
12 inch	12.0 oz.	160 oz.
16 inch	22.0 oz.	256 oz. (2 gallons)
20 inch	34.0 oz.	428 oz.

NOTES:

- (1) Where a dry chemical is used, it should be mixed with water to form a chlorine solution before putting it into the well.
- (2) All other chemical additives applied in and around the well require approval by the Chief prior to use.

[Commonwealth Register Vol. 14, No. 09, September 15, 1992]

**Section 9. Pump Testing and Water Quality Sampling Requirements**

- 9.1 The objective of the pump test is to prove that groundwater exists in sufficient quantities to meet the long-term water needs of the project, and that the *maximum monthly well production allocation* as defined in Section 11 of this regulations will not result in degradation of groundwater quality or potability. The Commonwealth is committed to a policy of non-degradation of its groundwater resources.
- 9.2 At a minimum, a 36-hour pump test (24-hours for non-public water supplies), or “sustained yield test”, shall be required on all water wells. The Chief may require a longer test duration, if the hydrogeologic characteristics of the site and the water requirements of the project warrant it. The pump test shall be conducted only after the well has been developed, flushed, and disinfected.

The driller has the option of conducting a preliminary pump test (“exploratory pump test”) to determine if sufficient yield is available from the well in questions, provided the bore hole is stable and that all drilling fluid and materials can be recovered. If the driller chooses this option a final pump test must be conducted after well construction and development to determine well capacity.

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- 9.3 For project with a *total well discharge capacity requirement* of more than 200 gpm (see Section 11 of these regulations for determination of the total well discharge capacity requirement), a qualified hydrogeologist or groundwater engineer shall supervise the pump test process and report to the Division on the result of the test in accordance with the requirements of these regulations.
- 9.4 The start of pump test must be scheduled with the Division at least two (2) working days in advance. Tests must begin and conclude during DEQ’s normal working hours whenever possible.
- 9.5 The well driller shall test the pump, generator, and discharge piping, valves, meters, and gauges as necessary to assure their proper adjustment and good operating condition at least 24-hours in advance of the scheduled start of the well pump test.
- 9.6 The sustained yield pump test shall be continuous, and shall monitor water level, rate of discharge, and water quality in accordance with the following schedule:

- a. Water level measurements are to be recorded to the nearest one-one hundredth of a foot (0.01 feet), using an electronic depth sounder, a “data logger”, or a steel tape (with chalk) properly calibrated.

Duration	Interval (minutes)
0 to 10 min	every minute
12 to 30 min	every 2 minutes
40 min to 1 hour	every 10 minutes
90 min to 8 hours	every 30 minutes
9 hours to 24 hours	every 1 hour
26 hours to 36 hours	every 2 hours (for PWS only)

- b. An aquifer recovery test shall be conducted immediately upon the completion of the pump test. Water levels shall be measured every 1 minute for 60 minutes, or every one minute until such time as the water level recovers to within 95 percent of its pre-pumping level, which ever occurs first (i.e.; if the total pump test drawdown is 100 feet, then measurements shall be made until such time as the aquifer recovers to within 5 feet of its original pumping level). If the aquifer takes more than one hour to recover, measurements shall be made every 10 minutes until such time as the aquifer recovers to 95 percent of its pre-pumping level.
- c. Flow rates shall be measured through a mechanical flow meter, and recorded at least once every 30 minutes for the first 8 hours of the pump test, and every hour thereafter. Other methods of flow measurement must be given prior approval by the Chief.



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After installation of the permanent pumping and piping equipment, but before the well is put into service, the well and equipment shall be disinfected in accordance with the procedures outlines in paragraph 8.3.

- 9.7 Water pumped from the well in the course of the pump test shall discharge a minimum of 100 feet downgradient of the well. Discharge water shall not impact surrounding property, nor shall it create a public nuisance. Discharge water shall not be permitted to pond or collect, but shall drain freely in the direction away from the well(s) being tested.
- 9.8 In the event 2 or more wells are constructed for the same project, the Chief may require simultaneous pump tests. For all multiple well pump tests, the applicant shall submit a pump test plan indicating sampling scheduling, pumping rates, and water level measurement to the Chief prior to performing the test.
- 9.9 The well site shall be relatively clean, free of excessive mud and debris, prior to the start of the pump test.
- 9.10 Injectivity tests, geophysical logging, and mechanical integrity testing for underground injection wells shall be conducted in accordance with the regulations established by the Division, entitled “Underground Injection Control” (UIC), latest revision, a copy of which can be obtained at the office of the Division.
- 9.11 Routine water quality analysis shall be conducted during the course of pump test. Analysis can be performed at the Division’s water quality laboratory or other EPA certified laboratory. Routine water quality analysis includes sampling for the following parameters.
- Chloride
  - Total Hardness
  - Nitrate
  - pH
  - Total Dissolved Solids (TDS)
  - Conductivity
  - Total Coliform

**For Public Water Supplies:** Chloride, hardness, pH, conductivity, and TDS shall be taken at hour 0 (start of pump test), and at hours 2, 4, 6, 8, 12, 16, 24, 30, and 36. Clean, clear 500 ml plastic bottles shall be used. Bottles shall be labeled by project name, time and date of sampling, sample number, and person responsible for taking the sample.

**For Non-Public Water Supplies:** Chloride, hardness, pH, conductivity, and TDS shall be taken at hour 0 (start of pump test), and at hours 2, 4, 6, 8, 12, 16, and 24. Clean, clear 500 ml plastic bottles shall be used. Bottles shall be labeled by project name, time and date of sampling, sample number, and person responsible for taking the sample.

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**For All Water Wells:** Nitrate and total coliform shall be taken at the end of the pump test, placed in specially prepared bottles given by the analyzing laboratory, and delivered to the lab in accordance with the lab's instructions. Bottles shall be labeled by project name, constituent to be analyzed, time and date of sampling, sample number, and person responsible for taking the sample.

At the conclusion of the pump test, sampling will be conducted for **other non-routine water quality parameters** (i.e., VOC's) as may be required by the Chief.

- 9.12 The cost of water quality analysis is not included in the well drilling permit application fee. The applicant should inquire into the cost of the required routine and non-routine laboratory analysis prior to submitting a well drilling application. If the Division laboratory is used, water quality sampling results will be mailed to the applicant. No operations permit will be issued if the results of this water quality analysis exceed the CNMI Drinking Water Standards, latest revision, unless the water supply is to undergo appropriate treatment. Regardless of any treatment process proposed, all water wells must undergo routine water quality analysis.
- 9.13 The Well Operations permit application includes copies of the forms to be used in reporting the results of the pump test and routine water quality analysis.
- 9.14 Applicants submitting water samples to the Division's Laboratory shall comply with all Division Lab sampling procedures and sample submission policies. A copy of the "Division Lab Water Sampling Procedures and Sample Submission Policies" is available at the office of the Division.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992  
as amended by Vol.16, No. 02, February 15, 1994]*

### **Section 10. Well Drilling Activity Reporting for Well Operations Permit Application**

- 10.1 The applicant shall submit copies of geologic (lithologic) logs to the Division. Geologic samples shall be taken every 10 feet and duly logged on forms provided by the Division, unless otherwise waived by the Chief in writing prior to the start of well drilling.
- 10.2 The applicant shall submit actual "as-built" well construction sections and material specifications, hydrogeologic data (static water level based on USGS datum), drawdown, and pump test flow rate. Forms for submission of this information are included in the Well Operations permit application.
- 10.3 The applicant shall submit all water quality sampling results as specified in Section 9 of these regulations.

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- 10.4 The applicant shall submit a site specific hydrogeologic report, if made a condition of the applicant's Well Drilling permit issued by the Chief. The general requirements for a hydrogeologic investigation are given in Section 20 of these regulations.
- 10.5 A well operations permit will not be issued without submission of the above information.
- 10.6 Should the well construction, pump test, and analytical data indicate that long-term degradation of groundwater quality may occur as a result of withdrawing water at the depth and rate as requested by the applicant, the Chief may require subsequent pump test(s) at reduced flow rate(s) and at that no degradation of the groundwater will occur as a result of the applicant's withdrawal of his permitted maximum monthly well production allocation. The purpose of this provision is, in part, to minimize the possibility of saltwater intrusion which can occur due to overpumping wells.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992]*

### Section 11. Water Supply Capacity Guidelines

- 11.1 Water supply capacity guidelines are given in Table 11.1. The total of all uses constitutes the estimated **average daily water supply requirement**. The applicant shall provide a detailed summary, by class of use, of the project's total average daily water supply requirement, on forms provided by the Division.
- 11.2 For those projects proposing no form of water treatment, the **average daily well withdrawal requirement** is equal to the *average daily water supply requirement* identified in paragraph 11.1 above. For those projects proposing water treatment as part of their water supply facilities, the *average daily well withdrawal requirement* shall be equal to the *average daily water supply requirement established* in paragraph 11.1 above, divided by the stated efficiency (expressed in its decimal form) of the proposed treatment system.
- 11.3 The project's **maximum monthly well production allocation** shall be equal to no more than 150 percent of the flow, expressed in gallons per month, of the *average daily well withdrawal requirement* as identified in paragraph 11.2 above.
- 11.4 The well pump test flow rate shall be set at the maximum *monthly well production allocation*, expressed in gallons per minute, identified in paragraph 11.3 above. Well pump tests shall be conducted in accordance with the requirements of Section 9 of this regulation. Actual maximum monthly well withdrawal allocation for individual well shall be subject to the following limitations:
- a. If degradation in the ambient groundwater quality is measured in the course of the pump test, the applicant will be required to reduce the water supply requirement of the project; install additional wells to provide for a reduced rate of withdrawal from each production well; or both, until subsequent pump tests confirm there is

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no degradation in groundwater quality as a result of the applicant’s withdrawal of the permitted *maximum monthly well production allocation*.

11.5 The project’s **total well discharge capacity requirement** shall be equal to 200 percent of the average daily well withdrawal requirement identified in paragraph 11.2 above, expressed in gallons per minute. This flow rate will dictate well construction parameters and selection and design of pumping systems. The provision is to assure that:

- a. There is an adequate water supply during short-term periods of peak use;

TABLE 11.1

WATER SUPPLY CAPACITY GUIDELINES

TYPE OF DEVELOPMENT	UNIT OF MEASUREMENT	GALLONS PER UNIT PER DAY
Single Family Home	Bedroom	150
Duplex	Bedroom	150
Multiple Family (APT)	Bedroom	120
Condominium	Bedroom	120
Business Hotels/Motels	Bedroom	120
Resort Hotels	Bedroom	225
Barracks/Worker’s Housing	Bed	60
Hospitals	Bed	250
Restaurants	Seat	40
Lounge	Seat	10
Schools with Cafeteria	Student/Faculty	25
Schools without Cafeteria	Student/Faculty	15
Boarding School	Student/Faculty	100
Office Space	100 SF Gross Area	15
Retail Commercial Space	100 SF Gross Area	10
Garment Factory	Worker Shift	15
Airport	Passenger	5
Self-Service Laundry Fac	Washer	250
Car Wash	Vehicle	40
Service Station	Employee	150
Swimming Pool/Bath House	Person	10
Theater/Auditorium	Seat	5

NOTES:

- (1) The Division may modify the above standards for a specific project if the applicant provides historical metered water use data for other like projects indicating a more appropriate gallons per unit water requirement.

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- (2) For a type of development not listed above, the applicant shall provide a detailed summary of projected water use for review by the Division. The Chief reserves the right to modify water use projections made by an applicant for a given type of development not listed above.
- (3) For some Resorts, Hotels, Apartments, Condominiums, and Motels, other ancillary water uses may have to factored into the total water supply requirement. These uses may include swimming pools, health clubs, gardening/irrigation, on-site staff housing, and air conditioning.
- (4) Seasonal water use needs, such as golf course irrigation supply, shall be determined on the basis of a dry season irrigation requirement.
- (5) For the purpose of these Regulations, the water use figures listed above shall take precedence over other water figures used by Coastal Resources Management Office and CUC.
  - b. An allowance is made of declining well yield and pump performance over time;
  - c. The water supply facilities for large projects (with more than one well in production) will be capable of producing all of, or a significant portion of, the *average daily water supply requirement* with one well out of service.

### EXAMPLE

#### Given:

The proposed “Jewel of Micronesia” resort project has a calculated *total average daily water supply requirement* of 201,600 gallons per day (gpd), based upon the proposed number of resort bedrooms, condominium bedrooms, restaurant seating capacity, on-site staff housing, etc. Table 11.1 was used as a reference in determining the above daily requirement. The developers of the resort propose to use a reverse osmosis treatment system with a stated efficiency of 40 percent.

#### Solution:

*Average daily water supply requirement* is 201,600 gpd = 140 gpm

*Average daily well withdrawal requirement* is

$$\frac{140 \text{ gpm}}{.40 \text{ (treatment plant efficiency)}} = 350 \text{ gpm}$$

*Total well discharge capacity requirement* is

$$350 \text{ gpm} \times 200 \text{ percent} = 700 \text{ gpm}$$

*Maximum monthly permitted withdrawal* for all wells is therefore:

$$350 \text{ gpm} \times 150 \text{ percent} = 525 \text{ gpm, or}$$

22.8 million gallons per month

Because the total well discharge capacity requirement is greater than 200 gpm, at least two (2) wells are required. The developer proposed to install four wells, each with an installed production capacity of 25 percent of the total requirement, or 175 gpm each.

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Because the total well discharge capacity requirement is divided equally among the four proposed wells, each well shall be allocated a maximum monthly production of 130 gpm (one-quarter of the total), or 5.7 million gallons per month.

Because the proposed production wells do not have a discharge capacity requirement greater than 350 gpm (each), there is no need for installing test wells to determine the limits of the wells' Radius of Influence (see Section 19 for requirements related to determination of a well's Radius of Influence).

The proposed production wells must undergo a 36-hour pump test (this is a public water system, as defined in Section 3, served by non-seawater well). The pump test flow rate for each well in this example will be set at 130 gpm. Since the project has a total well discharge capacity requirement greater than 200 gpm, a qualified hydrogeologist or groundwater engineer is required to supervise the pump test (s). In this example, the Chief determined that the four wells must be pump tested at the same time.

In this particular example, water quality sampling result reveal there was no degradation of the groundwater during the pump test. Therefore, the applicant is granted the *maximum monthly well production allocation* as requested. There is no need to reduce the pump test discharge rate, install additional wells, pump from a different depth, and/or re-perform the pump test and sampling.

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### **Section 12. Well Operation Permit Application Requirements**

No person may operate a well or withdraw groundwater without a valid well operations permit issued by the Chief. Upon satisfying all of the well drilling permit requirements, and prior to placing any new or significantly modified well into service (including monitoring wells), the applicant must submit a new well operations permit application to the Division. Underground injection wells are exempted from the requirements of this Section. Application for operating an underground injection well shall be in accordance with the regulations established by the Division, entitled "Underground Injection Control" (UIC), a copy of which can be obtained at the office of the Division.

The well operations permit covers as-constructed well location, construction, testing, and development data for all new or significantly modified wells. The well operations permit application shall be submitted to the Chief, and shall include at a minimum the information covered in this Section.

The requirements of this Section apply to all applicants that have not received a well drilling permit as of the date these regulations become effective. A copy of the Well Operations permit application form is available from the Division. See Section 18 for applicable requirements for wells in operation as of the date these Regulations become effective.

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The application may be filled out by the applicant or his authorized representative. In either case, the applicant shall sign and date the application, and shall be responsible for all statements made therein.

Information to be provided in the well operations permit application form shall include:

- 12.1 Name, address, and telephone number of the applicant. If the owner of the well and the operator of the well are not the same, a notarized statement from the owner of the well granting permission for the operation and maintenance of the well must accompany the application.
- 12.2 Type of application (new, revision, or renewal).
- a. New applications are for all new wells, for change of use from one type of well to another, and for wells which have undergone significant modification.
  - b. Revised applications are for those applicants who seek to make a substantial change to the scope of work as described in the original permit application. Substantial change to original scope include the number of well, the discharge rate requested, the location of the well (s), the intended use(s) of the proposed well(s), change in ownership or maintenance responsibility of the well(s), etc.
  - c. Renewal applications are for wells those operations permits have expired. All well operations permits expire on September 30 of the year following issuance of a permit, and are renewable each September 30 thereafter.
- 12.3 Well operation permit application fees shall be in accordance with the following fee schedule. Payment of fees is required at the time of submitting each permit application, and is non-refundable. Fees shall be paid by check, and made payable to the Division. Fees shall be paid by check, and made payable to the Division. The Commonwealth Utilities Corporation is exempt from payment of permit application or renewal fees.

WELL OPERATIONS PERMIT APPLICATION FEE TABLE

Application Type	Total Well Discharge Capacity Requirement(1)	Application Fee
New	less than 20 gpm	\$ 25.00
	21 gpm to 100 gpm	\$ 100.00
	101 gpm to 200 gpm	\$ 500.00
	201 gpm to 350 gpm	\$ 1,000.00
	351 gpm to 500 gpm	\$ 2,000.00
	over 500 gpm	\$ 4,000.00
Revised	If discharge capacity requirements change, fee to be based upon the above. If well location changes, no adjustment in fees is necessary.	
Annual		

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Renewal            Calculated based upon 50% of fees paid in accordance with the above schedule. Projects with a total well discharge capacity requirement less than 20 gpm (such as a single family home or a duplex) are exempt from the requirement of renewal of permit, and therefore are exempt from payment of renewal fees.

### NOTES FOR FEE TABLE:

- (1)        See Section 11 of this regulations for determination of a project's total well discharge capacity requirement.
- (2)        There are no application fees for test wells and monitoring wells.

Semi-annual routine water quality sampling is required as a condition of the well operations permit process for all project except those with a total well discharge capacity requirement less than 20 gpm. See Section 13 of these regulations for the routine semi-annual water quality sampling requirements.

The Chief has the authority to require any applicant to sample for other "non-routine" water quality parameters as part of the original well operations permit application or as part of renewing a well operations permit. These non-routine parameters may be any of the regulated contaminants listed in the Commonwealth's Drinking Water Regulations. Laboratory fees for all water well water quality sampling are not included in the above fee schedule.

12.4    Use of the Well.

12.5    For new or significantly modified wells SERVING NON-PUBLIC WATER SUPPLY SYSTEMS, submit a cross-section of the well as constructed.

12.6    For new or significantly modified wells SERVING PUBLIC WATER SUPPLY SYSTEMS, submit a cross-section of the well as constructed, and include the following:

- a.        Elevation of static water level in well (USGS datum)
- b.        Elevation of water level at end of the pump test (24 hour test for non public water supplies, and 36 hour test for all public water supplies) at the requested well discharge rate.
- c.        Elevation of pump.
- d.        Pump, type, horsepower, manufacturer, material of construction, and pump curve information.
- e.        Hydraulic calculations supporting size of pumping equipment.
- f.        Master flow meter type, size, manufacturer, and material of construction.
- g.        Elevation of top and bottom of well screen. In an unconfined basal or parabasal aquifer, the Division strongly recommends that the well screen or open hole section of the well be installed such that the well draws from as close to the top of the aquifer as possible after pumping equilibrium is reached.
- h.        Elevation of limits of the annular seal.
- i.        Expected well head discharge pressure at permitted flow rate.



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- 12.7 The as-constructed well location, project name, and project scope shall be exactly as indicated in the well drilling permit application. Any changes from the information provided in the well drilling permit application must be reported to the Division immediately.
- 12.8 All information identified in Section 10 of this regulations.
- 12.9 The well shall be inspected by the Chief or Division staff member prior to issuance of a well operations permit (for new or significantly modified wells, or application renewal).
- 12.10 **A fully completed well operations permit application shall be submitted to the Chief for review at least thirty (3) calendar days prior to the scheduled start of any well production activities.**
- 12.11 The well owner shall apply for a renewal of a well operations permit at least thirty (3) days prior to expiration of the existing well operations permit. Failure to maintain a valid well operations permit for an active water well may result in fines and other administrative penalties for in this regulations.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992]*

*See **Appendix C** for Application for Well  
Operations Permit.*

### Section 13. Well Operations Permit Obligations

- 13.1 All owners of projects with a total well discharge capacity requirement greater than 20 gpm shall, on a semi-annual basis, perform *routine water quality analysis* on the water from each well. Samples shall be taken from a point prior to any chemical addition or form of treatment. Routine analysis includes sampling for the following parameters. Such analysis may be performed at the Division's laboratory or other EPA certified laboratory.
- Chloride
  - Total Hardness
  - Nitrate
  - pH
  - Total Dissolved Solids
  - Conductivity
  - Total Coliform (if a public water supply)
- 13.2 Other non-routine quality analysis may be required by the Chief, in accordance with the vulnerability of the drinking water supply to source(s) of contamination. Such non-routing analysis may be for any of the regulated drinking water contaminants listed in the

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Commonwealth's Drinking Water Regulations. Samples shall be taken from a point prior to any chemical addition or form of treatment. Non-routine analysis shall be performed by an EPA certified laboratory. The cost of all such analysis shall be borne by the applicant.

- 13.3 All owners of public waters systems (community and non-community water systems) shall also sample their water supplies in accordance with the requirements of the Commonwealth's Drinking Water Regulations, latest revision.
- 13.4 All owners of active water wells subject to the requirements of paragraph 13.1 shall, on a monthly basis, record total well production (in gallons).
- 13.5 The data requirements specified in paragraphs 13.1 through 13.4 shall be submitted with each well operations permit renewal application. Failure to provide this data will result in an incomplete renewal application. See Section 17 of the regulations regarding the penalties associated with submission of an incomplete well operations renewal application.
- 13.6 Pumpage of any well in any which exceeds 110 percent of the permitted maximum monthly withdrawal rate must be reported to the Division within seven (7) working days after the end of the month in question. Failure to do so will result in violation of these regulations, with fines imposed for each continued day of violation until such time as the applicant files a report with the Chief explaining the circumstances leading up to exceeding the permitted pumpage rate, and a plan to avoid recurrence of exceeding the maximum monthly withdrawal rate. See Section 17 of this regulations regarding the imposition of fines and other penalties.
- 13.7 Permittee is responsible for proper maintenance and security of the well-head at all wells including exploratory. In the case of an exploratory well, after completion of the pump test, the well must be sealed (capped) and secured with a temporary fence of no less than six feet in height. The temporary fence must have adequate visual warnings to prevent destruction by vehicles such as earthmoving devices.
- 13.8 Permittee is responsible for groundwater clean-up if hazardous materials/waste are placed down the well.
- 13.9 Permittee is responsible to report any damage to the well-head to DEQ in writing within 24 hours. With the damage report the permittee must submit a schedule for the repair.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992  
as amended by Vol.16, No. 02, February 15, 1994]*

*See Appendix D for Renewal Well Operations  
Application form.*

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**Section 14. Exemptions for Seawater Wells**

In recognition of the limited public value of salty groundwater as a vital public resource, this Regulations provide for certain exemptions for wells to be developed within saltwater groundwater. Except for the specific exemptions listed below, all other provisions of these Regulations shall apply to seawater wells (see Section 3 for the definition of “Seawater Well”). Verification of the analysis proving chloride or conductivity of well water shall be made by the Division.

All seawater wells must undergo reverse osmosis treatment plus post-treatment chlorination if the exemptions of this Section are to apply. Because this treatment process requires the application of sophisticated technology, the Division requires that supervision, operation, and maintenance of the water treatment facilities be performed by qualified, experienced personnel. Use of the reverse osmosis treatment process requires safe disposal of the treatment waste stream, in a manner that will not impact human health of the environment.

All well drilling permit applications for seawater wells must include a complete water treatment waste stream disposal plan. This plan must prove that no degradation of the groundwater will occur as a result of discharging the water treatment waste stream, and must prove that the CNMI Water Quality Standards will not be violated.

Under all conditions and circumstances, public water supplies shall meet the requirements of the CNMI’s Drinking Water Regulations, regardless of the exemptions provided for in this Section.

For all seawater wells, the following exemptions from this Regulation are provided.

- 14.1 **Well Siting Criteria.** Down gradient and upgradient wellhead protection dimensions for seawater wells may be reduced by up to 66 percent for existing land uses listed in Paragraph 6.1 and 6.2, down to no less than 50 feet, provided the well is constructed with at least 100 feet of solid casing. Seawater wells are exempted from the provisions of Paragraph 6.3. After the effective date of these regulations 2/25/94, the reduction shall be limited to no more than 50 percent.
- 14.2 **Well Development and Disinfection.** Seawater wells are exempted from the provisions of Paragraph 8.3.
- 14.3 **Pump Testing Requirements.** Seawater wells are exempted from the provisions of Paragraphs 9.3, 9.6, and 9.11. The pump test requirements for seawater wells shall be 24-hour duration, with chemical analysis and water level measurements taken at hour 0 (start of pump test), hour 4, 8, 16, and 24. Routine chemical analysis shall include chloride, total hardness, pH, TDS, and conductivity. The Chief may order tests for the other parameters.
- 14.4 **Water Supply Capacity Guidelines.** Seawater wells are exempted from the provisions of Paragraphs 11.3, 11.4, and 11.8.

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- 14.5 **Well Operations Permit Application Requirements.** Seawater wells are exempted from the provisions of payment for Well Operations Permit Renewal Fees (included in Paragraph 12.3).
- 14.6 **Well Operations Permit Obligations.** Seawater wells are exempted from the provisions of Paragraphs 13.1, 13.2, 13.3, and 13.6.
- 14.7 **Action on Applications.** Seawater wells are exempted from the provisions of Paragraph 16.6.
- 14.8 **Monitoring Wells and Comprehensive Hydrogeologic Investigations.** Seawater wells are exempted from the provisions of Paragraphs 20.1 through 20.4

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992  
as amended by Vol.16, No. 02, February 15, 1994]*

**Section 15. Exemptions for Wells Pre-Determined to Undergo Reverse Osmosis Treatment**

In recognition of the effective removal of contaminants provided by reverse osmosis, exemptions from certain provisions of this Regulation are warranted for non-seawater wells pre-determined to undergo reverse osmosis treatment. Except for the specific exemptions listed below, all other provisions of this Regulation shall apply to wells pre-determined to undergo reverse osmosis water treatment. The reverse osmosis membrane must have a molecular weight cut off (MWCO) value no greater than 300. The treatment process must include post-membrane chlorination.

All well drilling permit applications for wells pre-determined to undergo reverse osmosis treatment must include a complete water treatment waste stream disposal plan. This plan must prove that no degradation of the groundwater will occur as a result of discharging the water treatment waste stream, and must prove that the CNMI Water Quality Standards will not be violated.

Under all conditions and circumstances, public water supplies shall meet the requirements of the CNMI's Drinking Water Regulations, regardless of the exemptions provided for in this Section.

For all wells pre-determined to undergo treatment by reverse osmosis, the following exemptions from these Regulations are provided.

- 15.1 **Well Siting Criteria.** Down gradient and upgradient wellhead protection dimensions for wells pre-determined to undergo reverse osmosis treatment may be reduced by up to 66 percent for existing land uses listed in Paragraph 6.1 and 6.2, down to no less than 50 feet, provided the well is constructed with at least 100 feet of solid casing. Wells pre-determined to undergo reverse osmosis water treatment are exempted from the provisions of Paragraph 6.3. This part shall not apply if a reduction is requested under Paragraph 14.1 for all wells constructed after the effective date of the revision of these regulations

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2/25/94. After the effective date of the revision of the regulations 2/25/94, the reduction shall be limited to no more than 50 percent.

- 15.2 **Well Development and Disinfection.** Well pre-determined to be treated by reverse osmosis are exempted from the provisions of Paragraph 8.3.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992  
as amended by Vol.16, No. 02, February 15, 1994]*

**Section 16. Action on Applications**

- 16.1 The Chief may require the applicant to furnish additional information, plans, or specifications before acting on an application for any license or permit.
- 16.2 Each applicant for license or permit shall be issued a notice, sent by the Chief, as to whether or not the Division finds the application complete within ten (10) calendar days of receipt of the application. The Chief shall review and act on any permit application and license within thirty (30) calendar days of determining the application complete.
- 16.3 The Chief shall notify the applicant in writing of his or her decision regarding the application for a well drilling license, or well drilling or well operations permit (original or renewal). The Chief shall inform the applicant of sufficient facts and reasons upon which a disapproval or conditional approval was based. The applicant shall be afforded the opportunity to file a written appeal of the Chief's decision. Request for appeal shall be served upon the Division within seven (7) calendar days from receipt of the disapproval or conditional approval. Failure to file this appeal within seven (7) calendar days shall constitute a waiver of the applicant's rights to any future appeal of the Chief's decision.
- 16.4 A well drilling permit or a well operations permit issued pursuant to these regulations shall not be transferred from one location to another, or from one person to another, without the written approval of the Chief..
- 16.5 The Commonwealth Utilities Corporation shall receive priority in the issuance of all well drilling and well operations permits.
- 16.6 The Chief may order a reduction in the maximum monthly discharge allocation at the time of well operations permit renewal if subsequent hydrogeologic data, water quality analytical data, etc. warrants such change in order to protect the Commonwealth's groundwater resources from degradation.

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**Section 17. Penalties, Fines, Suspension, Revocation, and Other Orders**

- 17.1 The Chief may issue any order to enforce compliance with the Act, or any regulations adopted pursuant to the Act, and any permit or license issued pursuant to the Act and such regulations. Such orders may include but not be limited to a payment of a civil fine, taking corrective action, Cease and Desist Order, or Administrative Order.
- 17.2 The Chief may order any person to pay a civil fine of not more than \$1,000.00 for each violation of the Act, regulations adopted pursuant to the Act, or any permit or license issued pursuant to the Act and such regulations. No prior notification of violation is necessary before imposition of a civil fine. Each day of continued violation after issuance of written notice is a separate offense.
- 17.3 The Chief may suspend, revoke, or modify any permit or license issued by the Division for violation of the Act, any regulations adopted pursuant to the Act, any permit or license issued pursuant to the Act and such regulations.
- 17.4 The Chief may suspend or revoke a Well Operations permit under the following conditions:
- a. The well is not being maintained or operated in accordance with these regulations or any permit or license conditions; or
  - b. The continued operation of the well threatens to contaminate the groundwater resources of the Commonwealth or threatens public health or the environment, as determined by the Chief; or
  - c. The well operations permittee has made material misrepresentation or misstatement concerning the quality or quantity of water produced by the subject well; or
  - d. Reporting requirements have not been met.
- 17.5 A Well Operations permit for a PUBLIC WATER SUPPLY that does not undergo an appropriate form of treatment may be suspended under the conditions specified in Paragraph 17.4 or under the following conditions:
- a. The water produced from such well fails to meet the Commonwealth's Drinking Water Quality Standards; or
  - b. The Division's or any other person's investigation and sampling of the well's production provide evidence of contamination. Under this provision, suspension of the operations permit shall remain in effect until laboratory analysis confirms that no contamination exceeding the Commonwealth's Drinking Water Regulations are present.
- 17.6 The Chief may fine any well operations permittee for any material misrepresentation or misstatement of the quality or quantity of water produced by the subject well.

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- 17.7 The Chief may fine any well operations permittee for tampering with or rendering inoperable any well or appurtenant facility (such as meter, sample tap) necessary for the determination of compliance with the conditions of the well operations permit.
- 17.8 The Chief may revoke a well driller's license or well drilling permit for any material misstatement or misrepresentation made by the licensee or permittee made for the purposes of obtaining or retaining such license or permit. The Chief may suspend or revoke a well driller's license or well drilling permit for violation of the Act, regulations, license, or permit.
- 17.9 A person shall be liable for an additional penalty for any amount expended by any agency of the Commonwealth in taking any action necessary to mitigate or reduce any significant adverse effect caused by the person's failure to comply with the Act, regulations, permit, license, or any order issued thereunder.
- 17.10 No application for a well driller's license or well drilling permit may be made within one (1) year after revocation of such license or permit by the Chief for the reasons identified in paragraph 17.8 above.
- 17.11 Any person who knowingly and willfully commits any act in violation of the Act, regulations, permit, or license, and who is found guilty by a court of competent jurisdiction may be punished by a fine or not more than \$50,000.00 or by imprisonment for not more than one (1) year, or both. Any other penalties or remedies provided by these regulations and ordered by the Chief shall also remain in effect.
- 17.12 Any person who is subject to civil penalties, revocation, or suspension pursuant to Section 17 may be served with an Administrative Order and Notice of Violation and may upon written request seek an appeal hearing before the Chief or his/her designee. Request for appeal may be served upon the Division within seven (7) calendar days from receipt of the Administrative Order. Failure to request an appeal within seven (7) calendar days shall result in the person's waiving the right to any appeal or hearing. The Chief may compromise any penalty.
- 17.13 Any well operations permittee who does not or cannot meet the data submission requirements for a well operations permit renewal may be issued a conditional extension of the original operations permit for a period not to exceed 90 calendar days, during which time the permittee must submit a minimum of two sets of routine water quality samples (see paragraph 13.1) to the Division's laboratory, and submit monthly well production meter readings. If the permittee fails to accomplish these tasks during the conditional extension, the Chief may revoke the Well Operations permit. The permittee shall also remain subject to the provisions of paragraph 17.2.
- 17.14 The written request for a hearing shall serve as the answer to the complaint. The request for a hearing or "answer" shall clearly and directly admit, deny, or explain each of the factual allegations contained in the complaint with regard to which the alleged violator ("respondent") has any knowledge. Where respondent has no knowledge of a particular

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factual allegation and so state (1) the circumstances or arguments which are alleged to constitute the grounds of defense, (2) the facts which respondent intends to place at issue, and (3) whether a hearing is requested. Failures to admit, deny, or explain any material factual allegation contained in the complaint constitutes an admission of the allegations.

- 17.15 The respondent may also request an Informal Settlement Conference. An Information Settlement Conference shall not affect the respondent's obligation to file a timely request for hearing. If a settlement is reached the parties shall forward a proposed consent order for the approval of both the Chief and the Director.
- 17.16 If a hearing is conducted, the Chief or his/her designee will reside over the hearing. The Chief shall control the taking of testimony and evidence and shall cause to be made an audio, audio-video, or stenographic record of the hearing. The evidence presented at such hearing need not conform to the prescribed rule of evidence, but may be limited by the Chief in any manner he/she reasonably determines to be just and efficient and promote the ends of justice. The Chief shall issue a written decision within fifteen (15) working days of the close of the enforcement hearing. The decision shall include written findings of fact and conclusions of law. The standard of proof for such a hearing and decisions shall be the preponderance of the evidence.
- 17.17 Upon issuance of the written decision, the respondent may seek a discretionary review of the decision by the Director. The request for the discretionary review must be filed within ten (10) working days of the date of the issuance of the decision. The request must concisely state the specific objections to the decision. There is not right to a hearing before the Director. A copy of the request of review must be filed with the Chief on the same day it is filled with the Director. The Director may elect to review the case and issue a written decision within thirty (30) calendar days.
- 17.18 The Director's decision shall be final. An appeal from the final enforcement decision shall be to the Commonwealth Superior Court within thirty (3) calendar days following service of the final agency decision.
- 17.19 For filing deadline purposed counting of the days shall start on the day after issuance or receipt (whichever is specified) of any Administrative Order, Notice of Violation, Cease and Desist, or order for payment of a civil fine. If any filing date falls on a Saturday, Sunday or Commonwealth Holiday, the filing rate shall be extended to the next working day.

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**Section 18. Existing Wells**

- 18.1 Every owner or user of any well existing at the time these regulations go into effect shall, upon written request from the Chief, disclose the location and all other facts and information within the owner's/user's knowledge relating to such well. The owner/user shall include a statement of the manner in which the well is being used or operated, the volume of water being drawn or flowing therefrom, and the methods and means of control thereof.
- 18.2 Owners of wells in existence at the time these regulations go into effect that do not have valid Well Operations Permits shall be required to submit a complete Well Operations Permit application by August 30 of the year following the effective date these Regulations. All of the submission requirements for obtaining a Well Operations Permit specified in this Regulations shall apply.
- 18.3 Owners of wells in existence at the time these regulations go into effect that do have valid Well Operations Permit renewal application by August 30 of the year following the effective date of this Regulations. All of the submission requirements for obtaining a renewed Well Operations Permit specified in these Regulations shall apply. All Well Operations Permits in effect as of the effective date of this Regulations shall expire on September 30 of the year following the effective date of this Regulations.
- 18.4 For the purpose of assessing annual well operations permit and permit renewal fees for existing wells in operation on the effective date of this Regulations, Well Operations Permit and permit renewal applicants must submit calculations defining the total well discharge capacity requirement. Failure of the applicant to submit this information may result in the Chief assigning a total discharge capacity requirement.
- 18.5 Within 180 days of the effective date of this Regulations, owners of all wells in operation, whether or not in possession of a Well Operations Permit, must comply with the requirements of Paragraph 7.2, 7.3, 7.4, 7.10, 13.1, and 13.4.

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**Section 19. Test Wells**

- 19.1 For all water wells with a well capacity requirement greater than 350 gallons for minute, the Chief may require that test wells be installed in order to determine the limits of the well's Radius of Influence.
- 19.2 Test well shall be treated like other wells, subject to permit requirements, except that a group of test wells located on a single property may be considered under on permit.
- 19.3 Test wells, unless developed into water producing wells, monitoring wells, or underground injection wells, must be properly destroyed in accordance with pertinent paragraph of Section 22 of this Regulations.
- 19.4 A well originally permitted as a test well may be converted to a water well provided the applicant applies for and receives a Well Drilling Permit for a water well prior to conversion.

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**Section 20. Monitoring Wells and Comprehensive Hydrogeologic Investigations**

The Chief may require the installation of permanent groundwater monitoring wells in order to monitor the effects of groundwater withdrawal facilities or potential sources of contamination on the quality of the Commonwealth's groundwater resources, and to determine whether or not such facilities or potential sources of contamination on the quality of the Commonwealth's groundwater resources, and to determine whether or not such facilities or potential sources of contamination are preventing the highest beneficial use for which these resources are capable.

- 20.1 Monitoring wells shall be constructed under the direct supervision of a qualified hydrogeologist or groundwater engineer, in accordance with Best Engineering Practices (BEP), and shall be designed and sited in such a way as to assess any changes to groundwater quality that may be occurring. Determination of the number of monitoring wells, the contaminant parameters for which these wells will be sampled, and the frequency of sampling shall be made by a qualified hydrogeologist familiar with the general hydrogeology of the Commonwealth and the specific threats to groundwater quality posed. Such determinations shall be made as part of a Comprehensive Hydrogeologic Investigation (CHI) of the project area. Other hydrogeologic investigative tools, such as installation of test wells, ground penetrating radar (GPR), specific conductance surveys, review of existing geologic data, etc., will likely be required to properly conduct such an investigation. The hydrogeologist shall submit to the Chief of scope of Work prior to beginning the CHI for review and comment. Upon completion of the CHI, the hydrogeologist shall summarize the means and methods of the investigation, summarize all findings, and propose a groundwater monitoring plan. The

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Chief shall review the plan, and may require modifications to it prior to its approval and implementation.

- 20.2 A CHI may be ordered by the Chief for any project, either currently in operation or proposed which by their nature constitutes a potential threat to the groundwater resources of the Commonwealth and specifically to groundwater used for drinking water supplies, including but not limited to:
- a. Underground fuel storage facilities;
  - b. Solid waste disposal facilities;
  - c. Hazardous waste storage or disposal facilities;
  - d. Hazardous materials manufacturing, storage, or disposal facilities;
  - e. Large scale groundwater withdrawal project (projects with total well discharge capacity requirements greater than 0.5 million gallons per day);
  - f. Golf courses and other agro-commercial land uses which are regular users of pesticides, fungicides, or fertilizers;
  - g. Wastewater treatment and disposal facilities discharging directly or indirectly to the groundwater serving projects with an average daily wastewater generation rate of 10,000 gallons per day or more. These facilities may be either an approved IWDS or a wastewater treatment facility.
  - h. Any underground injection well (see the Division's Underground Injection Control regulations for a definition of an underground injection well).
- 20.3 The CHI shall include a contingency plan in the event contamination of the groundwater is detected.
- 20.4 The cost to conduct a CHI, and the cost of all groundwater monitoring and laboratory analysis shall be borne by the owner of the facility.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992]*

### **Section 21. Discontinued Use of Wells**

- 21.1 A well shall be considered abandoned if the well is not being used in compliance with or maintained under a valid operation permit or the well has not been used for a period of 24 consecutive months.
- 21.2 Monitoring wells used in the investigation or management of groundwater basins are not considered abandoned so long as they are maintained for this purpose.
- 21.3 Owners of a well that is to be made inactive shall notify the Chief, in advance and in writing, of the expected period of inactivation and the reason for inactivating the well.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992]*

**Commonwealth of the Northern Mariana Islands  
Well Drilling and Well Operation Regulations**

**Section 22. Requirements for Destruction of Abandoned Wells**

- 22.1 All abandoned wells, including test wells, shall be destroyed by a licensed well driller in such a way that they will not produce water or act as a channel for the interchange of waters between aquifers. The owners of or those with a leasehold interest in the property upon which an abandoned well exists shall be responsible for all costs associated with abandonment, unless otherwise provided for by law.
- 22.2 Before the hole is filled, the well shall be inspected by a licensed well driller to determine its condition, details of construction, and whether there are any obstructions that will interfere with the process of filling and sealing. The well driller shall propose in writing the means and methods for filling the abandoned well to the Chief for review and approval prior to start of well filling work. All work shall be performed in accordance with applicable NWWA and AWWA standards.
- 22.3 The well driller shall notify the Division in writing at least three (3) working days in advance of scheduled well filling operations.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992]*

**See Appendix E for well destruction guidelines.**

**Section 23. Access to Wells**

- 23.1 Any duly authorized officer, employee, or representative of the Division may enter and inspect any property where a well is being constructed, operated, or filled, for the purpose of ascertaining the state of compliance with these regulations. No person shall refuse entry to an authorized representative of the Division of who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such inspection.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992]*

**Section 24. Severability**

- 24.1 If any rule, section, sentence, clause, or phrase of these regulations or its application to any person or circumstances or property is held to be unconstitutional or invalid, the remaining portions of these regulations or the application of these regulations to other persons or circumstances or property shall not be affected.

*[Commonwealth Register Vol. 14, No. 09, September 15, 1992]*

**Commonwealth of the Northern Mariana Islands  
Well Drilling and Well Operation Regulations**

**Section 25. Groundwater Management Zones**

25.1 Applicability

25.1.1 These amendments establish groundwater management zones (GMZs) for the island of Saipan only. Specific requirements for activities in GMZs are not being promulgated under these amendments at this time. Section 27 of these regulations is reserved for future addition of requirements for certain activities in GMZs. Some existing requirements for activities in designated GMZs are found in other CNMI regulations (e.g., Underground Storage Tank Regulations, Water Quality Standards, Wastewater Treatment and Disposal Regulations) for which the GMZs are applicable.

25.1.2 Requirements for wellhead protection, such as those under Section 6 of these regulations, apply regardless of GMZ classification. Where GMZ requirements are adopted that are more stringent than specific wellhead protection requirements, the more stringent GMZ requirement shall apply.

25.1.3 In the event that the precise location of a GMZ boundary is called into question for any activity, where such activity lies within 300 feet of a delineated GMZ boundary, the Director shall determine, on a case-by-case basis, which GMZ the proposed activity lies within. In making such determination, the overriding principal shall be protection of groundwater resources. Any decision to designate a lower classification of GMZ protection shall only be made on the basis of hydrogeological evidence clearly demonstrating that the groundwater underlying the activity in question does not warrant the higher level of GMZ protection. Provision of such evidence shall be the responsibility of the proposing party, in the form of a report prepared and certified by a registered geologist. The burden of proof shall rest with the proposer to demonstrate a basis for delineation of a less stringent GMZ. In the absence of such evidence, the higher GMZ protection classification shall be presumed to apply.

25.2 Designation of Groundwater Management Zones

Groundwater management zone (“GMZ”) classifications have been designated on the basis of groundwater quality, availability of recharge, susceptibility to degradation, and present and future land use. For the purposes of these regulations, chloride concentrations (milligrams per liter, or mg/l) shall be used as an indicator of water quality to delineate GMZs.

25.2.1 Class I Groundwater Management Zones

Class I GMZs are established as critical groundwater protection areas capable of supplying high quality fresh water, and shall receive the highest level of environmental protection. Class I GMZs represent the most important groundwater resources and are

## **Commonwealth of the Northern Mariana Islands Well Drilling and Well Operation Regulations**

considered vital for current and future water supplies. Because of the value of the resource and the permeable nature of the overlying geologic formations typical to the CNMI's geology, Class I GMZs are considered particularly vulnerable to degradation and contamination. Class I GMZs have been delineated to include the following:

- (a) All existing and potential areas of high-level (perched) groundwater). Groundwater that is encountered in high-level aquifer systems is of a near pristine quality because it overlies low-permeability volcanic formations and is therefore not in direct contact with seawater. In the CNMI, such high level aquifers occur primarily beneath limestone formations, and are highly susceptible to degradation and contamination.
- (b) Municipal wells fields. Degradation of public water well fields clearly poses a severe threat to CNMI municipal water supplies, and thus these areas, as mapped by the USGS with the cooperation of the Commonwealth Utilities Corporation (CUC), have been included under the Class I GMZ designation.
- (c) Watersheds contributing surface infiltration to springs and fresh surface systems. Several springs in the CNMI have been developed as important public water supplies, and several other springs and surface water streams (e.g. Talafofo) are planned for future development. Such springs and streams are largely fed by recharge through shallow soil and weathered rock systems overlying the parent volcanic rock, and are highly susceptible to contamination.

### 25.2.2 Class II Groundwater Management Zones

Class II GMZs are established as important protection areas considered capable of supplying good quality groundwater, but generally of lower quality (e.g. higher chlorides concentration) than Class I GMZs. Class II GMZs include relatively high quality basal groundwater lens resources with chloride concentrations less than roughly 500 mg/l. The 1-ft. contour line for the elevation of basal lens aquifers roughly corresponds to a basal groundwater lens thickness of 40 feet, and is generally considered to be the limit, seaward of which it becomes rapidly more difficult to obtain useable quantities of water with a chlorides concentration of less than 500 mg/l.

### 25.2.3 Class III Groundwater Management Zones

Class III GMZs are areas providing recharge to primarily brackish aquifers, having some intrinsic value as a resource to supply desalination plants, but primarily of lower value than groundwater found in Class I and II GMZs. Class III GMZs include the groundwater resources with chloride concentrations in excess of 500 mg/l, as delineated by the 1 ft. groundwater surface elevation described above under "Class II GMZs." The Class III GMZs are primarily coastal groundwater that has been significantly impacted by saltwater intrusion or mixing with salty groundwater.

## 25.3 Saipan Groundwater Management Zones

### 25.3.1 Basis for GMZ Designation

## **Commonwealth of the Northern Mariana Islands Well Drilling and Well Operation Regulations**

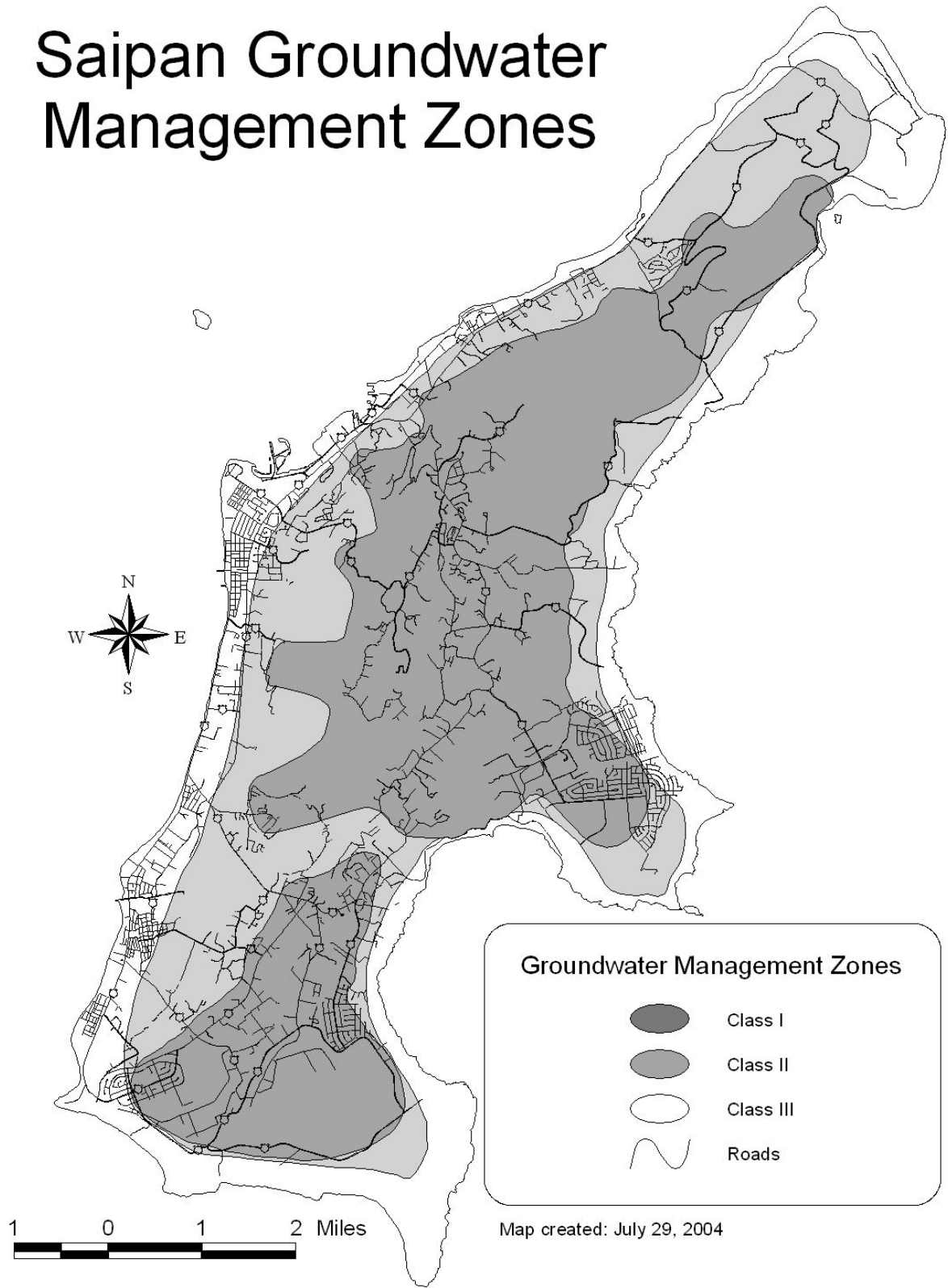
Groundwater Management Zones for the Island of Saipan are designated as shown in Figure 25.1. GMZs for Saipan are based on: maps published by the United States Geological Survey (USGS) in their report Ground-Water Resources of Saipan, Commonwealth of the Northern Mariana Islands, by Robert L. Carruth, USGS Water-Resources Investigations Report 03-4178, 2003; and topographic information published on the Topographic Map of the Island of Saipan, Commonwealth of the Northern Mariana Islands, USGS, 1999. In the event that there is a discrepancy between the narrative description and the mapped GMZs, the attached regulatory map (Figure 25.1) depicting the GMZs shall govern and shall supersede all narrative descriptions of GMZ boundaries.

- (a) Class I GMZs for the island of Saipan have been delineated using the USGS maps showing municipal well fields, low-permeability volcanic rocks at or above sea level (indicating the potential for high-level aquifers), and topography delineating the watershed boundaries of springs and fresh surface water systems. In some areas, roads have been used for clarity as boundaries where a boundary approaches the coastline.
- (b) Class II GMZs for Saipan have been delineated as lying between the Class I boundaries and the 1 ft. water-table contour as mapped by USGS. In some areas, roads have been used for clarity as boundaries where a boundary approaches the coastline.
- (c) Class III GMZs for Saipan have been delineated as lying between the 1 ft. water-table contour as mapped by USGS, and the coastline. In some areas, roads have been used for clarity as boundaries where a boundary approaches the coastline.

Commonwealth of the Northern Mariana Islands  
Well Drilling and Well Operation Regulations

FIGURE 25.1 Groundwater Management Zones Island of Saipan

# Saipan Groundwater Management Zones





## Commonwealth of the Northern Mariana Islands Well Drilling and Well Operation Regulations

### 25.4 Tinian Groundwater Management Zones

RESERVED

### 25.5 Rota Groundwater Management Zones

RESERVED

### 25.6 GMZ Maps

DEQ shall maintain the GMZ map(s) described in this section in electronic form, as data layers in a Geographic Information System (GIS) format. DEQ shall provide access to the GIS maps and shall GMZ determinations upon request. In the event that there is a discrepancy between the narrative description and the mapped GMZs, the attached regulatory map (Figure 25.1) depicting the GMZs shall govern and shall supersede all narrative descriptions of GMZ boundaries.

*[Commonwealth Register Vol. 26, No. 12 December 17, 2004]*

## **Section 26. Water Shortage Declaration**

26.1 The Chief, after consultation with the Commonwealth Utilities Corporation, may declare a water shortage and impose restrictions on permits to protect the public health, safety, and welfare.

26.2 When a water shortage is declared, the chief shall cause notice thereof to be published in a prominent place within a newspaper of general circulation or otherwise through the media in the Commonwealth. Such notice shall be published each day for the first week of the shortage and once a week thereafter until the declaration is rescinded. Publication of notice shall serve as notice to all permittees in the area of a water shortage and any restriction on their permits.

*[Commonwealth Register Vol. 16, No. 02, February 15, 1994]*

**Commonwealth of the Northern Mariana Islands  
Well Drilling and Well Operation Regulations**

**Section 27. Groundwater Protection**

In addition to the other groundwater protection measures within these regulations and the Act, to adequately protect the groundwater from contamination. Measures shall include but not be limited to:

- 27.1 Prohibition of disposal or spill of any hazardous wastes onto the ground or in any manner which has the possibility of contaminating groundwater.
- 27.2 Prohibition of storing of any hazardous wastes or materials in such a manner which has the possibility of contaminating groundwater.
- 27.3 Prohibition of storing or spilling hazardous materials/substances as defined by EPA, U.S. Department of Transportation, or DEQ in such a manner which has the possibility of contaminating groundwater.

Storage shall be done in a manner that to prevent possible contamination to groundwater. The chief may require more prevention measures as determined necessary by the Chief.

*[Commonwealth Register Vol.16, No. 02, February 15, 1994]*

**Section 28. Reserved**

*[Commonwealth Register Vol.16, No. 02, February 15, 1994]*

**Section 29. Severability**

- 29.1 If any rule, section, sentence, clause, or phrase or these regulations or its application to any person or circumstances or property is held to be unconstitutional or invalid, the remaining portions of these regulations or the application of these regulations to other persons or circumstances or property shall not be affected

*[Commonwealth Register Vol.16, No. 02, February 15, 1994]*

**Commonwealth of the Northern Mariana Islands  
Well Drilling and Well Operation Regulations**

**Appendix A. Well Driller's License Application Form**

To access the most recent version of this form, check the DEQ website at:

<http://www.deq.gov.mp/>



**Commonwealth of the Northern Mariana Islands**  
**OFFICE OF THE GOVERNOR**  
**Division of Environmental Quality**

P.O. Box 501304 C.K., Saipan, MP 96950-1304  
 Tels.: (670)664-8500/01  
 Fax: (670)664-8540



**WELL DRILLER'S LICENSE APPLICATION**  
 (please type or print clearly)

FOR DEQ USE ONLY	
Application No.:	
Date Received:	
Receipt No.:	
Received by:	

**SECTION 1 APPLICANT INFORMATION**

1.1 Name: \_\_\_\_\_

1.2 Mailing Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

1.3 Telephone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_

1.4 Name of duly authorized person representing Well Drilling Company:  
 \_\_\_\_\_

1.5 Application Submission Date: \_\_\_\_\_

1.6 Commonwealth Contractor License (attach copy of license)

1.7 Type of Application:  New  Renewal (attach copy of license)

1.8 Name of Insurance Company: \_\_\_\_\_

Mailing Address Ins. Company: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

1.9 Telephone No. Ins. Company: \_\_\_\_\_

1.10 Insurance Policy Number: \_\_\_\_\_

Extent of Coverage: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**SECTION 2 EQUIPMENT AND RENTAL**

2.1 Drilling Equipment owned or leased by company( Note: List equipment manufacturer, size, year of manufacture, capabilities, etc.)

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2.2 Personnel on staff

Please list all individuals currently on staff who meet the following criteria. Only persons meeting these criteria shall be authorized under this license to lead actual well drilling and well construction activities. (Note: Feel free to include a resume of each person listed below in order to help DEQ better assess the capabilities of persons authorized by the applicant to actually perform drilling operations.)

- The individual has at least two (2) years continuous work experience in well drilling and construction; and,
- The individual has proven by past experience and education or vocational training that he or she possesses a basic understanding of the Commonwealth’s geology and hydrology, and the general occurrence of groundwater within the Commonwealth.

Individual’s Name	Years of Experience	Formal Training

**SECTION 3 APPLICANT ACKNOWLEDGEMENT AND SIGNATURE**

Before this application can be processed, you, the applicant, must attest to the following:

I, \_\_\_\_\_ (print), as applicant for this Well Driller’s License, hereby state that I have knowledge of the facts herein set and that the same are true and correct to the best of my knowledge and belief, and are made in good faith. I have read and I understand the provisions and requirements set forth in the Well Drilling and Well Operations Regulations pertaining to well drilling’s licensing.

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

FOR OFFICE USE ONLY

1. Well Driller's License application completeness checklist:

- Fee Paid?
- Application signed by the applicant?
- All portions of the application completed?
- Insurance coverage given, including limits of coverage, name insured, and expiration of policy?
- Performance Bond included?
- Adequate detail given about personnel on staff?

2. Decision by Director:

- Approved license

License no.: \_\_\_\_\_ Date: \_\_\_\_\_

- Approved with conditions (state conditions): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Disapproved license (state reasons): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SIGNED: \_\_\_\_\_

DATE: \_\_\_\_\_

**Commonwealth of the Northern Mariana Islands  
Well Drilling and Well Operation Regulations**

**Appendix B. Well Drilling Application and Permit Process**

The well drilling permit process standard operating procedure is not a part of the well drilling and well operating regulations. It is a guideline to be used for DEQ Groundwater Management Staff when processing a well drilling permit application. This standard operating procedure/guideline is provided here to inform the general public how this process is intended to progress.

The Well Drilling Permit Application is also included. To access the most recent version of this form, check the DEQ website at:

<http://www.deq.gov.mp/>



Commonwealth of the Northern Mariana Islands  
 OFFICE OF THE GOVERNOR  
 Division of Environmental Quality  
 SAFE DRINKING WATER PROGRAM  
 STANDARD OPERATING PROCEDURE  
**WELL DRILLING PERMIT PROCESS**

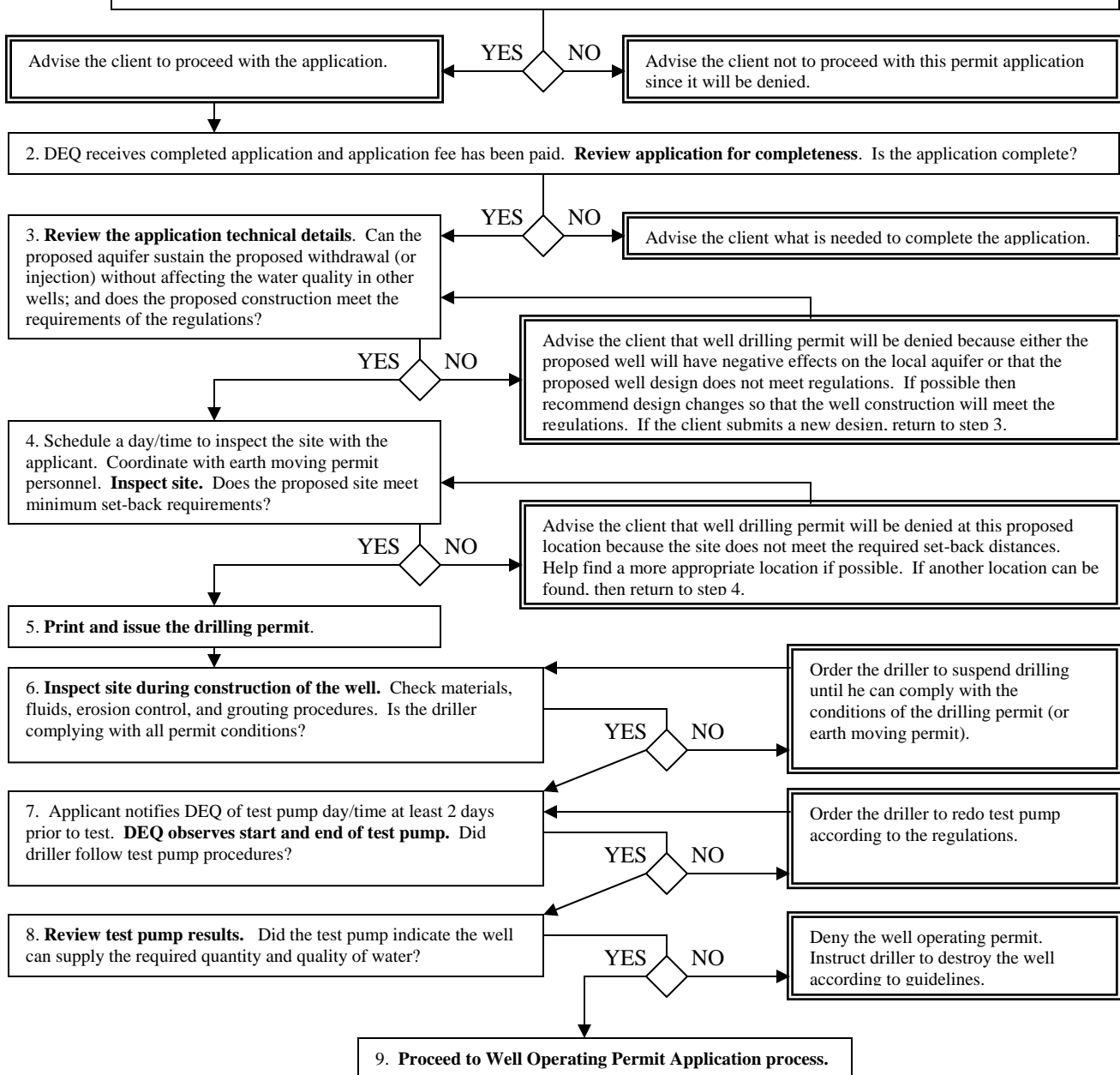


**Purpose:** To outline the procedures to follow when a client is applying for a well drilling permit.

**Background:** Under the **Well Drilling and Well Operation Regulations**, Section 5, Well Drilling Permit Application Requirements, “no well may be drilled unless the owner (or lessee) of the land upon which the well is to be drilled, has obtained a well drilling permit from the Director.” Section 5 outlines the information required in the permit application (use the DEQ permit application form). The purpose of the application process is: 1) to assure that the well **site** is suitable (meets setback regulations); 2) to assure that the proposed well **design** is suitable (sanitary, selects desired aquifer, and meets other design criteria in the regulations).

**Procedure:**

**1. Before the client pays the permit application fee, staff should consult with the client in the office (no field visit) to assess whether there are obvious reasons the permit may be denied.** Does the applicant own the land; and is CUC unable to provide the requested amount of water; and will the proposed well site meet the minimum set-back distances; and will the aquifer sustain the proposed pumping rate?







**Commonwealth of the Northern Mariana Islands**  
**OFFICE OF THE GOVERNOR**  
**Division of Environmental Quality**  
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Tels.: (670)664-8500/01  
Fax: (670)664-8540



## EXPLORATORY WELL DRILLING PERMIT APPLICATION

(please print or type clearly)

FOR OFFICE USE ONLY	
APPLICATION NO.:	
DATE RECEIVED:	
RECEIPT NO.:	
RECEIVED BY:	

### SECTION 1 APPLICATION INFORMATION

- 1.1 Name of applicant: \_\_\_\_\_
- 1.2 Name of project: \_\_\_\_\_
- 1.3 Mailing address: \_\_\_\_\_
- 1.4 Telephone and fax number: \_\_\_\_\_
- 1.5 Authorized representative: \_\_\_\_\_
- 1.6 Mailing address of representative: \_\_\_\_\_
- 1.7 Telephone and fax number of representative: \_\_\_\_\_
- 1.8 Type of application:  New  Renewal

### SECTION 2 WELL DRILLER INFORMATION

- 2.1 Name of Well Driller \_\_\_\_\_
- 2.2 Well Driller license number \_\_\_\_\_
- 2.3 Type of drilling equipment to be used \_\_\_\_\_
- 2.4 Type of drilling fluid to be used (indicate manufacturer brand name, chemical composition, and quantity to be used) \_\_\_\_\_
- 2.5 Proposed well drilling start date \_\_\_\_\_

SECTION 3 WELL INFORMATION

3.1 Intended use (check appropriate space or spaces)

Community Drinking Water Supply

- Commonwealth Utilities Corp.
- Hotel/Resort
- Staff Workers Housing
- Apartments
- Residential Subdivision
- Condominiums
- Others, specify \_\_\_\_\_

Non-Community Drinking Water Supply

- School
- Garment Factory
- Commercial
- Restaurant
- Rental Space

Agricultural/Irrigation Water Supply

- Farming
- Golf Course
- Others, specify \_\_\_\_\_

Domestic Water Supply

- Single Family
- Industrial Use Water Supply
- Ground Water Monitoring Wells
- Test Wells/Test Holes
- Others, specify \_\_\_\_\_

Note: if you propose to construct an underground injection well, you must follow the requirements set forth in the UNDERGROUND INJECTION WELL CONTROL REGULATIONS, a copy of which is available at the office of DEQ.

3.2 Type of well(s) (check appropriate type)

- a.  New
- b.  Reconstruction
- c.  Seawater Well
- d.  Well Pre-Determined to under go reverse osmosis treatment
- e.  Monitoring Well(s)
- f.  Injection Well(s)

Is the well within 250 feet to a CUC Water Distribution line?  Yes  No  
If yes, the applicant must complete WD Form Section I and II

3.3 Schematic Well Design

List the INTENDED discharge capacity and monthly production of each proposed well. This discharge capacity must be equal to or greater than the total well discharge capacity requirement defined in Section II of the Regulations. Also, list estimated well depths and expected well casing diameter(s).

INTENDED WELL		MONTHLY WELL	
WITHDRAWAL CAPACITY	DEPTH	CASING DIAM.	PRODUCTION
Well #1 _____ GPM	_____ FT	_____ INCH	_____ GPM
Well #2 _____ GPM	_____ FT	_____ INCH	_____ GPM
Well #3 _____ GPM	_____ FT	_____ INCH	_____ GPM
Well #4 _____ GPM	_____ FT	_____ INCH	_____ GPM
Total: _____ GPM			

Note:

- (1) In order to determine a projects well discharge capacity requirement, the applicant must fill out the attached "Estimate of Project Water Supply Requirement", WD Form 6.0.
- (2) The values dictate the pump test flow rate.
- (3) If the project total well discharge capacity requirement exceeds 200 gpm, the applicant must identify the hydrogeologist/groundwater engineer retained to supervise the pump test.

3.4 **FOR BOTH PUBLIC AND NON-PUBLIC WATER SUPPLY WELLS: THE MAP (MASTER SITE DEVELOPMENT PLAN) DRAWN AT A SCALE OF 1 INCH EQUALS 100 FEET, SHOWING ALL INFORMATION AS REQUIRED IN SECTION OF THE ADOPTION OF AMENDMENTS TO THE WELL DRILLING WELL OPERATIONS REGULATIONS. THE MAP (SITE DEVELOPMENT PLAN) MUST BE CERTIFIED TO BE COMPLETE AND ACCURATE.**

Note: Map must accompany with the application when submitting the application, for it has been referenced as Attachment A.

3.5 **NOTE: LOCATION OF ALL WELLS AND PROJECT PROPERTY BOUNDARIES ON A COPY OF THE USGS MAP. USGS map must accompany with the application for it has been referenced as Attachment B.**

**SECTION 4 PROJECT DESCRIPTION**

4.1 Briefly describe the project for which this well drilling permit is required (Note: Fill in as appropriate)

Project Name \_\_\_\_\_

General Description \_\_\_\_\_

Number of buildings, bedrooms, housing units, sq. ft., etc. \_\_\_\_\_

4.2 Project Location:

Lot Number(s) \_\_\_\_\_ District \_\_\_\_\_

Village \_\_\_\_\_ Island \_\_\_\_\_

4.3 Other permits required for this project (Note: Fill in as appropriate)

CRM Major Siting Permit number and date issued \_\_\_\_\_  
DEQ Earthmoving Permit number and date issued \_\_\_\_\_  
DEQ IWDS Permit number and date issued \_\_\_\_\_

**SECTION 5 APPLICANT ACKNOWLEDGEMENT AND SIGNATURE**

BEFORE THIS APPLICATION CAN BE PROCESSED, YOU, THE APPLICANT MUST ATTEST TO THE FOLLOWING:

I, \_\_\_\_\_(print), AS THE APPLICANT FOR THIS WELL DRILLING PERMIT, HEREBY STATE THAT I HAVE KNOWLEDGE OF THE FACTS HEREIN SET AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND ARE MADE IN GOOD FAITH. I HAVE READ THE PROVISIONS AND REQUIREMENTS SET FORTH IN THE SELL DRILLING AND WELL OPERATIONS REGULATIONS PERTAINING TO WELL SITING, WELL SIXING, WELL CONSTRUCTION, PUMP TESTING, WATER QUALITY SAMPLING, AND REPORTING TO DEQ, AND UNDERSTANDING THEM AND THEIR IMPORTANCE TO THE PROPER MANAGEMENT AND PROTECTING OF THE GROUNDWATER RESOURCES OF THE CNMI. I UNDERSTAND THAT COMPLIANCE FO ALL WELL DRILLING PERMITS.

SIGNATURE \_\_\_\_\_  
APPLICANT

DATE: \_\_\_\_\_

## SECTION I

TO BE COMPLETED BY THE WELL DRILLING PERMIT APPLICANT  
(please type or print clearly)

1. Name of Applicant: \_\_\_\_\_
2. Project Name: \_\_\_\_\_
3. General Description of Project: \_\_\_\_\_
4. Project Location (attach map):  
Lot Owner(s): \_\_\_\_\_ District: \_\_\_\_\_  
Village: \_\_\_\_\_ Island: \_\_\_\_\_
5. Estimated project water supply requirement (complete Form 6.0) \_\_\_\_\_ gallons per day.
6. Desired start date of water service \_\_\_\_\_.

Submitted to CUC Water Division Manager by:

\_\_\_\_\_  
Applicant's Signature

## SECTION II

TO BE COMPLETED BY CUC WATER DIVISION MANAGER

I have reviewed the well drilling permit project location, the project's estimated water supply requirement, and the applicant's desired water service date. Given the current and near term future capacity of the CUC's water supplies to the applicant's project area, I determined that:

CUC Water Division could not supply the desired amount of water by applicant.

CUC Water Division could supply the desired amount of water by the applicant.

If you have any question concerning the water service in project area, please contact CUC Water Division at 235-7025.

\_\_\_\_\_  
CUC Water Division Manager

\_\_\_\_\_  
Date

## WD 6.0 ESTIMATE PROJECT WATER SUPPLY REQUIREMENT

Type of Development	Gallons Per Unit Per Day (GPD)	Number of Unit	Total Gallons Per Day (GPD)
Single Family or Duplex	150/Bedroom	_____ Bedroom	_____
Apartment	120/Bedroom	_____ Bedroom	_____
Condominium/Motel	150/Bedroom	_____ Bedroom	_____
Hotel/Resort	225/Bedroom	_____ Bedroom	_____
Barracks/Worker's Housing	225/Bedroom	_____ Bed	_____
Restaurants	60 /Bed	_____ Seat	_____
Lounge/Bars	40 /Seat	_____ Seat	_____
Schools with Cafeteria	10 /Seat	_____	_____
Schools without Cafeteria	25 /Student/Faculty	_____	_____
Office Space	10 /Student/Faculty	_____	_____
Retail Commercial Space	15 /100 sq. ft. gross	_____	_____
Factory	15 /Worker Shift	_____	_____
Self Service Laundry Facility	250/Washer	_____	_____
Car Wash	40 /Vehicle Served	_____	_____
Swimming Pool	10 /Person	_____	_____
Landscape Irrigation Demand	5,000/acre	_____	_____
Total Gallons Project Water Supply Requirement			_____
Number of Gallons Request per Well			_____ GPD _____ GPM
Total Gallons per Month			_____ Month

## NOTE TO THE APPLICANT

DEQ may not accept Well Drilling Application if any of the lists below are not completed.

### REQUIREMENTS TO BE SUBMITTED ALONG WITH THE WELL DRILLING APPLICATION FORM:

A map drawn at a scale of not more than one (1) inch equals one hundred (100) feet showing the following data FOR BOTH PUBLIC AND NON-PUBLIC WATER SUPPLIES:

1. Location of property lines and survey monuments with ties to proposed well location.
2. Name of property owner upon which well is to be located, and name of abutter of said property.
3. A site location plan (no scale required) sufficiently accurate to allow division staff to find the site.
4. Describe existing and proposed land use(s) must be scale of no more than one (1) inch equals 100 feet.
5. Sketch of existing and or proposed access to well site(s).
6. Ground surface topography, with contour intervals not to exceed ten (10) feet, within 150 feet to the proposed well location.
7. Location of all existing or proposed public sewer lines, sewer pump stations, and other sewage facilities, individual waste disposal systems, intermittent perennial streams, ponding basin, other wells (either active or abandon one), building, storm water drains, and wetlands within 2,500 foot radius of the proposed well location. In addition, the applicant is responsible for certifying that the proposed PUBLIC WATER SUPPLY meets the minimum set-back requirements outline in Section 6 of the amendment Well Drilling Regulations.
8. Location and elevation of a temporary benchmark established by a registered land surveyor.
9. A statement as to whether the proposed well is to be constructed within the 100-year flood plain area.
10. Location of pump test well water discharge.
11. WD Form 3.3, Section I and II of the application must be sign by CUC Water Division.

**Commonwealth of the Northern Mariana Islands  
Well Drilling and Well Operation Regulations**

**Appendix C. Application for Well Operations Permit**

To access the most recent version of this form, check the DEQ website at:

<http://www.deq.gov.mp/>





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Fax: (670)664-8540



## APPLICATION FOR WELL OPERATIONS PERMIT

NO WELL MAY BE OPERATED UNLESS THE OWNER OF THE WELL (TO BE KNOWN HEREINAFTER AS "THE APPLICANT") HAS FIRST OBTAINED A WELL OPERATIONS PERMIT

TO YOU THE APPLICANT:

If you wish to operate a well or withdraw groundwater, you must first obtain a WELL OPERATIONS PERMIT from the office of Division of Environmental Quality (DEQ). DEQ has been given the legislative authority to institute this well operations permit process through Public Law 6-12, the Groundwater Management and Protection Act of 1988. In order to obtain a WELL OPERATIONS PERMIT, you must complete a WELL OPERATIONS PERMIT APPLICATION, and submit it to the Safe Drinking Water Branch (SDWB) of DEQ.

Before completing this application, you should be familiar with the provisions of the WELL DRILLING AND WELL OPERATIONS REGULATIONS. If you do not have a copy of the regulations, you may obtain a copy at the office of DEQ. If you need assistance in completing this application, DEQ staff will be pleased to offer you the help you need.

**For applicants seeking a new wells permit, complete ALL sections of this application. For applicants seeking to renew operations permit for in-service wells, complete ONLY Section 1, Section 7, and Form 5.2 and pay the appropriate renewal fee.**

You will be sent a notice within ten (10) calendar days of submitting your application, stating whether or not the SDWB finds the application complete. The SDWB will review and act on your application within twenty (20) calendar days of determining that the application is complete.

When you submit your application, you must include the appropriate application renewal fee. No permit application will be accepted without receipt of the correct application fee. The application fee is not refundable. The fee is based upon the amount of water you are permitted to withdraw from the ground. See Section 11 and Section 12 of the WELL DRILLING AND WELL OPERATIONS REGULATIONS to determine your correct application fee.

If you should have any questions regarding this application, or the requirements of the well operations permit process, please contact Joe Kaipat, SDWB Manager of DEQ at phone number shown above.



**Commonwealth of the Northern Mariana Islands**  
**OFFICE OF THE GOVERNOR**  
**Division of Environmental Quality**

P.O. Box 501304 C.K., Saipan, MP 96950-1304  
 Tels.: (670)664-8500/01  
 Fax: (670)664-8540



**WELL OPERATIONS PERMIT APPLICATION**

FOR DEQ USE ONLY	
APPLICATION NO.:	
DATE RECEIVED:	
RECIPT NO.:	
RECEIVED BY:	

(please type or print clearly)

**SECTION 1 APPLICANT INFORMATION**

- 1.1 Name: \_\_\_\_\_
- 1.2 Mailing Address: \_\_\_\_\_  
\_\_\_\_\_
- 1.3 Telephone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_
- 1.4 Application Submission Date: \_\_\_\_\_
- 1.5 Type of Application  New
- 1.6 Exploratory Well Drilling Permit Application No.: \_\_\_\_\_

**SECTION 2 WELL INFORMATION**

- 2.1 If any aspect of any well(s) covered under this application differ from the information provided in the Well Drilling Permit Application, you must list all these differences below. Key aspect include Well location(s), intended use of Well, population served, and type of Well.

Note: If you propose to operate an underground injection well, you must follow the requirements set forth in the UNDERGROUND INJECTION CONTROL REGULATIONS, a copy of which is available at the office of DEQ.

- 2.2 Provide as-built construction details of each well. Complete Form 2.2 (As-Constructed Well Profile) for each well covered under this application.

**SECTION 3 WELL DRILLING INFORMATION**

- 3.1 Complete Form 3.1 (Lithologic Logging) for each Well.

**SECTION 4 PUMP TESTING INFORMATION**

- 4.1 Complete Form 4.1 (Pump test data sheet) for each Well.

## SECTION 5 WATER QUALITY DATA SUBMISSION

5.1 Complete Form 5.1 (Water quality data sheet) for each Well.

5.2 Do you intend to utilize a form of water treatment?

Reverse Osmosis

ION Exchange

Other

None

5.3 If you need to employ water treatment, you must:

- Submit a Water Treatment Waste Stream Disposal Plan.
- Submit Treatment Process Specifications, Design Basis, and Chemical Usage Data

## SECTION 6 WELL WITHDRAWAL

6.1 Requested maximum monthly withdrawal and pump data, by Well:

	Gal per/month	Pump HP	Expected Well Head Operating Pressure	Estimated Pump Discharge Cap.
Well 1	_____	_____	_____ PSI	_____ GPM
Well 2	_____	_____	_____ PSI	_____ GPM
Well 3	_____	_____	_____ PSI	_____ GPM
Well 4	_____	_____	_____ PSI	_____ GPM
Total:	_____	Gals per/month withdrawal:		_____ GPM

## SECTION 7 APPLICANT ACKNOWLEDGMENT AND SIGNATURE

Before this application can be processed, you, the applicant, must attest to the following:

I, \_\_\_\_\_ (print), as applicant for this well operations permit, hereby state that I have knowledge of the facts herein set that the same are true and correct to the best of my knowledge and belief, and are made in good faith. I have read the provisions and requirements set forth in the Well Drilling and Well Operations Regulations pertaining to water quality reporting requirements and water production record keeping, and understanding them and their importance to the proper management and protection of the groundwater resources of the CNMI. I understand that compliance with the above requirements is a general condition for all well operations permits, and that annual renewal of the permit is not possible without submission of water quality and metered water production data.

SIGNATURE: \_\_\_\_\_  
Applicant

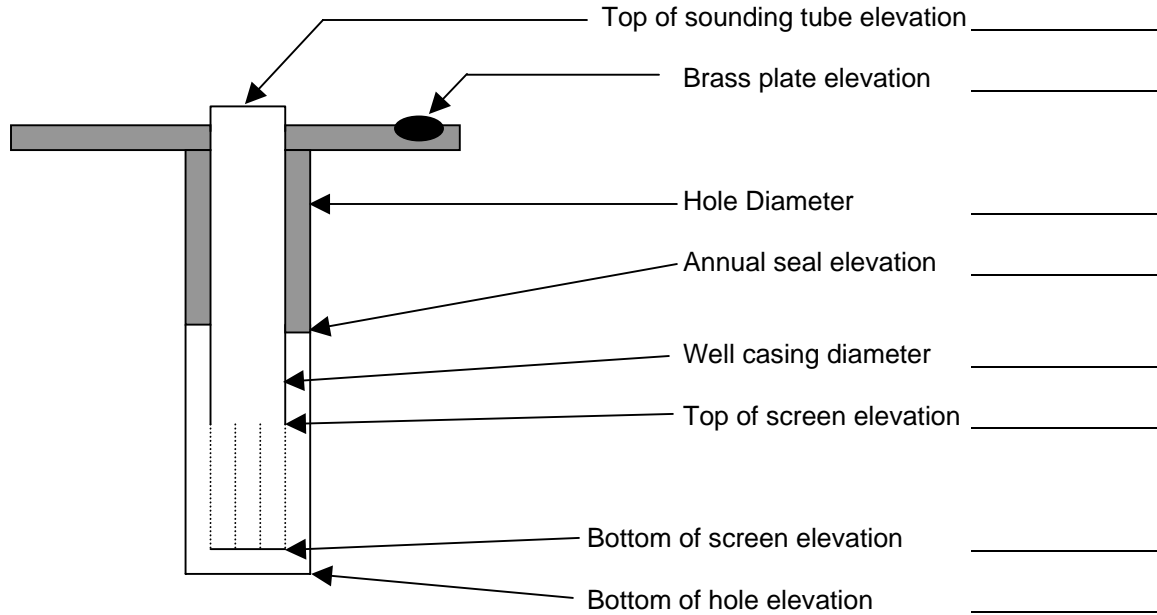
\_\_\_\_\_  
Date

## FORM 2.1

AS-CONSTRUCTED Well Profile – Well Number \_\_\_\_\_

Date of last construction \_\_\_\_\_

Complete one for each Well included in this application



**Additional Construction Information:**

1. Well Screen Type: \_\_\_\_\_ Manufacturer: \_\_\_\_\_  
Screen Diameter: \_\_\_\_\_ Material: \_\_\_\_\_
2. Annual Seal Material: \_\_\_\_\_ Annular Thickness: \_\_\_\_\_
3. Well Head Facilities:  
Flow Meter Size: \_\_\_\_\_ in. Manufacturer: \_\_\_\_\_  
Model No.: \_\_\_\_\_ in. Material: \_\_\_\_\_  
Sounding Tube Diam.: \_\_\_\_\_ in. Material: \_\_\_\_\_
4. Check the following if they are part of the well head design:  

<input type="checkbox"/> Chlorination Facility	<input type="checkbox"/> Concrete Pedestal
<input type="checkbox"/> Gate Valve	<input type="checkbox"/> Check Valve
<input type="checkbox"/> Sampling Tap	<input type="checkbox"/> Pressure Gauge
<input type="checkbox"/> Well Casing Air Ven (screened)	
5. Method of Drilling: \_\_\_\_\_
6. Development Method: \_\_\_\_\_



**FORM 4.1  
PUMP TEST DATA SHEET**

Drilling Company:					Well No.:	
Size and Type of Casing:					Sheet 1 of	
Flow Meter Size and Type:					Measured by:	
Depth Sounding Equipment:						
Measuring Point Description:						
Open Hole/Casing From		To		Depth Test Pumping Setting		FT.
Date	Time Of Day	Test Time	Depth of Water, FT.	Drawdown FT.	Flow GPM	Remarks
		Start				Take Sample #1
		1 Min.				
		2 Min.				
		3 Min.				
		4 Min.				
		5 Min.				
		6 Min.				
		7 Min.				
		8 Min.				
		9 Min.				
		10 Min.				
		12 Min.				
		14 Min.				
		16 Min.				
		18 Min.				
		20 Min.				
		22 Min.				
		24 Min.				
		26 Min.				
		28 Min.				
		30 Min.				
		40 Min.				
		50 Min.				
		1 Hour				

Well No.: \_\_\_\_\_ Test Supervised by: \_\_\_\_\_

Sheet 2 of \_\_\_\_\_

Date	Time Of Day	Test Time	Depth of Water, FT.	Drawdown FT.	Flow GPM	Remarks
		1H 30M				
		2:00				Take Sample #2
		2:30				
		3:00				
		3:30				
		4:00				Take Sample #3
		4:30				
		5:00				
		5:30				
		6:00				Take Sample #4
		6:30				
		7:00				
		7:30				
		8:00				Take Sample #5
		9:00				
		10:00				
		11:00				
		12:00				Take Sample #6
		13:00				
		14:00				
		15:00				
		16:00				Take Sample #7
		17:00				
		18:00				
		19:00				
		20:00				
		21:00				
		22:00				
		23:00				
		24:00				Take Sample #8

COMPLETE ONLY IF WELL SERVES 25 PEOPLE OR MORE

Well No.: \_\_\_\_\_ Test Supervised by: \_\_\_\_\_

Sheet 3 of \_\_\_\_\_

Date	Time Of Day	Test Time	Depth of Water, FT.	Drawdown FT.	Flow GPM	Remarks
		26:00				
		28:00				
		30:00				Take Sample #9
		32:00				
		34:00				
		36:00				Take Sample #10
			Recovery	Test		
		1 Min.				
		2 Min.				
		3 Min.				
		4 Min.				
		5 Min.				
		6 Min.				
		7 Min.				
		8 Min.				
		9 Min.				
		10 Min.				
		11 Min.				
		12 Min.				
		13 Min.				
		14 Min.				
		15 Min.				
		16 Min.				
		17 Min.				
		18 Min.				
		19 Min.				
		20 Min.				
		21 Min.				
		22 Min.				
		23 Min.				
		24 Min.				



# FORM 5.1

## WATER QUALITY ANALYSIS

EXPLORATORY WELL DRILLING NO.: \_\_\_\_\_

LABORATORY: \_\_\_\_\_

DATE OF ANALYSIS: \_\_\_\_\_

	HARDNESS	PH	CHLORIDE	CONDUCTIVITY	TDS	TOTAL COLIFORM
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

**FOR OFFICE USE ONLY**

1. Well Operations Permit Application completeness check list

- Correct Fee Paid?
- Does total Well discharge capacity requirement differ from original Well. Drilling Permit? If, so, do application fees reflect the change?  Yes  No
- Application signed by applicant?
- 1 inch equals 100 feet and USGS maps included?
- Final water use estimates based on DEQ criteria?
- All water quality data submission requirements met?
- All as-built well construction details (Form 2.2) submitted?
- All Lithologic Well Logs (Form 3.1) submitted?
- All Pump Test Data (Form 4.1) submitted?
- Does raw Well water quality meet DEQ water quality standards (submit Form 5.1). If water does not meet standards, applicants must be notified that water treatment is required.
- Has applicant stated intention to utilize water treatment? If so, has the applicant submitted Waste Disposal Plan?  Yes  No
- Pump curve and pump manufacturer information submitted?

2. Well Inspection

Well facilities were inspected on \_\_\_\_\_ by \_\_\_\_\_ (initial)  
(inspection required for permit renewal)

Check the following components installed and in operable condition:

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Concrete Pedestal | <input type="checkbox"/> Pressure Gauge       | <input type="checkbox"/> Sample Tap    |
| <input type="checkbox"/> Gate Valve        | <input type="checkbox"/> Check Valve          | <input type="checkbox"/> Sounding Tube |
| <input type="checkbox"/> Flow Meter        | <input type="checkbox"/> Well Casing Air Vent |  |

Operating Gauge Pressure \_\_\_\_\_ PSI    Operating Flow Rate \_\_\_\_\_ GPM

Other findings: \_\_\_\_\_

3. Decision by SDWB Manager:

Approved Permit Permit No.: \_\_\_\_\_ Date Issued: \_\_\_\_\_

Approved with Conditions (state conditions)

Disapproved Permit (state reasons)

4. Maximum monthly permitted withdrawal by Well:

Well No. 1: \_\_\_\_\_  
Well No. 2: \_\_\_\_\_  
Well No. 3: \_\_\_\_\_  
Well No. 4: \_\_\_\_\_

SDWB Manager signature \_\_\_\_\_ Date: \_\_\_\_\_

## DATA ENTRY FORM

1. Project Name: \_\_\_\_\_ Permit No.: \_\_\_\_\_

[ ] Check here if Sea Water Well(s)

2. Aquifer designation code: \_\_\_\_\_

3. Total Well discharge capacity requirement \_\_\_\_\_ GPM  
Total maximum monthly permitted withdrawal (all wells) \_\_\_\_\_ GPM

4. Well Data:

---

Well No. 1    \_\_\_\_\_ Deg    \_\_\_\_\_ Min    \_\_\_\_\_ Sec Latitude    Well Depth \_\_\_\_\_ FT.  
\_\_\_\_\_ DEG    \_\_\_\_\_ Min    \_\_\_\_\_ Sec Longitude    Screen Range \_\_\_\_\_ to \_\_\_\_\_ FT.

Production Capacity \_\_\_\_\_ GPM  
Max monthly permitted withdrawal \_\_\_\_\_ GPM    TOC Elev. \_\_\_\_\_

---

Well No. 2    \_\_\_\_\_ Deg    \_\_\_\_\_ Min    \_\_\_\_\_ Sec Latitude    Well Depth \_\_\_\_\_ FT.  
\_\_\_\_\_ DEG    \_\_\_\_\_ Min    \_\_\_\_\_ Sec Longitude    Screen Range \_\_\_\_\_ to \_\_\_\_\_ FT.

Production Capacity \_\_\_\_\_ GPM  
Max monthly permitted withdrawal \_\_\_\_\_ GPM    TOC Elev. \_\_\_\_\_

---

Well No. 3    \_\_\_\_\_ Deg    \_\_\_\_\_ Min    \_\_\_\_\_ Sec Latitude    Well Depth \_\_\_\_\_ FT.  
\_\_\_\_\_ DEG    \_\_\_\_\_ Min    \_\_\_\_\_ Sec Longitude    Screen Range \_\_\_\_\_ to \_\_\_\_\_ FT.

Production Capacity \_\_\_\_\_ GPM  
Max monthly permitted withdrawal \_\_\_\_\_ GPM    TOC Elev. \_\_\_\_\_

---

Well No. 4    \_\_\_\_\_ Deg    \_\_\_\_\_ Min    \_\_\_\_\_ Sec Latitude    Well Depth \_\_\_\_\_ FT.  
\_\_\_\_\_ DEG    \_\_\_\_\_ Min    \_\_\_\_\_ Sec Longitude    Screen Range \_\_\_\_\_ to \_\_\_\_\_ FT.

Production Capacity \_\_\_\_\_ GPM  
Max monthly permitted withdrawal \_\_\_\_\_ GPM    TOC Elev. \_\_\_\_\_

---

5. Community Water Supply? \_\_\_\_\_ Non-Community Water Supply? \_\_\_\_\_

6. Was a hydrogeologic investigation undertaken? [ ] Yes [ ] No (attach copy)

7. Water quality sampling protocol "Routine" Semi-Annual  
Other "Non-Routine" sampling requirements (specify parameters)

8. Initial chloride concentration (Hour 0) \_\_\_\_\_ mg/l  
End chloride concentration (Hour 24/36) \_\_\_\_\_ mg/l  
Maximum chloride concentration hour \_\_\_\_\_ mg/l

9. Pump Test date: \_\_\_\_\_ Permit Issued date: \_\_\_\_\_

10. Water Treatment process employed

11. Required sampling date(s)  
Date \_\_\_\_\_ parameters  
Date \_\_\_\_\_ parameters  
Date \_\_\_\_\_ parameters

**Commonwealth of the Northern Mariana Islands  
Well Drilling and Well Operation Regulations**

**Appendix D. Renewal Well Operations Application**

To access the most recent version of this form, check the DEQ website at:  
<http://www.deq.gov.mp/>



## SECTION 2. WELL OPERATION PERMIT INFORMATION

2.1 Do you currently utilize a water treatment unit?  Yes  No

Type(s) of Treatment?

- Reverse Osmosis  ION Exchange  
 Others  None

2.2 If no, do you intend to utilize treatment in the near future?  Yes  No

2.3 If you currently or intend to apply water treatment, you must submit the following to DEQ?

- Treatment process specification and design.
- Diagram flow plans including pipe from raw water to the treatment, from R.O. treatment to the distribution.
- Water treatment waste stream disposal plan.

## SECTION 3. WELL INFORMATION

3.1 Gallons per minute withdrawal for each Well:

- Well #1 Permit Number: \_\_\_\_\_ GPM Permitted: \_\_\_\_\_
- Well #2 Permit Number: \_\_\_\_\_ GPM Permitted: \_\_\_\_\_
- Well #3 Permit Number: \_\_\_\_\_ GPM Permitted: \_\_\_\_\_
- Well #4 Permit Number: \_\_\_\_\_ GPM Permitted: \_\_\_\_\_
- Well #5 Permit Number: \_\_\_\_\_ GPM Permitted: \_\_\_\_\_
- Estimate pump discharge: \_\_\_\_\_ Horse Power: \_\_\_\_\_

3.2 Does existing Well have a benchmark present?  Yes  No

- If no, benchmark must be installed by a registered surveyor, prior to submission of this application.

## SECTION 4. SIGNATURE

4.1 Before this application can be processed, you, the applicant must attest to the following:

I, \_\_\_\_\_ (print), an application for this Well Operation Permit, hereby state that I have knowledge of the herein set and that the same are true and correct to the best of my knowledge and belief, and are made in good faith. I have read the provisions and requirements set forth in the Well Drilling Reporting Requirements and Water Production Proper Management and Protection of the groundwater resources of the CNMI. I understand that compliance with the above requirements is a general condition for all well operations permits, and that annual renewal of the permit is not possible without submission of the water quality and metered water production data.

\_\_\_\_\_  
Applicant

\_\_\_\_\_  
Date

## SECTION 5. ANNUAL WELL OPERATION REPORT

5.1 This form is to completed each year by all Well operators permit holders with a total project well Production capacity requirements. Without submission of this form to DEQ, renewal of the Well operator permit will not be possible and may be revoked and discontinue of well operation.

\_\_\_\_\_/\_\_\_\_\_

5.2 Routine Annual Water Quality Analysis:

Laboratory: \_\_\_\_\_

Date of Analysis: \_\_\_\_\_

Chloride: \_\_\_\_\_ mg/l

Conductivity: \_\_\_\_\_ mhos

TDS: \_\_\_\_\_ mg/l

Hardness: \_\_\_\_\_ mg/l

Total Coliform: \_\_\_\_\_ /100 ml

pH: \_\_\_\_\_

Nitrate: \_\_\_\_\_ mg/l

5.3 Monthly Water Production Records:

Month/Year	Total Gallon Pumped:
January, _____	_____ Gallons
February, _____	_____ Gallons
March, _____	_____ Gallons
April, _____	_____ Gallons
May, _____	_____ Gallons
June, _____	_____ Gallons
July, _____	_____ Gallons
August, _____	_____ Gallons
September, _____	_____ Gallons
October, _____	_____ Gallons
November, _____	_____ Gallons
December, _____	_____ Gallons
Total Annual Production:	_____ Gallons
Gallons Per Minute permitted:	_____ GPM

\_\_\_\_\_  
Well Owner Signature

\_\_\_\_\_  
Date



**Commonwealth of the Northern Mariana Islands  
Well Drilling and Well Operation Regulations**

**Appendix E. Well Destruction Guidelines**

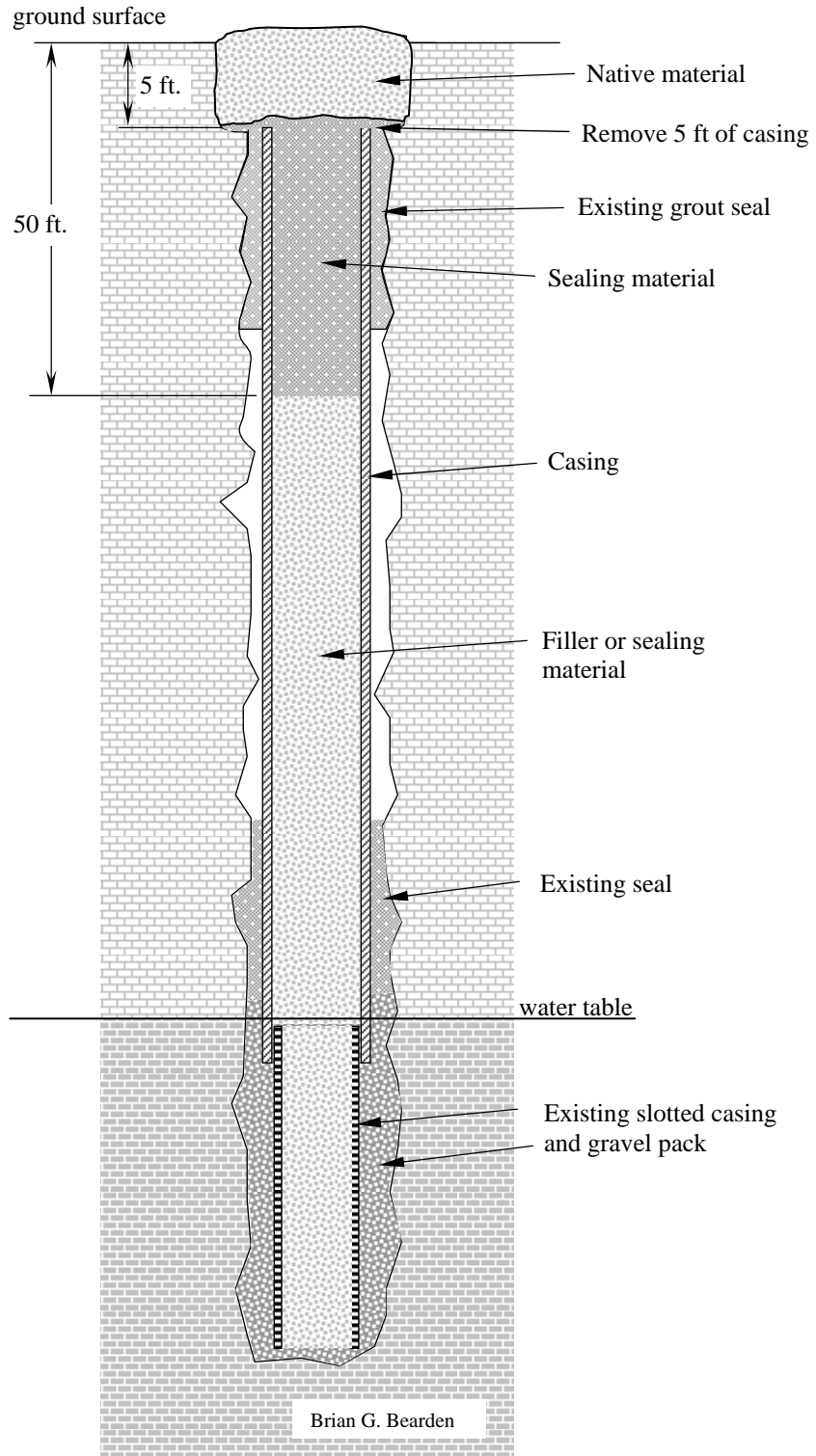
The well destructions guidelines are not regulations and were not published in the Commonwealth Register. The regulations state that the well driller shall propose the method and means of destroying the well and that all work shall be performed in accordance with applicable NWWA and AWWA standards. These guidelines have been developed to assist the well driller propose an acceptable method and means for destroying a well.



## Well Destruction Guidelines

1. Inform DEQ of intent to destroy a well.
2. Investigate to determine the well's condition, details of construction, and whether there are obstructions that will interfere with the process of filling and sealing. This may include the use of downhole video cameras for visual inspection of the well.
3. Clean the well, as needed, so that all undesirable materials, including obstructions to filling and sealing, debris, oil from oil-lubricated pumps, or pollutants and contaminants that could interfere with the well destruction are removed for disposal. Notify DEQ as soon as possible to receive further instructions if pollutants and contaminants are known or suspected to be in a well that is to be destroyed.
4. Calculate the volume of material needed to fill the well. To assure that the well is completely filled and there has been no jamming or "bridging" of the material, the volume of the material placed in the well must at least equal the volume of the empty hole.
5. Materials to be used to fill in the well:
  - a. Filler material: Clean crushed limestone aggregate or other crushed stone of a uniform size ¼"- ½" (pea gravel). Do not use material containing organic matter, soil or mixed backfill.
  - b. Sealing material: Suitable sealing materials include neat cement, sand-cement grout, and concrete.
  - c. Native soil: Use native soil to fill in the excavation used to remove the top five feet of well casing. The native soil will be placed on top of the cap layer of sealing material.
6. Placement of the materials:
  - a. Fill the well with the filler material to 50 feet from the surface.
  - b. Excavate around the casing to a depth of five feet below the ground surface.
  - c. Remove the well casing to the bottom of the excavation.
  - d. Use the sealing material for the top 50 feet of the well. If concrete is used, it must be placed in the hole from the bottom up using a tremie pipe to prevent separation of the aggregate from the cement.
  - e. Allow the sealing material used for the upper portion of the well to spill over into the excavation to form a cap several inches thick.
  - f. Once the well has been completely filled and the sealing material has set, fill in the excavation with native soil.
7. Inform DEQ that well destruction is complete.

# Well destruction guidelines



**Commonwealth of the Northern Mariana Islands  
Well Drilling and Well Operation Regulations**

**Appendix F.      Underground Injection Control (UIC) Well Application  
Form**

To access the most recent version of this form, check the DEQ website at:  
<http://www.deq.gov.mp/>



**Commonwealth of the Northern Mariana Islands**  
**OFFICE OF THE GOVERNOR**  
**Division of Environmental Quality**

P.O. Box 501304 C.K., Saipan, MP 96950-1304  
 Tels.: (670)664-8500/01  
 Fax: (670)664-8540



**UNDERGROUND INJECTION CONTROL (UIC) WELL**  
**APPLICATION FORM**  
**FOR CLASS V WELL ONLY**

(Please type or print clearly)

**PROHIBITED ACTIVITIES**

No person shall construct, install, operate or maintain any CLASS I, II, III, IV injection well. Please consult CNMI UIC regulations for more details.

FOR DEQ USE ONLY	
APPLICATION NO.:	
DATE RECEIVED:	
RECEIPT NO.:	
RECEIVED BY:	

**SECTION 1 APPLICANT INFORMATION**

- 1.1 Name: \_\_\_\_\_
- 1.2 Project Name: \_\_\_\_\_
- 1.3 Mailing Address: \_\_\_\_\_
- 1.4 Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

**SECTION 2 AUTHORIZED REPRESENTATIVE** (attached authorizing letter from applicant)

- 2.1 Name: \_\_\_\_\_
- 2.2 Mailing Address: \_\_\_\_\_
- 2.3 Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

**SECTION 3 TYPE OF FLUID/PURPOSE OF INJECTION\*** (please check one)

- 3.1  Reverse Osmosis Brine - estimate volume/day \_\_\_\_\_
- 3.2  Stormwater Run-Off
- 3.3  Groundwater Remediation (if area permit, # wells) \_\_\_\_\_
- 3.4  Other (please specify type and purpose) \_\_\_\_\_

\* IWDS/OWTS that serve more than 20 people are UIC wells but do not require separate permit.

## **SECTION 4 LOCATION OF PROPOSED WELL(S)**

- 4.1 Submit copy of CNMI registered surveyors plot of benchmarks for location and elevation of proposed injection well(s).
- 4.2 Submit vicinity map showing injection well location, village, applicable landmarks, and roads.

---

## **SECTION 5 TYPE OF CONSTRUCTION** (please check one)

- 5.1  Standard Injection Well (submit cross section of injection well that includes elevation of well, well construction, depth to fresh water and sea water, depth of injection zone).
- 5.2  Holding Tank/Leach Field (submit CNMI certified engineers plan for leach field design, results of percolation test, calculations).
- 5.3  Seepage Pit (submit CNMI certified cross section and dimensions of seepage pit).

---

## **SECTION 6 INJECTION PRESSURE/RATE OF FLOW**

If applicable, submit information on injection pressure and pumping rate of disposal of injected fluid. Attach results of pumping test, or other method of determining reservoir pressure.

---

## **SECTION 7 APPLICANT ACKNOWLEDGMENT AND SIGNATURE**

BEFORE THIS APPLICATION CAN BE PROCESSED, YOU, THE APPLICANT, MUST ATTEST TO THE FOLLOWING:

I, \_\_\_\_\_ (print), AS THE APPLICANT OR AUTHORIZED REPRESENTATIVE FOR THIS UNDERGROUND INJECTION PERMIT. HEREBY STATE THAT I HAVE KNOWLEDGE OF THE FACTS HEREIN SET AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND ARE MADE IN GOOD FAITH. I UNDERSTAND THAT COMPLIANCE WITH THE ABOVE REQUIREMENTS IS A GENERAL REQUIREMENT FOR ALL DEQ PERMITS.

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_