



COMMONWEALTH of VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
APPLICATION FOR AN EASTERN SHORE SURFICIAL AQUIFER
GROUNDWATER WITHDRAWAL GENERAL PERMIT

1. APPLICANT INFORMATION:

FIN \_\_\_\_\_

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

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

e-mail: \_\_\_\_\_

2. FACILITY INFORMATION:

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

Facility Address: \_\_\_\_\_
(Street, Road, or Route location, City, State, Zip Code)

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

e-mail: \_\_\_\_\_

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

3. TYPE OF APPLICATION:

- Existing withdrawal, not previously permitted
New or expanded withdrawal

Existing permit number (If Applicable) \_\_\_\_\_

4. REQUESTED WITHDRAWAL AMOUNT:

Maximum gallons per year
Maximum gallons per month

5. TYPE OF USE:

- Public Water Supply
Agriculture (crop irrigation, livestock)
Surface Water and Groundwater Conjunctive Use
Commercial or Industrial
Other (describe)

6. FEE SUBMITTED: \$ \_\_\_\_\_ DATE \_\_\_\_\_ Agricultural Application - No Fee

OFFICE USE ONLY
Date Application Received \_\_\_\_\_ Application No. \_\_\_\_\_
Date Fee Received \_\_\_\_\_ Amount \_\_\_\_\_ Date LGOF Received \_\_\_\_\_

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

**Description of beneficial use:**

- a. Describe the nature of the activity and the proposed beneficial use of groundwater.
- b. Include an overview of the system design, operation, and description of the product or service provided.
- c. Include information demonstrating that the annual and monthly amount of groundwater volume requested is the smallest amount necessary to support the proposed use.
- d. Describe how withdrawals will be apportioned to each individual well such as, the expected monthly and annual pumping volume for each well.
- e. For conjunctive use systems (combination of surface water and groundwater sources), describe the system components and identify the apportionment between surface water and groundwater.

**Water demand projections:**

- a. Include documentation supporting the proposed withdrawal, such as population growth, projected increasing water demand, and/or expansion plans.
- b. Include descriptive text and all calculations showing how the total amount of water requested was determined.
- c. Include specific requirements for each category of applicant: Public Water Supply, Agricultural, Commercial, and Industrial as described in the accompanying Application Instructions.

**Line Drawing:**

- a. Attach a line drawing showing the water flow through the facility/system.
- b. Indicate wells, meter locations, sources of surface water intake, treatment, or other related operations.

**8. AREA OF IMPACT**

For the proposed Groundwater withdrawal, provide the 1) Area of Impact map; and 2) Summary Table generated by the online SURFICIAL WELL EVALUATION TOOL (Located at [swet.apps.aquaveo.com](http://swet.apps.aquaveo.com))

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

Locate all wells (existing, proposed, abandoned, out of service), along with the facility property boundaries and/or water supply service area associated with the application on:

- a. A United States Geological Survey 7 1/2 minute topographic map or equivalent computer generated map. This map should contain the scale of the map, a north arrow, and, if applicable, quadrangle name. Include all nearby springs, rivers, streams, wetlands, and other surface water bodies on the map.
- b. A detailed location map for each existing and proposed well. The detailed location map must be of sufficient detail that all wells may be easily located for site inspection.





**12. LOCAL AND AREA WIDE PLANNING REQUIREMENTS:**

Include a completed Local Government Ordinance Form (LGOF) from the local governing body of the county, city or town in which the withdrawal is to occur, indicating 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 LGOF is not enclosed, include 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. 9VAC25-610-94 2 i.

**13. CERTIFICATION AND SIGNATURE**

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 Groundwater Withdrawal Permit Regulation 9VAC25-610-10

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

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

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

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

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



## **APPLICATION INSTRUCTIONS For Completing an Eastern Shore Surficial Aquifer Groundwater Withdrawal Permit Application**

**Note: These instructions consist of summaries and excerpts from the Groundwater Withdrawal Regulations (9VAC25-910-10). Please refer to the full text of the Regulations if additional clarification is needed regarding what is required in a specific application.**

### **WHO MUST APPLY FOR A GROUNDWATER WITHDRAWAL PERMIT**

9VAC25-610-40 of the Groundwater Withdrawal Regulations prohibits the withdrawal of groundwater in a groundwater management area without a groundwater withdrawal permit, except as excluded in 9VAC25-610-50.

### **WHO MAY APPLY FOR THIS GENERAL PERMIT FOR THE EASTERN SHORE SURFICIAL AQUIFER**

This general permit applies to groundwater withdrawals only from the surficial aquifer in the Virginia Eastern Shore Groundwater Management Area. Applicants may obtain this general permit for groundwater withdrawals from wells that are no more than 80 feet below land surface. Where wells are deeper than 80 feet below land surface the applicant must provide geophysical logs with the application that show the maximum depth of the well is constructed within the surficial aquifer of the Eastern Shore Groundwater Management Area, as determined by the Department of Environmental Quality (DEQ) review. Wells with a maximum depth less than or equal to 80 feet below land surface do not require submission of geophysical logs.

### **APPLICATION SUBMITTAL**

The application should be submitted in either electronic (PDF) or paper format. Applications should be submitted to DEQ's Office of Water Supply at [withdrawal.permitting@deq.virginia.gov](mailto:withdrawal.permitting@deq.virginia.gov) or P.O. Box 1105, Richmond VA, 23218

### **APPLICATION FORMAT**

An application is to be submitted on the forms provided with additional sheets attached, as stated in the application. Attachments should clearly identify the application section number and name to which they pertain and the pages should be numbered to facilitate review. Attachments should be submitted on 8 1/2" X 11" paper when possible.

### **APPLICATION INSTRUCTIONS**

#### **1. APPLICANT INFORMATION:**

The owner's official or legal name, Federal Identification Number, phone number, e-mail, and mailing address where correspondence should be sent.

#### **2. FACILITY INFORMATION:**

Name of the commercial, industrial or agricultural facility or the public water supply system from which the withdrawal will occur. Enter the street address of the facility if different from the owner's address. If the address is the same, enter "same". If the application is for a withdrawal for a public water supply with multiple well lots or a facility without a specific street address, enter the road or route fronting the property and nearby cross streets to locate the system. Give the name, title, work number, and e-mail address of a person who is thoroughly familiar with the operation of the withdrawal facility, the facts reported in the application, and who DEQ staff can be contacted if necessary.

#### **3. TYPE OF APPLICATION:**

Check the appropriate application type. If applicable, provide the DEQ the groundwater withdrawal permit number if the withdrawal is currently or has been previously permitted.

#### **4. REQUESTED WITHDRAWAL AMOUNT:**

Enter the amount of water needed to support the proposed beneficial use. The amounts listed should include the maximum annual amount and the peak monthly amount to allow flexibility in system operation. The monthly amount should not be one-twelfth of the annual amount.

**5. TYPE OF USE:**

Check the appropriate use type for the requested beneficial use. Identify if the system of uses Surface Water and Groundwater Conjunctive Use and include the Surface Water Withdrawal Permit Number, copy of the 401 certification, or exemption letter if available.

**6. FEE SUBMITTED:**

List the amount of fee payment and the date submitted.

The fee for a general permit is \$600.00. No fee is required for withdrawals for agricultural applications. The check or money order should be payable to the Commonwealth of Virginia - DEQ. Please submit the appropriate permit fee and the fee form to the DEQ accounting office in Richmond, Virginia. A copy of the form and a copy of the check or money order should be submitted with the completed permit application. Permit processing cannot be initiated until the fee is submitted.

The Permit Fee Regulation 9VAC25-20-10 requires an applicant to pay the fee at the time an application is submitted for a new or expanded groundwater withdrawal permit. Permit fees for agricultural withdrawal permits are not required, except when the application is for worker housing that is not on the same property as the agricultural operation.

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

Describe the nature of the facility's activity (e.g., products produced or services provided). If the withdrawal is for more than one use, provide an estimate of the percent for each use. Include an attachment to the application that describes the water system uses and operations. This attachment needs to include both text and mathematical calculations that clearly explain how the requested withdrawal volumes were determined.

Agricultural water supply applicants must provide:

1. For crop irrigation provide:
  - a. The type of crop, acreage, watering requirements for the particular crop, and irrigation type (drip, pivot etc.); and
  - b. Documentation of seasonal variability and peak irrigation months.
2. For livestock watering provide:
  - a. Livestock type, number, and size of animals; and
  - b. Amount of water required per individual animal. Discussion of seasonal variability expected.

Commercial or industrial water supply applicants must provide:

1. Average daily amount of water used for commercial or industrial processes; and
2. Number of employees and average daily water use rate per employee per month.

Public water supply applicants must:

1. Describe existing supply sources, yields, and demands, including:
  - a. Peak day and average daily withdrawal;
  - b. Total consumptive use component of the withdrawal including the amount needed for human consumption as defined in 9VAC25-610-10 as water used to support human survival and health, including drinking, bathing, and showering, cooking, dishwashing, and maintaining hygiene;
  - c. Types of water uses; and
  - d. Existing water conservation measures and drought response plan, including what conditions trigger their implementation.



2. Describe projected demands in 5 year increments over a minimum 15-year planning period that includes:
  - a. Projected demand contained in the local or regional water supply plan developed in accordance with 9VAC25-780 or for the project service area if such area is smaller than the planning area; or
  - b. Statistical population (growth) trends, projected demands by use type including projected demand with and without water conservation measures.
3. Include a complete copy of the Virginia Department of Health Water Works Operation permit, including Engineering Description Sheets.

Surface water and groundwater conjunctive use applicants must provide:

1. Identification of all surface water sources, including pond and reservoir volumes where applicable,
2. Records documenting the amount of water withdrawn on a daily basis for each water source during average and drought weather conditions,

## 8. AREA OF IMPACT

Utilize the online SURFICIAL WELL EVALUATION TOOL (Located at <https://swet.apps.aquaveo.com>) to determine the Area of Impact (AOI) of the proposed withdrawal. The AOI is the aerial extent of each aquifer where more than one foot of drawdown is predicted to occur due to a proposed withdrawal.

An instructional video explaining how to use the online tool can be found at the following website address <https://www.youtube.com/watch?v=NzZWjTmL-oA&feature=youtu.be> or through the DEQ website.

### Steps to use Surficial Well Evaluation Tool

1. Create an account if necessary.
2. New Surficial Withdrawal Evaluation : Insert the Name the project and select the Type - Surficial Withdrawal
3. Select Location: Zoom in to the map of the Eastern Shore and use the computer mouse to select the location of the well. Type in the Well Name, Well Depth in feet below land surface (ft bls) and Well screen interval also in ft bls. If needed, repeat the process to add all the wells that will be used to withdrawal groundwater for this project.
4. Enter Pumping Rate: Enter the pumping rate that will be applied to each well in the application and select the appropriate pumping units (cubic feet per day, gallons per year, gallons per minute, gallons per day). Enter the maximum pumping rate your application has multiple wells.
5. Model run: Review the well location and pumping rate information. Click Run to run the evaluation. A status page will be displayed which displays the progress of the evaluation. Each run will take several minutes to complete.
6. Results: Provide the following results generated from the Surficial Well Evaluation Tool with the application:
  - a. Printout of the Area of Impact map generated by the Tool. Applicants may also download the GIS shapefile generated by the Tool to create a map to submit to DEQ.
  - b. Select the Summary Table tab and print or save the summary table provided.

## 9. WELL LOCATION(S):

Locate all wells (existing, proposed, abandoned, out of service), along with the facility property boundaries (operations on contiguous properties, even if beneficial uses are different, may be considered for inclusion into a single permit) and/or water supply service area associated with the application on:

1. A United States Geological Survey 7 1/2 minute topographic map or equivalent map. This map should contain the quadrangle name, the scale of the map, and a north arrow.

2. A detailed location map for each existing and proposed well. The detailed location map must be of sufficient detail that all wells may be easily located for site inspection,

Maps must include the location of all nearby springs, rivers, streams, wetlands and other surface water bodies.

#### **10. EXISTING WELL INFORMATION:**

Complete the existing well information worksheet for all wells associated with the application and attach water well completion reports if available (GW-2 or Equivalent Forms). List all wells, including observation, abandoned or out of service wells. Every effort should be made to obtain completion reports. This can be accomplished by contacting the well driller, previous employees, Virginia Department of Health or DEQ.

Do not enter "see attached" on this table. Enter "NA" if well construction information is not available. Enter "none" on the first line if there are no existing wells associated with the application. Note yes or no in the column to indicate whether or not the wells currently have well plates. DEQ well identification plates must be attached to each existing well. New well identification plates will be provided at time of permit issuance.

Provide the latitude and longitude coordinates and the datum in which they were obtained. Typical datum is NAD 27, WGS 84 and NAD 83. The preferred datum is WGS84.

#### **11. PROPOSED WELL INFORMATION:**

Complete the proposed well information worksheet for all wells proposed for construction. Do not enter "see attached" on this table. Contact the DEQ's Office of Water Supply (OWS) to obtain the DEQ well identification numbers prior to application submittal. Refer to the DEQ well identification number on all drilling documentation. A DEQ well identification plate must be attached to each completed well. Identification plates will be provided by the OWS after well construction. Contact DEQ's OWS at least 30 days prior to the start of drilling operations for each proposed well. Provide the latitude and longitude coordinates and the datum in which they were obtained for each proposed location.

#### **12. LOCAL AND AREAWIDE PLANNING REQUIREMENTS:**

Attach the completed Local Government Ordinance Form (LGOF) from the local governing body of the county, city or town in which the withdrawal is to occur that indicates that the location and operation of the withdrawing facility is in compliance with all land use, planning and zoning ordinances adopted pursuant to Chapter 22 (§15.2-2200 et seq.) of Title 15.2 of the code of Virginia. If the 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 (9VAC25-610-94 2 i).

#### **13. CERTIFICATION AND SIGNATURE**

The application must be signed in accordance with the Groundwater Withdrawal Regulation 9VAC25-610-150. The application must contain the applicant's signature or the signature of a person acting in the applicant's behalf with the authority to bind the applicant. Electronic submittals containing the original signature page, such as that contained in a scanned document file, are acceptable.

The application should include the following certification: I certify under penalty of law that this document and all attachments 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 the information, the information submitted is to the best of my knowledge and belief true, 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.