

OFFICE OF WATER WITHDRAWAL PERMITTING



**GROUNDWATER WITHDRAWAL PERMIT (GWP) MANUAL
2023**

CONTENTS

1.0 INTRODUCTION AND PURPOSE OF DOCUMENT.....	5
2.0 COMMON ABBREVIATIONS and CITATIONS	6
3.0 PROGRAM ORGANIZATION AND REGULATIONS.....	8
3.1 Office of Water Withdrawal Permitting (OWWP).....	8
3.2 Ground Water Management Act	8
4.0 GROUNDWATER WITHDRAWAL EXCLUSIONS.....	9
4.1 Excluded Withdrawals.....	9
4.2 Basement Rock Only Withdrawals	9
4.3 Procedure for Communicating Exclusion Status to a Facility Owner.....	10
4.4 Boilerplate Documents List.....	10
5.0 OTHER REGULATORY REQUIREMENTS	10
5.1 Water Withdrawal Reporting Requirements (Requirements for Non-permitted Groundwater Withdrawals)	10
5.2 Private Well Registration	11
5.3 Technical Evaluation Requirements for Subdivisions with Private Wells.....	11
5.4 Other Regulatory Requirements Boilerplate Documents List.....	12
6.0 APPLICATION PROCEDURES	12
6.1. Preapplication Process.....	12
6.2 Preapplications Tracking/GWP Numbers	12
6.3 Preapplication Meetings	14
6.4 Reapplications and Administrative Continuance (9VAC25-610-96).....	17
6.5 Types of Applications/Permits:	17
6.6 Application Submittal.....	18
6.7 Application Entry into VAHydro	18
6.8 Application Boilerplate Documents List	18
7.0 ADMINISTRATIVE OR INITIAL APPLICATION REVIEW.....	19
7.1 Requirements for a Complete Application	19
7.2 Additional Application Requirements	20
7.3 Application Review	20
7.4 Administrative Review Letter Categories and Use	21
7.5 Incomplete or Inaccurate Applications.....	21
7.6 Administrative Review Boilerplate Documents List.....	21
8.0 TECHNICAL OR DETAILED APPLICATION REVIEW	22

8.1 Applicant and Facility Information Discussion.....	22
8.2. Preapplication Date, Type of Application, and Requested Withdrawal Amount.....	22
8.3. Type of Use and Fee Documentation	22
8.4 Alternatives Analysis Review Discussion.....	23
8.5 Water Demand Justification Review Discussion.....	24
8.6 Well Apportionment.....	25
8.7 Water Conservation and Management Plan (WCMP) Review Discussion.....	26
8.8 Wastewater Treatment and Disposal.....	27
8.9 Well Evaluation and Review Discussion.....	27
8.10 Local Government Ordinance Form Review Discussion.....	30
8.11 Mitigation Plan Review Discussion	31
8.12 Additional Information Required by DEQ.....	31
8.13 Application Review Letter Options Summary	32
8.14 Incomplete or Inaccurate Applications.....	33
8.15 Site Visits	33
8.16 Agency and Program Coordination.....	33
8.17 Application Review – Technically Complete.....	37
8.18 Application Technical Evaluation (Modeling Evaluation of the Proposed Withdrawal).....	38
8.19 VAHydro Database Entry and ECM.....	39
8.20 Technical Review Boilerplate Documents List.....	39
9.0 DRAFT PERMIT PREPARATION	40
9.1 Permit Factsheet Preparation.....	40
9.2 Draft Permit Preparation.....	40
9.3 Additional Draft Permit Attachments.....	41
9.4 Well Tags	43
9.5 Review of Draft Permit Package	43
9.6 Draft Permit Issuance to Applicant and VDH.....	44
9.7 Draft Permit Preparation Boilerplate Document List.....	44
10.0 PUBLIC NOTICE PROCESS	45
10.1 Public Notice Notifications	45
10.2 Public Notice Verification.....	45
10.3 The 30-Day Public Comment Period	45
10.4 Public Comment Review and Response.....	46
10.5 Public Hearing.....	46

10.6 Public Notice Process Boilerplate List	47
11.0 PERMIT ISSUANCE	48
11.1 Permit Issuance Boilerplate Document List	48
12.0 PROCESS FOR DENIAL OF A PERMIT APPLICATION	48
12.1 Process for Denial Boilerplate Documents List	50
13.0 AFTER PERMIT ISSUANCE.....	50
13.1 Minor Modifications.....	50
13.2 Major Modifications.....	52
13.3 Uncontested Termination of Permits.....	54
13.4 Revocation of Permits	55
13.5 After Permit Issuance Boilerplate Documents List	55
14.0 GENERAL PERMIT APPLICATION AND PROCEDURES.....	56
14.1 Withdrawals Authorized by GW General Permits	56
14.2 Reviewing General Permit Applications	57
14.3 Issuing General Permit Coverage.....	58
14.4 General Permit Boilerplate List.....	58

1.0 INTRODUCTION AND PURPOSE OF DOCUMENT

The purpose of this manual is to provide the Department of Environmental Quality (DEQ) Office of Water Withdrawal Permitting (OWWP) staff a framework for processing requests for new, expanded, or modified groundwater (GW) withdrawals and is intended to provide the overall process for reviewing and issuing individual groundwater withdrawal permits.

This document provides instructions on determining which groundwater withdrawals require permits, informational requirements for applications, and the process for comprehensively reviewing applications and drafting consistent and legally enforceable permits. This manual supersedes previous manuals for drafting groundwater withdrawal permits (June 1, 2006).

This manual contains several tools to support staff in program administration:

- Activity-specific template letters and documents (underlined in text) used for correspondence and other document preparation. The text in **bold font** and [brackets] within these documents indicate information that may need to be modified to address specific project facts. Instructions for completing this information will be indicated by [*italicized words within brackets or text boxes*]. Staff will delete the instructions, and any internal clarifying language, from the final product. Staff may further modify existing language, or create new language, when the boilerplates do not fit specific project facts.
- Several chapters and/or appendices include checklists to help permit writers address the tasks required to process permits, permit modifications, or review required documents.

DISCLAIMER

The Groundwater Withdrawal Permit (GWP) Manual, including all sections and appendices contained herein, is for the use of DEQ staff to process GWP applications and to prepare and issue Groundwater Withdrawal Permits. The content of this document is based on applicable laws, regulations, policy, and guidance affecting groundwater withdrawal permitting activities and potential to impact groundwater resources of the State and is subject to periodic revision in response to changes to the aforementioned. Although available to the public, the GWP Manual is not intended for use by persons other than DEQ staff.

2.0 COMMON ABBREVIATIONS AND CITATIONS

Below are some common terms and abbreviations used by DEQ. Standard protocol for DEQ documents is to spell it out the full term initially, note the acronym once, and then use the acronym from that point forward.

Common Agency Abbreviations:

DCR-Department of Conservation & Recreation
DEQ or Department-Department of Environmental Quality
NOAA-National Oceanic and Atmospheric Administration
USEPA-US Environmental Protection Agency
USFWS-US Fish & Wildlife Service

USGS-US Geological Survey
VDH-Virginia Department of Health
VDACS-Virginia Department of Agriculture and Consumer Services
DOE- Department of Energy (formerly DMME-Department of Mines, Minerals, and Energy

Common Abbreviations:

CEDS – Comprehensive Environmental Data System (DEQ data system used for Discharge and other permits)
CO-Central Office (DEQ)
COV-Code of Virginia
EU-Existing user
ECM-Enterprise Content Management system
GBH-Geophysical borehole
GW-Groundwater
GWMA-Ground Water Management Area
GWP-Groundwater Withdrawal Permit
GWC-Groundwater Characterization Program
N&E-New and Expanded Applications/Permits
NOD-Notice of Deficiency
NPR-No Permit Required
VAHydro-Office of Water Supply Program Database

OWS-Office of Water Supply
OFM-Office of Financial Management
PN-Public Notice
RO-Regional Office (DEQ)
SW-Surface Water
SWCB-State Water Control Board
WSP-Water Supply Plan
WSPA-Water Supply Planning and Analysis Program
WTP-Water Treatment Plant
WWOP-VDH Water Works Operation Permit
WWTP-Wastewater Treatment Plant
WWPC-Water Withdrawal Permitting and Compliance Program
VWP-Virginia Water Protection Permit Program
VWP SWW - Virginia Water Protection Surface Water Withdrawal

Common abbreviations for units

Mgal/d-Million Gallons per Day
Mgal/mo-Million Gallons per Month
Mgal/yr-Million Gallons per Year
gal-Gallon
gal/d-Gallons per Day
gal/min-Gallons per Minute
gal/mo-Gallons per Month
gal/d/c-Gallons per Day per Connection
msl-Mean Sea Level
Mgal-Million Gallons
BTOC-Below top of casing

ft/bls-Feet Below Land Surface
cfs-Cubic Feet per Second
ft-Foot/Feet
ft²-Square Feet
ft-msl – Feet relative to mean sea level
ac-Acre/Acres
ac-ft - Acre-foot
in-Inch
mi-Mile
mi²-Square Mile

Permit writers should follow the formats shown below when referencing the Code of Virginia, the Acts of Assembly, and General Assembly sessions:

Citations to the Code of Virginia, the Acts of Assembly, and General Assembly sessions:

Citing an entire Chapter.

Chapter 37 (§ 2.2-3700 et seq.) of Title 2.2 of the Code of Virginia

Citing an Article.

Article 2 (§ 2.2-4006 et seq.) of Chapter 40 of Title 2.2 of the Code of Virginia

Citing a specific section.

§ 2.2-4001 of the Code of Virginia

Citing a specific subsection.

Subsection B of § 2.2-4020 of the Code of Virginia or § 2.2-4020 B of the Code of Virginia

Citing a subdivision.

Subdivision A 4 a of § 2.2-4006 of the Code of Virginia or § 2.2-4006 A 4 a of the Code of Virginia

Citations to the Virginia Administrative Code:

Citing a Chapter.

4VAC5-30, Virginia State Parks Regulations or 4VAC5-30

Citing a section.

6VAC35-60-290

Citing a subdivision.

9VAC20-80-300 B 1 a or subdivision B 1 a of 9VAC20-80-300

Further examples can be located in the Form, Style and Procedure Manual for Publication of Virginia Regulations. http://register.dls.virginia.gov/documents/agency_resources/stylemanual.pdf

3.0 PROGRAM ORGANIZATION AND REGULATIONS

3.1 Office of Water Withdrawal Permitting (OWWP)

The Office of Water Withdrawal Permitting (OWWP) is a part of the Water Division of DEQ. The purpose of OWWP is to manage and protect Virginia's water resources to ensure they meet the needs of current and long-term beneficial uses in an environmentally sound manner.

The OWWP has two primary responsibilities: the review and processing of groundwater withdrawal permit applications and Virginia Water Protection (VWP) permit applications that include proposed surface water withdrawals (VWP-SWW), and monitoring compliance of all water withdrawal permit conditions and regulations. Water Withdrawal Permit Writers work directly with water withdrawal applicants to review, evaluate, and prepare draft permit documents for public review and issuance decisions. Water Withdrawal Compliance Coordinators work directly with groundwater and surface water withdrawal permitted and non-permitted users to maintain compliance with all applicable permit conditions, regulations, and laws through report review, site inspections, and investigation of citizen complaints.

The Water Supply Planning and Analysis (WSPA) coordinates and oversees the regional water supply planning efforts of localities and is responsible for data management and analysis for OWS. This includes managing and maintaining the program database, VAHydro, which is used both to store program data and aid in data analysis. The WSPA works with all counties, cities, and towns in the Commonwealth to develop, maintain, and update local and regional water supply plans to ensure the availability of adequate and safe drinking water for all citizens and to promote prudent use of our water resources for all beneficial uses. WSPA staff conduct technical modeling and develop interfaces and systems that help OWS manage information internally, model and analyze permitted and projected water withdrawals across the Commonwealth and track statewide water resources to ensure staff assessments are based on sound science in addition to current and high-quality data.

The Groundwater Characterization program (GWC) collects, evaluates, and interprets the hydrogeological information necessary to manage the Commonwealth's GW resources. This includes developing, managing, and maintaining a statewide well construction database, spring database, and observation well network. It also includes working with the U.S. Geological Survey (USGS) to collect, evaluate, and maintain GW water quality and water level data. GWC staff make site visits during the construction of new or replacement wells for permittees to provide interpretation of geophysical logging and other necessary information to the permittees/applicants and GWPP staff. This helps to ensure that wells are installed in a manner consistent with program requirements. GWC also works closely with permitting staff in coordinating and supervising completion of permit requirements such as collecting geophysical logs, constructing production and observation/monitoring wells, as well as characterizing aquifer systems to ensure permitted facilities meet regulatory requirements.

3.2 Ground Water Management Act

The Ground Water Management Act of 1992 ([§ 62.1-254 of the Code of Virginia](#)) was adopted in order to conserve, protect, and beneficially utilize the groundwater of the Commonwealth and to ensure the public's welfare, safety, and health. Groundwater is defined in [§ 62.1-255 of the Code of Virginia](#) as any water, except capillary moisture, beneath the land surface in the zone of saturation or beneath the bed of any stream, lake, reservoir or other body of surface water wholly or partially within the boundaries of the Commonwealth, whatever the subsurface geologic structure in which such water stands, flows, percolates or otherwise occurs. Groundwater Withdrawal Regulations ([9VAC25-610](#)) govern GW withdrawals in

areas designated as Groundwater Management Areas (GWMA), which are provided by [9VAC25-600](#) as “a geographically defined groundwater area in which the State Water Control Board has deemed the levels, supply or quality of groundwater to be adverse to public welfare, health and safety.” There are two GWMA currently in the Commonwealth: The Eastern Virginia GWMA, which includes all areas east of Interstate 95 (excluding the Eastern Shore), and the Eastern Shore GWMA, which includes Accomack and Northampton Counties only. Permitting activities are processed in accordance with the Groundwater Withdrawal Regulations. Any person or entity located within a declared GWMA must obtain a permit to withdraw 300,000 gallons or more in any one month for an individual well or well system that is not otherwise exempt.

4.0 GROUNDWATER WITHDRAWAL EXCLUSIONS

4.1 Excluded Withdrawals

Within a designated GWMA, certain GW withdrawals are excluded from permitting requirements. The following do not require a groundwater withdrawal permit as provided by [9VAC25-610-50](#):

1. Withdrawals of less than 300,000 gallons per month (this is determined from the combined withdrawal from all the facility wells);
2. Withdrawals associated with temporary construction dewatering that do not exceed 24 months in duration;
3. Withdrawals associated with a State-approved groundwater remediation that do not exceed 60 months in duration;
4. Withdrawals for use by a groundwater source heat pump where the discharge is reinjected into the aquifer from which it was withdrawn;
5. Withdrawals from ponds recharged by groundwater without mechanical assistance;
6. Withdrawals for the purpose of conducting geophysical investigations, including pump tests;
7. Withdrawals coincident with exploration for and extraction of coal or activities associated with coal mining regulated by the Virginia Department of Energy;
8. Withdrawals coincident with the exploration for or production of oil, gas or other minerals other than coal, unless such withdrawal adversely impacts aquifer quantity or quality or other groundwater users within a groundwater management area;
9. Withdrawals in any area not declared to be a groundwater management area;
10. Withdrawal of groundwater authorized pursuant to a special exception issued by DEQ; and
11. Withdrawal of groundwater discharged from free-flowing springs where the natural flow of the spring has not been increased by any method.

4.2 Basement Rock Only Withdrawals

The declaration of GWMA includes all aquifers located between the land surface and basement rock within the geographic area defined for the management area. Therefore, basement rock only withdrawals, where the withdrawal is documented not to come from the coastal plain sediments, are not included in the GWMA and do not require a GWP. However, the faults and fracture networks within the basement rock are likely to provide a continuous source of water supply to the overlying coastal plain aquifer system.

While a basement rock only withdrawal is not explicitly required to be permitted, caution is necessary in these scenarios due to the possibility that withdrawals from basement rock wells may drawdown water levels within the Potomac Aquifer because of this interconnection. In these cases, withdrawals, such as those coincident with oil, gas, or mineral exploration or production, that cause adverse impacts on aquifer quantity or quality within a GWMA may require a GWP.

4.3 Procedure for Communicating Exclusion Status to a Facility Owner

Applications or inquiries for withdrawals that may be excluded from GW permitting require review to confirm applicability by DEQ. If a project proponent requests documentation as to whether an exclusion applies, they should submit to DEQ a written request or application for the determination and evidence that the exclusion applies to the proposed project. However, in some cases a request for a determination may come in the form of a phone call, email, or letter. Staff shall provide a response if requested and follow the documentation and file retention for No Permit Required (NPR) determination. It remains the responsibility of the well owner to demonstrate that the withdrawal meets one of the stated GWPP exclusions.

The GW-NPR-Exclusion Letter provides a template for written determinations of an exclusion. The Water Withdrawal Permitting Manager (Manager) or higher must approve and sign an NPR before issuance. In some cases, permit writers may need to request additional information or schedule a pre-application meeting if an exclusion is not met.

The following steps are to be followed when processing an NPR or exclusion determination:

1. *Request additional information* – As necessary, additional information should be requested to allow staff to adequately assess the request.
2. *Draft GW-NPR-Exclusion Letter* and send through management review.
3. *Issue GW-NPR-Exclusion Letter*
4. *Administrative Duties* – Ensure all appropriate information has been entered in VAHydro, and documents are entered in Enterprise Content Management (ECM)

4.4 Boilerplate Documents List

1. GW-NPR-Exclusion Letter

5.0 OTHER REGULATORY REQUIREMENTS

5.1 Water Withdrawal Reporting Requirements (Requirements for Non-permitted Groundwater Withdrawals)

The Virginia Water Withdrawal Reporting Regulation ([9VAC25-200](#)) requires the registration and annual reporting of surface water and groundwater withdrawals. Withdrawal reports for the previous calendar year must be provided to DEQ by January 31 of each year. The purpose of withdrawal reporting is to enable DEQ to evaluate the effects of these withdrawals on our surface and groundwater resources and to plan for future uses.

Withdrawals for crop production of one million gallons or more in a single month must be reported. Withdrawals for *all* other purposes (including, but not limited to, livestock production, mining operations, public water supplies, manufacturing, power production and golf courses) must be reported by users whose average daily withdrawal exceeds 10,000 gallons per day in any single month.

In cases where a withdrawal does not meet the volume threshold for a GWP, permit writers should refer those facilities to WSPA staff. See the staff contact map link located on the Withdrawal Reporting webpage: <https://www.deq.virginia.gov/water/water-quantity/water-supply-planning/water-withdrawal-reporting>

5.2 Private Well Registration

[9VAC25-610-42](#) and [§62.1-258](#) requires that each certified water well systems provider register each private well they construct in a groundwater management area with DEQ within 30 calendar days of the completion of well construction. "Private well", as defined in [§ 32.1-176.3 of the Code of Virginia](#), means any water well constructed for a person on land that is owned or leased by that person and is usually intended for household, groundwater source heat pump, agricultural use, industrial use, or other nonpublic water well.

The information may be submitted on a [GW-2 Form](#) directly into the VAHydro database located here:

<https://www.deq.virginia.gov/permits-regulations/permits/water/water-withdrawal/water-well-registration>

5.3 Technical Evaluation Requirements for Subdivisions with Private Wells

[§62.1-259.1](#) and [9VAC25-610-44](#) requires that the developer of a subdivision located in a GWMA apply for a technical evaluation from DEQ prior to final subdivision plat approval if there will be 30 or more lots within the subdivision served by private wells, as defined in [§ 32.1-176.3 of the Code of Virginia](#). This requirement does not apply if all the wells are constructed within the surficial (Columbia) aquifer. This requirement recognizes the impact that large numbers of individual wells have on the groundwater resource. For comparison, with average household water use, an established subdivision with 50 houses would potentially use over 300,000 gals of water a month. With high irrigation water use, a subdivision of 30 homes can use over 300,000 gals of water in a month.

The application for a technical evaluation is submitted on the [Subdivision Technical Evaluation Application](#) and must include a geophysical log from a geophysical borehole (GBH) located within the subdivision. The borehole may subsequently be utilized as a groundwater supply for a dwelling unit or for other appropriate purpose within the subdivision. As part of the application, the developer must pay an application fee not to exceed \$5,000 to recover the cost of performing the technical evaluation. The fee must be paid prior to DEQ providing the developer with the [Technical Evaluation Recommendation Letter](#).

To facilitate DEQ participation in the drilling and geophysical logging activities, at least six months prior to the scheduled construction of the geophysical borehole, the Permittee must notify DEQ of the construction timetable and receive prior approval of the borehole location and depth and acquire a DEQ borehole number from GWC staff. The depth of the borehole must be sufficient to identify the limits of the Potomac aquifer in the subdivision area and the geophysical logging must be collected per the attached [Statement of Work GBH Logging](#) document for the GWMA where the project is located (Coastal Plain or Eastern Shore). The permit writer refers any GBH coordination request to the Manager.

Within 60 days of receiving a complete [Subdivision Technical Evaluation Application](#), DEQ must perform a technical evaluation and provide the developer with a recommendation of the aquifer(s) to use that will minimize unmitigated impacts to groundwater resources and any offsite impacts to existing groundwater users. This recommendation is made based on DEQ review of the technical evaluation.

The recommendation to the developer is nonbinding; however, any developer who constructs one or more private wells in the subdivision in an aquifer inconsistent with DEQ's recommendation must prepare and

submit a Groundwater Withdrawal Subdivision Mitigation Plan to DEQ, consistent with requirements for mitigation plans established by DEQ, and record a Mitigation Plan Agreement approved by DEQ with the subdivision plat prior to constructing any private wells within the subdivision.

5.4 Other Regulatory Requirements Boilerplate Documents List

1. GW-2 Uniform Water Well Completion Form
2. GW-5 Well Abandonment Form (required only when the GBH is not used as a water well)
3. Subdivision Technical Evaluation Application
4. Statement of Work Coastal Plain GWMA GBH Logging
5. Statement of Work ES GBH Logging
6. Technical Evaluation Recommendation Letter
7. Technical Evaluation Response Form
8. Groundwater Withdrawal Subdivision Mitigation Plan
9. Mitigation Plan Agreement

6.0 APPLICATION PROCEDURES

Persons within a GWMA proposing to initiate a new GW withdrawal, expand or otherwise modify an existing GW withdrawal, or reapply for a current GW withdrawal must complete and submit a GW Withdrawal Application Form as required by [9VAC25-610](#). The following definitions from the regulation are useful to consider as the application process begins and the Manager should be consulted where any clarification is needed for particular situations:

A “Controversial permit” means a water permitting action for which a public hearing has been granted pursuant to [9VAC25-610-270](#) and [9VAC25-610-275](#).

A “Person” as defined by regulation that would need to apply for a permit can mean an individual, corporation, partnership, association, governmental body, municipal corporation, or any other legal entity.

A “Well” is defined as any artificial opening or artificially altered natural opening, however made, by which groundwater is sought or through which groundwater flows under natural pressure or is intended to be withdrawn.

A “Withdrawal system” means (i) one or more wells or withdrawal points located on the same or contiguous properties under common ownership for which the withdrawal is applied to the same beneficial use or (ii) two or more connected wells or withdrawal points which are under common ownership but are not necessarily located on contiguous properties.

As mentioned in the Exclusion section above, the evaluation of the withdrawal amount, and the potential need for a GWP, is to be based on the withdrawal system or the combined withdrawal from all the system wells, not only the withdrawal from individual wells.

6.1. Preapplication Process

Prior to submitting an application for a new withdrawal or a reapplication, a preapplication meeting with DEQ must be conducted. Preapplication meetings are intended to facilitate a mutual exchange of information on a proposed application and applicable regulatory requirements, discuss the application requirements, and allow for early identification of issues needing to be addressed.

6.2 Preapplications Tracking/GWP Numbers

a. Preapplication Number Assignment

For tracking preapplications for new/proposed withdrawals that do not have a previous permit application number assigned, a preapplication number can be assigned from the next number on the Preapplication Number Log maintained in the OWS tracking folder. The assigned preapplication number is used to log the facility into VAHydro as a preapplication (permit status) for tracking purposes, and to link those files to ECM if an application is filed and an application number is issued. A reapplication for a groundwater withdrawal with an existing permit would be assigned the reapplication number as described below and that number would be used as the Preapplication Tracking number. To ensure that duplicate numbers are not assigned, the permit writer should run a database search on the selected GW permit number as a check to make sure that number is not already in use (or that someone else has not set up the reapplication) before setting up the new entry.

b. Permit Number Assignment

For previously un-permitted situations (not reapplications), a GWP Number is not assigned if the preapplication meeting does not result in an official application. Permit writers will note the status as “preapplication” in the VAHydro permit page and then change the status to “application” when a GWP application is received. Once a number is assigned, the basic applicant information is entered into VAHydro for tracking purposes, and a project folder with the permit number is created under the appropriate county folder in the Shared Drive.

For new applications that are not reapplications, the next application/permit number is determined through querying the VAHydro database to find the last GWP number assigned. The next GWP number in the sequence is then selected. This is most efficiently done in the following process:

1. Download the list of all permit numbers in VAHydro: On the main search page, highlight under Program “Virginia Groundwater Permit Program (GWPermit)” (and by not highlighting anything else, all permits will display regardless of their status), then Apply and click on the CSV button at the bottom of the page.
2. Once in Excel, filter from lowest to highest permit number, then choose the next sequence after the last (highest) number.
3. Search for that next chosen number in VAHydro to confirm it is not already assigned.
4. Immediately create a Permit record in VAHydro to assign that number.

For reissuances, the same GWP number will be used with an increase of 1 to the last digit of the number (e.g., GW0005500 is changed to GW0005501 for the next permit term and then changed to GW0005502 for the following permit term). To ensure that duplicate numbers are not assigned, the permit writer should run a database search on the selected GW permit number as a check to make sure that number is not already in use (or that someone else has not set up the reapplication) before setting up the new entry.

When there is a major modification to a permit, the same GWP number will be used with an increase of 1 in the first digit of the number (e.g., GW0052001 becomes GW1052001). Permit writers should follow the same database search as described in the above paragraph regarding reissuances. Minor modifications to permits do not require a GWP permit number change.

OWS historically used a range of numbers, as noted in the first three rows of the table below, to designate regional or use types for permits. GWP numbers GW0000100 through GW00029900 were assigned to the Piedmont Regional Office (PRO); GW0030000 to GW0059900 were assigned to the Tidewater Regional Office (TRO); and the GW0060000 series were reserved for agricultural permits. As described above, the last digits were increased for subsequent permits issued to the same withdrawal system. However, in the past a new GWP number was assigned if a permittee needed to increase the permitted amount for a

subsequent term. This was considered a completely new issuance rather than a reissuance. This practice changed around 2018 to better retain system history. Subsequently, with the move away from PRO and TRO numbers, the numbering system switched to using the PRO block of numbers in the Eastern Virginia GWMA and the TRO block of numbers in the Eastern Shore GWMA. Some unassigned numbers remain in these former PRO and TRO blocks of numbers, however, to simplify the number assignments going forward, the next available overall number is to be used for subsequent applications without regard to area or type of withdrawal system. The table below details the permit number assignment history.

Table 6.1-Summary Table of GW permits numbering.

Action	Permit number range=>last assigned for regional/use type designation	Notes
New Application - Eastern Virginia GWMA	GW0000100 to GW0029900	Former Piedmont Regional Office block of numbers.
New Application - Eastern Shore GWMA	GW0030000 to GW0059900	Former Tidewater Regional Office block of numbers.
Agricultural permits	GW0060000 to GW0099900	Covers both the Eastern Shore and Eastern Virginia GWMA's
Existing User Permits	Permit numbers end in EU	EU designates the first permit term in an expanded management area. EU is not used when an EU permit is reissued.
Minor Modification	Does not receive a new number	N/A
Major Modification	New number where only the first digit changes by 1 for each modification	For example, permit #GW0030100 is modified to permit #GW1030100
Permit Reissued	Existing number, with the right-most digits increased to indicate successive reissuances. EU is dropped from number.	For example, permit #GW0030100 is reissued as GW0030101 or GW00301EU is reissued as GW0030101

6.3 Preapplication Meetings

[9VAC25-610-85](#) requires a preapplication meeting for all GWP applicants prior to application submittal. This meeting is an informational meeting held between DEQ and the applicant to review the application process and details of the proposed project prior to application submission and discuss any specific

application requirements or concerns. The owner of the system must attend the preapplication meeting unless they have provided in writing a designated representative to attend on their behalf. Operational personnel and consultants who will be assisting with the application preparation are also encouraged to attend the meeting. The preapplication meeting for reissuances should be scheduled nine months, or more, in advance of the application due date to provide the applicant sufficient time to prepare the application and conduct any information gathering activities needed. Preapplication meetings for new applications should be conducted early in the planning stages of the proposed system, prior to any well installations, so that permitting needs can be incorporated in the well installation plans. Either the applicant or DEQ staff can initiate the preapplication meeting but it is the applicant's responsibility as part of the application requirements.

GWP preapplication meetings are documented on the GW Preapplication Meeting Form that the applicant partly fills in prior to the meeting. Staff will complete the form and provide comments for the applicant regarding the information required for the application after the meeting. The GW Preapplication Meeting Form documents the meeting and identifies any information required or waived by DEQ when the application is submitted. Staff preparation for the meeting is necessary to determine any system specific items that will be required for the particular application. During the preapplication meeting staff may also waive the requirement for application information to be submitted if previously submitted information from the previous permit term/application remains accurate and relevant to the permit application. This may include items such as well construction documentation, site maps, and line drawings but the status of this information needs to be verified during the preapplication meeting.

All items or information required for a complete application for the facility needs to be discussed during the preapplication meeting or conveyed as a follow-up to the preapplication meeting. Determining the need for other relevant information or additional requirements regarding monitoring wells, aquifer testing, or other items required for a complete application need to be discussed with the Team Lead and Manager and conveyed to the applicant during the preapplication meeting or shortly thereafter. Depending on the proposed withdrawal type or situation, information relating to [9VAC25-610-110 D 4](#) discussed below could also be required for an application.

Applicants are requested to compile and provide DEQ with the following information, if available, prior to the preapplication meeting to allow for staff evaluation and discussion at the meeting. For reapplications, information on any changes planned or progress made on previous actions or verification that no changes have been made for the particular subject is needed.

- Background and basis of need for the water withdrawal or any changes planned for a reapplication
- Facility information/overview/history/future plans
- Requested withdrawal amounts (daily, monthly, and annual)
- Overview of alternatives reviewed (if appropriate)
- Site Maps (topographic and/or satellite imagery) with proposed well/infrastructure locations*
- Engineering designs/sketches of wells/pipelines*
- Well construction information*
- Water conservation planning information*
- Geophysical data*
- Aquifer/pump test data*

Items marked with an asterisk * may be waived for a reapplication meeting as appropriate as discussed above.

Prior to the meeting, staff shall review the following (if available either from DEQ files or the applicant) in order to get an understanding of the facility, the facility wells, and the need for/use of groundwater to prepare for the meeting:

- Existing information on the historic use and available groundwater withdrawal data for the facility
- Available site specific hydrogeologic information including nearby geophysical logs, aquifer testing, aquifer evaluations, USGS reports and topographic maps, etc.
- For existing permitted withdrawals, evaluate existing permit limits, special conditions, and compliance status including any submitted water level or water quality data, as well as previous application information
- Well construction files and GIS for system wells and potentially for nearby active or abandoned wells
- For new withdrawals, search for existing permits near the proposed activity, available well completion information (GW-2 Form), yield testing of any type, geophysical logs, cuttings description
- Health Department permit including engineering description sheet (if available)
- History of each system well and the current well status
- Description of project history regarding owner/user/driller/developer, recent enforcement and compliance issues, onsite monitoring data

The general format for the preapplication meeting should be:

- Introductions
- Applicant provides a description of the water system or project and future plans
- Staff gives an overview of the GWP program purpose
- Staff reviews existing site information
- Staff describes any known program-related issues for the area
- Staff steps through the application form including necessary emphasis on the justification of the amount needed, alternative source evaluation, building a site-specific water conservation and management plan, and application submittal and fee
- Staff describes the Technical Evaluation and, if sufficient information is supplied at the meeting, determines if hydrogeologic investigation is necessary to support the evaluation
- Staff discusses and Water Conservation Management Plan and Mitigation Plan requirements
- Discussion of anticipated schedule for any site work, including the need for DEQ staff oversee the construction of any new wells and the collection of geophysical logs or camera surveys.

Staff may discuss application specific topics at the preapplication meeting including well construction or site-specific geology concerns, proximity to aquifer critical cells, the potential for special condition requirements to install observation wells, water quality monitoring, or hydrogeologic data collection (geophysical logs, soil cuttings, aquifer tests, camera surveys). In order to identify topics of concern or that require additional evaluation or information, both the applicant and staff need to prepare for the meeting and gather information as provided above. This effort aids in the identification of issues early in the application process and can be especially important for proposed new withdrawals.

If the pre-application meeting is being held for a public water supply system, the Virginia Department of Health (VDH), Office of Drinking Water (ODW) Regional Engineer shall be notified and invited.

6.4 Reapplications and Administrative Continuance (9VAC25-610-96)

Reapplication by existing permittees for a new permit is required at least 270 days prior to permit expiration whenever a permittee wishes to continue their withdrawal. Reapplication consists of attending a preapplication meeting, submittal of the new application, and payment of the application fee (if a fee is required). It is the permittee's responsibility to ensure they reapply with a complete application at least 270 days prior to expiration of their previous permit.

Administrative Continuance Determination Letter: If a new complete permit application is received at least 270 days before the expiration date of an active permit, and a Notice of Complete Application has been issued by DEQ (reference section below), then an Administrative Continuance Determination Letter may be issued by DEQ to administratively continue the effective permit after the expiration date.

6.5 Types of Applications/Permits:

New and Expanded (N&E) applications are GWP applications submitted pursuant to [9VAC25-610-94](#). These applications are the primary application for most permits in the existing GWMA.

Existing User (EU) applications and permits are for areas where a new Groundwater Management Area has been recently declared. Applicants are given 6 months from the effective date of the creation or expansion of a GWMA to submit an EU application, which is typically subject to lower fees and a simplified application process. Specific details relating to EU applications can be found in [9VAC25-610-92](#). EU applications were last used in 2014 when the Eastern Virginia GWMA was expanded to include the Middle Peninsula, the Northern Neck, and all remaining areas east of I-95. The EU application time period associated with the 2014 GWMA expansion has ended and any new applications/permits must be processed as N&E applications/permits.

Surface water and groundwater conjunctive use system as defined in [9VAC25-610-10](#) is an integrated water supply system wherein surface water is the primary source and groundwater is a supplemental source that is used to augment the surface water source when the surface water source is not able to produce the amount of water necessary to support the annual water demands of the system. Applicants proposing to withdraw groundwater as part of a surface water and groundwater conjunctive use system are required to provide a complete application, all the information required by [9VAC25-610-94](#), and the identification of all surface water sources, including pond and reservoir volumes where applicable. The application review process is the same as discussed in the following sections. In addition, a permit writer may need to determine the status of the associated surface water withdrawal with respect to the VWP permitting regulation. In these cases the permit writer will need to evaluate for VWP exclusions contained in [9VAC25-210-310](#) and confer with the Manager.

Special Exceptions are a fourth category of application for unusual cases where requiring the proposed user to obtain a groundwater withdrawal permit would be contrary to the purpose of the Ground Water Management Act of 1992 ([9VAC25-610-170](#)). There is not a separate application for special exceptions, and preapplication meetings are required prior to application submittal. Due to the unique nature of applications for special exceptions, DEQ determines the completeness of an application on a case-by-case basis. DEQ may require any information required in [9VAC25-610-90](#), [9VAC25-610-92](#), or [9VAC25-610-94](#) prior to considering an application for a special exception complete.

General Permit Applications are covered in Chapter 14 of this manual.

6.6 Application Submittal

Applications may be submitted by mail (hard copy) or electronically to the permit writer, the Manager, or to the email address: Withdrawal.permitting@deq.virginia.gov. The applicant, or a duly authorized representative acting on behalf of the applicant and with the authority to bind the applicant, must sign the application and any required reports. Electronic submittals containing the original signature page, such as a scanned document, are acceptable. Additional details on signatory requirements are provided by [9VAC25-610-150](#).

Applications must include the following (unless sections were waived during the preapplication meeting):

- a) All pages of the GW Withdrawal Application Form with the sections completed as indicated on the form;
- b) All pages of the GW Application Submission Checklist;
- c) Attachments addressing the justification of the requested amount and the requested apportionment;
- d) An attached line drawing;
- e) The Virginia Department of Health WWOP and EDS (for VDH permitted systems);
- f) An attachment addressing the alternative source evaluation;
- g) All associated well construction data (GW-2 Forms and geophysical logs, etc.);
- h) Location maps and USGS 7.5 minute topographic maps showing the wells and service area;
- i) Water Conservation and Management Plan for the system;
- j) Local Government Ordinance Form signed by the locality;
- k) Mitigation Plan for the system;
- l) Submittal of the appropriate Application Fee;
- m) Any additional information required during the Preapplication Meeting.

6.7 Application Entry into VAHydro

The Permit Writer sets up the new application in VAHydro following the instructions for application data entry provided by this manual. The status of the application is set to “application” until the permit is issued. Remember to ensure that the Facility page is created for facilities that were not previously permitted, or that the existing Facility page is connected to the new application number/page for reapplications.

6.8 Application Boilerplate Documents List

1. GW Withdrawal Application Form
2. GW Application Submission Checklist
3. GW Preapplication Meeting Form
4. DEQ Application Fee Form (use current form)
5. Local Government Ordinance Form
6. Mitigation Plan
7. Water Conservation and Management Plan Preparation Instructions
8. Aquifer Test Advisory (if testing is required during the preapplication meeting)
9. Administrative Continuance Determination Letter

The following sections provide an in-depth discussion of the steps or actions for the review of the application along with providing regulation references and other supporting documentation.

7.0 ADMINISTRATIVE OR INITIAL APPLICATION REVIEW

An initial review of the application by the permit writer should be completed within 45 days of receipt of the application. The needed detail of this review can vary but conducting this review first aids with identifying additional information or potential special concerns to evaluate. The objective of the initial application review is to determine if the applicant provided information for all sections required in the application per the Groundwater Withdrawal Regulations [9VAC25-610-94](#). This review does not make a determination regarding the technical completeness or adequacy of this information in meeting the regulatory findings for permit issuance. Full evaluation of an application cannot be conducted if sections have not been addressed.

7.1 Requirements for a Complete Application

Per [9VAC25-610-94](#) a complete GW application for a new or expanded withdrawal (including reapplication submittals) shall contain the following (unless an item(s) were waived during the Preapplication Meeting):

- a. The permit fee as required by the Fees for Permits and Certificates Regulations ([9VAC25-20](#));
- b. A groundwater withdrawal permit application completed in its entirety with all maps, attachments, and addenda that may be required. Application forms shall be submitted in a format specified by DEQ. Such application forms are available from DEQ;
- c. A valid signature as described in [9VAC25-610-150](#);
- d. A completed well construction report for all existing wells associated with the application submitted on the Water Well Completion Report, Form GW-2;
- e. The application shall include locations of all wells associated with the application shown on United States Geological Survey 7-1/2 minute topographic maps. The applicant shall provide the latitude and longitude coordinates using WGS84 as the datum for each existing and proposed well. (The data cannot be used unless the reference datum is specified.) The detailed location map shall be of sufficient detail such that all wells may be easily located for site inspection;
- f. A map identifying the service area;
- g. Information on surface water and groundwater conjunctive use systems as described in [9VAC25-610-104](#) if applicable;
- h. A water conservation and management plan as described in [9VAC25-610-100](#);
- i. A Local Government Ordinance Form (LGOF) signed by the responsible local government official such as the County Administrator or Zoning Official or the Town Mayor or Administrator;
- j. An alternatives analysis that evaluates sources of water supply other than groundwater, including sources of reclaimed water, and the lowest quality of water needed for the intended beneficial use as described in [9VAC25-610-102](#);
- k. Documentation justifying the need for future water supply as described in [9VAC25-610-102](#);
- l. A plan to mitigate potential adverse impacts from the proposed withdrawal on existing groundwater users. In lieu of developing individual mitigation plans, multiple applicants may choose to establish a mitigation program to collectively develop and implement a cooperative mitigation plan that covers the entire area of impact of all members of the mitigation program; and
- m. Other relevant information that may be required by DEQ to evaluate the application. In addition to requirements contained in a through l above, DEQ may require any or all of the following information prior to considering an application complete [9VAC25-610-94 3 a and b](#).

- i. The installation of monitoring wells and the collection and analysis of drill cuttings, continuous cores, geophysical logs, camera surveys, water quality samples, or other hydrogeologic information necessary to characterize the aquifer system present at the proposed withdrawal site.
- ii. The completion of pump tests or aquifer tests to determine aquifer characteristics at the proposed withdrawal site.

7.2 Additional Application Requirements

The Groundwater Withdrawal Regulations further state in [9VAC25-610-110 D 4](#) that DEQ will also consider the factors listed below when evaluating a groundwater withdrawal permit application or special conditions associated with a groundwater withdrawal permit. The relevance of each may vary based on the type or nature of the proposed withdrawal and the level of detail needed should be evaluated on a case-by-case basis. For example, climatic cycles are generally evaluated for agricultural based applications and incorporated into the 15-year term limit amount request while economic cycles along with population and water demand projections are normally evaluated as part of public water supply application.

- a. The nature of the use of the proposed withdrawal;
- b. The public benefit provided by the proposed withdrawal;
- c. The proposed use of innovative approaches such as aquifer storage and recovery systems, surface water and groundwater conjunctive use systems, multiple well systems that blend withdrawals from aquifers that contain different quality groundwater in order to produce potable water, and desalinization of brackish groundwater;
- d. Prior public investment in existing facilities for withdrawal, transmission, and treatment of groundwater;
- e. Climatic cycles;
- f. Economic cycles;
- g. The unique requirements of nuclear power stations;
- h. Population and water demand projections during the term of the proposed permit;
- i. The status of land use and other necessary approvals; and
- j. Other factors that DEQ deems appropriate.

Given the requirement for DEQ to consider the above when evaluating permit applications and the need for special conditions in the permit, the applicant needs to address these factors in their application to support the requested usage and need.

7.3 Application Review

To begin the review, staff should review the [Preapplication Meeting Form](#) and notes, and gather and review available information to the extent practical regarding the facility. These records can include but are not limited to the previous permit conditions and records, submitted withdrawal data (even for non-permitted facilities), well records and associated data such as geophysical logs and aquifer test data, facility website information or facility related articles, and aerial photographs of the facility and service area. This step can aid in finding information that may not have been available to the applicant such as [GW-2 Forms](#) or geophysical logs for the site wells, may shed light on or identify aspects of the facility

not clear from the application, or may generally expand the information known about the facility situation.

For reapplications, the previously issued permit conditions must be reviewed to ensure that all the required conditions have been met and that any required water level or water quality data have been evaluated for trends or the need to take the data into consideration for the current application. Any information required during the preapplication meeting should be checked on for all applications. Reviewing the application alone can miss important information and cause issues during the Technical Evaluation or after permit issuance.

For general guidance on the application sections and items needed for the review, see the [Application Instructions](#) and the [Application and Review Checklist](#).

7.4 Administrative Review Letter Categories and Use

If any of the required sections of the application or items specifically required in the preapplication meeting as discussed above are missing or substantially incomplete, a [Notice of Deficiency \(NOD\)/Application Review Letter](#) is sent to the applicant requesting the information. Substantially incomplete means that the application includes the section but the information is not sufficient for review. For example, a withdrawal amount justification that does not provide detail on how the amount requested was determined will be considered substantially incomplete. Consultation with the Manager may be needed to make this determination. A 30-day timeframe for the submittal of the missing information should generally be given. A NOD is sent when the application fee is missing from the application. Extensions may be granted at DEQ discretion.

Once DEQ has determined that the application meets the submission requirements provided by [9VAC25-610-94](#) and any requirements conveyed during the preapplication meeting, a [Notice of Complete Application](#) letter signed by the Manager is sent letting the applicant know the application review is complete.

7.5 Incomplete or Inaccurate Applications

GW regulations provide for the requirement for missing, insufficient, or inaccurate information to be requested to obtain a complete [Groundwater Withdrawal Application](#). For nonresponsive applicants, GW regulations ([9VAC25-610-98](#)) allow for processing of an incomplete permit application to be suspended 180 days from the date that the applicant received notification that the application is deficient. Staff should discuss this situation with the Manager prior to administratively suspending an application. In addition, the applicant should be notified in advance of the suspension or withdrawal and given a last firm date for submitting the outstanding information. A template for the [Notice of Pending Administrative Application Withdrawal](#) is located in the appendices.

Once an application has been administratively suspended from processing, the applicant must submit a new complete application (including the specific information requested) to restart the application processing. However, no additional permit fee will be assessed unless the specifics of the project have changed thus requiring an additional fee or it is determined that an excessive amount of time has passed.

7.6 Administrative Review Boilerplate Documents List

1. Application and Review Checklist
2. Notice of Deficiency (NOD)
3. Notice of Complete Application letter
4. Notice of Pending Administrative Application Withdrawal

8.0 TECHNICAL OR DETAILED APPLICATION REVIEW

The sections below go over the review of each application section in more detail once all the sections in the application are sufficiently complete, as discussed in Section 7 above, to allow the more detailed review required to evaluate the withdrawal. Following the determination that the application is complete per Section 7 above, if some aspects of the application need to be clarified, expanded upon, or corrected, a Request for Additional Information Letter (Add Info letter) is issued to the applicant requesting the additional information and giving specific details on what information is needed.

8.1 Applicant and Facility Information Discussion

Completion of the Applicant and Facility information must be based on the legal names of both the owner and the facility as registered with the State Corporation Commission (SCC) and based on ownership of the facility/property. Questions or concerns regarding the correct names need to be discussed with the applicant and Manager. The contact person listed is to be the person to represent the applicant during the permitting process. To note: the owner is to be copied on all correspondence if they are not the contact person listed as the owner is the responsible party. The owner/applicant can delegate authority to another to act on their behalf through the application process through a formal letter clearly delegating the extent of the authority to the named person.

SCC Verification

To ensure that the permit is issued to the correct party, research utilizing the SCC Clerk's Information System should be conducted. The applicant/permittee is usually also the facility property owner and, if not an individual, the owner's name should match the name registered with the SCC and VDH (if a VDH permit has been issued). The applicant should provide the current Entity Name, Type, ID, and Status if registered with the SCC for verification. Discrepancies need to be investigated to determine the correct owner, and sometimes, facility name.

8.2. Preapplication Date, Type of Application, and Requested Withdrawal Amount

The applicant shall document the date of the Preapplication Meeting on the application. This ensures that preparation and submittal of an application is not done without a preapplication meeting with DEQ.

The Type of Application is used to document whether this is a first-time application for a new withdrawal, an expansion of an existing withdrawal, a modification of an existing withdrawal, or a reapplication to continue an existing withdrawal.

For a reapplication, the application distinguishes between reapplication with or without modification. Without modification indicates that the request does not include an increase in the withdrawal amount or a significant change in the aquifer(s) in use, while with modification indicates one or both of these changes.

The requested withdrawal amount must be documented on the first page of the application to clearly state the request. The Justification section should support the requested amounts on page 1 of the application.

8.3. Type of Use and Fee Documentation

The Type of Use is required to designate the beneficial use of the system. Beneficial use includes domestic (including public water supply), agricultural, commercial, and industrial uses. Supplemental Drought Relief and conjunctive use are additional descriptive category options. This information is needed to understand the system and the information needed for the application.

Permit application fees are required for an application to be complete and must be received before significant review of the application begins. The fee schedule for GW permit applications can be found in [9VAC25-20-110](#) and are also listed on DEQ Water Division Permit Application Fee Form Fee Form 5 online.

The applicant is responsible for completing and submitting the fee form with payment as noted in the [Application Fee Form Instructions](#). Payments go to DEQ Receipts Control; however, if the applicant returns the Fee Form and/or payment to staff, then staff should immediately provide the form and check(s) to the Office of Financial Management (OFM) for proper logging and processing. In all cases, staff should verify that OFM has received and deposited the check, noting the date of deposit on the appropriate tracking checklist. Staff can verify receipt by checking the Revenue Transaction Logs (RTLs). Each RTL covers a full fiscal year (July-June) and is searchable by amount, customer name, and invoice type (VWP, GWW, VPDES, SMW, etc.).

No permit application fee is required for a permit or special exception application pertaining to an agricultural use engaged in production for market ([9VAC25-20-50](#)).

This evaluation is completed by the permit writer in the corresponding sections of the [Fact Sheet](#).

8.4 Alternatives Analysis Review Discussion

The Alternatives Analysis, a critical aspect of all water withdrawal permit applications, requires the applicant to demonstrate that all applicable alternatives to the proposed groundwater source(s) were considered in the project planning process. The Alternatives Analysis is required by ([9VAC25-610-94 2 j](#), [9VAC25-610-102 C](#) and [9VAC25-610-110 D 3 and 4](#)). The regulations require the applicant to demonstrate that no other sources of water supply other than the proposed groundwater source are practicable by addressing the following:

- All applicable alternatives contained in the local or regional water supply plan (for Public Water Supply projects) developed in accordance with [9VAC25-780](#)
- Alternatives that are practical or feasible from a technical and economic standpoint that have not been identified in the local or regional water supply plan
- Sources of water for purchase from other water supplies, surface water or reclaimed water, and the lowest quality of water needed for the intended beneficial use as described in [9VAC25-610-102](#) and that the project/system utilizes the lowest quality water for the proposed activity
- Alternatives that are available to the applicant but not necessarily under their current jurisdiction
- Water conservation and water saving measures, including design alternatives, that could reduce demand and assist in meeting future needs
- The proposed use of innovative approaches such as aquifer storage and recovery systems, surface water and groundwater conjunctive use systems, multiple well systems that blend withdrawals from aquifers that contain different quality groundwater in order to produce potable water, and desalinization of brackish groundwater

The extent of the Alternatives Analysis varies depending on the system, but the applicant must demonstrate that the proposed withdrawal source uses the lowest quality water available that will satisfy the proposed beneficial use. For instance, for a withdrawal intended for industrial or agricultural use and therefore not subject to drinking water standards, the applicant needs to establish that obtaining water from the surficial aquifer system, surface water sources, or other sources, including reclaimed or purchased water, is not practicable before proposing a withdrawal from a confined aquifer system.

The applicant shall also demonstrate that all practicable alternative sources, including design alternatives that reduce the water supply needed to support the beneficial use, have been evaluated. Further, those alternatives that avoid or result in less adverse impact to the resource (reduced use of groundwater) shall be considered to the maximum extent practicable. Examples include, but are not limited to, the use of equipment or water treatment options that require less water, drip irrigation versus spray irrigation, capturing and recirculating water, and cleaning with compressed air rather than water.

The permit writer shall examine each of the alternatives discussed in the application to evaluate the thoroughness of the applicant's analysis and evaluate whether the applicant has demonstrated that no other sources of water supply are practicable. A thorough analysis should include specific discussions of the steps taken to assess an alternative as well as the technical, financial, and political challenges that limit the practicality of the alternative. It is not sufficient for an applicant to state that an alternative is impractical or that none exists without documenting this with supporting information. After reviewing the alternatives provided in the application, the permit writer should determine if additional alternatives exist that were not considered or if additional justification for not pursuing a potential alternate source is needed. Any alternatives that were not included but appear to warrant analysis or where additional review is needed should be noted for inclusion in a Request for Additional Information. This evaluation is completed by the permit writer in the corresponding sections of the Fact Sheet.

8.5 Water Demand Justification Review Discussion

The demand justification is required and described in Groundwater Regulation ([9VAC25-610-102 C](#)). In general, the demand justification requires the applicant to demonstrate that the requested withdrawal is supported by the facility's current or projected demand; that the requested amount is the minimum amount necessary to support the beneficial use; and that the amount is representative of the amount necessary to support similar beneficial uses when adequate conservation measures are employed ([9VAC25-610-110 D 4 d](#)). The regulations state that a withdrawal permit should not be issued for more water than can be applied to the proposed beneficial use. Overall, the justification must include sufficient documentation of the methodology and calculations for the permit writer to validate the amount and to evaluate whether the requested limits are appropriate for the system. The balance needed is to issue permits for amounts so that the maximum safe supply of groundwater will be preserved and protected for all other beneficial uses while providing a permitted amount that will support the beneficial use over the permit term. Consultation with the Team Lead and Manager is often warranted during the demand justification evaluations.

At a minimum the applicant should provide documentation of a description of the water system and the various water uses/needs supplied by the system; the public benefit provided; the historic use data; and projections with data supporting the additional need. Ideally, demand is justified using actual water use records, but where such data does not exist (e.g., for new systems), the applicant may rely on estimates using data from similar systems or other documented sources where adequate conservation measures are employed. Conservation measures may include production or operational considerations such as the use of less water consuming equipment rather than higher water use equipment, especially for new construction, but also for future conversion plans for existing facilities where feasible. Controls or limitations on irrigation water use or outdoor water use in general, such as deed restrictions or Homeowner's Association rules, are examples of residential water conservation measures.

Estimates based on "supply side" demands which are used to design water or wastewater treatment systems to supply the facility are not acceptable as these values are typically higher than actual system use to ensure sufficient production capacity over periods longer than the permit term.

For growth projections, the inclusion of planned or pending connections in calculations for future water needs must be based on reasonable expectations of buildout or expansion to occur during the permit term. The inclusion of the entire buildout when the construction of that number of homes or businesses is not feasible over the permit term or supported by past growth rates, area growth predictions, or economic climate is not acceptable. Population and water demand projections and economic projections should be taken into consideration during the review. The status of significant local permits, recently issued or pending, also need to be provided by the applicant and considered when evaluating projected water needs for a system. Climate and seasonal cycles and effects as well as how they pertain to the particular system must be discussed. Longer term climate and economic cycles need to be considered as well. Specific needs or requirements associated with the system, such as those required for nuclear power plants, can be considered and need to be discussed in the application.

For agricultural use applications, the applicant needs to provide a requested 15-year demand designed to provide for the anticipated water need over the permit term. This amount is not the requested annual amount multiplied by 15, rather it is to take into account the expected seasonal variation by month during the permit term and the number of expected normal, dry, and wet years and the demand amount needed for each. This can be based on historic data for the facility where available or predicted based on climate data. The rationale and calculations showing how the amount was derived is required. This approach gives the benefit of allowing the highest need year to be provided for the applicant's needs without allocating for this highest need year amount to be used every year.

The applicant must determine the monthly amount requested. The monthly amount is most often not determined as 1/12 of the annual amount but takes into account seasonal or economic cycles. For example, vacation use, outdoor watering in the summer months, or increases in business during holiday months create the need for a monthly limit that provides for these months of higher water need.

After reviewing the requested amounts and the Demand Justification section, the permit writer should determine if additional evaluation of the amount needed to support the beneficial use is warranted. Any alternative amounts or issues with the proposed amount and/or the amount derivation that need to be addressed should be included in a Request for Additional Information. Needed refinement of the requested amount is done with the applicant to reach agreed upon appropriate annual, monthly, and term amounts. This evaluation is completed by the permit writer in the corresponding sections of the fact sheet and serves as a record of DEQ's evaluation of the demand.

Rounding: DEQ has historically approached this issue by rounding up to the nearest even hundred thousand, or ten thousand where appropriate. Typically, rounding down is not done as this reduction in the amount requested could result in unintended exceedance issues during the permit term unless necessary to meet the technical evaluation criteria. This procedure should be followed in most cases but can be evaluated on a case-by-case basis.

8.6 Well Apportionment

Well apportionment is a description of how much of the proposed withdrawal will be obtained from each well and is usually stated as a percentage of the total. The well apportionment to be requested is determined based on the pattern of historic well use or intended/necessary well use for the pending permit term. The applicant should propose the well apportionment needed for their specific needs and take into consideration any well blending required by the VDH permit to meet water quality requirements. Accurate well apportionment information is important as the apportionment is incorporated in the Technical Evaluation and the results of the Technical Evaluation will be based on the submitted well

apportionment. The Technical Evaluation may result in recommendations of specific well apportionment limits based on location (different model cell) or by aquifer based on how it affects the modeling outcome. These limits on well use will need to be included in the permit conditions.

8.7 Water Conservation and Management Plan (WCMP) Review Discussion

The purpose of a Water Conservation and Management Plan (WCMP) is to develop an operational plan discussing current and planned conservation activities that meet both applicable regulatory requirements and the specific needs of the designated facility/town/system. Water conservation efforts support better management and protection of the resource through reduction of and more mindful use of water resources.

The GW Withdrawal Regulations ([9VAC25-610-100](#)) require a WCMP for the application to be complete. The regulations organize the requirements for an acceptable WCMP into three types of use categories and seven general criteria, as follows:

Types of Water Use:

- i. Municipal and non-municipal public water supply (PWS)
- ii. Commercial and industrial users
- iii. Agricultural users

Seven General Criteria:

- i. Water Savings Equipment and Processes
- ii. Water Loss Reduction Program
- iii. Water Use Education Programs
- iv. Evaluation of Potential Water Reuse Options
- v. Voluntary Water Use Reductions during Drought or Water Use Emergencies
- vi. Required Water Use Restrictions during Drought or Water Use Emergencies
- vii. Penalties for Failure to Comply with Mandatory Water Use Restrictions (for municipal systems)

Not all criteria apply to every type of use or are framed the same way for a particular user type. More detailed guidance on what should be in a WCMP as well as a template the permittee can use in preparing a WCMP are available in the appendices. This appendix guidance is largely focused on potable water supply but can be provided to commercial, industrial, and agricultural users as a starting point for development of the WCMP. Some organizations or industries have existing water conservation and management plan guidance or related documents available as well, such as golf courses and correctional facilities, which can also be used for WCMP preparation guidance.

The WCMP is included as an enforceable part of the permit by reference. In addition, documentation of initiation of the leak detection and repair program, submittal of a water audit report, and two reports evaluating the WCMPs effectiveness are required conditions during the permit term.

After reviewing the WCMP section, the permit writer should determine if needed sections of the WCMP are missing or need to be expanded to address the required elements as they relate to the proposed withdrawal. Any information needs or issues with the proposed WCMP should be included in a Request for Additional Information. This evaluation is completed by the permit writer in the corresponding sections of the Fact Sheet.

8.8 Wastewater Treatment and Disposal

The applicant is required to indicate where any generated wastewater from the proposed withdrawal will be sent for treatment and disposal. The intent is to ensure that proper disposal is provided for any wastewater generated and any needed permits, such as VPDES permits, are obtained or are in process.

8.9 Well Evaluation and Review Discussion

Well construction is documented by the well driller on a DEQ GW-2 Form (aka a Well Completion Form). Various versions of a well completion form have been used in the past including different versions from the SWCB, the VDH, and the DOE (former Virginia Division of Mineral Resources). The well completion reports for all wells associated with the system (past and present) are to be submitted as part of the application. After reviewing the Well Information Section, the permit writer should determine if additional well information is needed, including making sure all parties agree on well locations, well names and DEQ Well ID numbers. Any issues that need to be addressed should be included in a Request for Additional Information.

a. Well Documentation

Review of the construction, status, and locations of the wells in use or proposed for the withdrawal are, along with the amount of the withdrawal, a critical aspect of the application review. The well construction information is needed to determine the aquifer in use and the allowable pump intake limit, as well as how the withdrawal impacts the aquifer system. The applicant is responsible for submitting the existing and proposed well information on the Existing and Proposed Well Worksheets in Sections 13 and 14 of the application. Completion of these worksheets is required even if submitting the attachments is waived for a reapplication. The worksheets must include all wells associated with the location and facility, including out of service, abandoned, observation/monitoring, and proposed wells. The associated well construction data (GW-2 Forms), pump intake depth documentation from the well driller or pump installer, and any geophysical logs must also be submitted as attachments. Submittal of any aquifer testing data or chemistry data is also useful.

The background data search discussed above as preparation for the Preapplication Meeting is very important for the well evaluation since applicants sometimes are unaware of older wells on their property or cannot find documents for their wells. The well construction, including the screen intervals, the well depth, the pump intake depth, and grout/gravel packing depths are required along with the owner well name, DEQ Well #, and gps location data. Checking with the well driller(s) (those who completed other facility wells or were known to work in the area at the time) and VDH should be included in the search for missing well construction records. Once a search for existing well data for the location/facility is completed, DEQ then evaluates the information on the worksheets for completeness and correct interpretation of which owner well name and DEQ Well # goes with each GW-2 form, construction details, pump intake depths, geophysical logs, etc. The various owners over time, VDH, the well driller, and DEQ can all have different names for a well. If the well construction data cannot be located, or confidently identified, by the applicant or DEQ, a camera survey and pump intake depth measurement must be required to determine the well diameter and material, screen intervals, well depth, and well pump intake depth.

This well information is to be provided along with the application and is needed to fully evaluate the application. The aquifer determination and pump intake limit cannot be evaluated without the well construction records. The Technical Evaluation cannot be conducted without knowing the aquifer(s) in

use and the screen intervals. The Existing Well Worksheet should be updated by the applicant to reflect and document the well information determined to be accurate from the above evaluation.

b. Pump Intake

If it is determined that one or more pump intakes is set below the top of the uppermost confined aquifer in use or below the bottom of the unconfined aquifer in use, the applicant is to be notified of this situation and of the need to raise the pump to meet the determined regulatory limit ([9VAC25-610-140 A 6](#)). The purpose of this limitation is to prevent dewatering of an aquifer, loss of inelastic storage, or damage to the aquifer from compaction. If the pump intake depth is not known or in cases where the documentation is very old and the intake may have been changed over the years, the pump intake depth will need to be determined and documented by the applicant's well driller and provided to DEQ.

c. Gravel Packing Extent

Well construction that screens multiple aquifers or allows interaction between aquifers through the gravel packing will also need to be evaluated and addressed, often as a permit condition, and abandonment of a well may be necessary to mitigate the impact concern. The well construction must be such that it does not create a hydraulic connection and contribute to leakage or impact from lower water quality between aquifers (prohibited per [9VAC25-610-140 B 4 g](#)), or encourage dewatering of the aquifer, etc. Pump intakes and well construction requirements are addressed in [9VAC25-610-140 A 6](#) and [9VAC25-610-140 B 4 g](#) as well as the VDH regulations. Variations in the hydrogeology and differences exist between and within the two GWMA's which make each application unique.

d. DEQ Well # and MPID Numbers

As part of the application review, and prior to coordinating any review with VDH and internal OWS staff, the permit writer should ensure that all active wells for a facility have a properly assigned DEQ Well # and Measuring Point Identification (MPID) Number. The DEQ Well # is assigned sequentially by staff from the DEQ Well # spreadsheets maintained by GWC staff with the first three numbers representing the county identification number (i.e., 100 is the county code for Accomack County) and the last 5 digits representing the sequential well numbers assigned in that county. For example, 100-00011 is the eleventh well assigned a number in Accomack County. Prior to assigning a new DEQ Well #, the permit writer needs to search the assignment sheet, well records, and VAHydro database to make sure a number has not already been assigned. Dealing with duplicate well numbers becomes very problematic.

The MPID number is a well identifier used in the OWS VAHydro database that was created to link reported data to a particular well. The MPID number is a 15-digit number assigned by staff using 6 digits each from the latitude and longitude of the well (use the first 2 digits of degrees, minutes, and seconds – no numbers after the decimal point for seconds, so 1 second would be '01') with a 0 between the two. The last two digits have been used to indicate the well number, example Well 1 would be '01' or for an observation well use '00'. An example MPID # for a Well # could look like MPID# 375623077123403. As with DEQ Well #s, the permit writer needs to search the VAHydro database and well records to make sure a number has not already been assigned. Dealing with duplicate MPID numbers also becomes very problematic when using the data.

e. GPS Latitude and Longitude Data

Having the correct location for each well is vital to the permitting program and helps to clearly identify which well is which. The most accurate data available is to be used for each well entered into the VAHydro Database and included in the permit. DEQ staff-collected GPS data should be used when available as the data provided by the applicant may be from a cell phone or estimated from online maps.

The Datum (WGS84) needs to be documented and stated where the latitude/longitude data is documented, including the permit, VAHydro, the Technical Evaluation Request, and the Aquifer Determination Request. The datum is needed to correctly project the well location on a map. The elevation should also be determined or estimated from the topographic map by plotting the well location. The elevation is needed for the Technical Evaluation and aquifer determination requests. Plotting the well location and comparing the location with the well location maps provided in the application is also useful to verify that the GPS data is accurate. If the plot of the well location is significantly off, better data should be collected.

f. Geophysical and Induction Logs, Drill Cuttings

Borehole geophysical logging involves lowering probes into the well borehole, prior to the casing installation, that measure characteristics of the of the geologic formations penetrated by a borehole and creating a detailed record or geophysical log of the data. Geophysical logs are required for wells included in the permitting program as they provide the foundation for determining the aquifers present and the top and bottom depths of the aquifer or confining unit at the well location. Installation of new wells must include geophysical logging and construction of a geophysical borehole (GBH) and geophysical logging will be required for wells that did not include geophysical logging at the time of construction. In addition to the evaluation of the geophysical logs, evaluation of the soil cuttings from the GBH or well drilling is evaluated to aid in the interpretation and evaluation of the aquifers present and depths encountered at the well site. The requirements for conducting geophysical boreholes and geophysical logging are very specific and DEQ staff must be present and involved in the planning. See the [Statement of Work Eastern Shore Geophysical Boreholes](#) or [Statement of Work Eastern Virginia GWMA Geophysical Boreholes](#) for the requirements and guidance for collecting geophysical logs on the Eastern Shore GWMA or the Eastern Virginia GWMA (Coastal Plain).

g. Camera Surveys

Camera surveys of wells involve slowly lowering a specially designed camera into a well and measuring the depth of the camera as it is lowered to the bottom of the well. The camera can be paused at areas in the well where a closer look is needed. Camera surveys are required when the well construction is not documented on a well completion form and the applicant wishes to include the well as a permitted well. The depths of the screened interval, the well diameter and any changes in the well diameter, and the depth of the well can be determined with a camera survey. (Without this information DEQ is not able to determine the aquifer in use by the well.) Camera surveys are also used to evaluate the integrity of the well screen and casing and the presence of infilling of the well with sediment or biofouling which gives the owner important information on the status of the well. The pump intake depth should also be measured as part of the camera survey effort. Whether a camera survey is being required by a permit special condition or for an application submittal, the following guidance for camera surveys must be followed and DEQ staff must be present for the survey.

Camera Survey Specifications:

- Depth encoder must be used and accurately set to record the camera depth in the well
- The real time image with real time depth must be displayed on some type of monitor or laptop
- The equipment used must have the capability to record the video session on a digital media (DVD, SD card, laptop, etc.)
- The camera equipment must be capable of providing down and side views within the well
- The camera equipment must have an adequate light source during the course of the survey

- The camera equipment must have centralizers
- NOTE to the contractor: Wells may need to be pumped or injected with clear water to allow adequate water clarity to see the well construction. In rare cases, the well may need to be re-developed to expose the screen slots due to biofouling.

h. VAHydro Database Data Entry Factsheet Completion

Records and documentation of any work associated with system wells (GW-2 Forms, geophysical logs, camera surveys, pump intake settings, etc.) are to be retained in the facility permit file and ECM.

Documentation of any work conducted that meets a permit requirement must be documented in the VAHydro database. Well construction data is to be entered into the VAHydro database, including the DEQ Well # and the MPID # and documented in the Fact Sheet. For wells installed after 2015, the permit writer should search the VAHydro database to see if the GW-2 Form information was submitted on-line. If found, the GW-2 data can be linked to the Facility and Permit electronically. Otherwise, the well construction information must be entered by the permit writer.

i. GWMA Framework References:

Eastern Virginia Management Area:

McFarland, E. R., and Bruce, T. S. (2006). The Virginia Coastal Plain hydrogeologic framework. *United States Geological Survey Professional Paper 1731*.

Eastern Shore Management Area:

McFarland, E.R., and Beach, T.A., 2019, Hydrogeologic framework of the Virginia Eastern Shore: *U.S. Geological Survey Scientific Investigations Report 2019–5093*.

McFarland, E.R. (2017). Hydrogeologic framework and hydrologic conditions of the Piney Point aquifer in Virginia. *United States Geological Survey Scientific Investigations Report 2017– 5041*.

8.10 Local Government Ordinance Form Review Discussion

The application must include notification from the local governing body 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. This part of the application is addressed by the applicant sending the Local Government Ordinance Form (LGOF) with a cover letter to the City or County Administrator for completion. If the governing body fails to respond to the applicant's request for certification within 45 days of receipt of the written request, the location and operation of the proposed facility may be deemed to comply with the provisions of such ordinances. The applicant must document the local governing body's receipt of the request for certification using certified mail or other means that establishes proof of delivery. Review of the LGOF form requires making sure that the form was signed by the appropriate local authority (normally, the City/County Administrator or Zoning Official sign these forms) and that no compliance issues were noted. If the form indicates that the applicant is out of compliance with local ordinances, the permit writer needs to follow-up with the locality and applicant to address the issue as warranted. Any issues that need to be addressed should be included in a Request for Additional Information. If the applicant states that the locality did not respond to the request, the permit writer is to verify with the locality that they chose not to comment. An out of compliance status may suspend processing the application.

8.11 Mitigation Plan Review Discussion

The purpose of a Mitigation Plan is to address and moderate potential adverse impacts to existing GW users from the proposed withdrawal. The Plan is to provide a process for an impacted GW user to make an adverse impact claim and to outline a fair process for handling that claim for both parties.

The GW Withdrawal Regulations requires a Mitigation Plan when the proposed withdrawal's modeled Area of Impact (AOI) extends beyond the property boundaries of the facility and implementation of the Mitigation Plan becomes an enforceable condition of the permit. The AOI for each impacted aquifer is determined during the Technical Evaluation. The applicant can choose to establish an individual mitigation plan or participate in a regional mitigation program (where available) that collectively develops and implements a cooperative mitigation plan that covers the combined AOI of all collective mitigation plan members ([9VAC25-610-94](#)). Note that currently only the Hampton Roads Planning District is covered under a collective mitigation plan and therefore most facilities will need to complete an individual plan.

DEQ has a Mitigation Plan template that can be used and completed (filled-in) by applicants; however, the applicant is free to develop their own Mitigation Plan, provided it meets the requirements in [9VAC25-610-110 D 3 g](#) and is approved by DEQ. The effective date of the Plan is the date the initial permit is issued and the effective date remains the same until a permit for an expanded amount or a significantly changed withdrawal pattern is issued.

After reviewing the submitted Mitigation Plan, the permit writer should determine if changes are needed to allow for DEQ's approval of the Mitigation Plan. The Plan is to provide a speedy, non-exclusive, low-cost process to fairly resolve the claim and wording that works against those goals is sometimes added to Plans. Any issues that need to be addressed should be included in a Request for Additional Information.

8.12 Additional Information Required by DEQ

DEQ has the authority, and the responsibility, of evaluating the need for additional information regarding the proposed withdrawal. This can include the need for geophysical logs to evaluate the hydrogeology at the well site(s); camera surveys for undocumented well constructions; water quality sampling, and aquifer testing with an observation well. Some of these topics have been discussed above and others will be discussed in this section.

a. Previous Permit Conditions and Data Review

The application review needs to include an evaluation of any permit conditions that were required during the previous permit term, any compliance or enforcement actions taken, or any issues identified that may warrant additional information or actions for application review or during this permit term. This review needs to include any water level or water quality data submitted during the previous permit term to identify any actions warranted based on the data or data trends. The previous Technical Evaluation, if one was conducted, must also be reviewed for comparison with the information presented in the applications and any items that warrant additional evaluation for the current application or draft permit should be noted.

b. Factors and Special Conditions

Items included in [9VSC25-610-110 D 4](#) have been listed in section 7.2 above and mentioned in the various sections above for consideration where applicable. These are items that the department needs to consider for a permit and they need to be addressed to the extent appropriate or reasonable for the particular application/facility situation. As a step in the application review, these items should be

reviewed and evaluated to see if additional information is warranted to address them for this particular application. They should also be considered during the preapplication phase and discussed as warranted.

c. Aquifer Testing

Aquifer testing with at least one pumping well and one similarly completed observation well are required to determine the hydrologic parameters in the site vicinity and the data from new tests are input into the Eastern Shore and Eastern Virginia groundwater models during each model update. The need to require site specific aquifer testing is to be evaluated during the preapplication process. The applicant can also be requested to provide site specific aquifer testing to support their requested withdrawal. Without site specific aquifer testing, the model parameters estimated by the model for the well locations will be used to evaluate the withdrawal.

The Aquifer Test Technical Advisory, located in the appendices, was developed as both guidance for applicant preparation of an Aquifer Test Plan and for conducting the Aquifer testing, and as guidance for staff review of Aquifer Test Plans and data. The intent of the advisory is to ensure that good data is obtained during aquifer testing and this requires good planning. The Applicant needs to account for all items included in the Aquifer Test Technical Advisory.

The Aquifer Test data is to be submitted on GWPP Aquifer Test Data Template and GWPP Aquifer Test Well Template to facilitate proper documentation of the test and test setup, and ease of use of the data during the Technical Evaluation. Data not submitted on these templates for new aquifer testing, or where the templates are not completely filled out, will generally not be accepted as meeting testing requirements.

An Aquifer Test Plan Review Letter or an Aquifer Test Plan Acceptance Letter are sent upon review of an Aquifer Test Plan depending on the need for revisions in the Plan or general acceptance. It remains the Applicant's responsibility to conduct a good aquifer test but DEQ staff assist as possible with the planning and review.

8.13 Application Review Letter Options Summary

As discussed in Section 7 above, if it is determined that all the requirements for a complete application, as provided in [9VAC25-610-94](#) have not been met, a Notice of Deficiency Letter is prepared and sent to the applicant with the purpose of obtaining all the required application sections for review. If, following the determination that the application is complete per Section 7 above, some aspects of the application need to be clarified, expanded upon, or corrected, a Request for Additional Information Letter (Add Info letter) is issued to the applicant requesting the additional information and giving specific details on what information is needed. As provided by [9VAC25-610-102](#), the applicant shall demonstrate to the satisfaction of DEQ that the withdrawal meets an established water need.

A 45-day timeframe for the submittal of the additional information should generally be given. Extensions may be granted at DEQ discretion. Notification of Complete Application Letters are issued once DEQ has determined that the application meets all the submission requirements provided by [9VAC25-610-94](#).

Missing or substantially incomplete items may make a detailed or thorough review of the application not possible until the deficient items are received. The permit writer may choose to complete the rest of the application review as described below or to wait for the NOD letter response depending on the type and amount of missing information. The permit writer may choose to combine the NOD (missing) items with the request for the needed additional information they have identified through the review. This combination can help to expedite the application processing. Similarly, the Request for Additional

Information items may be combined with the Application Complete Letter when DEQ has determined that the application meets the submission requirements provided by [9VAC25-610-94](#) and the Preapplication Meeting, and areas of the application where additional information is required to move forward with processing the application correctly have been identified.

8.14 Incomplete or Inaccurate Applications

Where DEQ finds an application to be incomplete under the requirements of [9VAC25-610-90](#), [9VAC25-610-92](#), or [9VAC25-610-94](#), and the applicant has not responded to requests for additional information, DEQ may suspend processing of the application until such time as the applicant has supplied the missing or deficient information and DEQ determines the application to be complete. An incomplete permit application for a new or expanded withdrawal may be suspended from processing 180 days from the date that the applicant received notification that the application is deficient. Once an application has been suspended from processing, the applicant must submit a new complete application; however, no additional permit fee will be assessed. Further, where the applicant becomes aware that one or more relevant facts from a permit application were omitted, or that incorrect information was submitted in a permit application or in any report to DEQ, the applicant shall immediately submit such facts or the correct information ([9VAC25-610-98](#)).

8.15 Site Visits

A site visit may be conducted for all new permit applications so that the permit writers may familiarize themselves with the site, get a better understanding of the operations, and identify any areas of concern or specific system or operational issues to address. Site visits for some applications, however, will not provide any additional information if the facility has not been built or is not in operation currently. DEQ may consider whether a site visit is necessary on a case-by-case basis in consultation with the Team Lead. Project characteristics, environmental sensitivity, and complexity should be considered, along with the need to understand or verify aspects of the operation. With the concurrence of management, staff may consider combining pre-application meetings with a site visit. Also, coordinating a site visit with a site inspection conducted by compliance may be useful depending on the situation.

Permit writers should document the site visit with photographs and field notes. A Site Visit Report should be completed after the site visit to document information gathered for the permit file. Pertinent photographs should be incorporated into the report to document significant aspects of the facility. The report should note findings that warrant further coordination with the applicant; identify inconsistencies with the permit application, such as identification of unmentioned wells; or note items to be addressed during the application review or in the permit conditions. A copy of the report is provided to the applicant once completed.

In lieu of or in addition to site visits, staff may use recent aerial photos and topographic maps, along with photographs provided by the applicant, to assess the onsite conditions.

8.16 Agency and Program Coordination

In situations where a groundwater withdrawal project potentially affects other DEQ programs, permit writers should coordinate with the appropriate DEQ offices and programs to ensure they are aware of any potential impacts. At times other agencies or DEQ programs may have information needed to complete a permit application or evaluate necessary permit conditions. Other programs that may be contacted include VPDES, Remediation, VWP, Water Reclamation and Reuse, and Air Permitting, as the requirements or needs of these programs may affect the water needs or discharge, or other permitting issues. For example, poultry facility applications should be coordinated with VPA and CAFO, and fossil fuel power plants

should be coordinated with Air Permitting staff. The main coordination partners are listed below; however, additional coordination with other Agencies may be conducted as needed.

a. Virginia Department of Health (VDH)

The Virginia Department of Health Office of Drinking Water (ODW) issues Waterworks Operation Permits (WWOP) with an associated Engineering Description Sheet (EDS) that details the system information and calculation of the permitted capacity. The permitted capacity of the waterworks is the limiting hydraulic capability of the waterworks, taking into consideration the source water withdrawal, treatment facilities, finished water storage, delivery, and distribution system. The VDH is responsible for ensuring that water systems can deliver a safe (water quality) and reliable (capacity) water supply for all connections at peak demand. Permit writers should become familiar with the VDH Private Well Regulations [12VAC5-630](#) and the Waterworks Regulations [12VAC5-590](#) as well as VDH regional staff.

Coordination with VDH is required by GW withdrawal regulations for facilities that hold or require a VDH WWOP. VDH may also need to be contacted during new well installation planning or for information on existing wells and/or withdrawal data. Sharing of information with VDH staff is important for the efforts of both agencies. While the aims of the programs differ, the overlap of data needs during the permitting efforts and the need to rapidly address well issues at any time, create the need for collaboration. All draft and final permits for facilities that are permitted by the VDH are to be forwarded to VDH staff at odwreview@vdh.virginia.gov. Additionally, if an applicant proposes to create a new waterworks supplied by GW, or if staff is aware that a VDH permit will be required for a proposed project, staff should invite the VDH District Engineer assigned to that locality to the pre-application meeting and coordinate as necessary. Coordination with VDH is described in more detail in VDH internal memo [WM 878](#).

[Section § 62.1-264 of the Code of Virginia](#) and [9VAC25-610-140 5](#) require that a groundwater withdrawal permit for a public water supply shall contain a condition allowing daily withdrawals at a level consistent with the requirements and conditions contained in the waterworks operation permit, or equivalent, issued by the Virginia Department of Health. Further that this requirement is clear that it shall not limit the authority of DEQ to reduce or eliminate groundwater withdrawals by public water suppliers if necessary to protect human health or the environment. Condition B in Part I Operating Conditions of the GW Permit states that daily withdrawal limits set forth in this permit should be consistent with the requirements and conditions of the Virginia Department of Health (VDH) Waterworks Operation Permit. This condition provides for the daily withdrawal up to the VDH permitted design capacity stated in the VDH WWOP as the DEQ permit does not limit daily withdrawals. However, it is important to note that the monthly and annual permitted amounts in the GW Permit do not ensure that the permitted design capacity can be used every day. This is because DEQ limits these amounts to the amounts needed to support the beneficial use and is protective of the groundwater resource.

Permit writers must coordinate with VDH in cases where the total water need from the well(s) supplying the system is greater than the daily capacity of the waterworks regulated by the VDH WWOP to see what steps are needed by the applicant to increase the VDH permitted daily capacity. The DEQ GWP cannot be issued for more water than the VDH permit daily limit allows for unless steps are included in the GWP to address the issue to the agreement of the VDH. Also, if any issues are noted comparing the DEQ and VDH data or permits, the VDH staff should be contacted to resolve the issues during the application review.

Additional topics to coordinate with VDH may include:

- New well construction – determine if all VDH well site approvals, construction requirements or aquifer testing coordination are in place
- Well completion data searches
- Well abandonment in accordance with VDH standards
- Raising pump intakes (due to potential capacity effects)
- New permit requirements due to system changes

VDH WWOP and EDS – Review of the WWOP and EDS needs to be done to ensure that the VDH permitted design capacity is greater than the average daily amount of the requested annual and monthly amounts. As mentioned above, DEQ cannot permit a higher amount than that permitted by the VDH permit. Discussions with the VDH are needed to resolve any issues between the permitted amounts. In addition, the well information presented in the VDH EDS needs to be compared to the application information to verify that the included wells and well statuses match. Some differences, such as well depths, may not be significant. However, something like a production well not being included in the VDH permit needs to be discussed with the VDH to ensure that withdrawal from this well has approval (in some cases an EDS update may be in progress). Permit writers are to coordinate with the VDH in cases where the total water need from the well(s) supplying the system is greater than the daily capacity of the waterworks regulated by the VDH WWOP and any issues that need to be addressed should be included in a Request for Additional Information.

VDH may also have data submitted by the applicant that would be helpful during the application review. In addition, VDH may benefit from aquifer testing data or may not have all the available GW-2 forms and sharing of this information can fill in gaps of their data.

b. Water Supply Planning and Analysis (WSPA) Coordination

As required by 9VAC25-610-102 of the Groundwater Withdrawal Regulations the water supply plan for the region in which the project is located must be considered when evaluating the need and alternatives of a proposed water withdrawal. As part of this evaluation process, coordination with WSPA staff is required. Following the determination that an application is complete with regards to the alternatives analysis and the amount justification, the assigned Permit Writer will complete the Water Supply Planning Coordination Form and submit it to the WSPA Team Lead. (Requesting the review prior to the requested amount and the alternatives analysis being finalized could result in the Planner's evaluation being based on incorrect information and the need for re-evaluation). If the application has been scanned or submitted electronically, the Permit Writer will include the file location of the application and associated submittals. For those files not in an electronic format, the Permit Writer will scan and attach relevant sections of the application upon the Planner's request or share the paper copy. The coordination request form will be submitted by email and the WSPA have a requested completion timeframe for the coordination response of 45 days from the date of the email.

The Water Supply Planning Coordination Request Form is designed to provide WSPA an overview of the proposed project and key project specifics relevant to the planning team without requiring a full review of the permit application. The form includes some guide boxes that provide suggestions for how to address each section. However, the Permit Writer will need to determine what to include on a case-by-case basis and will likely find it necessary to include specifics not covered in the guide. It is important that the Permit Writer identify any project-specific concerns in the request form so that the Planner can address them in the response, if applicable. The WSPA staff review of the application is designed to incorporate a water supply planning perspective of the region/basin into review of the proposed withdrawal. The Planner should consider water demand, the drought response plans and alternatives evaluation and pay

particular attention to discrepancies between the proposed withdrawal/system and the regional and local water supply plans.

Once the Planning Review report is received from the Planner, permitting staff need to review the report to determine the need to require further application information for evaluation or to add special conditions to the permit. The report from the Planner is also summarized in the Factsheet. The coordination process is further outlined in the Water Supply Planning Coordination SOP.

c. Groundwater Characterization Program (GWC)

GWC staff collects, evaluates, and interprets information collected during the installation and monitoring of groundwater wells and springs to aid in the management of the groundwater resource. Permit writers should coordinate as needed with the GWC for new permits when new wells are planned, when Aquifer Determinations are needed, when well construction data is not clear, and when GWC input on monitoring and reporting requirements such as observation well nests or geophysical borehole locations would be beneficial.

Permit writers do not make official aquifer determinations or pump intake limits; this is provided through coordination with GWC staff. Determining observation well or geophysical borehole locations and depths without the input from GWC staff could result in missed opportunities for needed data collection or obtaining non-conclusive information. Geophysical logs are used to aid in determination of the aquifers present at the well bore and the depths of the tops and bottoms of the aquifers at the well location. Camera surveys are used to determine the depths of the screened interval of a well and to evaluate the integrity of the well screen and casing and the presence of infilling of the well with sediment.

Aquifer Determination Requests

Aquifer Determinations or “aquifer picks” provide the top and bottom of the aquifers present at the well location, allow identification of the aquifers in use by the facility wells, and provide the pump intake depth limit for the evaluated well. This information is needed to evaluate the overall well construction, including the gravel packing extent and water level available above the aquifer, and to complete the request for a Technical Evaluation. The steps to request an aquifer pick from GWC are as follows.

1. Gather all available well construction information, GW-2 Forms or other well construction (also referred to as well completion) documentation, drillers logs, and geophysical log information for all system wells and nearby wells if geophysical logs are available
2. Fill out an Aquifer Pick Request form including the well name, DEQ Well #, Latitude/Longitude location and datum used, elevation and source, and note whether geophysical logs are available for each facility well.
3. Place a completed aquifer pick request form and all the well construction and geophysical log data in Well Data Folder in the application folder on the U drive.
4. Send GWC staff an email including the gathered data or with a link to the folder with the necessary documents

Permit Condition Development and GWC Coordination

During draft Permit development, staff will need to consult with the Program Manager on the need for and timing of well installations (resulting from required well abandonments or due to permittee needs), (State Observation Well) SOW nests, observation wells, geophysical borehole loggings, and camera surveys. GWC staff need to be on-site for, or make site visits during, these

efforts and need to be involved with planning these well related activities to varying degrees. Due to the high volume of well associated work, the WWPC Program Manager coordinates this work with GWC staff to set permit required timeframes.

New Well Installations, Geophysical Logging, Camera Surveys

GWC staff need to be on-site during phases of new well installations for production or observation/monitoring wells, during geophysical logging and for camera surveys. Given this, permit staff are generally responsible for handling notifications from permittees for coordination with GWC staff and consultants/well drillers to ensure that GWC staff can be onsite during the phases of work chosen by GWC staff. WWPC Program Manager involvement is needed as well where new or revised timeframe coordination is needed. The installation of new wells, geophysical logging, or camera surveys by permittees (or potential permittees) without the oversight of GWC staff can create the need for additional work to allow a well(s) to be included in a GWP; require abandonment of an improperly constructed well; or a re-run of improperly conducted geophysical logging or camera surveys. The installation of State Observation Wells (SOWs) requires very careful installation and documentation as they are intended to be scientific monitoring data points and GWC staff need to be on hand during the installation and development of all SOW nest wells.

d. Compliance Staff

During the application review, there may be a need to evaluate compliance submittals and compliance status. Much of this information can be checked using VAHydro, such as water use, water level, or water quality data, and submittal of required reports. Review of reports may be needed and should be available on ECM. However, there may be times when checking with Compliance staff is warranted to obtain a better understanding of any past or outstanding compliance issues with the facility.

8.17 Application Review – Technically Complete

Once the application is determined to be complete with regards to requirements provided by [9VAC25-610-94](#) and any additional information determined to be necessary by DEQ from the application review, the application is considered to be Technically Complete and ready for the next review step, the Technical (modeling) Evaluation. In some situations, verifying the amounts requested with the applicant is needed before this step. Also, before the Technical Evaluation step is initiated, the recommended amount for the draft permit and overall approach needs to be approved by Team Lead and WWPC Program Management.

a. Applicant Review and Concurrence

Over the course of the application review process several things can happen, such as a change in applicant personnel or significant time passing as the application details or information needed were obtained, that warrant the need to verify the finalized amount requested and the well apportionment to be represented in the Technical Evaluation with the applicant. In these situations, before proceeding with the Technical Evaluation, the requested amount must be reviewed with the applicant and the applicant must verify that the requested amount and apportionment are still correct. A meeting with the applicant can be conducted if needed to get concurrence on the requested amount before doing the Technical Evaluation. This ensures that the Technical Evaluation is run as agreed upon by both the applicant and DEQ. Further discussion with the applicant will be necessary if the request amount does not pass the Technical Evaluation criteria.

b. Program Management Review

The requested amount resulting from the application review process and the Draft Request for Technical Evaluation (see section 9.0 below for details) is sent to the Permitting Team Lead for review via the Draft Permit Fact Sheet that has been completed up to the Technical Evaluation section, including the alternatives analysis, and the well information section. This provides the rationale for the amount requested and the DEQ review rationale and gives an opportunity for the well data to be reviewed. Following the Permitting Team Lead review, the Program Manager needs to review and concur with the amount and overall application status. If concerns are raised during this review, additional information may be needed from the applicant to resolve the noted issues.

8.18 Application Technical Evaluation (Modeling Evaluation of the Proposed Withdrawal)

DEQ is required to perform a Technical Evaluation as part of the review of a GW withdrawal permit application within the limits of the two GWMAAs ([9VAC25-610-110 D 2](#)). The Technical Evaluation is initiated by preparation of a Request for Technical Evaluation Form that lists the requested amounts, all facility well information, including an explanation of the requested apportionment (how the applicant intends or needs to operate the well system) and the aquifer determination made by DEQ. If the applicant is required to operate the wells using a particular apportionment, usually required by VDH or limited by well capacity or water quality, this information should be conveyed in the Request for Technical Evaluation. Any aquifer test data available for the facility or possible a nearby facility should also be provided.

After preparation and management review of the Request for Technical Evaluation (as explained in section 8.15 above), a digital copy is sent to the modeling contractor by the Program Manager. A third-party contractor conducts all technical evaluations for GW withdrawal permit applications under contract to DEQ. The contractor performs the evaluation using the appropriate modeling tool or tools based upon the information contained in the Request for Technical Evaluation. To be clear, prior to requesting the Technical Evaluation, it is very important that the application is complete with regards to all aspects of the application and no further changes are expected, as any changes to the well data, withdrawal rates or other aspects of the application would affect the results of a Technical Evaluation.

To pass the Technical Evaluation criteria, the Technical Evaluation must demonstrate that the stabilized effects from the proposed withdrawal in combination with the stabilized combined effects of 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 land surface and the top of the aquifer. Further, the Technical Evaluation must demonstrate that the proposed groundwater withdrawal will not result in saltwater intrusion or the movement of waters of lower quality to areas where such movement would result in adverse impacts on existing groundwater users or the groundwater resource. This provision does not exclude the withdrawal of brackish water provided that the proposed withdrawal will not result in unmitigated adverse impacts.

Technical evaluations for proposed groundwater withdrawals are completed using either the Virginia Eastern Shore Model (also known as the VAHydro-ES) for those withdrawals in the Eastern Shore Management Area, or the Virginia Coastal Plain Model (VAHydro-VCPM) for those withdrawals in the Eastern Virginia Management Area. Both models are based on SEAWAT groundwater models originally developed by USGS and further developed by DEQ in partnership with USGS and our contractor. The models simulate impacts to aquifers resulting from adding a proposed withdrawal to existing permitted withdrawals as well as estimates for various categories of unpermitted withdrawals. A 50-year simulation is generally used as the basis for the technical evaluation.

The contractor prepares documentation of the Technical Evaluation for a GW permit application via a Technical Evaluation Report (Report). This Report includes a description of the input data and the modeling approach used for the evaluation. Also included are a summary of the results, a comparison between the aquifer tops determined by staff with those incorporated into the regional model used and a comparison between observed and simulated GW levels near the facility. As part of the summary of the results, the Report contains 1) Maps showing the simulated Area of Impact (defined as the areal extent of each aquifer where more than one foot of drawdown is predicted to occur due to a proposed withdrawal) for each aquifer ([9VAC25-610-10](#)), and 2) a list of the existing permitted wells located within the predicted Area of Impact. The permit writer is responsible for coordinating with the contractor, reviewing an initial draft of the Report to ensure that the information contained within the Report was properly incorporated, and confirming the Report rationale and presentation appear to be accurate. The final Report is included as part of the fact sheet with the draft of the permit when a draft permit is sent for review by the applicant.

Failure of the Technical Evaluation – Applicant Options

If an application fails a Technical Evaluation, the applicant will be notified and given the opportunity to revise the requested amount in such a way to pass the evaluation. Typically revising (reducing) the requested amount or altering the withdrawal pattern or aquifers used are potential options.

8.19 VAHydro Database Entry and ECM

Upon receipt of a GW application, the permit writer sets up the owner, facility, and permit files in the VA Hydro database. During the review process, the well construction and location data must also be entered into the VA Hydro database. Existing data should be updated if more accurate or precise data have been received. See the VAHydro Database Manual for guidance on database entry.

Records need to be uploaded to ECM as received or at least in stage increments.

The Enterprise Content Management System (ECM) is designed to manage, store, preserve, and deliver agency records stored in a digital format. This is intended for materials that are necessary to maintain for each program within DEQ. GWP documents are agency records that must be uploaded to ECM. To ensure that the correct, most updated documents are being preserved, only the final version of relevant documents (applications, draft permits, final permits, well data, etc.) are to be uploaded to ECM. For this reason, ECM is done after a final permit decision has been made. Detailed instructions on ECM processes can be found in the “Office of Water Supply ECM Guidance Manual”. Further questions about ECM procedures can be directed to the designated ECM Coordinator.

8.20 Technical Review Boilerplate Documents List

1. Request for Additional Information Letter
2. Aquifer Pick Request Memo
3. Complete Application and Technical Review Checklist
4. Request for Technical Evaluation Memo
5. Water Supply Planning Coordination Request
6. Water Supply Planning Coordination SOP
7. Water Conservation and Management Plan Preparation Instructions
8. Statement of Work Eastern Shore Geophysical Boreholes
9. Statement of Work Eastern Virginia GWMA Geophysical Boreholes
10. Site Visit Report
11. Aquifer Test Technical Advisory

12. Aquifer Test Plan Review/Acceptance Letter
13. Aquifer Test and Well Data Excel Templates
14. VDH Internal Memo WM878

9.0 DRAFT PERMIT PREPARATION

Once the application review is complete as described in the review section above, staff begin preparation of the Draft Permit package. (Staff begin drafting the Permit Factsheet during the application review process to assist with management evaluation of the amount justification and the facility wells and well apportionment needed for preparation of the Technical Evaluation.)

The Draft Permit Package consists of the following items, as detailed in the sections below:

- Transmittal Letter
- Draft Permit
- Draft Permit Factsheet including Technical Evaluation Report
- WCMP
- Mitigation Plan with AOI Map (if warranted)
- Water withdrawal, water level, water quality reporting sheets
- Draft Permit Response Form
- Public Notice Authorization Form
- Draft Public Notice

9.1 Permit Factsheet Preparation

The Factsheet provides a written record of the application review process, as well as the basis for the Agency's permit decision. The Factsheet documents that all statutory and regulatory requirements of the program were met and includes the rationale for the permit decision. Accordingly, it includes details regarding the proposed withdrawal, the application review process, regulatory agency and public comments, description of mitigation (i.e., how impacts to existing beneficial uses were avoided and minimized), the rationale for the conditions included in the permit, any additional/useful/pertinent information, and staff recommendation for the permit decision. The Factsheet also needs to include the justification of the withdrawal amount requested, as described in section 7.5, and the results of the Technical Evaluation Report, as described in section 8.0 above.

Each section of the Factsheet boilerplate must be addressed with the appropriate rationale for the application situation and not omitted. Preparation of the Factsheet provides a helpful record or description of how the permit was derived during the draft permit process but it also is an aid for evaluating the application and needed special conditions of the permit as issues that may not be apparent become clear during the Factsheet preparation. Given this, consideration of the information needed and instructions given in the template are very important.

9.2 Draft Permit Preparation

When drafting permit conditions, the permit writers will use the boilerplate New and Expanded Draft Permit. The draft permit is to contain conditions, withdrawal limitations, standards, and other requirements applicable to the permit, monitoring and reporting requirements, reference to the approved mitigation plan (if required based on the extent of the modeled AOI), and requirements for a water conservation and management plan. All groundwater withdrawal permits shall contain an annual and monthly groundwater withdrawal limit. The permit writer may draft groundwater withdrawal permits with other withdrawal limitations as appropriate, including but not limited to, grouping of wells by aquifer

and/or location, and daily, weekly, or permit term withdrawal limits. The boilerplate draft permit is designed/intended to address all the regulatory requirements in [9VAC25-610-130](#) and [9VAC25-610-140](#).

The first page of the permit lists the permit number, the permittee, the authorized permit term, and the monthly, and annual withdrawal amounts. Additionally, the specific beneficial use for the water withdrawn is also identified. Following the first page of the permit, the permit conditions are separated into three parts: Operating Conditions, Special Conditions, and General Conditions.

Part I: Operating Conditions list the specific wells from which withdrawals are authorized, well withdrawal apportionment, and the pump intake settings allowed for each well based on the aquifer top determination (aka aquifer pick) for confined aquifers or aquifer bottom for an unconfined aquifer. In addition, Part I sets the requirements to monitor and report withdrawals and install well tags, as well as to follow the mitigation plan and water conservation plan submitted with the application once these plans are approved. Other than the facility specific information related to wells, each of the conditions in Part I are completed to fit the withdrawal system but otherwise are typically included unchanged in permits unless a special circumstance merits adjustments. For example, on occasion additional geophysical information will be collected during the permit term and a notation may be added to the pump intake limits that these will be re-evaluated and may be updated pending review of the additional information. Any changes in this section should be discussed with the Manager and explained in the Fact Sheet.

Part II: Special Conditions are permit conditions that vary from permit to permit based on facility specific considerations. Pursuant to [9VAC25-610-140 B and C](#), the conditions are applied to a permit to protect the public welfare, safety, and health or to conserve, protect and help ensure the beneficial use of groundwater. These conditions may include but are not limited to well construction, operations at the facility, necessary water quality or level monitoring, pump intake resets, or well abandonment conditions in the permit. Permit Writers should rely on additional guidance in the boilerplates and discussion with the Team Lead and OWWP Manager to determine when specific special conditions are applicable.

Part III: General Conditions are included in all permits in accordance with the GW Regulation [9VAC25-610-130](#) and [9VAC25-610-140](#). The General Conditions are to be incorporated into every permit as stated and are not to be revised or omitted without prior approval from the OWWP Manager. Permit writers should consult with the Manager if it appears a revision or omission to the language in Part III is warranted.

9.3 Additional Draft Permit Attachments

The DEQ approved WCMP and the approved Mitigation Plan (if required) with the DEQ produced AOI Maps become enforceable parts of the approved permit. These items, along with the Technical Evaluation Report, are included in the Permit Package as attachments to the Factsheet, along with a listing of the Public Notice comments, if comments were received. The WCMP and Mitigation Plan (if required) are to be kept with the permit as the permit is not complete without them. Similarly, the Fact Sheet is not complete without the listed attachments.

Below are additional items that are included with the Draft Permit Package.

i. Quarterly Groundwater Withdrawal Report, Water Level Report, and Water Quality Report Forms

Individual GW permits include a requirement for permittees to record water withdrawn monthly from each well and report it to OWS on a quarterly basis. DEQ provides a Quarterly Groundwater Withdrawal Report Form with the draft and final permits that are used by the permittees to submit water withdrawal data to OWS. Permit writers should fill out the portions of the form that can be completed in advance,

such as owner, facility, permit number, expiration date, reapplication due date, and any project specific notes. Each production well name and corresponding DEQ well number must also be listed on the form, if available, when sent to the permittee. The Excel version of the form automatically calculates the Total Gallons per month and year, so staff should be sure that this calculates correctly as wells are added. If Water Level or Water Quality monitoring are being required as a special condition of the permit, reporting forms for these that specify the wells included in the reporting are also issued with the permit.

ii. Draft Public Notice Template

As part of the Draft Permit Package, the permit writer prepares the Public Notice (PN) document that is to be published in a local newspaper, sent to GWMA localities, and posted on the DEQ website. The boilerplate PN, Public Notice with AOI, found in the appendices contains the language that has been developed and authorized by DEQ Policy Division to provide information that follows the intent of regulations in language intended to be more readily understood by the public. Common sense deviations from the exact format are allowable. [9VAC25-610-250](#) provides that every draft permit is given PN, paid for by the applicant, by publication once in a newspaper of general circulation in the area affected by the withdrawal. If in doubt regarding the qualifications of the newspaper, contact the publisher directly and ask whether the publication is authorized to publish legal notices in accordance with Virginia law.

The PN provides a summary of the proposed permitted activity with many things common to all permits, as such, the PN boilerplate should largely remain unchanged beyond entering the project specific information in the applicable sections, unless project specific issues warrant modification. Permit writers should consult with the Manager when modifying the PN from the standard boilerplate.

Virginia Environmental Excellence Program (VEEP):

The GW Public Notice Template references when the applicant/facility is a participant in Virginia's Environmental Excellence Program (VEEP). VEEP was established by DEQ to encourage facilities and organizations to establish or exceed superior standards of environmental performance and proactive actions and policies. This program offers compliance and relational benefits for DEQ with its permittees, and it offers a range of potential benefits for permittees such as permit fee reductions, alternative compliance methods, and a streamlined permitting process. At this time, there are no specific fee reductions, compliance or processing changes in the groundwater permitting program; however, VEEP membership is referenced in PNs to encourage public awareness and participation.

There are multiple membership levels in the VEEP program: Sustainability Partners, E2-Environmental Enterprise, E3-Exemplary Environmental Enterprise, and E4-Extraordinary Environmental Enterprise. Each membership level has specific associated requirements. More information and background on the VEEP program, as well as a listing of its members, is located on DEQ website ([VEEP](#)).

Area of Impact (AOI) Map:

The PN boilerplate includes specific language that must be included if the Technical Evaluation Report shows an Area of Impact that extends beyond the property boundaries and other language to include if it does not. If it does, a copy of the AOI map(s) included in the Technical Evaluation Report should be included with the PN for any electronic transmittal such as the notification to the localities email. The AOI map is not included in the submission to the newspaper.

iii. Public Notice Authorization Form

Since the applicant must pay for the newspaper publication once arranged by the permit writer, the Public Notice Authorization Form boilerplate is filled out with the intended newspaper and is to be completed by

the applicant and returned to DEQ. The form provides documentation to include with the newspaper publication request that the applicant intends to cover the cost of publication.

iv. Draft Permit Response Form

The Draft Permit Response Form is a boilerplate form used to provide a straightforward way for the applicant to document their acceptance with the permit or indicate that they accept the draft permit with the following comments, or that they do not accept the draft permit.

v. Draft Permit/Public Notice Transmittal Letter

The Transmittal Letter includes directions to the applicant concerning the review of the draft permit, the need to include the Mitigation Plan in the permit, and PN publication requirements. The Manager signs the transmittal letter, and the applicant is to respond by returning the completed Draft Permit Response Form and the Public Notice Authorization Form.

9.4 Well Tags

GW regulations ([9VAC25-610-140 A 12](#)) require that each well included in a permit have a permanent well identification plate (Well Tag) that records, at a minimum, DEQ well identification number, the GW withdrawal permit number, the total depth of the well, and the screened intervals in the well. Permit writers are responsible for creating digital copies of the well tags that are then laser etched on to metal tags by a contractor. The tags are provided to the permittee after permit issuance. Please note that well tags will generally reference the permit number under which it was originally created, as subsequent reissuances will not send new well tags unless the existing tag is illegible or missing. Although the well tags are not part of the Draft Permit Package sent to the applicant, preparation of the well tag template is appropriate at this point in the process.

9.5 Review of Draft Permit Package

Once prepared, Draft GW permit packages undergo a two-tier internal (Team Lead and Manager) review process. The review should include the completed Draft Permit Package, consisting of the Fact Sheet (including attachments), Draft Permit, Public Notice, Draft Permit Transmittal Letter, Reporting Forms, and VA Hydro data entry. Only once all comments and concerns have been addressed and the Manager has authorized the Draft Permit to be provided to the applicant should the permit writer do so. The Manager will also generally review drafts with the Division Director prior to the documents being sent out.

i. GWP Team Lead Review:

The Team Lead (unless otherwise directed by the Manager) will evaluate the permit package to assure that all documents are written in a complete, clear, and correct manner. The Team Lead should review grammar, spelling, and formatting, as well as verifying that well data, etc. is correctly documented. Additionally, permit limits, conditions, and other requirements should be reviewed to ensure they are appropriate and relevant to the specific project. The Team Lead verifies that the permit is consistent with current technical and procedural guidance and that there is continuity between the draft permit and any previous permits and will also check to ensure that all VAHydro data entry tasks associated with the project have been completed and are accurate.

ii. Groundwater Withdrawal Permitting Manager Review:

The Manager will review the Draft Permit Package for consistency with statute, regulations, as well as Agency policies and procedures. Once the package reaches the Manager, it should be largely free of

typos, formatting, and grammatical errors, allowing the Manager to focus on broader concerns associated with the project.

iii. Division Director Review:

The Division Director will generally be briefed on projects by the Manager and will review draft permits and Fact Sheets as a final step in the internal Draft Permit Package review process.

9.6 Draft Permit Issuance to Applicant and VDH

Once the Draft Permit Package has been reviewed and the appropriate changes have been made, the Draft Permit Package along with the Transmittal Letter signed by the Division Director is sent to the applicant via email unless the applicant needs to receive a paper copy through the mail. If needed, the permit writer may set up a Draft Permit meeting to review the permit with the applicant. This meeting may be worthwhile for first time applicants/permittees and the Permit Writer should discuss whether such a meeting is appropriate with the Manager prior to sending the draft permit package.

Additionally, for GW permits with a public water supply component, all draft permits and Fact Sheets are sent to the VDH-ODW for concurrent review with the applicant at odwreview@vdh.virginia.gov. If the VDH reviewer has comments, they are evaluated and discussed with the applicant as needed with related changes to the Draft Permit or Fact Sheet also approved by the WWPC Manager.

The Draft Permit Package consists of a Transmittal Letter, the Draft Permit, Draft Permit Factsheet, Technical Evaluation Report, Draft Groundwater Withdrawal Reporting Form, Draft PN with area of impact maps (if an AOI extended beyond the service area)), applicant Draft Permit Response Form, and Public Notice Authorization Form, the WCMP and the Mitigation Plan (if warranted). Following receipt of the applicant's Draft Permit Response Form and the signed Public Notice Authorization Form, staff shall proceed with required PN and participation procedures, as described below. If the Permittee has comments on the Draft, phone discussions, response letters, or meetings may be held to discuss and evaluate the comment/concerns. If possible, within the regulation, the permit or other documents may be revised to address the concerns with Manager approval.

If the applicant fails to submit the signed Public Notice Authorization Form by the date required and/or the Draft Permit Response Form, the permit writer shall contact the applicant by telephone to determine the review status. In cases where an applicant is unwilling to accept the terms and conditions contained in a draft permit, staff is unable to reach a negotiated compromise, and the applicant refuses to withdraw the application, staff may recommend denial of the application. Staff should discuss such circumstances with the Manager.

9.7 Draft Permit Preparation Boilerplate Document List

1. Factsheet
2. New and Expanded Draft Permit
3. Quarterly Groundwater Withdrawal Report Form
4. Water Level Report Form
5. Water Quality Report Form
6. Public Notice with AOI
7. Public Notice Authorization Form
8. Draft Permit Response Form
9. Draft Permit Transmittal Letter
10. Well Tags

10.0 PUBLIC NOTICE PROCESS

GW permits require public notice prior to making a final decision to issue, deny or have a hearing.

10.1 Public Notice Notifications

To initiate the public notice period, the permit writer sends the draft permit public notice (in both a Word and pdf format), a request that the notice be published (Public Notice Newspaper Transmittal e-mail text), and the completed Public Notice Authorization Form to a newspaper of general circulation in the area affected by the withdrawal. The permit writer copies the applicant with the email to the newspaper so that they will be informed of the publishing costs and should send the applicant an email advising them to verify that the notice was published accurately. Permit writers can check the online notices the day of publication with some papers to see that a PN has been published and copy the notice. The permit writer should also receive the receipt of proof of publication from the newspaper to ensure that the notice of the application was advertised.

Once the notice is arranged with the newspaper for publication, the permit writer emails a copy of the PN to the designated Division Web Author, who will post the PN on the program web site. The website posting is to include the entire Draft Permit Package including Draft Permit, Factsheet, WCMP, Mitigation Plan, and Technical Evaluation (and any other referenced attachments) as one PDF/A file using the following for the file name: PermitNo_Facility_DraftPermit_Date. Permit writers should attempt to be sure that the PN is placed on the website concurrent with the notice in the newspaper by allowing lead time for the website posting. Some newspapers require prepayment of the associated fee prior to publication. In these situations, additional lead time may be needed to ensure that the applicant has time to pay before the publication date.

A Local Government Notice Letter or E-mail will be sent to each local governing body within the GWMA within which the proposed withdrawal will occur on or before the date of PN. Locality notices should be sent by email, but in some instances, a letter must be sent to the locality contacts if their email is not available.

Tribal Nation notifications are to be coordinated with the Manager in advance of any planned advertisement.

The local government notices and the PN in the newspaper reference the AOI Map(s) that are to be found on the DEQ Website. Since trying to arrange the notifications with time for the website posting can be a challenge, pushing the publication back until the web posting is likely should be considered when setting up the publication date and the Public Notice period.

10.2 Public Notice Verification

DEQ must be provided with proof that the PN was published (document from the newspaper or a copy of the published notice) before the close of the 30-day public comment period.

The permit writer needs to contact the applicant/agent if the publication cannot be found on-line or verification documentation from the newspaper is not received within a reasonable amount of time, once requested.

10.3 The 30-Day Public Comment Period

GW permits ([9VAC25-610-250](#)) require a 30-calendar day comment period beginning the day after the draft permit PN is published in the newspaper which continues until the close of business on the 30th

day. As an example, if the PN is published in Wednesday's newspaper, Thursday is counted as day one of the 30-calendar day comment period (not Wednesday). In the public notice, the first date is the date of publication. If the last day of the public comment period falls on a Saturday, Sunday, or Holiday, set the close of the comment period for the next business day. All comment periods close at 11:59 p.m. These timeframes are described in the DEQ Office of Public Affairs templates for public notices.

During the comment period, individuals must submit written comments via mail, fax, or e-mail. Comments may not be provided orally. Typically, public comments submitted after the public comment period ends are not considered in the official permit record for informal proceedings such as a draft permit action.

10.4 Public Comment Review and Response

In accordance with [9VAC25-610-270](#), public comment review by staff, as well as the Director's decision whether to approve or deny a public hearing, must be completed within 30 days of the end of the comment period if there was a request for a hearing. If there is no request for a hearing, however, DEQ must act within 90 days of the close of the comment period. Based on a review of relevant public comments, changes in the draft permit may be warranted. Changes may be made to the permit conditions that correct typographical errors or in response to comments that are within the purview of the permit program (related to the groundwater resource). Changes made to the special conditions because of public comments should be discussed with the applicant and all applicable parties.

Copies of all public comments must be maintained in the permit file. At the end of the PN period, the permit writer must prepare a summary and response to all comments, whether or not they have resulted in a change to permit conditions. This summary, Public Comment Sheet, should be included as part of the Fact Sheet. A copy of the response and summary is sent to those individuals who commented during the PN period.

If there are no disputed issues, or if the staff can resolve all disputed issues by modifying draft permit conditions or other means, and there is not a specific request for a public hearing, OWWP shall proceed with permit issuance as described in the next chapter.

10.5 Public Hearing

The requirements and process for conducting a public hearing are provided by [9VAC25-610-270](#) if requests for a public hearing on the proposed permit action are submitted to DEQ. If a public hearing is scheduled, the draft permit will be presented before DEQ for a permit determination after a public hearing and additional public comment period. Permit writers must follow these exact procedures. Any questions about procedures should be directed to the Manager or the Office of Regulatory Affairs. Permit writers should be aware that a "controversial permit", a water permitting action for which a public hearing has been granted pursuant to [Chapter 356, Virginia Acts of Assembly 2022 Session](#), follows the procedures outlined in the Public Hearing Procedures for Permitting Decisions document.

In accordance with [9VAC25-610-270](#), the following procedures are followed for when a request for a public hearing is received during the public comment period. The Director has 30 calendar days following the close of the public comment period to make a final decision on whether to hold a public hearing. (Within this timeframe, Staff may hold a public meeting to attempt to resolve any issues prior to making final decision to hold hearing).

Note: If the draft permit is revised such that it removes the basis for the dispute, then Staff should ask the hearing requestor to withdraw the request for a hearing. If the hearing request is withdrawn, then DEQ

will issue the permit. If the request is not withdrawn, staff will consider recommending denial of the hearing. Factors in the decision:

- Significant public interest (minimum 25 individual requests for a hearing);
- Substantial and disputed issues are relevant to the permit action;
- Action requested is not on its face inconsistent with, or in violation of, the Water Control Law, federal law or any regulation promulgated thereunder;
- Hearing is required by statute.

An authorization package to grant or deny the public hearing request must be submitted to Water Division Director and Regulatory Affairs Officer within 21 calendar days of the close of the public comment period of the draft permit, in order to meet the 30-day deadline.

All written comments and requests for a public hearing received during the PN comment period must be considered, and a determination for the necessity for a public hearing made in accordance with [9VAC25-610-270](#). DEQ Staff will need to determine if the requests for public hearing satisfy the conditions set forth in Procedural Rule No. 1, and if so warranted forward on the permit application, the permit file, and all written comments to the Director for a final hearing determination. Should Staff conclude that requests for a public hearing do not meet the conditions of Procedural Rule No. 1, written notification and justification of this determination must be provided to all commenters who requested a public hearing.

If decision is to deny a public hearing:

- Notice of Denial of the Request for Hearing Letter is signed by Director of DEQ and sent by mail or email to the last known address of each requester and the applicant or permittee.

If the decision is to hold a public hearing:

- The specific public hearing process is outlined in Public Hearing Procedures for Permitting Decisions guidance, and should an application warrant a public hearing, Staff will need to consult this document and work with their program manager in order to conduct the hearing in accordance with the regulations.

Public Notice of Hearing

If the Director determines that a public hearing is warranted, the public must be notified of the hearing at least 30 days in advance of the public hearing and the public comment period must be kept open at least 15 after the public hearing. The notice of public hearing is to be published in a newspaper of general circulation within the county or city where the proposed permitted activity is to occur. The notice of the public hearing is to be provided to local government and any other entity or individual who received a copy of the notice of the permit application, and to all individuals or entities having commented in response to the original draft permit PN.

Controversial Permits Reporting

Any controversial permits pending before DEQ must be presented at each regular meeting of the SWCB. The Board has the opportunity to respond to DEQ's presentation and provide commentary regarding such pending permits. The Director will take these comments into consideration when making the permit decision.

10.6 Public Notice Process Boilerplate List

Some of the needed documents are standard for all DEQ programs and should be obtained from DEQ Policy Documents.

1. Public Notice Newspaper Transmittal e-mail text
2. Local Government letter and e-mail
3. Public Comment Sheet
4. Public Hearing Dispensation Memo

11.0 PERMIT ISSUANCE

The final permit is prepared and issued after the close of the comment period when no public hearing is held, or after a decision to issue has been made by the Director (in the case of a public hearing).

Preparation of the final permit package (final permit with the WCMP and MP with AOI, Fact Sheet, Final Permit Transmittal Letter, and response to comments), including all changes made because of the PN and comments received and updating all the dates that are dependent on the permit issuance dates. Updates and changes to the Fact Sheet to reflect these permit changes also need to be made. The permit writer needs to remove the “Draft” label from all final permit documents and to ensure that the correct due dates are included in all permit conditions, letters, etc.

Staff should forward the final Permit Package to the Manager for final review. Once the documents have been signed and dated by the Division Director, the permit writer sends the signed final Permit Package to the permittee via email. The signed hardcopy may also be mailed. All attachments, such as the withdrawal reporting form, the WCMP, and the Mitigation Plan must be included with the permit as these documents are part of the permit. If new well tags are transmitted with the Permit, the Well Tag Certification Letter is included with the Package. The permittee is to install the new tags and submit confirmation of the installation within 60 days of completion.

VDH is also copied on all final permit packages for VDH permitted waterworks.

Once the permit has been issued, Staff must complete the following steps as soon as possible:

- Complete all VAHydro data entry and ensure that the file is transferred from “application” to “active” status and that any permit conditions and due dates are entered. For reapplications, the status of the previous permit is to be changed to inactive.
- Ensure that all pertinent information is included and organized in the permit file
- File hardcopy documents appropriately
- Prepare the permit file for upload to DEQ’s Enterprise Content Management system
- Provide a summary of the permit to OWS-Director using the Regional Summary Boilerplate. OWS Director will forward the summary to DEQ Regional Director responsible for the county in which the project is located.

11.1 Permit Issuance Boilerplate Document List

1. Final Permit Transmittal Letter
2. Permit Issuance Regional Summary Boilerplate
3. Well Tag Certification Letter

12.0 PROCESS FOR DENIAL OF A PERMIT APPLICATION

The administrative and technical review of an application may result in a situation where the issuance of a permit is not supported by law and regulation. If staff attempts to negotiate acceptable modifications to the proposed withdrawal fail, it may necessitate a recommendation to the Director to deny the applicant’s permit request. The first step in any denial process should always be a thorough discussion of the facts of

the case with the Manager. One should only begin the formal denial process after concurrence from Agency management is obtained. The sections below detail the reasons for a denial recommendation and the associated procedures that are required as part of the overall process.

Basis for Denial

Denial may be warranted when one or more of the situations below occurs or for other reasons deemed appropriate ([9VAC25-610-340](#)):

- The cumulative stabilized impact of the proposed withdrawal in combination with all existing lawful withdrawals will lower water levels in a confined aquifer below a point that represents 80% of the distance between the land surface and the top of the aquifer (the 80% drawdown criteria);
- The predicted AOI intersects a cell(s) already predicted or measured to be below the 80% drawdown criteria. Available supplies of GW are insufficient for all who desire to use them and the preference is being given to use for human consumption.

[To clarify, denials are not processed for the applicant's failure to provide a complete application even if the applicant becomes nonresponsive beyond the 180-day timeframe. In these situations, the application is suspended as discussed in Section 7.13 above]

Notification to Applicant

The first formal step in the process is a requirement that the applicant be notified, in writing, that a preliminary decision to tentatively deny the permit is being made by DEQ. Prepare the Notice of Tentative Decision to Deny Application which includes:

- The reason for the recommendation, based on the Permit Program regulations in [9VAC25-610](#); such that the applicant may, at his option, modify the application in order to achieve a favorable recommendation;
- A clear and concise statement explaining the reason for the denial, the scientific justification for the denial, and how DEQ's decision is in compliance with applicable laws and regulations;
- A statement that the applicant has the option of withdrawing his/her application, in which case no permit will be issued; and
- A statement that the applicant has the option of proceeding with the project application as proposed, in which case OWWP staff will make a recommendation for denial.

The Manager should sign this notification letter, which must be certified by the Director and should be sent to the applicant or his/her delegate via certified mail.

After receiving the above notice, the applicant should notify DEQ in writing that they choose to modify the application to hopefully pass the evaluation, withdraw the application, or proceed as originally proposed. If the applicant's decision is to withdraw the application or to proceed with the project application as proposed, staff should continue with the denial process. Further evaluation of the withdrawal is needed to determine if proposed changes allow the revised withdrawal to pass and a draft permit to be prepared.

If an applicant elects to proceed as originally proposed, staff must advise the applicant in writing of his right to an informal fact finding in accordance with [§2.2-4019](#) of the Administrative Process Act to consider the denial.

12.1 Process for Denial Boilerplate Documents List

1. Notice of Tentative Decision to Deny Application Letter

13.0 AFTER PERMIT ISSUANCE

After a permit is issued, changes are sometimes made, or situations arise, that require a change to the permit or permit conditions. These changes can be made to the permit through a minor modification, a major modification, or a revocation ([9VAC25-610-290](#)).

13.1 Minor Modifications

GW permits allow for minor modification to existing permits at the request of the permittee or upon DEQ initiative with permittee consent. Minor Modifications must not increase the withdrawal amounts and the area of impact must not increase as these would require evaluation through new modeling efforts. The changes allowed under minor modification range from correction of typos and updates to WCMPs, to the installation of replacement wells or new wells within the same aquifer and in the vicinity of other permitted production wells, or to combine adjacent permitted systems. [9VAC25-610-330 B](#) lists the specific items where DEQ may make minor modifications to an existing permit without requiring public notification.

Preparation of a Minor Modification includes modifying the permit to address the changes in ownership, add a new well, etc. without changing other aspects of the permit and preparing a Minor Modification Factsheet to explain/document the action. However, it is important for the permit writer to review the permit and previous Permit Factsheet to make sure that the change does not affect other permit requirements or require additional changes. For example, if a well that was being sampled for water quality reporting fails and needs to be replaced, the permit condition requiring the water quality sampling will need to be modified to include sampling from a different well.

If DEQ determines that a requested permit change does not qualify for a minor modification, appropriate justification will need to be provided to the permittee in writing, which can be conveyed via email. Permit Writers must work through these evaluations with the Manager.

Common Minor Modification Categories include:

a. Transfer of Ownership

GW Regulations ([9VAC25-610-320](#) or [9VAC25-610-330 B 8](#)) describe the process by which a permit may be transferred to a new permittee as follows:

1. Documentation Submittal

A request to transfer a permit must include a written agreement between the current and proposed permittee containing the date of transfer of permit responsibility, authorization, and liability to the new permittee. A Transfer of Ownership Form is provided by DEQ to document this agreement. The request must also clarify if the existing permittee will retain any such responsibility, coverage, or liability, including liability for compliance with the requirements of enforcement activities related to the authorized activity. Staff should review the request for transfer and verify that the request is signed by the actual current permittee (not agent or different legal entity) and new permittee. The new permittee must be a legal entity and is typically the new property owner. If the transfer request is approved by Program Management, staff should complete the minor modification of the permit and the associated Factsheet to memorialize the transfer of permit coverage, as noted above.

The transfer of the permit also includes a transfer of the beneficial use that is authorized by the current permit. If the new owner intends to use the permitted amount for a different beneficial use, that needs to be discussed promptly with the Manager as a major modification may be required.

2. Automatic transfer of permit coverage

GW regulations ([9VAC25-610-320 B](#)) allow for automatic transfer of ownership from the current permittee to the new permittee if the following criteria are met:

- Notification is provided to DEQ of the proposed transfer of the permit (*GW regulations require that the notice is within 30 days prior to the transfer.*);
- The notification includes a notarized written agreement between the current and proposed permittees containing the date of transfer of permit responsibility, authorization, and liability to the new permittee; and,
- DEQ does not, within 30 days of receiving that submittal, notify the current and new permittees of its intent to modify the permit.

Although the permit transfer occurs automatically if all requirements are met, the transfer is documented by processing a minor modification to update the permit documentation and identify the new permittee. Also, review of such transfers is important to identify if any compliance requirements have been completed by the current permittee or if the requirements will transfer to the new permittee.

In certain instances, a new owner or responsible party will request to transfer a permit even if the current permittee cannot be located or is unwilling to sign the transfer agreement. If the current permittee refuses or is unavailable to complete the transfer agreement, the situations should be discussed with management on how to proceed. A meeting with the new permittee should be conducted as soon as possible with the compliance coordinator as the permit is issued to ensure the new permittee understands their permit and requirements.

b. Addition of New Wells or Well Replacements

GW Regulation provides for the replacement of a well or a new well through a minor modification to a permit in cases where the proposed well is screened in the same aquifer as the existing well(s), the proposed well(s) is in the near vicinity of the existing well(s), the groundwater withdrawal does not increase, and the area of impact does not increase.

c. Existing Permit Combinations

GW Regulation provides for the combination of withdrawals governed by multiple permits into one permit through a Minor Modification when the systems that were governed by the multiple permits are physically connected, as long as the interconnection will not result in additional groundwater withdrawal and the area of impact will not increase.

d. Permit Condition Extensions

Interim compliance dates in permit conditions can be extended no more than 120 days from the original compliance date through a Minor Modification to the permit provided it will not interfere with the final compliance date.

Permit writers must review these requirements listed in the regulations when drafting a minor modification and identify which reference applies and include it when drafting the Minor Modification Factsheet and transmittal letter. Minor modifications do not require a permit fee and may be made without

additional public involvement. Requested changes that do not meet any of the minor modification categories are required to proceed with a major modification, as outlined in Section 8.5.

Processing Minor Modifications

The process for handling a minor modification is as follows:

1. Administrative Duties - Note the minor modification in VAHydro; entering the date request was received.
2. Review the minor modification request for completeness - All relevant information needs to be provided for DEQ to assess the modification request.
3. Request additional information - As necessary, additional information should be requested to allow Staff to adequately assess the request and determine if coordination with the VDH is necessary.
4. VDH coordination - If a new well is being added to the withdrawal system, the Permittee should provide the VDH approval documents for the new well (Well Site Approval and Construction Approval). If VDH approval of the inclusion of the new well is not documented, the permit writer needs to coordinate with the VDH to confirm the new well is being incorporated into the VDH WWOP and EDS (for permitted water systems).
5. Modify permit - The permit writer utilizes the original permit documents, as issued, as the base from which to modify. Modify only those sections applicable to the request. The minor modification issuance package needs to include a Minor Modification- -Transfer Approval letter which specifies the special conditions modified and the complete modified permit.
6. A Minor Modification Fact Sheet is also prepared which details the specific changes made to the existing permit, and listing all relevant dates associated with the modification. Justification for approval or denial is also noted in the fact sheet.
7. Internal Review - The minor modification Package goes through Program Manager review for comments and signature.
8. Issuance - Once the permit is signed, it is ready for issuance to the permittee, with the appropriate electronic copies to others. Issuance should include a Minor Modification- Transfer Approval Letter, Modified permit, and Minor Modification Fact Sheet.
9. Administrative Duties - Ensure all appropriate information has been entered in VAHydro.

13.2 Major Modifications

Changes to permits requested by permittees that do not meet the Minor Modification criteria in many cases can or need to be addressed through a Major Modification or, if the request comes late in a permit term, the permittee may choose to submit an early application for a new permit term. Major permit modifications generally affect the amount of withdrawal and/or the predicted area of impact and require an updated Technical Evaluation Report with new modeling. A Major Modification cannot be used to extend the permit term so the time remaining in the permit is to be considered.

Major modifications can be initiated by DEQ or the permittee, in writing, and entail the same, but abbreviated, process as the original permit issuance process (see [9VAC25-610-310](#)), and there is a fee associated with the permit modification. An important distinction between a new issuance and major modification is that during the modification process only those impacts and conditions of the permit requested to be modified by the permittee are changed. Staff may suggest additional changes to the permittee but must obtain permittee acceptance prior to executing these changes.

Common reasons Major Modifications are requested include:

a. Increase of the Permitted Withdrawal

During the permit term, the need for additional water supply can occur due to unexpected or more rapid than expected growth within a system, or the opportunity or need to supply a new business or industry. A request for an increase in the annual and/or monthly withdrawal limit to support needed growth can be addressed through a Major Modification.

b. Changes in Permit Condition Due Dates beyond 120 days or Changes in Permit Condition Requirements

Situations can arise for a Permittee that affect funding availability or where additional efforts are identified with completing work associated with a permit condition that affect the ability to meet the required due date(s). Often these situations involve issues with other wells that pose critical needs for funding. In these cases, a request for changes in due dates or other aspects of the permit condition can be requested through a Major Modification.

Permit applications are evaluated and issued for a specific beneficial use. A change in the beneficial use must be submitted through a Major Modification request since this is a significant change in the permit and needs to be done through public comment.

DEQ may also initiate a Major Modification ([9VAC25-610-310](#)):

1. When new information becomes available about the groundwater withdrawal covered by the permit or special exception, or the impact of the withdrawal, which was not available at permit or special exception issuance and would have justified the inclusion of different conditions at the time of issuance;
2. When groundwater withdrawal reports submitted by the permittee indicate that the permittee is using less than 60% of the permitted withdrawal amount for a five consecutive year period;
3. When a change is made in the regulations on which the permit or special exception was based;
or
4. When changes occur which are subject to "reopener clauses" (such as water level or water quality thresholds) in the permit or special exception.

The process for handling a Major Modification is as follows:

1. Administrative Duties - Initiate major modification in VAHydro; enter date modification request received.
2. Permit Number Change - New permit number is created for the modification where a 1 is substituted for the first number (see Section 6.2)
3. Review for Complete Major Modification Request
4. Application Review - Major modification requests often include information similar to the original permit applications but tailored specifically to the changes requested. Major modification requests can be submitted through a formal letter detailing the modifications requested and including the justification for the changes. Changes to authorized withdrawals should include justification for the request with associated supporting documentation. The same level of review as was conducted for the original permit will be required (see Chapter 5); however, this review is limited to the scope of the major modification.

5. Additional Information - As necessary, additional information will need to be requested to allow staff to adequately assess the modification request and determine if further interagency coordination is necessary.
6. Major Modification Fee Requests - Fee amounts are based on the applicable column in the fee schedule.
7. Technical Evaluation Report - Once the requested changes are finalized between the permit writer, the Manager, and the permittee, a Request for Technical Evaluation is prepared, if warranted for an increased withdrawal. For example, a new well withdrawal pattern would change the predicted AOI.
8. Factsheet Preparation - The factsheet details the specific changes being made to the existing permit, and lists all relevant dates associated with the modification and the outcome of the Technical Evaluation Report, if one was conducted. Justification for approval or denial will need to be provided in the fact sheet.
9. Public Notice Comments Review and Response and the Public Notice Process - The process is the same as that of the permit issuance but public input is limited to the proposed changes to the permit.
10. Public Hearing Process - The process is the same as that of the permit issuance.
11. Major Modification Issuance / Denial - The process is the same as that of the permit issuance.
12. Administrative Duties - Ensure all appropriate information has been entered in VAHydro.

13.3 Uncontested Termination of Permits

DEQ may terminate GW Permits when uncontested by the permittee and the existing permit is no longer required. Permits may no longer be required when withdrawals have ceased or the withdrawal amount has been reduced to a level excluded by regulations.

The process for uncontested permit terminations is as follows:

1. Review termination request -
 - a. Review the request to ensure a completed Termination IP Agreement Form has been submitted.
 - b. If not submitted, then the permit writer should send the permittee an Uncontested Termination Agreement Form and the form for signature and submission to the permit writer.
 - c. Staff must also conduct a final permit review to ensure all requirements/conditions of the permit have been fulfilled prior to processing the termination. This review may consist of the following:
 1. Administrative (file) review of the permit file.
 2. Site inspection of the wells
 - d. In the case of a permittee who wishes to terminate a permit or does not want to reapply based on a reduction of water withdrawals to excluded levels and no longer feels they need a permit, the permit writer should review the recent water withdrawal permit reports to support this claim. Permittees may be asked to submit withdrawal reporting data for a period of time to prove that they no longer need a permit.
2. Address any identified concerns/issues -
 - a. Staff will notify the Manager of any concerns identified through the final permit review. Any unpermitted impacts must be resolved in accordance with the appropriate compliance or enforcement action(s) prior to termination of the permit.

- b. If the Uncontested Termination Agreement Form is signed and returned to indicate the permittee has waived his/her right to a hearing and certifying that there are no pending state or federal enforcement actions on the permit, then the Uncontested Termination Notification Letter is completed.
 - c. Once completed, the Uncontested Termination Notification Letter is sent to the permittee by certified mail to inform that the permit is terminated. This letter should be signed by the person delegated the authority to issue the permit.
3. Update the database - The permit writer updates the VAHydro database to reflect the change in permit status.

13.4 Revocation of Permits

Permits can also be revoked by DEQ. A Permit may be terminated by DEQ for cause, in accordance with the requirements identified in the [9VAC25-610-300](#). Causes for revocation are as follows:

- a. Noncompliance with any condition of the permit or special exception;
- b. Failure to fully disclose all relevant facts or misrepresentation of a material fact in applying for a permit or special exception, or in any other report or document required by the Act, this chapter or permit or special exception conditions;
- c. The violation of any regulation or order of the board, or any order of a court, pertaining to groundwater withdrawal;
- d. A determination that the withdrawal authorized by the permit or special exception endangers human health or the environment and cannot be regulated to acceptable levels by permit or special exception modification;
- e. A material change in the basis on which the permit or special exception was issued that requires either a temporary or permanent reduction, application of special conditions or elimination of any groundwater withdrawal controlled by the permit or special exception.

Any such terminations require the notice of and opportunity for a formal hearing pursuant to Procedural Rule No. 1 ([9VAC25-230-100](#)). Revocation for cause must be discussed with management prior to proceeding.

Revocation and reissuance of a permit will rarely be required to conduct a transfer of permit coverage if the transfer is the sole item necessitating a change to the permit. Typically, such action is due to other reasons, such as changes to water withdrawal volumes or beneficial use, along with a permit transfer. If staff determines a transfer of coverage cannot be completed via a modification, this should be discussed with the WWPC Manager.

13.5 After Permit Issuance Boilerplate Documents List

1. Notice of Pending Expiration and Reapplication Letter
2. Major Modification Fact Sheet
3. Intent to Terminate Letter
4. Transfer of Ownership form
5. Minor Modification Fact Sheet
6. Transfer of Permit or Special Exception Letter
7. Uncontested Termination Agreement Form.
8. Uncontested Termination Notification Letter
9. Minor Modification Transmittal Letter

10. Major Modification Transmittal Letter

14.0 GENERAL PERMIT APPLICATION AND PROCEDURES

9VAC25-610-95 provides for the Board to issue general permits by regulation for withdrawals of groundwater within a groundwater management area. There are currently two general permits for use by applicants for groundwater withdrawals:

1. General Permit for Use of the Surficial Aquifer on the Eastern Shore (Eastern Shore GP)
2. General Permit for the Use of Irrigation Withdrawals from the Surficial Aquifer Greater than 300,000 Gallons in any One Month (Irrigation GP)

Each general permit applies to withdrawals of a certain size, from a specific aquifer, and/or for a specific category of use. Activities authorized under a general permit are for the fixed term dates in the applicable general permit regulation which means that effective and expiration dates do not change, regardless of when coverage is issued by staff. Therefore, some permittees may have a longer period of time in which to withdraw groundwater under general permit coverage than others, based on the date coverage is granted by DEQ. Conditions of each general permit are contained with the regulations. Coverage under general permits can only be provided for activities that meet all the terms and conditions of applicable law, GW regulations, and the coverage letter.

The general permit regulations must be read by staff. The intent of this chapter is to provide staff with an overview of the necessary procedures to review, process, and prepare general permit coverage in accordance with the applicable law, regulations, guidance, and policies.

14.1 Withdrawals Authorized by GW General Permits

Each general permit authorizes a specific type of groundwater withdrawal and has specific application requirements.

General Permit for Use of the Surficial Aquifer on the Eastern Shore (9VAC25-910) grants coverage to withdraw groundwater from the surficial aquifer of the ESGWMA with the following exclusions:

1. An activity that occurs outside the ESGWMA.
2. An activity in an aquifer other than the surficial aquifer of the ESGWMA.
3. Wells with a maximum depth greater than 80 feet below land surface unless the applicant provides geophysical logs showing the maximum depth of the well is constructed within the surficial aquifer of the ESGWMA.
4. An activity that causes or may contribute to causing more than minimal water level declines in the confined aquifer system or degradation in water quality, hydrology, or other instream beneficial uses.

The effective date of this general permit is November 9, 2022, and it expires at 11:59 p.m. on November 9, 2037.

General Permit for the Use of Irrigation Withdrawals from the Surficial Aquifer Greater than 300,000 Gallons in any One Month (9VAC25-920) grants coverage to withdraw groundwater in amounts greater than 300,000 gallons in any one month for the use of irrigation with the following exclusions:

1. An activity outside a groundwater management area.

2. An activity in an aquifer other than the surficial aquifer of a groundwater management area.
3. An activity that causes or may contribute to causing more than minimal water level declines in the confined aquifer system or degradation in water quality, hydrology, or other instream beneficial uses.

The effective date of this general permit is December 21, 2022, and it expires at 11:59 p.m. on December 21, 2037.

14.2 Reviewing General Permit Applications

Application forms for each general permit are available from DEQ. Permit writers should consult with the Manager for details regarding assigning permit numbers.

In general, permit writers will complete many of the same steps as detailed in Chapters 7 and 8 of this manual.

- Review the application to verify eligibility for general permit coverage and completeness.
- If needed, request additional information.
- Issue general permit coverage or deny the application.

The general permit regulations list specific information necessary to apply for each type of general permit:

- Eastern Shore GP: 9VAC25-910-80
- Irrigation GP: 9VAC25-920-90

The items listed are, at a minimum, what constitutes a complete application. Table 14.1 below outlines what information is required in each general permit application and where review procedures for each type of information can be found in the preceding chapters.

Table 14.1. General Permit Application Requirements.

Application Requirement	Eastern Shore GP	Irrigation GP
Permit Fee	General Permit Fee is \$600 (Chapter 8.3)	General Permit Fee is \$600 (Chapter 8.3)
Groundwater Withdrawal Permit Application		
Application Signature	Chapter 7.1	Chapter 7.1
Completed Well Construction Reports (Form GW-2)	Chapter 8.9	Chapter 8.9
Proposed Well Information	Chapter 8.9	Chapter 8.9
Map	Chapter 7.1	Chapter 7.1
Surface Water and Groundwater Conjunctive Use Information (if applicable)	Chapter 6.5	Chapter 6.5
LGOF	Chapter 8.10	Chapter 8.10
Withdrawal justification	Chapter 8.5	Chapter 8.5
Geophysical logs	Only required when existing or proposed wells are greater than 80 feet below land surface (see Chapter 8.9)	Complete set of geophysical logs required (see Chapter 8.9)
Mitigation Plan	NA	Chapter 8.11

In addition to the information listed in the table above, the general permit applications contain a tool for applicants to use to determine their area of impact. The Surficial Well Evaluation Tool, located at <https://swet.apps.aquaveo.com>, is used to determine the AOI of the proposed withdrawal. The applicant must print and include the Area of Impact map and Summary Table generated by the tool.

14.3 Issuing General Permit Coverage

The General Permit Package consists of the following items, as detailed in the sections below:

- General Permit Coverage Letter
- General Permit Water Conservation and Management Audit Form
- Mitigation Plan with AOI Map (if warranted)
- General Permit Reporting Form

a. General Permit Coverage Letter

Coverage under each general permit is granted through a coverage letter – Eastern Shore General Permit Coverage Letter or Irrigation General Permit Coverage Letter. The coverage letters include all of the conditions and requirements of each general permit. In addition, coverage under each general permit is granted only for the effective dates of each general permit. A permittee who wishes to continue their covered withdrawal must reapply for coverage under a general permit in effect at that time or must apply for an individual permit.

b. General Permit WCMP

Both general permits contain permit conditions requiring a WCMP. Staff will provide an Eastern Shore General Permit Water Conservation and Management Audit Form or Irrigation General Permit Water Conservation and Management Audit Form to permittees.

c. Mitigation Plan with AOI

Both general permits contain permit conditions requiring a Mitigation Plan. However, only the Irrigation GP requires submission of the Mitigation Plan as part of a complete application. Mitigation Plan templates are provided by staff who should refer back to Chapter 8.11 for a discussion of Mitigation Plan review.

d. General Permit Reporting Form

Both general permits require annual withdrawal reporting to DEQ. Staff should provide permittees with their respective reporting form – Irrigation GP Reporting Form or Eastern Shore GP Reporting Form

14.4 General Permit Boilerplate List

1. Eastern Shore GP Application
2. Irrigation GP Application
3. Eastern Shore General Permit Coverage Letter
4. Irrigation General Permit Coverage Letter
5. General Permit Water Conservation and Management Audit Form
6. Mitigation Plan
7. Eastern Shore GP Reporting Form
8. Irrigation GP Reporting Form