



COMMONWEALTH of VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

APPLICATION FOR A GROUND WATER WITHDRAWAL PERMIT
(FOR USE IN GROUND WATER MANAGEMENT AREAS)

PREAPPLICATION CONFERENCE DATE: \_\_\_\_\_

1. APPLICANT INFORMATION:

FIN/SSN: \_\_\_\_\_

Applicant: \_\_\_\_\_ Phone: \_\_\_\_\_

Applicant Address: \_\_\_\_\_
(Street, City, State, Zip Code)

2. FACILITY INFORMATION:

Facility/System Name: \_\_\_\_\_

Facility Address: \_\_\_\_\_
(If Applicable, Street, City, State, Zip Code)

Contact Name: \_\_\_\_\_ Title: \_\_\_\_\_ Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Location of Withdrawal Well or Well System: \_\_\_\_\_
(County/City)

3. TYPE OF APPLICATION:

This application is for:

- Existing withdrawal, not previously permitted
New withdrawal
Expand or enlarge existing permit No.
Modification of permit No.
Reapplication for existing permit No. with modification
Reissue existing permit No. without modification

Existing withdrawal permit amount \_\_\_\_\_ gallons per \_\_\_\_\_ (Day,Month,Year)

Date of expiration of existing Ground Water Withdrawal Permit \_\_\_\_\_

Requested withdrawal amount \_\_\_\_\_ maximum gallons per year,
\_\_\_\_\_ maximum gallons per month

4. TYPE OF USE: (Check all that apply)

Table with columns: USE, %USE, %USE. Rows include Public Water Supply, Industrial, Commercial, Fire Protection, Drought Relief, Livestock Watering, Aquaculture, Golf Course Irrigation, Landscape Irrigation, Nursery, Crop Irrigation, Other.

If type of use is public water supply;

Estimate the percentage of the withdrawal for human consumptive use \_\_\_\_\_ %;

Attach a complete copy of the Virginia Department of Health Water Works Operation Permit and Engineering Description Sheets or equivalent.

OFFICE USE ONLY
Application #
Date Application Received Date Fee Received Amount
Notice Date LGOF Date Returned Date Complete

**5. JUSTIFICATION FOR THE AMOUNT OF WITHDRAWAL REQUESTED:**

Briefly describe the nature of the activity and the proposed beneficial use of ground water.

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**Documentation of beneficial use:** Attach documentation demonstrating that the annual and monthly amount of ground water withdrawal requested is the smallest amount of withdrawal necessary to support the proposed beneficial use and that the amount is representative to support similar uses when adequate conservation measures are employed.

Include a description of the product produced or the service provided, the unit of measure (acres, lbs., bushels, etc.) of the product or service, the unit of time that the product or service is produced (day, month, year), the amount of water (gallons) required to produce a unit of product or service, and the quantity of the product or service. Include all calculations showing the total amount of water required to produce a product or provide a service.

Attach a line drawing showing the water flow through the facility/system. Indicate wells, meter locations, sources of surface intake, and treatment, or other operations generating wastewater. Construct a water balance on the line drawing by showing average flows between intakes, treatment units and discharge points.

**Water demand projections:** Include documentation to support the intended beneficial use over a ten year permit cycle such as population and water demand projections and expansion plans. Describe special treatment (i.e. RO, EDR) when proposed.

**Apportionment of withdrawal to individual wells:** Attach an operational pumping schedule for applications with multiple wells. Indicate whether the withdrawal from each well is daily, seasonal or intermittent. Describe the frequency of use and pumping volume for each well for each month in a calendar year.

**6. WASTEWATER TREATMENT AND DISPOSAL:**

Will wastewater be generated as a result of the withdrawal of ground water?

YES  NO (If yes, check the appropriate box below.)

Septic Tank and Drainfield

Public Sewer \_\_\_\_\_  
(Name of system)

State Waters \_\_\_\_\_  
(Name of water body)

Discharge Permit #

Have applied for a discharge permit from the Department of Environmental Quality.

**7. WELL LOCATION(S):**

Locate all wells (existing, proposed, abandoned, out of service), facility property boundaries and/or water supply service area associated with the application on a (1) United States Geological Survey 7 1/2 minute topographic map, or copies of such maps, and (2) detailed location map of each existing and proposed well. The USGS map should contain the quadrangle name, the scale of the map, and a north arrow. The detailed location map must be of sufficient detail such that all wells may be easily located for site inspection.

**8. EXISTING WELL INFORMATION**

Complete the well information worksheet for all existing wells associated with this application. **ATTACH** copies of original water well completion reports for each well listed below. DEQ well identification plates must be attached to each existing well. Well identification plates can be obtained at the appropriate DEQ Regional Office.

Well Name	Owner well #	DEQ Well #	Depth (ft.)	Pump Capac. (gpm)	Pump Set (ft)	Well* Type	Well** Status	Screen Interval(s) (ft.)	Office Use Only		
									Latitude NAD27	Longitude NAD27	EI (ft.)

Attach additional sheets if necessary

\* Well Types: (P) Production, (M) Monitoring, (E) Emergency Standby, (R) Drought Relief, (S) Aquifer Storage & Recovery (D) Permanent Dewatering, (O) Other - Specify  
 \*\* Well Status: (Act) Active, (Abn) Abandoned, (Alt) Altered From the Original Construction, (OOS) Out of Service

### 9. PROPOSED WELL INFORMATION

Complete the proposed well information worksheet for all proposed wells associated with this application. Contact the appropriate DEQ Regional office to obtain DEQ well identification numbers prior to the start of drilling operations. Reference the DEQ well identification number on all drilling documentation. A DEQ well identification plate must be attached to each completed well. Contact the DEQ RO at least two weeks prior to the start of drilling operations for each proposed well.

Well Name	Owner well #	Depth (ft.)	Pump Capac. (gpm)	Pump Set (ft)	Well* Type	Well** Status	Screen Interval(s) (ft.)	Office Use Only			
								DEQ Well #	Latitude NAD27	Longitude NAD27	EI (ft.)

Attach additional sheets if necessary

\*Well Types: (P) Production, (M) Monitoring, (T) Test, (E) Emergency Standby, (R) Drought Relief, (S) Aquifer Storage & Recovery, (D) Permanent Dewatering, (O) Other - Specify

\*\* Well Status: (NEW) New, (REP) Replacement Well, (ALT) Altered

**10. LOCAL AND AREAWIDE PLANNING REQUIREMENTS:**

Attach the notification from the local governing body of the county, city or town in which the withdrawal is to occur that the location and operation of the withdrawing facility is in compliance with all ordinances adopted pursuant to Chapter 22 (§ 15.2-2200 et seq.) of Title 15.2 of the code of Virginia.

If the Local Government Ordinance Form (LGOF) is not enclosed, enclose documentation demonstrating that the county, city or town failed to respond within 45 days to such a request made by the applicant by certified mail, return receipt requested (9 VAC 25-610-90 C.2.b).

**11. EVALUATION OF THE LOWEST QUALITY WATER NEEDED FOR THE INTENDED BENEFICIAL USE:**

Attach an evaluation of the lowest quality water needed for the intended beneficial use. The evaluation must include a list of critical water quality parameters with minimal limits which are associated with the type of use. Demonstrate that the ground water withdrawal will originate from the aquifer that contains the lowest quality water that will support the proposed beneficial use.

**12. EVALUATION OF SOURCES OF WATER SUPPLY, OTHER THAN GROUND WATER:**

Attach an evaluation of sources of water supply, other than ground water, including sources of reclaimed water. Include information as to the proximity to public water supplies, surface water sources and sources of reclaimed water.

**13. WATER CONSERVATION AND MANAGEMENT PLAN:**

Provide, as a stand-alone attachment, a water conservation and management plan to include, at a minimum, the following:

- ◆ Requirements for the use of water saving plumbing and processes including, where appropriate, the use of water saving fixtures in new and renovated plumbing as provided in the Uniform Statewide Building Code;
- ◆ A water loss reduction program;
- ◆ A water use education program;
- ◆ An evaluation of potential water reuse options;
- ◆ Requirements for mandatory water use reductions during water shortage emergencies declared by the local governing body or the Director of DEQ, including, where appropriate, ordinances prohibiting the waste of water generally and requirements for mandatory water use restrictions, with penalties during water shortage emergencies.

**14. AREA OF IMPACT OF THE PROPOSED WITHDRAWAL:**

Pursuant to 9 VAC 25-610-110 D.2. of the Ground Water Withdrawal Regulations, DEQ staff will perform a technical evaluation to determine the areas of any aquifers that will experience at least one foot of water level decline due to the proposed withdrawal. Hydrogeologic information such as, but not limited to, aquifer properties (transmissivity and storage coefficient) obtained from aquifer testing may be required.

**15. MITIGATION PLAN:**

Pursuant to 9 VAC 25-610-110 D.3.g. of the Ground Water Withdrawal Regulations, if the DEQ's technical evaluation determines the predicted area of impact extends beyond the property owned by the applicant and/or other ground water users exist within the area of impact, a mitigation plan is required. Since the area of impact most often extends beyond the applicants property, it is recommended that a mitigation plan be submitted at the time of application to reduce application processing time. In the event that the results of the technical evaluation show that the area of impact remains on the applicant's property or there are no ground water users within the area of impact, DEQ staff will inform the applicant that a mitigation plan is not required. A model mitigation plan is included in the ground water permit application package.

**16. EVALUATION OF THE 80% DRAWDOWN CRITERION:**

Pursuant to 9 VAC 25-610-110 D.3.h. of the Ground Water Withdrawal Regulations, DEQ staff will conduct an evaluation to demonstrate that the proposed withdrawal in combination with all existing lawful withdrawals will not lower water levels, in any confined aquifer that the withdrawal impacts, below a point that represents 80% of the distance between the historical prepumping water levels in the aquifer and the top of the aquifer at the points that are halfway between the proposed withdrawal site and the predicted one foot drawdown contour based on the predicted stabilized effects of the proposed withdrawal. Ground water withdrawal permit applications which do not meet the 80% drawdown criteria will be denied.

**17. ADDITIONAL INFORMATION REQUIRED BY THE BOARD**

In addition to information requested at the preapplication conference, DEQ staff may require hydrogeologic and geophysical information necessary to characterize the aquifer system during application processing and review to obtain a complete application. Information including, but not limited to, the following may be required:

- Aquifer testing plan
- Pump test (step drawdown test);
- Aquifer test (constant rate discharge test);
- Monitoring well installation;
- Collection and analysis of drill cuttings;
- Collection and analysis of continuous core;
- Geophysical logs (spontaneous potential, single point resistance, 16/64 short and long normal resistivity, and natural gamma)
- Camera survey
- Water quality sampling;
- Other

I certify under penalty of law that this document and all information submitted were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is to the best of my knowledge, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. I further certify that I am an authorized signatory as specified in the Ground Water Withdrawal Permit Regulation 9 VAC 25-610-10 et seq.

Signature: \_\_\_\_\_

Date : \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Phone: \_\_\_\_\_