

**Mayor and Council of Federalsburg
Monday, September 19, 2022
Workshop @ 6:00 P.M.**

This Meeting is being held at the Second Floor Meeting Room located at 118 North Main Street. Citizens who wish to participate by video shall follow directions listed below:

Join Zoom Meeting

<https://us02web.zoom.us/j/81287874974?pwd=S2svZ2ttRG12Y0NxeFM4MmVya1lhQT09>

Meeting ID: 812 8787 4974

Passcode: TOFWork

Agenda

- I. Call to Order**
- II. Proposed AquaCon Project Community Discussion – Developer’s Presentation, Mayor and Council Questions, Public Comment and Questions**
- III. Mayor and Council Action Items**
 - * Councilmember Windsor**
 - * Councilmember Sewell**
 - * Councilmember Phillips**
 - * Councilmember Willoughby**
 - * Mayor Abner**
- IV. Adjournment**

NOTES:

THE MEETINGS ARE BEING RECORDED, PLEASE TURN OFF ALL CELLULAR DEVICES AND PAGERS DURING THE MEETING, PLEASE REMAIN QUIET, UNLESS ADDRESSING THE COUNCIL.

Please Note: Pursuant to the Annotated Code of Maryland, State Government Article Section 10-508(a), the Council by majority vote may retire to executive or closed session at any time during the meeting. Should the Council retire to executive or closed session;

the chair will announce the reasons and a report will be issued at a future meeting disclosing the reasons for such session. Meetings are conducted in Open Session unless otherwise indicated. All or part of Mayor and Council meetings can be held in closed session under the authority of the state open meetings law by vote of the Mayor and Council.

Rules for Public Comment

The Mayor and Council invite and welcome comments at public meetings. The Mayor or presiding officer will recognize you. Please introduce yourself at the podium (spelling your last name, for recording purposes) and give the name of your street and block number (e.g., 100 block of Main Street).

Time limits for speaking are indicated on the meeting agenda. While speaking, please maintain a courteous tone and avoid personal attack.

TO: Mayor & Council Members
FR: Larry DiRe, Town Manager
DT: September 19, 2022
RE: Proposed AquaCon Project – Draft Discharge Permit Matters

During the past several months there has been much community discussion and media coverage of the proposed industrial salmon grow and processing facility. The developer, AquaCon, submitted a water discharge permit application to the Maryland Department of the Environment (MDE) and received a draft permit pending the outcome of the final approval process. Many issues have been raised during this final approval process, ranging from the operations of other similar process facilities, to stormwater management concerns associated with a twenty-five-acre covered structure, to the food source for the approximately three million salmon a year being grown and processed. While these issues and other may be of a general interest, they are not relevant to the specifics of the water discharge permit at hand, and for which a public comment period to MDE is open until Monday October 17, 2022. Staff will address three specific features of the draft permit and how they relate to town operations. Other matters may be left to other questions and comments already received or received during the September 19, 2022 mayor and council workshop meeting.

Attachments explained

Attachment A – Letter dated October 9, 2020 from the town attorney to the Caroline County Department of Planning and Codes requesting the county amend the Comprehensive Water and Sewerage Plan;

Attachment B – Letter dated May 22, 2020 from Mayor Abner to AquaCon expressing support in principle for the proposed development and annexation (note this correspondence informs AquaCon of the requirement to obtain a permit approval from the mayor and council to have a private well for industrial use and to this date AquaCon has taken no steps toward either permit approval process);

Attachment C – MDE correspondence to AquaCon dated March 12, 2021 regarding a Water Appropriation and Use Permit Application (note as of September 9, 2022 conversation with appropriate MDE staff there was no movement on this permit application);

Attachment D – AquaCon correspondence dated March 24, 2021 informing contiguous property owners and local officials they applied for permit cited in Attachment C;

Attachment E – MDE permitting process flowchart from the May 26, 2021 AquaCon Discharge Permit Application Informational Meeting (circled in red and pertinent to that date), the Public Hearing was held on August 10, 2022 and Public Comments are being received through October 17, 2022;

Attachment F – AquaCon’s application to the United States Environmental Protection Agency for wastewater discharge with date signed December 17, 2021 and updated February 2022;

Attachment G – MDE draft discharge permit dated June 3, 2022;

Attachment H – Correspondence dated August 31, 2022 from Maryland State Senators Pinsky, Guzzone, and Elfreth posing questions to MDE and DNR and requesting agency’s responses by September 22, 2022 (note numerous and detailed questions to MDE regarding nutrient load);

Attachment I – Correspondence dated September 12, 2022 from the Atlantic States Marine Fisheries Commission posing questions to MDE Water and Science Administration Director Currey (note numerous and detailed questions to MDE regarding nutrient load).

Summary and Analysis

Staff finds the draft permit lacking on three significant operational features: groundwater appropriation and use permit/town permit process and approval for use of private wells for industrial use; location, construction, operation, maintenance, and monitoring of water discharge pipeline; and nutrient offset plan. All are at present incomplete and unsubstantiated by necessary documentation.

First, this is a water discharge permit for an amount of water, groundwater, that has not received an appropriation permit from MDE, or a town industrial well use permit as stated in Attachment B;

Second, this is a water discharge permit for a land-locked facility four-tenths of a mile from the receiving waters meaning the physical infrastructure - the pipe - is necessary to move the effluent discharge and there is no information about that pipe, or the masonry riprap, or the constructed wetlands (the level spreader) as shown in Attachment F, Appendix A-1 and Attachment G, page 23 Image 1;

Third, this is a water discharge permit predicated on the nutrient offset from salmon farming production activities being credited to another permittee, that is the town wastewater treatment plant, and the town has received no formal request or documentation to send to GMB for review and recommendation, with public procurement process to follow. Given the vast number of nutrient load and nutrient offset related questions coming into MDE, any offset requirement associated with the AquaCon discharge permit should be uncoupled from the town's permit renewal process. Should a town wastewater treatment plant permit modification be required in the future the town can deal with that when AquaCon has fully released relevant information and engaged the mayor and council in discussion of a thorough design, operation, and maintenance nutrient offset program with a competent engineer's life cycle costing plan.

Conclusion - this permit application does not represent a cohesive project since other essential aspects required to meet the functionality of the permit are absent. And, therefore, provides nothing by way of a site plan for the planning commission to consider prior to commencing the building permitting process.

Staff recommends mayor and council, prior to close of the October 17, 2022 comment period, provide written comment to the Maryland Department of the Environment expressing the concerns cited by staff in this report. At this time the draft permit issued by MDE lacks sufficient operational direction and makes assumptions about the nutrient offset plan, groundwater appropriation permits, and discharge pipeline right of way access, construction, maintenance and monitoring not granted by the appropriate regulatory authorities. Pending discussion provide direction to staff.

ATTACHMENT A

LAW OFFICES

BOOTH CROPPER & MARRINER

A PROFESSIONAL CORPORATION

130 NORTH WASHINGTON STREET

EASTON, MARYLAND 21601

(410) 822-2929

FAX (410) 820-6586

OCEAN CITY OFFICE

9923 STEPHEN DECATUR

HIGHWAY, #D-2

OCEAN CITY, MD 21842

(410) 213-2681

FAX (410) 213-2685

WEBSITE

www.bbcmllaw.com

CURTIS H. BOOTH
HUGH CROPPER IV
THOMAS C. MARRINER*
ELIZABETH ANN EVINS
LYNDSEY J. RYAN

*ADMITTED IN MD & DC

October 9, 2020

VIA EMAIL AND FIRST CLASS MAIL

Leslie Grunden, AICP
Assistant Director of Planning
Caroline County Dept. of Planning and Codes
403 S. Seventh Street Suite 210
Denton, MD 21629

Re: Town of Federalsburg Support for Proposed CWSP Amendment
AquaCon Maryland LLC Salmon Production Facility

Dear Ms. Grunden:

On behalf of the Mayor and Council of Federalsburg, I am sending this letter to advise you that they support the map and text amendments to the Caroline County Comprehensive Water and Sewerage Plan proposed by AquaCon Maryland LLC ("AquaCon") to designate 211.649 acres west of Wright Road (the "Property") as S-2/W-2. Therefore, the Mayor and Council request that the County Commissioners approve the proposed amendment.

The Town of Federalsburg owns and operates a 0.75 MGD ENR wastewater treatment plant ("WWTP") and a municipal water system for potable water. The current average wastewater flow at the WWTP is approximately 300,000 gallons per day. AquaCon proposes to discharge an average of 80,000 gallons, or 320 EDU's, of wastewater per day to the WWTP. In addition, AquaCon intends to periodically discharge additional demands of approximately 7,000,000 gallons when conditions make it necessary to drain their individual process lines. The method by which the additional capacity will be discharged by AquaCon will be determined by the Town and will be set forth in an annexation agreement.

The municipal water system has a total design capacity of 1,350,000 gallons per day and is supplied by four municipal wells and two elevated storage tanks with a total capacity of 550,000 gallons. There is sufficient capacity in the Town's water system to serve the development of the property. The reservation of allocation and connection to the municipal system will be contingent upon and pursuant to an annexation agreement between the Town and

developer.

In addition to available capacity in the water and sewer systems, on October 8, 2020, the Federalsburg Planning Commission discussed the Comprehensive Water and Sewerage Plan amendment at their Meeting, at which time the Commission Members found that the proposed amendment is consistent with the Federalsburg Comprehensive Plan for the following reasons:

- The Property is designated as part of the Town's Planned Growth Area as "Planning Area 5". See Federalsburg Comprehensive Plan, p. 74.
- Area 5 is designated as an area where residential development should not be allowed. See Federalsburg Comprehensive Plan, p. 80.
- Area 5 is designated by the Plan as a "primary location for Industrial Park expansion" and is consistent with the Plan's objectives to "[e]ncourage the Town's physical expansion into areas within the Planning Area" and "promote...industrial expansion". See Federalsburg Comprehensive Plan, p. 49, 62, 80.
- The land use plan component of the Comprehensive Plan indicates that the Property should be developed as an industrial use.
- The Land Use and Growth Section of the Plan encourages expansion into areas within the Planning Area.
- The Plan specifically states, "[a]nnexation of agricultural areas is explicitly intended to form part of our growth management strategy." See Federalsburg Comprehensive Plan, p. 61.
- The development of the Property is consistent with the eight visions as stated in the Comprehensive Plan, including:
 - Concentrated development.
 - Promotes controlled and compact development patterns that reflect good design practices, make efficient use of available land, and locate development where public facilities, services, and amenities can be provided in the most efficient manner.
- It has always been the goal of the Town to serve the areas annexed pursuant to a policy of planned growth, as well as existing infill properties, with water and sewer facilities.

In furtherance of finding Consistency with the Federalsburg Comprehensive Plan, the Members found that sufficient water and sewer capacity is available to serve the development of the Property and additional sewer capacity will be available for development of the Property consistent with an annexation agreement that will be entered into between the developer and the Town of Federalsburg.

Therefore, the Town supports the proposed amendment. Should you have any questions regarding the Town's position on the proposed amendments, please feel free to call me at your convenience.

Sincerely yours,

Lyndsey Ryan
Town Attorney for the Town of Federalsburg

cc: Federalsburg Mayor and Council
Ryan Showalter



118 NORTH MAIN STREET
P. O. BOX 471
FEDERALSBURG, MARYLAND 21632

410-754-8173

May 22, 2020

VIA EMAIL to ht@aquacon.as

Henrik Tangen
AquaCon AS

Re: Proposed Development and Annexation

Dear AquaCon:

On behalf of the Mayor and Council of Federalsburg, I am writing this letter to advise of the Town's support for the development of the property that borders the Frank Adams Industrial Park, Maryland Route 318, and Wright Road which includes the property known as the "Schmick Farm" and hereinafter referred to as the "Property". Specifically, we are pleased to support your plans to build a 15,000 metric ton land-based salmon farming plant at the property and welcome the property's annexation into the Town of Federalsburg.

As we previously discussed, a project of this scale would bring many jobs and significant revenue to the Town. Therefore, the project as presented to the Town in March, 2020, has immense support from the Mayor and Council as well as the Federalsburg Economic Development Committee, and the Caroline County Economic Development Office.

As you know, the property you are proposing to purchase and develop is outside of the Town's incorporated boundary. Therefore, you will be required to seek annexation of the property to bring it into the Town limits for the Town to provide municipal services and to develop the property under the jurisdiction and zoning of the Town. Depending on the specific use at the time of annexation, you may also need to rezone the property. Although we cannot guarantee the annexation of the property into the Town, we can guarantee our support for such annexation and potential rezoning of the property and believe that the annexation will not be controversial as the property has been in the Town's growth area for years as established by the Town of Federalsburg Comprehensive Plan and the Caroline County Comprehensive Plan.

As part of its municipal services, the Town of Federalsburg provides municipal water and sanitary sewer services to all Town residents, businesses, and industries. Connection to and use of the Town's water and sewer will be subject to current municipal rates and fees for connection and supply, including capital connection charges, and in accordance with the standards and specifications of the Town's Public Works Department and under the Town's direction and

Letter to AquaCon
Re: Development Proposal
May 22, 2020
p. 2

supervision. In addition, the costs, fees, and expenses associated with constructing and extending water and sewer will be the responsibility of the property owner.

As we understand it, you intend to use a private well on the property for industrial purposes. The Town permits the use of private wells for industrial purposes upon approval of the Mayor and Council. We have reviewed and discussed your preliminary plans and do not foresee any issues. Of course, any approval will also be subject to approval by the Maryland Department of the Environment.

In addition, any extension of Town services would be contingent upon available capacity. The Town has taken a preliminary review of the Town wastewater treatment plant to determine whether there is sufficient capacity for your proposed development. The Town's wastewater treatment plant is permitted for treatment and disposal of 750,000 gallons per day in flow. The current flow rate at the plant is approximately 250,000 gallons per day. Therefore, we believe there will be sufficient capacity to serve the property once annexed. We also understand from your presentation that you plan to recycle as much of the process water as you feasibly can, thereby reducing the required flow to the Town's plant by using a recirculation technology. The Town is excited about the potential opportunity to be a part of this new technology and believes it will have positive environmental impacts.

For all of the reasons stated above, and based on the information that you have provided to the Town of your plans to develop the Property to provide a 15,000 metric ton land-based salmon farming plant, the Town strongly encourages AquaCon to proceed with the planning process and undertake the necessary steps to annex the property into the Town of Federalsburg for its ultimate development. The Town supports the project as proposed and is committed to working with AquaCon throughout this process to ensure that the development meets the necessary Town, County, State, and Federal rules, regulations, and zoning requirements. While we cannot definitively say that the project meets all Town regulations without having a more formal concept plan, we can guarantee that we are committed to this project and will work with you to bring this beneficial project to the Town of Federalsburg.

On behalf of the Town of Federalsburg, we look forward to working with AquaCon and are excited about the possibility of bringing this industry to our community. If you have any questions or wish to discuss further, please don't hesitate to contact me.

Sincerely yours,

A handwritten signature in black ink that reads "Kimberly Jahnigen Abner". The signature is written in a cursive, flowing style.

Kimberly Jahnigen Abner, Mayor



Maryland

Department of the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

March 12, 2021

AquaCon Maryland LLC.
100 N W St.
Easton MD 21601

RE: Water Appropriation and Use Permit Application Nos. CO2021G002/01,
CO2021G003/01, & CO2021S004/01
Assigned Project Manager: Robert Peoples

Dear Applicant:

Your application requesting a Water Appropriation and Use Permit has been received by the Water and Science Administration's (Administration) Water Supply Program (WSP). A file number and project manager have been assigned as indicated above and should be used in any correspondence related to this application. Please note, the submittal of an application is not an authorization to withdraw water for the proposed use.

IT IS THE APPLICANT'S RESPONSIBILITY TO PROVIDE SUFFICIENTLY DETAILED DATA/INFORMATION TO DEMONSTRATE TO THE ADMINISTRATION'S WSP THAT ISSUING THE PERMIT WILL NOT JEOPARDIZE THE STATE'S NATURAL RESOURCES; THAT THE PROPOSED APPROPRIATION PROVIDES THE GREATEST FEASIBLE UTILIZATION OF THE WATER; THAT THE PUBLIC SAFETY IS PRESERVED AND THAT SUCH USE PROMOTES THE GENERAL PUBLIC WELFARE. THE PROPOSED APPROPRIATION MUST NOT BE INADEQUATE, WASTEFUL, DANGEROUS, IMPRACTICABLE, OR DETRIMENTAL TO THE BEST PUBLIC INTEREST. THIS PROPOSED APPROPRIATION MUST BE FEASIBLE IN EVERY RESPECT. THE QUANTITY OF WATER REQUESTED MUST BE REASONABLE, COMMENSURATE WITH THE PROPOSED USE, AND THE PROPOSED APPROPRIATION MUST NOT HAVE AN UNREASONABLE IMPACT UPON THE WATER RESOURCE OR OTHER USERS OF THAT RESOURCE.

Additional information is required to complete your application since the requested annual average is greater than 10,000 gallons per day (gpd). Enclosed is an Application Process Outline, which outlines the procedures for processing this application; a copy of a portion of Caroline County tax map 0061, parcels 0454 and 0102 and tax map 0203 parcel 0979 indicating the properties (highlighted yellow) on which the proposed appropriation is to be made and where the water will be used; a Certification of Notification form and a suggested form letter (your signature will need to be added) for notifying contiguous property owners and elected officials; a Public Notice Billing Form; an Acknowledgement Form concerning cultural and biological resources; an Aquifer Test Procedure; a Coastal Plain Unconfined Hydrogeological Investigation Procedure, and a Coastal Plain Confined Hydrogeological Investigation Procedure. A Surface Water Investigation Procedure will be sent separately.

AquaCon Maryland LLC.

Re: CO2021G002/01, CO2021G003/01, & CO2021S004/01

March 12, 2021

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Contiguous property owners to be notified of this project are the owners of all properties touched by the pink line on the enclosed map. Local officials who shall be notified are the presiding officer of the County Commission, and if the proposed appropriation is within or adjacent to, or determined by the WSP to potentially affect a town or municipality, similar town or municipal officials. These persons shall be notified by delivery of a signed and dated notification letter either sent by certified mail or delivered in-person. It is your responsibility to provide the name and complete mailing address of all persons notified on the Certification of Notification Form. If there is a discrepancy between properties shown on the enclosed map and those where the water source will be located and on which the water will be used, then only those owners of property contiguous to the properties associated with the proposed appropriation need to be notified. Should any contiguous property be owned by the Maryland Department of Natural Resources (DNR), the notification letter is to be mailed to: DNR, Attn: Tony Redman, AICP, Tawes State Office Bldg C-3, 580 Taylor Avenue, Annapolis, MD 21401.

Aquifer tests shall be performed on the test/production well. Details for conducting these tests are included on the enclosed Aquifer Test Procedure. *The pumping portion of the aquifer tests shall be a minimum of 24-hours, followed by at least a 24-hour recovery (non-pumping) portion.* Please note, Special Monitoring Requirements are specified in the enclosed Aquifer Test Procedure. Water samples shall be collected during the last hour of the pumping portion of the aquifer test. Parameters for which water quality sampling analyses shall be performed will be sent under a separate letter.

There is a data gap for the region where the test well for the Upper Patapsco aquifer well will be drilled; therefore, there are no nearby deep boreholes to which the proposed boreholes can be correlated. Collection and analysis of core samples will help to define the top of the Upper Patapsco sediments based on the presence of certain diagnostic microfossils in clays that are both within and adjacent to the aquifer sands. The analysis will help ensure that the proposed production wells are screened solely in the Upper Patapsco aquifer, and are not screened across multiple aquifers. The cores will also help to determine hydraulic connectivity of aquifer sands screened at the drilled locations with other locations on the Eastern Shore.

At each site for an Upper Patapsco well, four (4) cores shall be attempted at predetermined depths selected by the Maryland Geological Survey based on geophysical logs previously run in the open hole and on the engineer/driller's lithologic log. It is anticipated that coring depths will range from approximately 900 to 1,700 feet below land surface. The Contractor shall use a sidewall wire-line split-spoon coring apparatus. The core barrel must not be less than 1.75" inches inside diameter and not less than 24" inches long. The core barrel shall be equipped with a suitable core retainer to enhance core recovery. Core recovery must be a minimum of 10-percent (minimum 2.5 inches) excluding any bore-wall sediment/mud contamination.

The Contractor shall notify the Maryland Geological Survey (Andrew Staley, 240-351-9102) at least 1 week prior to collecting geophysical logs from the open borehole. A Maryland Geological Survey representative will provide target depths for the cores to the Contractor after reviewing the geophysical and driller's logs. Recovered cores will be wrapped in 6 mil plastic sheeting and placed in a cardboard core box. The cores will be given to a Maryland Geological Survey representative for microfossil analysis.

AquaCon Maryland LLC.
Re: CO2021G002/01, CO2021G003/01, & CO2021S004/01
March 12, 2021
Page 3

Hydrogeologic investigations will be required for this proposed project. Details for completing these investigations are contained in the following documents, which are enclosed: Coastal Plain Unconfined Hydrogeological Investigation Procedure, and a Coastal Plain Confined Hydrogeological Investigation Procedure. A Surface Water Investigation Procedure will be sent separately.

The Applicant shall complete and submit all forms, statements, reports, evaluations, and any other information required to be submitted as part of this package to the Administration at the following address:

Maryland Department of the Environment
Water Supply Program
1800 Washington Boulevard
Baltimore, Maryland 21230

The WSP shall review all information required to be submitted to complete your permit application. After review, if additional information is required to complete the application, you will be contacted.

Once the application is determined to be complete, the Administration will place a notice in a widely distributed publication within the County where the project is located and you will be billed for those costs. For requests of an annual average of 50,000 gallons of water a day (gpd) or more, interested persons may submit written comments and/or request a public informational hearing. If a public hearing is requested, one will be held. As the applicant, you must be present at the hearing to answer questions concerning the proposed withdrawal. **IF A PUBLIC INFORMATIONAL HEARING IS REQUESTED, ADVOCACY AND DEFENSE OF THE PROPOSED APPROPRIATION AT THE HEARING SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT.**

If you should have any questions on this matter, please contact me at 410-537-3590.

Sincerely,



Robert Peoples
Water Supply Program

Enclosures:

- Application Process Outline
- County Tax Map
- Certification of Notification Form
- Public Notice Billing Form
- Acknowledgement Form Concerning Cultural and Biological Resources
- Aquifer Test Procedure
- Hydrogeologic Investigation Procedures - Coastal Plain Unconfined
- Hydrogeologic Investigation Procedures - Coastal Plain Confined
- Hydrogeologic Investigation Procedures - Surface Water (to be sent separately)

cc: Caroline County Health Department

Application Process Outline

APPLICATION FOR A PERMIT TO APPROPRIATE AND USE WATERS OF THE STATE

Applications for water withdrawals of 10,000 gpd or less and for which hearings have been waived are not subject to all of these requirements.

APPLICANT

Application submitted

Applicant must respond to request for additional information. One or more of these may be required, depending on the nature of the requested use. Notification of adjoining property owners is a statutory requirement. The time required for initial form processing is variable, depending upon the nature and complexity of the project. Additional information is returned to WSP.

If a public informational hearing is requested, the applicant will be advised of further requirements. The applicant must be present at the hearing to explain the proposed water use. WSP will be present to answer technical questions.

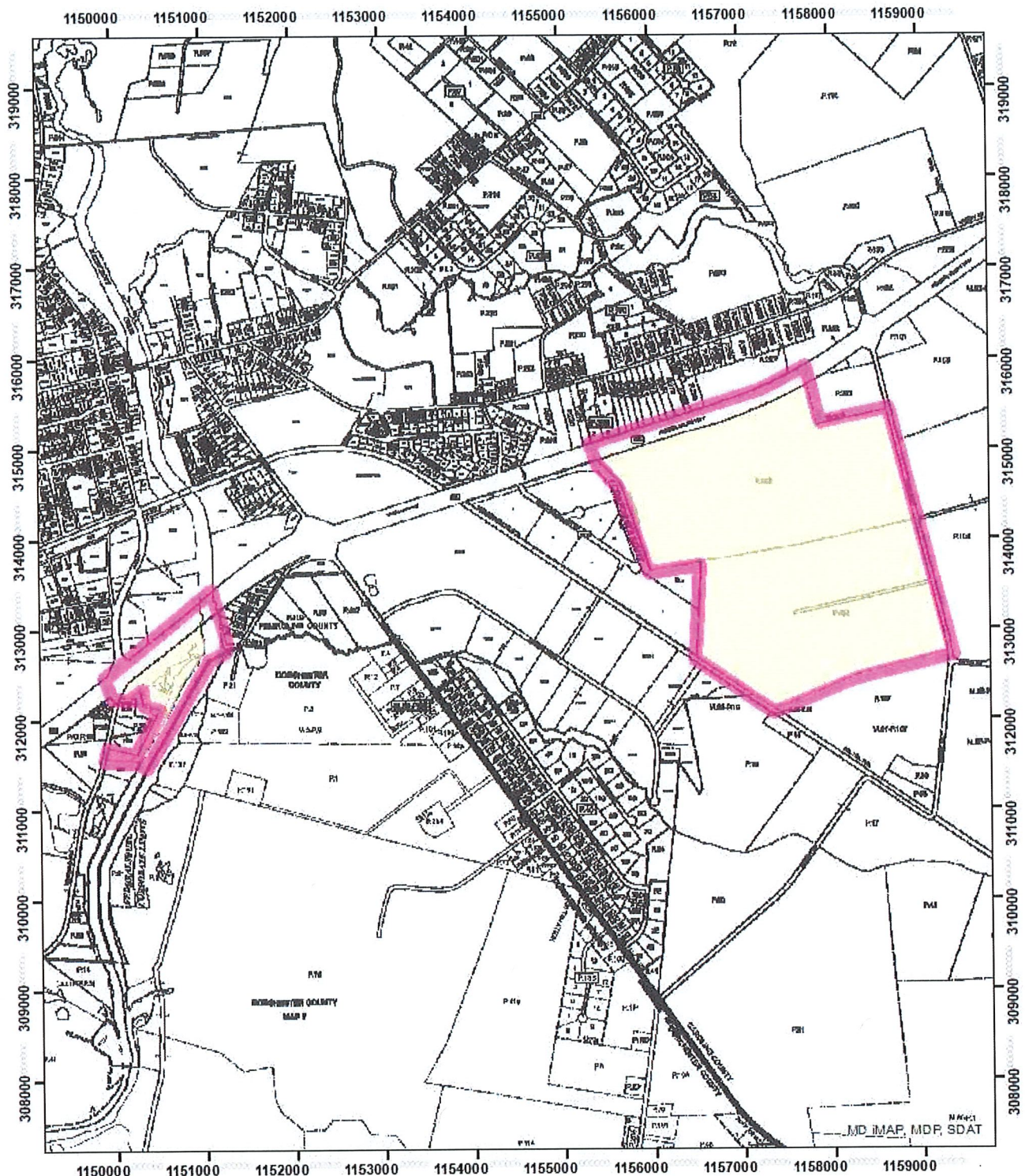
WATER SUPPLY PROGRAM (WSP)

- I. RECEIVING PROCESS
 - A. Application received by WSP
 - B. Assigned file number
 - C. Assigned to staff member

- II. INITIAL APPLICATION PROCESSING
 - A. Detailed examination of project
 - B. Request for additional information
 1. Certification of Notification Form
 2. Maps
 3. Plans and Specifications
 4. Performance of an aquifer test
 5. Public Notice Billing Approval Form
 6. Water Quality Data
 7. Ground/Surface Water Hydrogeologic Investigation
 8. Other information as may be required, such as test well(s) and/or aquifer tests

- III. INTERMEDIATE PROCESSING
 - A. Process additional information
 - B. Project analysis
 - C. Application considered complete
 - D. Prepare documents
 1. Preliminary Impact Analysis Summary
 2. Public notice

- IV. FINAL PROCESSING
 - A. Notice of opportunity for comment is prepared by WSP and sent to the paper for publication and sent to the applicant and all persons on the interested persons list. If the requested annual average quantity is greater than 50,000 gallons per day the notice includes an opportunity to request a public informational hearing
 - B. Notice published in local newspaper once with a 14 day comment period
 - C. Comment period ends
 - D. Comments received?
 1. NO – Decision made to issue, modify or deny the permit.
 2. YES -
 - a. Written response to commenter prepared
 - b. Decision made to issue, modify or deny the permit.
 - E. Hearing requested?
 1. NO – Decision made to issue, modify or deny the permit.
 2. YES -
 - a. Schedule hearing date and notify applicant and all persons on interested persons list
 - b. Hold hearing
 - c. Response to hearing comments prepared
 - d. Decision made to issue, modify or deny the permit.
 - F. Final decision mailed with evaluation summary and Judicial Review Fact Sheet.



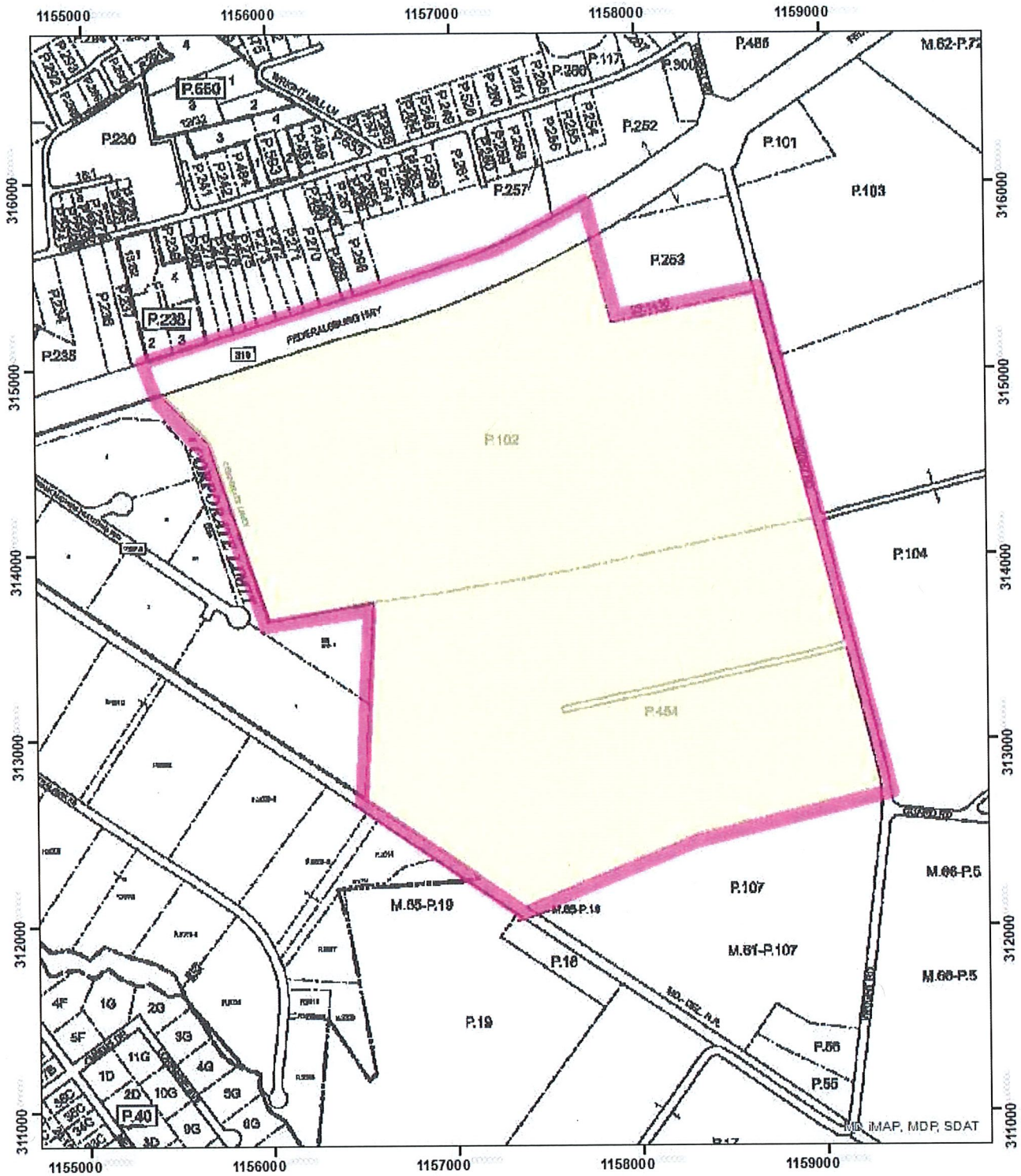
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-  pinkhalo
-  AquaCon Parcels



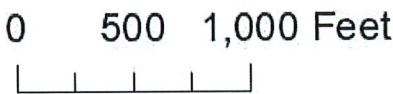
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AquaCon Maryland LLC.
CO2021G002/01
CO2021G003/01
CO2021S004/01

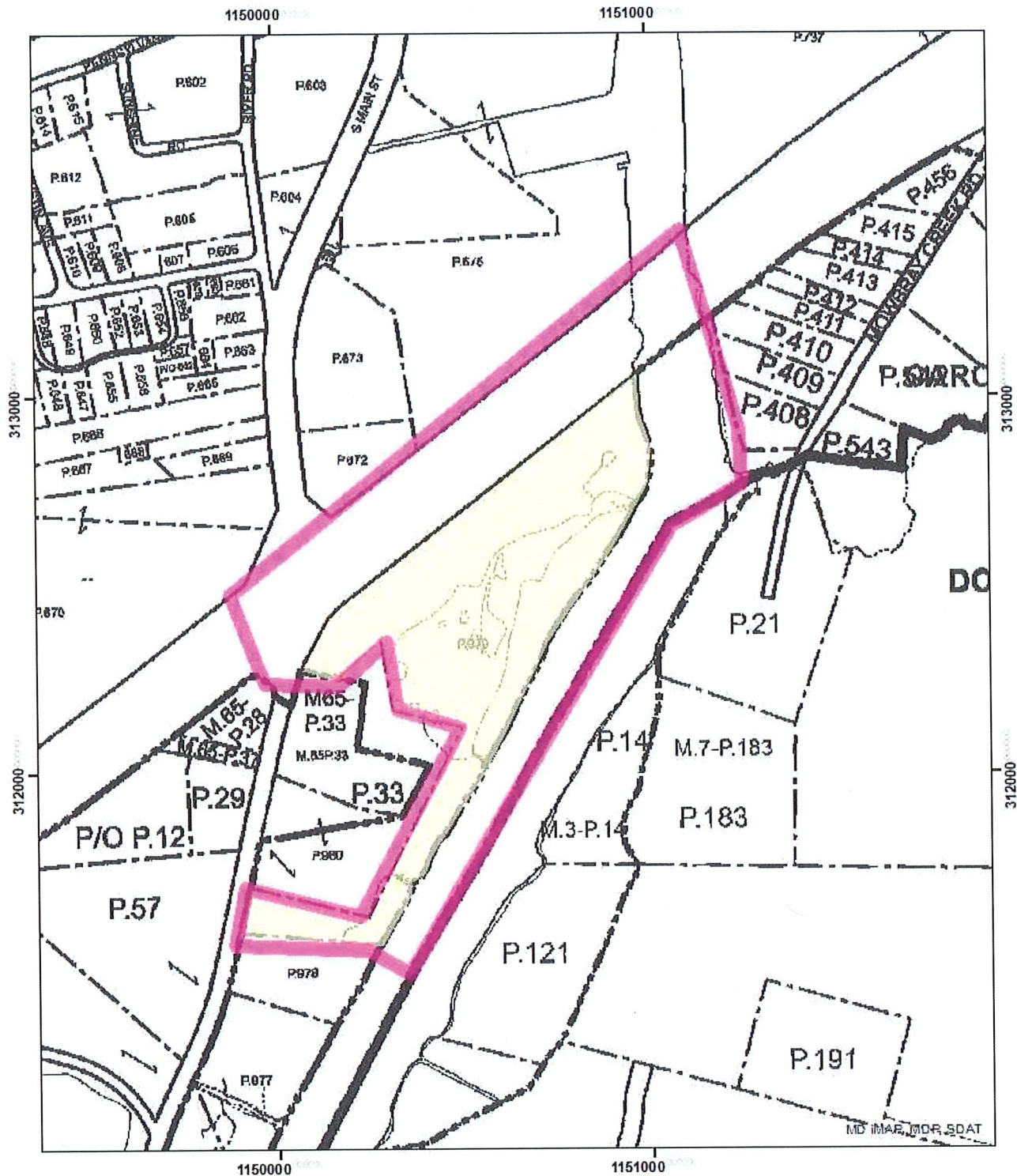


Legend

- pinkhala
- AquaCon Parcels

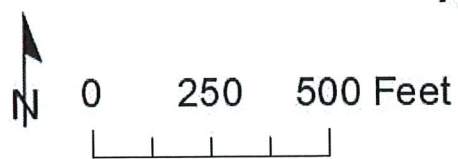


AquaCon Maryland LLC.
CO2021G002/01
CO2021G003/01
CO2021S004/01



Legend

-  pinkhala
-  AquaCon Parcels



AquaCon Maryland LLC.
CO2021G002/01
CO2021G003/01
CO2021S004/01

Please complete, sign and date the form below. On the attached sheet provide the name(s) and complete mailing address for all contiguous property owners and elected officials notified. Additional sheets are to be attached, if needed. All are to be returned to: Maryland Department of the Environment, Water Supply Program, Attention: Robert Peoples, 1800 Washington Boulevard, Baltimore, Maryland 21230.

Retain certified mail return receipts in your records.

CERTIFICATION OF NOTIFICATION

I hereby certify that I have properly notified the owners of the contiguous properties, either in-person or by certified mail, and by certified mail to the presiding officer of the County Commission of the county in which the proposed appropriation is located, and analogous town or municipal officials of any town or municipality which may be affected by Application Nos. CO2021G002/01, CO2021G003/01, & CO2021S004/01, which seek to appropriate and use a total annual average allocation of 2,203,000 gallons of water per day (gpd) for a land based salmon aquaculture facility that will be split between three permits. Application CO2021S004/01 requests to withdraw water from an intake on Marshyhope Creek. The allocation under this application is proposed to be an annual average of 2,050,000 gpd and a maximum daily withdrawal of 2,300,000 gallons. Application CO2021G002/01 requests to withdraw water from one new well in the Upper Patapsco aquifer. The allocation under this application is proposed to be an annual average of 2,050,000 gpd and an average during the month of maximum use of 2,300,000 gpd. Application CO2021G003/01 requests to withdraw water from two wells in the Columbia aquifer. The allocation under this application is proposed to be an annual average of 153,000 gpd and an average during the month of maximum use of 187,000 gpd. The project and wells are located at 2960 Wright Road, Federalsburg, Caroline County, Maryland. The surface water intake is located approximately 0.35 mile downstream of the bridge over Marshyhope Creek on Federalsburg Highway, Federalsburg, Caroline County, Maryland.

The name(s) and complete mailing address of all parties notified are shown on the attached sheet(s). If delivery was not affected to certain parties, the reason(s) for non-delivery has been stated.

Application Numbers: CO2021G002/01, CO2021G003/01, & CO2021S004/01

AquaCon Maryland LLC.
100 N W St.
Easton MD 21601

Applicant/Agent Signature _____

Applicant/Agent Name (please print) _____

Date _____

Should all information required on this form and the attached sheet not be completed or should all contiguous property owners and elected officials not be notified, processing of your application will be delayed.

Dear Property Owner or Local Official:

AquaCon Maryland LLC. has applied for a Permit to Appropriate and Use Waters of the State, which has been assigned permit application numbers CO2021G002/01, CO2021G003/01, & CO2021S004/01. The applicant seeks to appropriate and use a total annual average allocation of 2,203,000 gallons of water per day (gpd) for a land based salmon aquaculture facility that will be split between three permits. Application CO2021S004/01 requests to withdraw water from an intake on Marshyhope Creek. The allocation under this application is proposed to be an annual average of 2,050,000 gpd and a maximum daily withdrawal of 2,300,000 gallons. Application CO2021G002/01 requests to withdraw water from one new well in the Upper Patapsco aquifer. The allocation under this application is proposed to be an annual average of 2,050,000 gpd and an average during the month of maximum use of 2,300,000 gpd. Application CO2021G003/01 requests to withdraw water from two wells in the Columbia aquifer. The allocation under this application is proposed to be an annual average of 153,000 gpd and an average during the month of maximum use of 187,000 gpd. The wells and project are located at 2960 Wright Road, Federalsburg, Caroline County, Maryland. The surface water intake is located approximately 0.35 mile downstream of the bridge over Marshyhope Creek on Federalsburg Highway, Federalsburg, Caroline County, Maryland.

Since you are a contiguous property owner or an appropriate local official, you are being notified of these applications, as required by the Maryland Annotated Code Environment Article §5-506. Your name has also been placed on the "List of Interested Persons" for the above referenced project. At a later date, you will be notified when the proposed project is being published, any projected impacts, and be offered an opportunity to comment and request a public informational hearing on the matter before a decision is rendered by the State to issue or deny the permit.

The Maryland Department of the Environment, Water and Science Administration (Administration) has created a file for this proposed project. If you wish to review the Administration's application files or make comments on the applications at this time, you may contact the Administration by mail at Water Supply Program, Source Protection and Appropriation Division, 1800 Washington Boulevard, Baltimore, Maryland 21230 or by phone at 410-537-3590. If you have any questions concerning the application, please contact me by phone at 410-820-0222 or by mail at the address listed below.

Sincerely,

AquaCon Maryland LLC.
100 N W St.
Easton MD 21601

Please sign and date the form below and return to: Maryland Department of the Environment, Water Supply Program, Attention: Robert Peoples, 1800 Washington Boulevard, Baltimore, Maryland 21230.

PUBLIC NOTICE BILLING APPROVAL FORM

I agree to pay all expenses associated with the publishing of a public notice (legal ad) for Water Appropriation and Use Permit Application Nos. CO2021G002/01, CO2021G003/01, & CO2021S004/01 for AquaCon Maryland LLC. for a land based salmon aquaculture facility. The wells and project are located at 2960 Wright Road, Federalsburg, Caroline County, Maryland. The surface water intake is located approximately 0.35 mile downstream of the bridge over Marshyhope Creek on Federalsburg Highway, Federalsburg, Caroline County, Maryland. I understand that I will be billed by the Maryland Department of the Environment's Water and Science Administration, either at the time the notice is published or after the notice is published.

Application Numbers: CO2021G002/01, CO2021G003/01, & CO2021S004/01

Applicant/Agent Signature _____

Applicant/Agent Name (Please Print) _____

Billing Address: _____

Applicant Phone Number _____

All information requested on this form is required to be completed or it will delay processing your application.

**CULTURAL AND BIOLOGICAL RESOURCES
ACKNOWLEDGEMENT FORM**

I understand that as an applicant for a Water Appropriation and Use Permit, I am being asked to consider and submit a statement concerning certain cultural and biological resources on the property where the permit will be used. Therefore, I have checked the appropriate line below, which is true to the best of my knowledge:

_____ I do not know of the existence of any known archeological artifacts, historical sites, threatened or endangered species, or species in need of conservation located within the property to be permitted.

OR

_____ I do know of the existence of any known archeological artifacts, historical sites, threatened or endangered species, or species in need of conservation located within the property to be permitted. A detailed listing of these resources is provided on attached sheets.

Application Numbers: CO2021G002/01, CO2021G003/01, & CO2021S004/01

Applicant/Agent Signature _____

Applicant/Agent Name (Please Print) _____

Date _____

AQUIFER TEST PROCEDURE

Applicant: **AquaCon Maryland LLC.**
File Number: **CO2021G002/01 & CO2021G003/01**
Project Manager: **Robert Peoples**

It has been determined by the Maryland Department of Environment, Water Supply Program, Source Protection and Water Appropriation Division (Administration) that to properly evaluate the above referenced application, it will be necessary for the applicant to perform aquifer tests. The purpose of the aquifer tests and the analysis of the data observed during performance of the test is to determine and/or estimate the effect of the proposed appropriation upon the natural resources of the State. This Aquifer Test Procedure is intended to outline a method for conducting an aquifer test that will yield data that can be analyzed to determine aquifer characteristics and potential impacts of the proposed withdrawal. Data and analysis will be used by the Administration to arrive at a decision to grant modify, or deny the requested permit.

If a test well (or wells) is to be drilled for the performance of required testing, the applicant shall notify the Administration at least 48 hours prior to the scheduled beginning of drilling at (410) 537-3590.

Detailed geophysical logging shall be conducted for the test well(s) and/or production well(s). A suite of geophysical logs shall be run on the uncased borehole of the well. The suite of geophysical logs shall consist minimally of a spontaneous potential log, a single point resistivity log, and a gamma ray log. Each geophysical log shall be at a scale of one inch on the graph paper equal to twenty feet of borehole. The log shall clearly indicate and have a header information that contains the well tag number, project name, logging date, logging speed and direction, total depth of borehole, bit size, drilling fluid type, the company and person performing the logging, latitude, longitude, and location description. The geophysical logs and the drillers log shall be used by the Permittee's hydrogeologist or engineer in selecting the interval to be screened. The interval to be screened shall be within the Patuxent aquifer. Legible copies of the geophysical logs, drillers log, and the well application and completion report shall be submitted to the Administration as part of the hydrogeologic report.

The applicant is responsible for the furnishing of, and proper selection, installation, and operation of all test instruments and equipment, and for proper observation, collection and analysis of the test data. It will be the applicant's responsibility to analyze the test data to determine the following information:

1. Aquifer characteristics of transmissivity, storage coefficient, leakance, etc.;
2. Long term well yield and drawdown in the pumping well;
3. Time-distance-drawdown projections in affected aquifers;
4. Potential for saltwater intrusion and/or other groundwater contamination; and
5. Other information as required by the Administration.

The applicant is responsible for the impact of silt, sediment, or pollution problems which may result from the performance of the required aquifer test, either by the pumping of turbid and/or poor quality water, or by sediment and/or erosion problems in receiving streams or water course.

The data gathered during the prescribed testing and the analysis of such data will be examined by the Administration staff for accuracy and methodology. Prior to testing, the applicant shall confer with the Administration staff to determine if there are to be any special requirements.

AQUIFER TEST PROCEDURE

A. Advanced Preparation

1. Consult with the Administration to determine the pumping rate to be used for the aquifer test. The pumping rate will take the following factors into consideration:
 - a. The sustained yield capability of the well to be tested.
 - b. The quantity of water to be appropriated.
2. Consult with the Administration to obtain approval for the method and equipment for regulating and measuring flow.
3. Consult with the Administration to obtain approval for the method and equipment for measuring water levels.
4. Make arrangements with a State-certified water testing laboratory for collection and analysis of water samples.
5. Ascertain any requirements and obtain permits if needed from:

Nonpoint Source Program
Maryland Department of Environment
1800 Washington Blvd
Baltimore, MD. 21230
(410) 537-3561

Tidal Wetlands Division
Maryland Department of Environment
1800 Washington Blvd
Baltimore, MD. 21230
(410) 537-3837

Nontidal Wetlands Division
Maryland Department of Environment
1800 Washington Blvd
Baltimore, MD. 21230

Local Environmental Health Director in the County where the proposed withdrawal will occur.

6. Notify the Project Manager by phone at 410-537-3590 at least 48 hours prior to the start of any testing procedures. Administration staff may witness any or all drilling and/or testing. If Administration staff are on site, they shall act as observers and advisors only.

B. Equipment

1. The applicant shall provide a pump capable of pumping the required quantity of water for the designated time at a constant flow rate.
2. The applicant shall provide all equipment for water level measurement during aquifer testing. Water level measurement method and equipment shall be approved in advance by Administration staff. To facilitate water measurement, measuring tubes shall be installed by the applicant in all wells to be measured in which pumping equipment is installed. Measuring tubes shall be installed by the applicant in observation wells where cascading water may interfere with accurate water level measurements.
3. The applicant shall provide all equipment, reporting forms, supplies, etc., necessary to record and maintain all data observed during that testing.

C. Onsite Preparation

1. Install pumping equipment and any necessary measuring tubes.
2. Develop the well.
3. After installation of pumping equipment and any necessary measuring tubes, and the development of the well, perform a step-drawdown test to determine the optimum test pumping rate. The step-test shall consist of a minimum of three one-hour steps, with 1/2 hour of recovery between each step. The optimum test consists of 4-6, successive, proportionally increasing, one-hour steps, (to determine well losses and changes in permeability) followed by 2-3 hours of recovery, and then a one-hour step at the proposed rate for the 24 to 72-hr aquifer test. Step-tests are optional for pumping tests conducted in unconsolidated coastal plain aquifers.
4. Allow all test and observation wells to remain idle and unpumped for a period of at least 24 hours prior to the beginning of the pumping portion of the test.

D. Pump Test and Data Collection

1. Pump the well continuously for a period of time specified by the Administration (typically either 24 or 72 hours). At the start of pumping the flow shall immediately be adjusted to and continuously maintained at a flow rate specified by the Administration during the entire period of pumping.
2. During the first hour of pumping, water levels shall be measured simultaneously at all wells. All water level measurements shall be made using a calibrated electric water level meter (electric tape) unless otherwise specified in writing by Administration staff.
3. Water level measurements shall be measured and recorded according to the following schedule:
 - i. At one minute intervals during the first 10 minutes of the test (1 minute to 10 minutes elapsed time since pump start);
 - ii. At two minute intervals for the next 20 minutes (12 minutes to 30 minutes since pump start);
 - iii. At 5 minute intervals for the next 30 minutes (35 minutes to 60 minutes, or 1 hour since pump start);
 - iv. At 10 minute intervals for the next 2 hours (1 hour 10 minutes to 3 hours since pump start);

start);

- v. At 30 minute intervals for the next 5 hours (3-1/2 hours to 8 hours since pump start); and
- vi. Every hour thereafter for the remainder of the pumping period.

4. Collect one water sample for water quality analysis during the final hour of pumping. All water samples shall be collected and handled in the manner prescribed by the laboratory that will perform the analysis. The applicant shall be responsible for making arrangements for the collecting, handling, and analysis of water samples in the specified manner.

- i. A water quality sample should be taken during the final hour of pumping and analyzed by a State certified laboratory for the following constituents:

Total Alkalinity	Magnesium
Bicarbonate	Manganese
Calcium	Nitrate
Carbonate	Total Nitrogen
Chloride	pH (Field)
Conductivity	Potassium
Total Dissolved Solids	Silica
Fluoride	Sodium
Total Hardness	Sulfate
Iron	Arsenic
Temperature (deg. C. – temp of water being discharged to be taken during last hour of Pumping)	

- ii. All water quality samples shall be collected by a State certified water sampler, in the proper type of container (plastic or glass), contain the appropriate sample size or volume, be preserved in accordance with EPA approved methodology, and adhere to approved sample holding times and/or extract holding times, as specified under 40 CFR 141.
- iii. All analysis shall be conducted with EPA-approved methods.
- iv. Results of the water quality analysis shall be submitted to the Administration in the hydrogeologic evaluation report and shall include: the date(s) analyzed, method(s) used for analysis, detection limits for each constituent, results of the analysis, name(s) of the analyst(s), and the chain-of-custody form with sample volumes, preservation, and sampler identification number. Laboratory reports from the laboratory conducting the analysis must be enclosed for each analysis.

- 5. Following the pumping period, allow all test and observation wells to remain idle and un pumped for a period of 12 hours, while water levels in all test wells are observed and recorded. Water level measurements shall be observed and recorded according to the same schedule as was previously prescribed for pumping period water level observations and recordings.
- 6. Water pumped during the testing shall be directed away from the well site by pipe or open channel, the design of which shall be approved by Administration staff. The applicant shall be responsible for water disposal.
- 7. Record all data observed during the test. Data must be recorded at the time of observation and at the frequencies outlined in this guidance, as conditions generally change rapidly. When in doubt, write it down. It is much better to record too much data than too little. Be sure to record anything out of the ordinary. Testing is expensive. The more data obtained, the better the test results, and the greater the benefit cost ratio.

Coastal Plain Unconfined Aquifer Hydrogeologic Investigation Procedure

Application No.: CO2021G003/01
Applicant: AquaCon Maryland LLC.
Project: Land based salmon aquaculture facility.
Assigned Project Manager: Robert Peoples

The applicant shall have a competent hydrogeologist or engineer calculate the aquifer characteristics from the aquifer test data; make time-distance-drawdown projections; a water balance analysis; address the issues in the bold type portion of the second paragraph of this letter; address the reasonableness of the proposed use; address the reasonableness of the impact upon the water resource and upon existing uses; and address other issues which might be discussed at a public informational hearing. Discussion of these items should be submitted to Water and Science Administration (Administration) in report form.

It has been determined by the Administration that to properly evaluate the above referenced application, it will be necessary for the applicant to conduct a coastal plain unconfined aquifer hydrogeological investigation. As part of the investigation, the applicant shall complete a hydrogeologic evaluation that will include, as a minimum, the following items.

(1) In order to address the reasonableness of the proposed use, the applicant shall submit a comprehensive water demand analysis for the project, during the nominal 12-year period of the proposed permit.

Water demand is generally estimated by a system flow analysis or a comparison to a similar facility that has an accurate record of reported use.

The average and maximum daily quantities included in the certification of notification form and notification letter reflect either the amounts requested in the application or as adjusted by the Administration, and may change as the application/hydrogeologic evaluation proceeds.

(2) In order to demonstrate the reasonableness of the impact upon the resource, in an unconfined aquifer, the applicant shall determine the availability of groundwater in the aquifer from which the appropriation is to be taken, using the detailed procedures provided below.

The applicant shall submit cross-sections, one along regional strike and one along regional dip, showing the hydrogeological structure and stratigraphy of the region. The applicant shall also submit a structural map on the top of the aquifer from which the water is to be withdrawn. This information is generally in various publications of the Maryland Geological Survey (MGS) and other agencies.

The following elevation data relative to Mean Sea Level shall be submitted: the topographic elevation of the test well site; the static water level in the test well; the base of the aquifer; and the saturated thickness of the aquifer. Water level data for the aquifers used for water supply purposes in Maryland are generally available in various publications and reports of the MGS. A water balance analysis shall be submitted for the area owned or controlled by the applicant, within the watershed to be

permitted.

Water balance analysis entails a demonstration, through calculations, that sufficient drought year (1-in-10 year) recharge occurs on the land "owned or controlled" by the applicant to support the requested quantities to be withdrawn, while preserving at least 7Q10 baseflow conditions. Enclosed is a table of values for various gages in Maryland and nearby states where hydrograph separation methods have been used to calculate annual drought (1-in-10 year) effective recharge rates. The table also includes the 7Q10 baseflow values determined at each gage. For public water systems, the land "owned or controlled" in the watershed refers to the water service area and any park land or other open space owned by the applicant. Deductions of available recharge including accounting for the projected level of impervious surfaces and other users of groundwater within the service area. The analysis shall include a detailed discussion of the derivation of any recharge rates, impervious surfaces acreage, etc. used in determining the water balance. In addition, a map(s) showing the area or land "owned or controlled" by the applicant shall be submitted. If the applicant believes that a gage or gages not on the enclosed table would be more representative of the hydrogeologic conditions at the project site any alternative gage must have at least an adequate period of record (twenty years) and the baseflow separation method should follow Rutledge (1993, USGS W-RIR 93-4121). Rutledge, 1993, has developed computer programs that can be used to estimate groundwater recharge from streamflow records.

The Administration, when appropriate, considers what the aggregate changes and cumulative impact of the proposed and future appropriations in an area may have on the waters of the State. Concerning potential aggregate changes and cumulative impacts, it may benefit the applicant to submit pertinent land use information from the Caroline County Comprehensive Plan and a water balance analysis for the watershed or watersheds where the proposed production wells will be located.

(3) In order to demonstrate the reasonableness of the impact of the proposed withdrawal on other users, the applicant shall indicate the drawdown effects of the proposed use on the water levels in wells of nearby other users in the aquifer from which the water is to be withdrawn. Drawdown projections shall be calculated, for pumping a central or multiple-well supply at the annual average rate for one year and 12 years, and the maximum monthly rate for 30 to 90 days.

The applicant shall discuss the potential impacts to "shallow" wells, those using suction or jet pumps, which are generally in 1- to 2-inch wells; telescoped wells; wells that are 4 inches in diameter or larger using submersible pumps that can be continuously lowered as water levels decline; and, any other types of wells that may exist in the general area of the proposed appropriation. A computer printout of well permits issued to nearby users completed after about 1969 can be obtained from the Administration's Wastewater Permits Program, On-Site Systems Division. Records in various formats for the period 1945-1980 are available for inspection and copying at the Administration's Wastewater Permits Program, On-Site Systems Division offices and the respective County Environmental Health Departments or like agency. Information concerning some wells completed prior to 1945 are contained in various publications of the MGS.

(4) A location map shall be submitted indicating all proposed test and production well sites and other existing water sources, such as wells, ponds, reservoirs, streams, and other features that may be relevant to the proposed appropriation. The location map and any supporting maps shall have the same origin, a scale of 1 inch = 1200 feet, and be capable of producing overlay graphics. The applicant can submit additional maps at different scales or origins to demonstrate significant points.

(5) If a permit is issued for the proposed use, the applicant will be required to report monthly water use on a semi-annual basis. The applicant shall indicate the method or means that will be used for measuring water use. If different than the applicant, the applicant shall indicate the name, address and phone number of the office or person responsible for submitting the semi-annual report.

Any deviation from the outlined procedures shall be approved in advance by me or the assigned project manager. All model parameters or assumptions used to complete the hydrogeologic evaluation should be discussed with the Administration prior to submission of the final report. This will reduce the possibility that, upon review of the report, the Administration will request additional information, with the implied additional cost to the applicant.

Coastal Plain Confined Aquifer Hydrogeologic Investigation Procedure

Application No.: CO2021G002/01

Applicant: AquaCon Maryland LLC.

Project: Land based salmon aquaculture facility.

Assigned Project Manager: Robert Peoples

The applicant shall have a competent hydrogeologist or engineer calculate the aquifer characteristics from the aquifer test data; make time-distance-drawdown projections; address the issues in the bold type portion of the second paragraph of this letter; address the reasonableness of the proposed use; address the reasonableness of the impact upon the water resource and upon existing uses; and address other issues which might be discussed at a public informational hearing. Discussion of these items should be submitted to the Water Management Administration (Administration) in report form.

It has been determined by the Administration that to properly evaluate the above referenced application, it will be necessary for the applicant to conduct a coastal plain aquifer hydrogeologic investigation. As part of the investigation, the applicant shall complete a hydrogeologic evaluation that will include, as a minimum, the following items.

(1) In order to address the reasonableness of the proposed use, the applicant shall submit a comprehensive water demand analysis for the project, during the nominal 12-year period of the proposed permit.

Water demand is generally estimated by a system flow analysis or a comparison to a similar facility that has an accurate record of reported use.

The average and maximum daily quantities included in the certification of notification form and notification letter reflect either the amounts requested in the application or as adjusted by the Administration, and may change as the application/hydrogeologic evaluation proceeds.

(2) In order to demonstrate the reasonableness of the impact upon the resource, in a confined aquifer, the applicant shall determine the availability of groundwater in the aquifer from which the appropriation is to be taken, using the detailed procedures provided below.

The applicant shall submit cross-sections, one along regional strike and one along regional dip, showing the structure and stratigraphy of the region. The applicant shall also submit a structural map on the top of the aquifer from which the water is to be withdrawn. This information is generally found in various publications of the Maryland Geological Survey (MGS) and other agencies.

The following elevation data relative to Mean Sea Level shall be submitted: the topographic elevation of the test well site; the static water level in the test well; the top of the aquifer; the historical pre-pumping water level; and a sufficient number of water level measurements to indicate the rate of potentiometric surface decline of the aquifer over the past 10-15 years. Water level data for the aquifers used for water supply purposes in Maryland are generally available in various MGS publications and

reports.

From the elevation data, a regional water management level equal to 80% of the drawdown available between the top of the aquifer and the pre-pumping water level shall be calculated. In this case, "regional" means an area in which water is appropriated or used from multiple wells located in a common source. Typically a distance of ¼-mile may be used to evaluate impacts. However, a larger distance may be used if the potentiometric map of the confined aquifer shows concentrated use in the area affecting compliance with the 80% level in the up-dip direction. Based on the rate of decline of the potentiometric surface of the aquifer, the applicant shall estimate the projected potentiometric water level and remaining available drawdown in the aquifer at the end of the nominal 12-year permit period. Elevations and regional water level data are best presented in a table or graph form.

(3) In order to demonstrate the reasonableness of the impact of the proposed withdrawal on other users, the applicant shall indicate the drawdown effects of the proposed use on the water levels in wells of nearby other users in the aquifer from which the water is to be withdrawn. Drawdown projections shall be calculated, for pumping a central or multiple-well supply at the annual average rate for one year and 12 years, and the maximum monthly rate for 30 to 90 days.

The applicant shall discuss the potential impacts to "shallow" wells, those using suction or jet pumps, which are generally in 1- to 2-inch wells; telescoped wells; wells that are 4 inches in diameter or larger using submersible pumps that can be continuously lowered as water levels decline; and, any other types of wells that may exist in the general area of the proposed appropriation. A computer printout of well permits issued to nearby users completed after about 1969 can be obtained from the Administration's Wastewater Permits Program, On-Site Systems Division. Records in various formats for the period 1945-1980 are available for inspection and copying at the Administration's Wastewater Permits Program, On-Site Systems Division offices and the respective County Environmental Health Departments or like agency. Information concerning some wells completed prior to 1945 are contained in various publications of the MGS.

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(5) If a permit is issued for the proposed use, the applicant will be required to report monthly water use on a semi-annual basis. The applicant shall indicate the method or means that will be used for measuring water use. If different than the applicant, the applicant shall indicate the name, address and phone number of the office or person responsible for submitting the semi-annual report.

Any deviation from the outlined procedures shall be approved in advance by me or the assigned project manager. All model parameters or assumptions used to complete the hydrogeologic evaluation should be discussed with the Administration prior to submission of the final report. This will reduce the possibility that, upon review of the report, the Administration will request additional information, with the implied additional cost to the applicant.

ATTACHMENT D

March 24, 2021

Dear Property Owner or Local Official:

AquaCon Maryland LLC. has applied for a Permit to Appropriate and Use Waters of the State, which has been assigned permit application numbers CO2021G002/01, CO2021G003/01, & CO2021S004/01. The applicant seeks to appropriate and use a total annual average allocation of 2,203,000 gallons of water per day (gpd) for a land based salmon aquaculture facility that will be split between three permits. Application CO2021S004/01 requests to withdraw water from an intake on Marshyhope Creek. The allocation under this application is proposed to be an annual average of 2,050,000 gpd and a maximum daily withdrawal of 2,300,000 gallons. Application CO2021G002/01 requests to withdraw water from one new well in the Upper Patapsco aquifer. The allocation under this application is proposed to be an annual average of 2,050,000 gpd and an average during the month of maximum use of 2,300,000 gpd. Application CO2021G003/01 requests to withdraw water from two wells in the Columbia aquifer. The allocation under this application is proposed to be an annual average of 153,000 gpd and an average during the month of maximum use of 187,000 gpd. The wells and project are located at 2960 Wright Road, Federalsburg, Caroline County, Maryland. The surface water intake is located approximately 0.35 mile downstream of the bridge over Marshyhope Creek on Federalsburg Highway, Federalsburg, Caroline County, Maryland.

Since you are a contiguous property owner or an appropriate local official, you are being notified of these applications, as required by the Maryland Annotated Code Environment Article §5-506. Your name has also been placed on the "List of Interested Persons" for the above referenced project. At a later date, you will be notified when the proposed project is being published, any projected impacts, and be offered an opportunity to comment and request a public informational hearing on the matter before a decision is rendered by the State to issue or deny the permit.

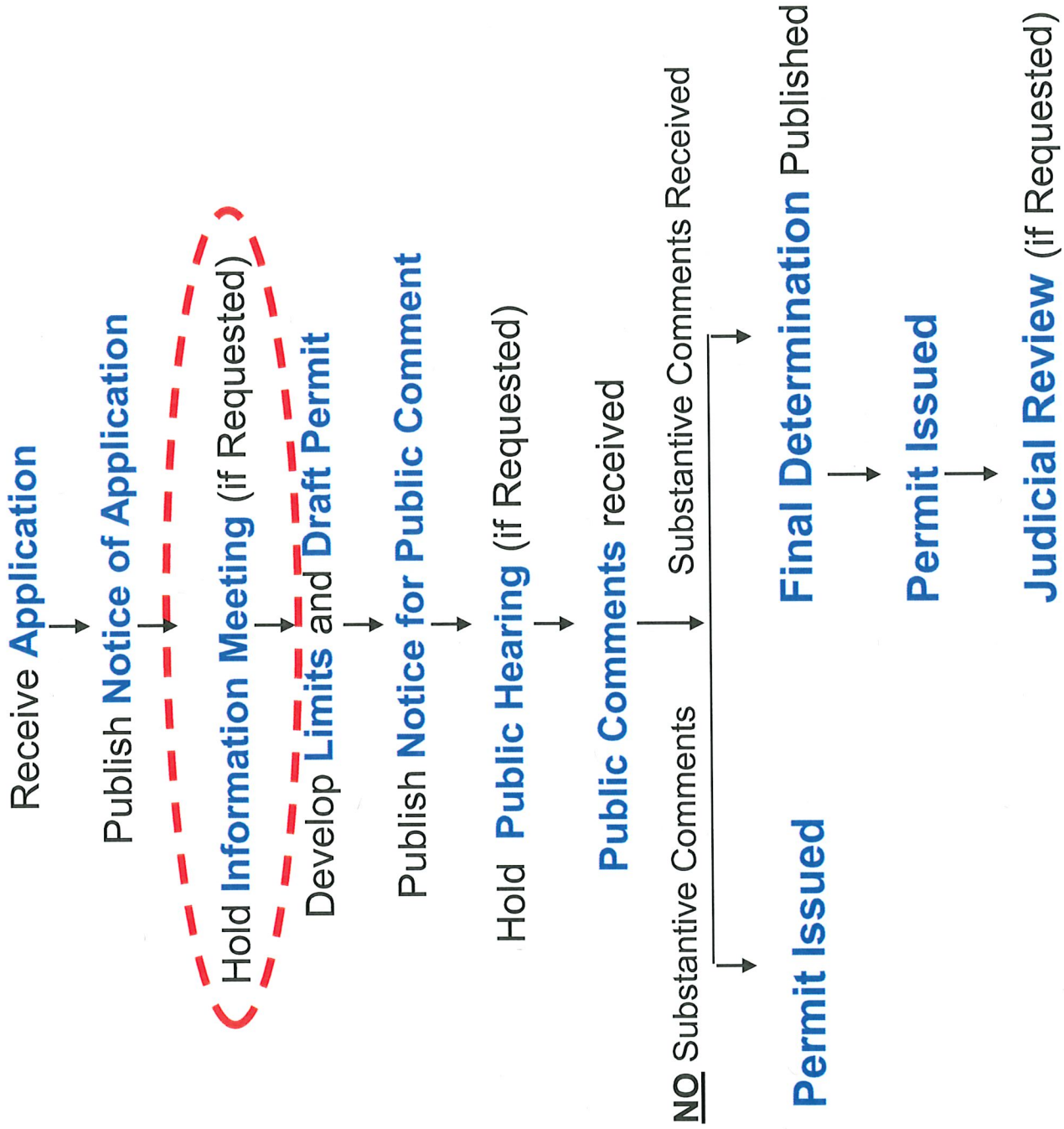
The Maryland Department of the Environment, Water and Science Administration (Administration) has created a file for this proposed project. If you wish to review the Administration's application files or make comments on the applications at this time, you may contact the Administration by mail at Water Supply Program, Source Protection and Appropriation Division, 1800 Washington Boulevard, Baltimore, Maryland 21230 or by phone at 410-537-3590. If you have any questions concerning the application, please contact me by phone at 410-820-0222 or by mail at the address listed below.


Sincerely,

Ryan Showalter

AquaCon Maryland LLC.
100 N W St.
Easton MD 21601

Permitting Process



EPA Identification Number New Facility		NPDES Permit Number New Facility		Facility Name AquaCon Maryland LLC.		
Form 1 NPDES			U.S. Environmental Protection Agency Application for NPDES Permit to Discharge Wastewater GENERAL INFORMATION			
SECTION 1. ACTIVITIES REQUIRING AN NPDES PERMIT (40 CFR 122.21(f) and (f)(1))						
Activities Requiring an NPDES Permit	1.1 Applicants Not Required to Submit Form 1					
	1.1.1	Is the facility a new or existing publicly owned treatment works ? If yes, STOP. Do NOT complete Form 1. Complete Form 2A.	<input checked="" type="checkbox"/> No	1.1.2	Is the facility a new or existing treatment works treating domestic sewage ? If yes, STOP. Do NOT complete Form 1. Complete Form 2S.	
	1.1.1			1.1.2		
	1.2	Applicants Required to Submit Form 1				
	1.2.1	Is the facility a concentrated animal feeding operation or a concentrated aquatic animal production facility ? <input checked="" type="checkbox"/> Yes → Complete Form 1 and Form 2B. <input type="checkbox"/> No		1.2.2	Is the facility an existing manufacturing, commercial, mining, or silvicultural facility that is currently discharging process wastewater ? <input type="checkbox"/> Yes → Complete Form 1 and Form 2C. <input checked="" type="checkbox"/> No	
	1.2.1			1.2.2		
1.2.3	Is the facility a new manufacturing, commercial, mining, or silvicultural facility that has not yet commenced to discharge ? <input type="checkbox"/> Yes → Complete Form 1 and Form 2D. <input checked="" type="checkbox"/> No		1.2.4	Is the facility a new or existing manufacturing, commercial, mining, or silvicultural facility that discharges only nonprocess wastewater ? <input type="checkbox"/> Yes → Complete Form 1 and Form 2E. <input checked="" type="checkbox"/> No		
1.2.3			1.2.4			
1.2.5	Is the facility a new or existing facility whose discharge is composed entirely of stormwater associated with industrial activity or whose discharge is composed of both stormwater and non-stormwater ? <input type="checkbox"/> Yes → Complete Form 1 and Form 2F unless exempted by 40 CFR 122.26(b)(14)(x) or (b)(15). <input checked="" type="checkbox"/> No					
SECTION 2. NAME, MAILING ADDRESS, AND LOCATION (40 CFR 122.21(f)(2))						
Name, Mailing Address, and Location	2.1 Facility Name					
	AquaCon Maryland LLC.					
	2.2 EPA Identification Number					
	New Facility					
	2.3 Facility Contact					
	Name (first and last) Ryan Showalter		Title Manager		Phone number (410) 820-0222	
	Email address rshowalter@mdswlaw.com					
	2.4 Facility Mailing Address					
Street or P.O. box 100 N W St.						
City or town Easton		State Maryland		ZIP code 21601		

Name, Mailing Address, and Location Continued	2.5	Facility Location		
	Street, route number, or other specific identifier Frank Adams Industrial Park Between Frank Adams Industrial Way and Wright Road			
	County name Caroline		County code (if known)	
	City or town Federalsburg		State Maryland	ZIP code 21632

SECTION 3. SIC AND NAICS CODES (40 CFR 122.21(f)(3))

SIC and NAICS Codes	3.1	SIC Code(s)		Description (optional)
		0273		Aquaculture
	3.2	NAICS Code(s)		Description (optional)

SECTION 4. OPERATOR INFORMATION (40 CFR 122.21(f)(4))

Operator Information	4.1	Name of Operator		
	AquaCon Maryland LLC.			
	4.2	Is the name you listed in Item 4.1 also the owner?		
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Operator Information Continued	4.3	Operator Status		
	<input type="checkbox"/> Public—federal <input type="checkbox"/> Public—state <input type="checkbox"/> Other public (specify) _____ <input checked="" type="checkbox"/> Private <input type="checkbox"/> Other (specify) _____			
	4.4	Phone Number of Operator		
(410) 820-0222				
Operator Information Continued	4.5	Operator Address		
	Street or P.O. Box 100 N W St.			
	City or town Easton		State MD	ZIP code 21601
	Email address of operator rshowalter@mdswlaw.com			

SECTION 5. INDIAN LAND (40 CFR 122.21(f)(5))

Indian Land	5.1	Is the facility located on Indian Land?		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				

EPA Identification Number New Facility	NPDES Permit Number New Facility	Facility Name AquaCon Maryland LLC.
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Form Approved 03/05/19
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SECTION 6. EXISTING ENVIRONMENTAL PERMITS (40 CFR 122.21(f)(6))

Existing Environmental Permits	6.1	Existing Environmental Permits (check all that apply and print or type the corresponding permit number for each)		
		<input type="checkbox"/> NPDES (discharges to surface water)	<input type="checkbox"/> RCRA (hazardous wastes)	<input type="checkbox"/> UIC (underground injection of fluids)
		<input type="checkbox"/> PSD (air emissions)	<input type="checkbox"/> Nonattainment program (CAA)	<input type="checkbox"/> NESHAPs (CAA)
		<input type="checkbox"/> Ocean dumping (MPRSA)	<input type="checkbox"/> Dredge or fill (CWA Section 404)	<input type="checkbox"/> Other (specify)

SECTION 7. MAP (40 CFR 122.21(f)(7))

Map	7.1	Have you attached a topographic map containing all required information to this application? (See instructions for specific requirements.) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> CAFO—Not Applicable (See requirements in Form 2B.)
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SECTION 8. NATURE OF BUSINESS (40 CFR 122.21(f)(8))

Nature of Business	8.1	Describe the nature of your business. AquaCon is a Norwegian company targeting sustainable land-based production of salmon. AquaCon will construct its first fully sustainable and environmentally friendly facility in the Frank Adams Industrial Park in Federalsburg, MD. This facility has a production capacity of 15,000 metric tons of salmon annually. Nineteen bio-secure RAS systems will be housed in the 25-acre facility. The RAS system is expected to achieve 99% water recirculation through a "Zero Water Change" (ZWC) technology. This specific permit application relates a separate purge process prior to harvesting. The RAS process generates an organic hydrocarbon molecule, Geosmin, which is absorbed by the fish and produces a muddy smell and taste. The removal of Geosmin requires food be withheld from the fish and then the fish to be transferred to the 15 "purge" tanks where they are held in clean purge water prior to harvest. Purging will use continuous withdraw of 1.8 to 2.3 million gallons per day of water from a well in the Upper Patapsco aquifer. The purge water is treated after purging to a quality significantly better than the quality of the Marshyhope Creek. The treated purge water is then proposed to be discharged to the tidal waters of the Creek.
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SECTION 9. COOLING WATER INTAKE STRUCTURES (40 CFR 122.21(f)(9))

Cooling Water Intake Structures	9.1	Does your facility use cooling water? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 10.1.
	9.2	Identify the source of cooling water. (Note that facilities that use a cooling water intake structure as described at 40 CFR 125, Subparts I and J may have additional application requirements at 40 CFR 122.21(r). Consult with your NPDES permitting authority to determine what specific information needs to be submitted and when.)

SECTION 10. VARIANCE REQUESTS (40 CFR 122.21(f)(10))

Variance Requests	10.1	Do you intend to request or renew one or more of the variances authorized at 40 CFR 122.21(m)? (Check all that apply. Consult with your NPDES permitting authority to determine what information needs to be submitted and when.)
		<input type="checkbox"/> Fundamentally different factors (CWA Section 301(n)) <input type="checkbox"/> Water quality related effluent limitations (CWA Section 302(b)(2)) <input type="checkbox"/> Non-conventional pollutants (CWA Section 301(c) and (g)) <input type="checkbox"/> Thermal discharges (CWA Section 316(a)) <input checked="" type="checkbox"/> Not applicable

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Facility Name
AquaCon Maryland LLC.

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SECTION 11. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement

11.1 In Column 1 below, mark the sections of Form 1 that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.

Column 1	Column 2
<input checked="" type="checkbox"/> Section 1: Activities Requiring an NPDES Permit	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/> Section 2: Name, Mailing Address, and Location	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/> Section 3: SIC Codes	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/> Section 4: Operator Information	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/> Section 5: Indian Land	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/> Section 6: Existing Environmental Permits	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/> Section 7: Map	<input checked="" type="checkbox"/> w/ topographic map <input type="checkbox"/> w/ additional attachments
<input checked="" type="checkbox"/> Section 8: Nature of Business	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/> Section 9: Cooling Water Intake Structures	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/> Section 10: Variance Requests	<input type="checkbox"/> w/ attachments
<input checked="" type="checkbox"/> Section 11: Checklist and Certification Statement	<input type="checkbox"/> w/ attachments

11.2 **Certification Statement**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (print or type first and last name)

Robert Rauch
Ryan Showalter

Official title

Engineer/Consultant
Manager

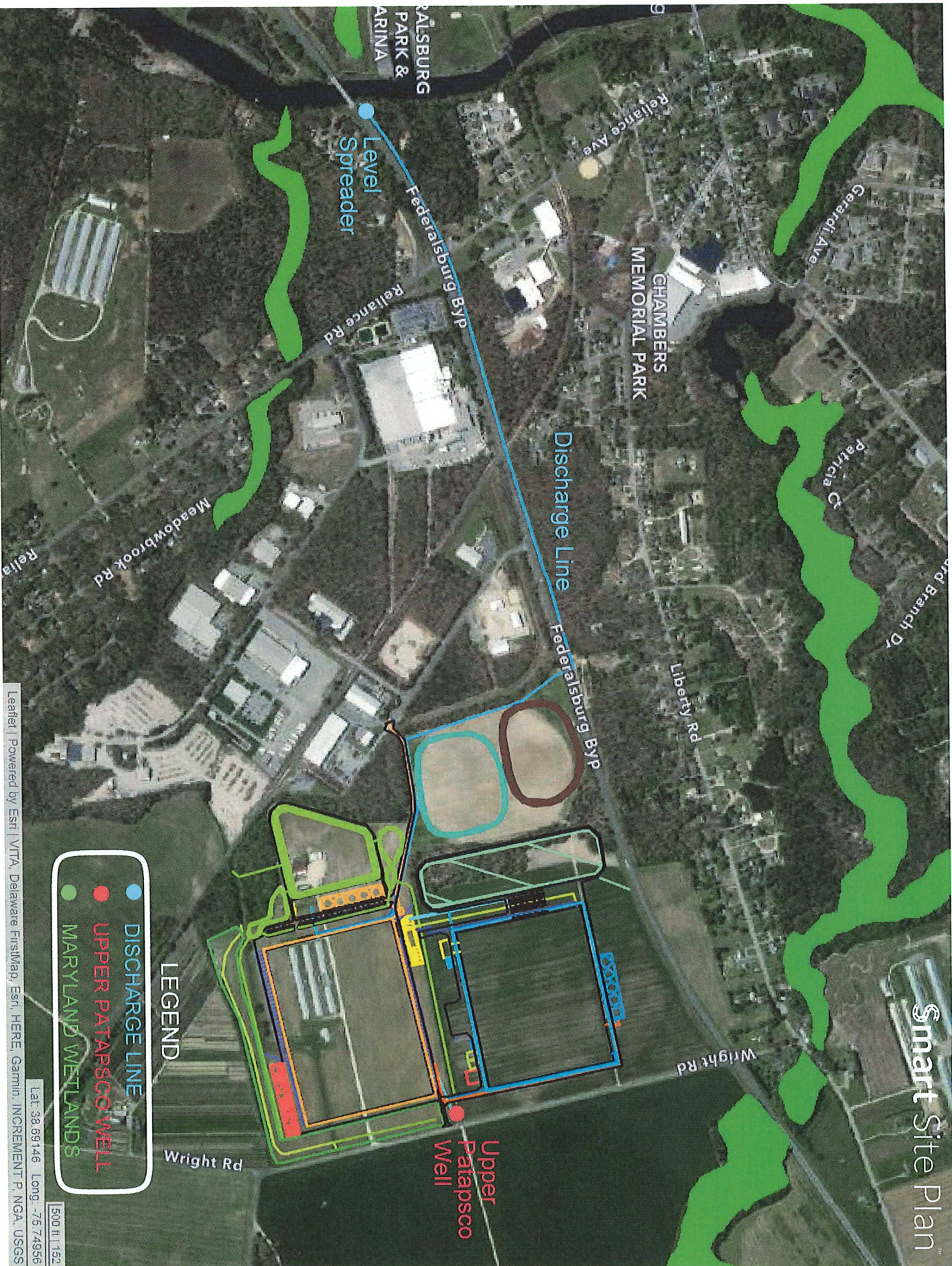
Signature



Date signed

12/17/2021


APPENDIX A-1



LEGEND

- DISCHARGE LINE
- UPPER PATAPSCO WELL
- MARYLAND WETLANDS

Leaflet | Powered by Esri | VITA, Delaware FirstMap, Esri, HERE, Garmin, INCREMENT P, NGA, USGS
 Lat: 38.69146 Long: -75.74956
 500 ft | 152 |

EPA Identification Number New Facility		NPDES Permit Number New Facility		Facility Name AquaCon Maryland LLC.		
Form 2B NPDES			U.S. Environmental Protection Agency Application for NPDES Permit to Discharge Wastewater CONCENTRATED ANIMAL FEEDING OPERATIONS and CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITIES			
			SECTION 1. GENERAL INFORMATION (40 CFR 122.21(i)(1))			
General Information	1.1	Indicate the facility/business type. (Check only one response.) <input type="checkbox"/> CAFO → Complete Sections 1 through 6 and Section 8. <input checked="" type="checkbox"/> CAAP → Complete Sections 1, 7, and 8.				
	1.2	Indicate the operational status of the facility. (Check one.) <input type="checkbox"/> Existing facility <input checked="" type="checkbox"/> Proposed facility				
SECTION 2. CAFO OWNER/OPERATOR CONTACT INFORMATION (40 CFR 122.21(f)(2) and (4) and 122.21(i)(1)(i))						
CAFO Owner/Operator Contact Information	2.1	Owner/Operator Contact				
		Name (first and last)		Title		
		Phone number		Email address		
	2.2	Owner/Operator Mailing Address				
		Street or P.O. box				
	City or town	State		Zip code		
SECTION 3. CAFO LOCATION AND CONTACT INFORMATION (40 CFR 122.21(i)(1)(ii and iii))						
CAFO Location and Contact Information	3.1	CAFO Location and Contact				
		Name				
		Address (street, route number, or other specific identifier)			County	
		City or town		State		Zip code
		Facility contact name		Phone number		Email address
	3.2	Latitude/Longitude of Entrance to Production Area (see instructions)				
		Latitude			Longitude	
° ' "			° ' "			

EPA Identification Number New Facility	NPDES Permit Number New Facility	Facility Name AquaCon Maryland LLC.
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CAFO Location and Contact Information Continued	3.3	Integrator Name and Address		
		Name		
		Street address		
		City or town	State	Zip code

SECTION 4. CAFO TOPOGRAPHIC MAP (40 CFR 122.21(i)(1)(iv))

CAFO Topographic Map	4.1	Have you attached a topographic map containing all required information to this application? (See instructions for specific requirements.)
		<input type="checkbox"/> Yes → SKIP to Section 5. <input type="checkbox"/> No

SECTION 5. CAFO CHARACTERISTICS (40 CFR 122.21(i)(1)(v ix))

CAFO Characteristics	5.1	Provide information on the type and number of animals in the table below.					
		Animal Type	Number in Open Confinement	Number Housed Under Roof	Animal Type	Number in Open Confinement	Number Housed Under Roof
		<input type="checkbox"/> Mature dairy cows			<input type="checkbox"/> Sheep or lambs		
		<input type="checkbox"/> Dairy heifers			<input type="checkbox"/> Chickens (broilers)		
		<input type="checkbox"/> Veal calves			<input type="checkbox"/> Chickens (layers)		
		<input type="checkbox"/> Cattle (not dairy or veal calves)			<input type="checkbox"/> Ducks		
		<input type="checkbox"/> Swine (55 lbs. or more)			<input type="checkbox"/> Other (specify)		
		<input type="checkbox"/> Swine (under 55 lbs.)			<input type="checkbox"/> Other (specify)		
		<input type="checkbox"/> Horses			<input type="checkbox"/> Other (specify)		
		<input type="checkbox"/> Turkeys			Total Animals		
	5.2	Indicate the type of containment and storage, total number of days, and total capacity for manure, litter, and process wastewater storage in the table below.					
		Type of Containment and Storage	Total Number of Days	Total Capacity (specify gallons or tons)	Type of Containment and Storage	Total Number of Days	Total Capacity (specify gallons or tons)
		<input type="checkbox"/> Anaerobic lagoon			<input type="checkbox"/> Belowground storage tanks		
		<input type="checkbox"/> Evaporation			<input type="checkbox"/> Roofed storage shed		
		<input type="checkbox"/> Aboveground storage tanks			<input type="checkbox"/> Concrete pad		
	<input type="checkbox"/> Storage pond			<input type="checkbox"/> Impervious soil pad			
	<input type="checkbox"/> Underfloor pit			<input type="checkbox"/> Other (specify)			
5.3	Indicate the total number of acres drained and collected in the containment and storage structure(s) reported under Item 5.2.						
	_____ acres						

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CAFO Characteristics Continued

Manure, Litter, and/or Process Wastewater Production and Use	
5.4	How many tons of manure or litter and gallons of process wastewater are generated annually at the CAFO?
	Manure _____ tons
	Litter _____ tons
	Process wastewater _____ gallons
5.5	Is manure, litter, and/or process wastewater generated at the CAFO land applied? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 5.8.
5.6	How many acres of land under the control of the applicant are available for applying the CAFO's manure, litter, or process wastewater? _____ acres
5.7	Check all land application best management practices that are being implemented. <input type="checkbox"/> Buffers <input type="checkbox"/> Infiltration field <input type="checkbox"/> Setbacks <input type="checkbox"/> Grass filter <input type="checkbox"/> Conservation tillage <input type="checkbox"/> Terrace <input type="checkbox"/> Constructed wetlands <input type="checkbox"/> Other (specify)
5.8	Is manure, litter, and/or process wastewater transferred to any other persons? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 5.10.
5.9	How many tons of manure or litter and gallons of process wastewater, produced by the CAFO, are transferred annually to other people?
	Manure _____ tons
	Litter _____ tons
	Process wastewater _____ gallons
5.10	Describe alternative use(s) of manure, litter, or process wastewater, if any.

SECTION 6. CAFO NUTRIENT MANAGEMENT PLANS (40 CFR 122.21(i)(1)(x))

CAFO Nutrient Management Plans

6.1	Has the applicant attached a nutrient management plan that satisfies the requirements at 40 CFR 122.42(e) and, if applicable, the requirements at 40 CFR 412.4(c)? Note: A permit application is not complete until a nutrient management plan is submitted to the NPDES permitting authority. <input type="checkbox"/> Yes → SKIP to Item 6.3. <input type="checkbox"/> No
6.2	Explain why a nutrient management plan is not attached to the application.
6.3	Is a nutrient management plan being implemented at the CAFO? <input type="checkbox"/> Yes <input type="checkbox"/> No
6.4	What was the date of the last review or revision of the nutrient management plan? Date _____

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AquaCon Maryland LLC.

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SECTION 7. CAAP FACILITY CHARACTERISTICS (40 CFR 122.21(i)(2))




CAAP Facility Characteristics

7.1	Is the CAAP facility located on land? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 7.3.					
7.2	Provide the maximum daily and maximum average monthly discharge at CAAP by outfall.					
	Outfall Number	Discharge				
		Maximum Daily Discharge		Maximum Average Monthly Discharge		
	1	2,300,000 gpd		69,000,000 gpd		
	gpd		gpd			
7.3	Indicate the type and number of discharge structures at the CAAP. Provide a brief description of each structure. Also note the name of the receiving water and the source of the intake water for each structure.					
	Structure Type	Number of Each	Description	Receiving Water Name	Source of Intake Water	
	Ponds					
	Raceways					
	Net pens				Not applicable	
	Submerged cages				Not applicable	
	Similar structures (specify) Purge Tanks	15	Purge Tanks (Clean water holding tanks with no feed prior to harvesting)	Marshyhope Creek	Well - Upper Patapsco Aquifer	
7.4	List the cold-water and/or warm-water aquatic species raised/produced in the table below. For each species listed, indicate the total yearly and maximum harvestable weight (in pounds).					
	Cold Water Species			Warm Water Species		
	Species	Harvestable Weight		Species	Harvestable Weight	
		Total Yearly	Maximum		Total Yearly	Maximum
	Norwegian Salmon	33,069,339 lbs.	33,069,339 lbs.		lbs.	lbs.
		lbs.	lbs.		lbs.	lbs.
	lbs.	lbs.		lbs.	lbs.	
	lbs.	lbs.		lbs.	lbs.	
7.5	Indicate the calendar month of maximum feeding and the total mass of food fed (in pounds) during that month.					
	Month of Maximum Feeding			Total Mass of Food Fed		
	No feed during purge process			0 lbs.		

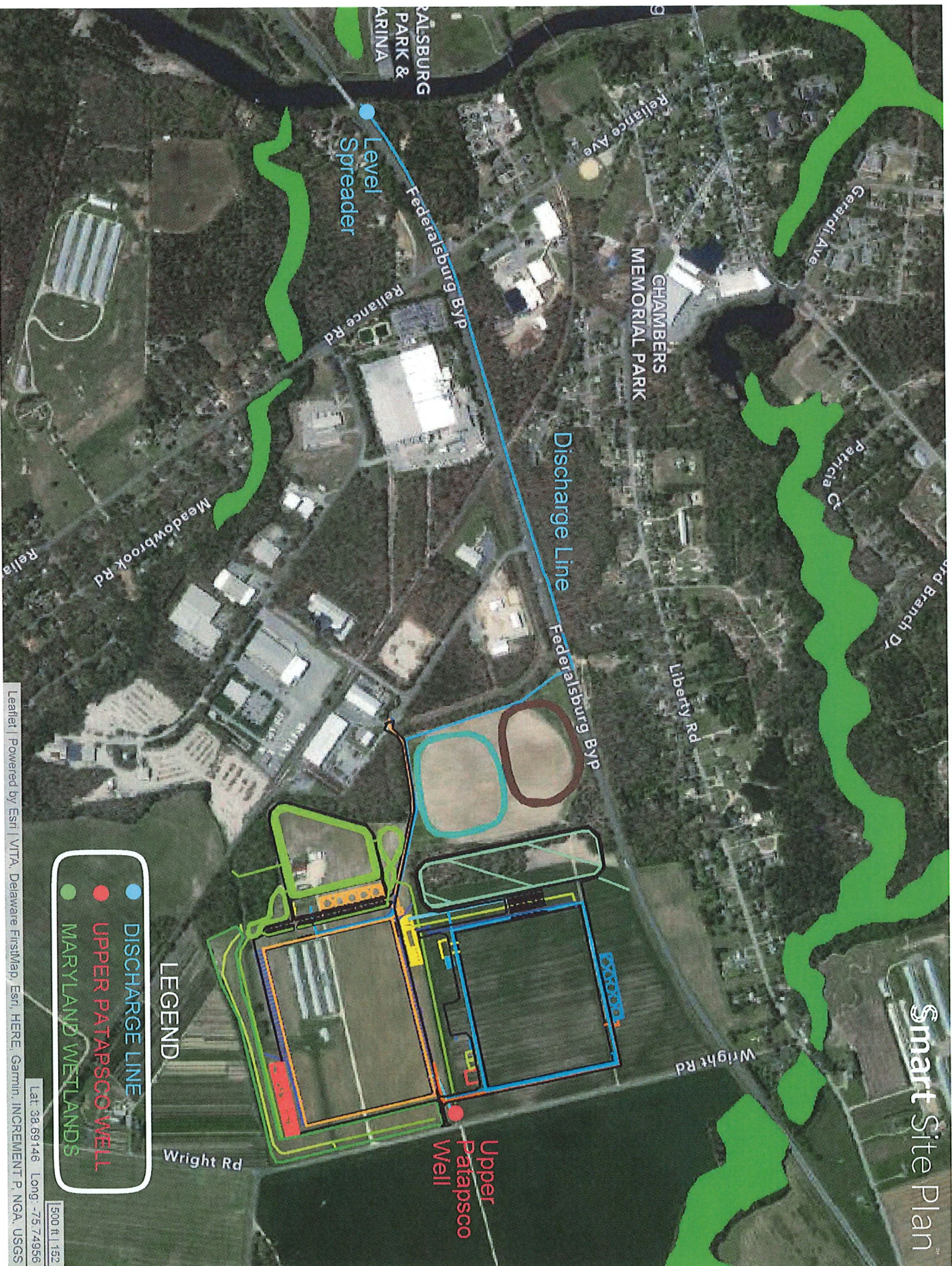
EPA Identification Number New Facility	NPDES Permit Number New Facility	Facility Name AquaCon Maryland LLC.
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Form Approved 03/05/19
OMB No. 2040-0004

SECTION 8. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement	8.1	In Column 1, below, mark the sections of Form 2B that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.							
		Column 1	Column 2						
		<input checked="" type="checkbox"/> Section 1: General Information	<input type="checkbox"/> w/ attachments						
		<input type="checkbox"/> Section 2: CAFO Owner/Operator Contact Information	<input type="checkbox"/> w/ attachments						
		<input type="checkbox"/> Section 3: CAFO Location and Contact Information	<input type="checkbox"/> w/ attachments						
		<input type="checkbox"/> Section 4: CAFO Topographic Map	<input type="checkbox"/> w/ topographic map <input type="checkbox"/> w/ additional attachments						
		<input type="checkbox"/> Section 5: CAFO Characteristics	<input type="checkbox"/> w/ attachments						
		<input type="checkbox"/> Section 6: CAFO Nutrient Management Plans	<input type="checkbox"/> w/ nutrient management plan <input type="checkbox"/> w/ attachments						
		<input checked="" type="checkbox"/> Section 7: CAAP Facility Characteristics	<input checked="" type="checkbox"/> w/ attachments						
		<input checked="" type="checkbox"/> Section 8: Checklist and Certification Statement	<input type="checkbox"/> w/ attachments						
	8.2	<p>Certification Statement</p> <p><i>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</i></p> <table border="1" style="width: 100%;"> <tr> <td>Name (print or type first and last name)</td> <td>Official title</td> </tr> <tr> <td>Robert Rauch Ryan Showalter</td> <td>Engineer/Consultant Manager</td> </tr> <tr> <td>Signature </td> <td>Date signed 12/17/2021</td> </tr> </table>		Name (print or type first and last name)	Official title	Robert Rauch Ryan Showalter	Engineer/Consultant Manager	Signature 	Date signed 12/17/2021
Name (print or type first and last name)	Official title								
Robert Rauch Ryan Showalter	Engineer/Consultant Manager								
Signature 	Date signed 12/17/2021								

APPENDIX A-1



Draft

3867 21 AquaCon Federalsburg Draft Permit.docx

*Last Printed/Revised/Created on **June 3, 2022***

STATE DISCHARGE PERMIT NUMBER	21-DP-3867
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NPDES PERMIT NUMBER	MD0072184
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APPROVAL DATE	Draft <Date on Transmittal Letter>
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EFFECTIVE DATE	Draft
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EXPIRATION DATE	Draft <Effective Date + 5 Years>
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REAPPLICATION DATE	Draft <Enter Date per S.C. I.>
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MODIFICATION DATE:	N/A
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Pursuant to the provisions of Title 9 of the Environment Article, Annotated Code of Maryland, and regulations promulgated thereunder, and the provisions of the Clean Water Act, 33 U.S.C. § 1251 et seq. and implementing regulations 40 CFR Parts 122, 123, 124, and 125, the Department of the Environment hereinafter referred to as the "Department," hereby authorizes

AquaCon Maryland, LLC
 100 N W Street
 Easton, MD 21601

TO DISCHARGE FROM

A Salmon rearing and seafood processing facility.

LOCATED AT

Frank Adams Industrial Park between Frank Adams Industrial Way and Wright Road, Federalsburg, MD 21632

VIA OUTFALL

001 as identified and described below.

TO

Marshyhope Creek, a designated Use I water body under COMAR 26.08.02.02 protected for water contact recreation, fishing, aquatic life, and wildlife in accordance with the following special and general conditions, and map(s) made a part hereof.

I. SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the effective period of this permit the permittee is authorized to discharge salmon tank purge water via Outfall 001 (Maryland Coordinates 1663.5 E and 3740.9 N).

Discharges authorized from this outfall shall be limited and monitored by the permittee at Outfall 001 as specified in the table below:

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			FREQUENCY OF ANALYSIS	SAMPLE TYPE	NOTES
	MONTHLY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	MONTHLY AVERAGE	DAILY MAXIMUM			
Flow	Report	Report	MGD				1/Month	Measured	
Biochemical Oxygen Demand (BODs)					30	45	3/Week	Grab	
Total Suspended Solids (TSS)					30	45	3/Week	Grab	
Dissolved Oxygen				5.0			1/Week	Grab	(9)
Total Nitrogen					Report		1/Week	Calculated	(6)
Organic Nitrogen (as N)					Report		1/Week	Grab	(6)
Nitrate + Nitrite (as N)					Report		1/Week	Grab	(6)
Total Phosphorus					Report		1/Week	Grab	
Total Ammonia (as N)					Report		1/Week	Grab	(6)
Total Nitrogen (as N) (annual load)	Report lbs/Month	5400 lbs/Year					1/Month	Calculated	(1)(5) (10)
Total Phosphorus (Full Year)	105 lbs/Month	1260 lbs/Year					1/Month	Calculated	(5)(10)
pH				6.5		8.5	3/Week	Grab	(9)

I. SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS – Continued from previous page

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE	NOTES
	MONTHLY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	UNITS			
Fish Processed	Report		Count					1/Month	Calculated	(7)
Salinity					Report	ppt		1/Week	Grab	
Conductivity					Report	uS/cm2		1/Week	Measured	(8) (9)
Temperature						°C	Report	3/Week	Measured	(4) (9)
Temperature Difference						°C	2	3/Week	Measured	(3) (4) (9)
Arsenic					Report	ppb		1/Week	Grab	

There shall be no discharge of floating solids or persistent foam in other than trace amounts. Persistent foam is foam that does not dissipate within one half-hour from the point of discharge.

The permittee shall alert the Department when its weekly average flow exceeds 2.3 million gallons per day (MGD). The permittee shall evaluate any change in annual average flow each year and, in accordance with General Condition B.1, notify the Department by May 1 if the annual average flow is expected to exceed this level. This requirement is not a flow limit.

- (1) Limits are in conformance with the Chesapeake Bay Total Maximum Daily Load (TMDL) for Nitrogen, Phosphorus and Sediment issued December 29, 2010 by the United States Environmental Protection Agency (76 Fed. Reg. 549, January 5, 2011).
- (2) Limits are in conformance with the Marshyhope Creek Total Maximum Daily Load (TMDL) for Total Phosphorus approved February 13, 2001 by the United States Environmental Protection Agency.
- (3) “Temperature Difference” is determined by following the steps below until you verify you are either demonstrating compliance or noncompliance.
 - i) Calculate “Temperature Difference” = effluent temperature - receiving water temperature upstream of the discharge. If the absolute result is “<= 2°C”, then report the value which is compliant. If it is “> 2°C” proceed to the next step.

I. SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS – Continued from previous page

- ii) Calculate “Temperature Difference” = edge of mixing zone temperature - receiving water temperature upstream of the discharge. If the absolute value result is “ $\leq 2^{\circ}\text{C}$ ” then report the value which is compliant. If it is “ $>2^{\circ}\text{C}$ ” then report the value which is a permit violation.
- (4) The temperature sample must be taken at that same time over the same 24 hour period to reduce variability during the day.
- (5) The permittee shall report in the Monthly Loading Rate in units of lbs per month in the “Monthly Average” column; to be calculated by summing the daily determination of discharge of constituents by mass loading (daily determination) for the month. Since concentrations are measured weekly at a minimum, calculation of the daily determination will use flow (MGD) for that day times the nutrient concentration as measured that day (if available) or week, times 8.34. The daily determination will be zero (0) for days with no discharge.

The Growing Season “Annual Maximum” value is a Loading Rate for the season, where the growing season is defined as the period from May 1st through October 31st of each year. The Growing Season Loading Rate is a calculated parameter, in units of pounds per season, determined by summing the Monthly Loading Rates from May through October of the current calendar year. At the end of each growing season month, the permittee shall report and comply with the load limit.
- (6) The Calendar Year “Annual Maximum” value is an Annual Loading Rate. The Annual Loading Rate is a calculated parameter, in units of pounds per year, determined by summing the Monthly Loading Rates from January through December of the current calendar year. At the end of each month, the permittee shall report and comply with the Annual Maximum Loading Rate. Additional Annual Nutrient Report is required in Special Condition X.
- (6) Total Nitrogen is the sum of ammonia (as N), nitrate-nitrite (as N), and organic nitrogen (as N). All three components must be tested from the same sample.
- (7) Number of fish that have been processed through the purge system. This number may be estimated by dividing the total biomass by the average fish weight.
- (8) Conductivity must be monitored at the same time and location as salinity.
- (9) The Department may require more frequent monitoring after the first year, if it is determined that the fluctuations of the parameter merit it.
- (10) The permittee must acquire the same pounds of Total Phosphorus and Total Nitrogen discharged through offsets. Refer to Special Condition X.

I. SPECIAL CONDITIONS

B. DEFINITIONS

1. "Ambient temperature of the effluent-receiving stream" means water temperature not impacted by a point source discharge, where ambient temperature is measured in areas of the stream representative of typical or average conditions of the stream segment in question.
2. "Annual Maximum Loading Rate (in pounds/year)" means the highest allowable total load of a parameter calculated for a calendar year. It is calculated as the sum of the individual Total Monthly Loading Rates from January through December of the current calendar year.
3. "Biochemical Oxygen Demand (BOD₅)" means the amount of dissolved oxygen required to biologically break down organic material and oxidize inorganic material in an unfiltered environmental sample during a standard BOD₅ test without the use of a nitrification inhibitor.
4. "Bypass" means the intentional diversion of wastes from any portion of a treatment facility.
5. "Clean Water Act" means the "Federal Water Pollution Control Act Amendments of 1972," 33 U.S.C. 1251, 86 Stat. 866, as amended by the "Clean Water Act of 1977," 91 Stat. 1566, and all other amendments to that act.
6. "CFR" means the Code of Federal Regulations.
7. "COMAR" means the Code of Maryland Regulations.
8. "Composite sample" means a combination of individual samples obtained at a minimum of hourly intervals over a specified time period, where the volume of each individual sample (or the sampling interval when using constant volume samples) is proportional to discharge flow rates recorded during the sampling period.
9. "Daily determination of concentration" means an analysis performed on a wastewater sample representative of flow for that calendar day, with concentration expressed in mg/l or other appropriate unit of measurement.
10. "Daily determination of discharge of constituents by mass loading" means a value calculated by multiplying the daily determination of concentration times flow in millions of gallons per day (MGD), times 8.34. The product is mass loading expressed in pounds/day.
11. "Daily maximum effluent concentration" means the highest reading of any daily determination of concentration.
12. "Daily maximum effluent limitation by mass loading" means the highest allowable daily determination of discharge of a constituent by mass loading during a 24-hour period.
13. "Department" means the Maryland Department of the Environment (MDE).
14. "Estimated flow" means a calculated volume or discharge rate based on a technical evaluation of sources contributing to the discharge, including but not limited to pump capabilities, water meters, and batch discharge volumes.

15. "Grab sample" means an individual sample collected over a period of time not exceeding 15 minutes. Grab samples collected for pH and total residual chlorine must be analyzed within 15 minutes from the time of collection.
16. "Immersion Stabilization (i-s)" - means a calibrated device used to measure temperature. It is immersed in the effluent stream until the temperature reading is stabilized.
17. "Measured flow" means any method of liquid volume measurement for which accuracy has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.
18. "Minimum value" means the lowest value measured during a 24-hour period.
19. "Mixing Zone" means a thermal mixing zone not to exceed 120 ft downstream (50% of the accessible width of the stream at point of discharge) and based on rate of flow of the stream extends to how far it travels 6 hours downstream.
20. "Monthly average temperature" is the arithmetic mean of temperature measurements taken on an hourly basis, or the mean value plot of the record from a continuous automated temperature recording instrument, measured during any calendar month or operating month if flows are of a shorter duration.
21. "Monthly, quarterly, semi-annual, or annual average effluent concentration" means the value calculated by computing the arithmetic mean of all daily determinations of concentration made during any respective calendar-month, 3-month, 6-month, or 12-month period.
22. "National Pollutant Discharge Elimination System (NPDES)" means the national system for issuing permits established under §402 of the Clean Water Act (1972).
23. "NetDMR" means a nationally-available electronic reporting tool, initially designed by states and later adapted for national use by EPA, which can be used by NPDES-regulated facilities to submit discharge monitoring reports (DMRs) electronically to EPA through a secure Internet application over the National Environmental Information Exchange Network (NEIEN). EPA can then share this information with authorized states, tribes, and territories.
24. "Nitrogen, Total" means the sum of organic nitrogen, ammonia nitrogen, nitrate, and nitrite, where all values are reported as nitrogen (as N).
25. "Outfall" means the location where effluent is discharged into receiving waters.
26. "Permittee" means an individual or organization holding a discharge permit issued by the Department.
27. "POTW" means publicly owned treatment works.
28. "Recorded" (i.e. recorded flow, pH, or temperature, etc.), means a method of providing a permanent, continuous record, including but not limited to circular and strip charts.
29. "Sampling Point" means the effluent sampling location in the outfall line(s) downstream from the last addition point, or as otherwise specified.

30. "Total Maximum Daily Load (TMDL)" means the maximum amount of a pollutant a waterbody can receive and still meet water quality standards, calculated using the formula $(TMDL = \Sigma WLA + \Sigma LA + MOS)$ where WLA is the sum of wasteload allocations (point sources), LA is the sum of load allocations (nonpoint sources and background), and MOS is the margin of safety.
31. "Total Residual Chlorine (TRC)" means the total amount of chlorine present in a sample. This is the sum of the free chlorine residual and the combined available chlorine residual.
32. "Total Suspended Solids (TSS)" means the residue from an effluent sample retained on a filter measured in accordance with [ASTM D5907-09](#), Standard Test Methods for Filterable and Nonfilterable Matter in Water (2009), or other approved methods.
33. "Upset" means an exceptional incident where unintentional and temporary noncompliance with technology-based effluent limitations occurs due to factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent it is caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
34. "Year-to-Date Cumulative Load (in pounds)" means the sum of individual total monthly loads for a parameter calculated from January through the current reporting month in a calendar year.

C. TOXIC POLLUTANT REPORTING

The permittee shall notify the Department as soon as it is known or suspected that any toxic pollutants not specifically limited by this permit have been discharged in excess of notification levels specified in 40 CFR Part 122.42(a).

D. REMOVED SUBSTANCES

1. Within 30 days after notification the permittee shall provide the Department with information on the disposal of any removed substances defined under General Condition B.7 in section II of this permit. Requested information may include but may not be limited to:
 - a. A map clearly showing all areas used for disposal of removed substances.
 - b. A description of physical, chemical, and biological characteristics of any removed substances, as well as their quantities and methods of disposal.
 - c. The identity of any contractor or subcontractor, their mailing address and information specified in a and b above if disposal is handled by persons other than the permittee.
2. The Department's notification may also require the permittee to provide the above information prior to use of new or additional disposal areas, contractors, or subcontractors.

E. ANALYTICAL LABORATORY

Within 30 days after the effective date of this permit the permittee shall submit to the Department the name and address of the analytical laboratory (including the permittee's own laboratory) used to perform the monitoring required by this permit.

If the laboratory changes during the effective period of the permit the permittee shall notify the Department of the new laboratory within 30 days after the change.

F. OPERATOR CERTIFICATION

As of the effective date of this permit, the permittee's facility shall be operated by an industrial wastewater operator duly certified by the Maryland Board of Waterworks and Waste Systems Operators. The certification shall be for the operation of a Class I4 industrial wastewater works.

G. FLOW MONITORING

In lieu of providing measured flow (defined under Special Conditions in section B above) at Outfall 001, the permittee may estimate flows and submit the following information when submitting the initial discharge monitoring report and/or upon any change in methodology:

1. A description of the methodology used to estimate flow at each outfall where flow measurement equipment is not present.
2. Documentation appropriate to the methodology utilized which provides information to support the validity of the reported flow estimate. If actual measurements or observations are made a description of typical sampling times, locations, and persons performing the measurements/observations must also be provided.
3. A description of factors (e.g., batch discharges, intermittent operation, etc.) which caused flow at the outfall to fluctuate significantly from the previously provided estimate.

H. FLOW BASIS FOR ANNUAL DISCHARGE PERMIT FEE – [Reserved]I. REAPPLICATION FOR A PERMIT

The Department is implementing a revised schedule for issuance of discharge permits grouped by geographical areas (watersheds). To implement the new watershed-based schedule the Department may revoke and reissue this permit concurrently with other permits in the watershed.

Unless the Department grants permission for a later date the permittee shall submit a permit renewal application no later than 12 months prior to the expiration date of the current permit, or notify the Department of their intent to cease discharging by the permit's expiration date.

In the event that a timely and sufficient reapplication has been submitted and through no fault of the permittee the Department is unable to issue a new permit before the expiration date, the terms and conditions of this permit are automatically continued and remain in full force and effect.

J. PERMIT REOPENER FOR TOTAL MAXIMUM DAILY LOAD (TMDL)

This permit may be reopened as a major modification to implement any applicable requirements associated with a Total Maximum Daily Load (TMDL) issued or approved for MARSHYHOPE CREEK, 02130306, including but not limited to: Total Suspended Solids and Temperature.

This permit is consistent with the terms and conditions of the Chesapeake Bay Total Maximum Daily Load (TMDL) for Sediments, Nitrogen and Phosphorus, issued December 29, 2010 (76 Fed. Reg. 549, January 5, 2011). Based on facility operations and/or discharge characteristics this permit limits discharges of total suspended solids, total nitrogen and total phosphorus to prevent water quality degradation of receiving waters and ultimately the Chesapeake Bay.

K. BIOMONITORING PROGRAM – [Reserved]L. TOXICITY REDUCTION EVALUATION – [Reserved]M. MIXING ZONES AND POLLUTION PREVENTION – [Reserved]N. PROTECTION OF WATER QUALITY

It is a violation of this permit to discharge any substance not otherwise listed under this permit's "Effluent Limitations and Monitoring Requirements" at levels which would cause or contribute to any exceedance of numerical water quality standards set forth in COMAR 26.08.02.03, unless the level and substance were disclosed in writing in the permit application prior to issuance of the permit. If a discharge regulated by this permit causes or contributes to an exceedance of water quality standards in COMAR 26.08.02.03, including but not limited to general water quality standards, or if the discharge includes a pollutant not disclosed or addressed in the public record for the permit determination; the Department is authorized to modify, suspend or revoke this permit or take enforcement action to address unlawful discharges.

O. USE OF SUFFICIENTLY SENSITIVE TEST METHODS

In accordance with 40 C.F.R. § 122.44(i)(1)(iv), the permittee shall use sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O, for the analysis of pollutants or pollutant parameters limited in this permit. A method is considered "sufficiently sensitive" when either: (1) the method minimum level (ML) is at or below the level of the effluent limit established in this permit for the measured pollutant or pollutant parameter; or (2) the method has the lowest ML of the analytical methods approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O for the measured pollutant or pollutant parameter. The ML is not the minimum level of detection, but rather the lowest level at which the test equipment produces a recognizable signal and acceptable calibration point for a pollutant or pollutant parameter, representative of the lowest concentration at which a pollutant or pollutant parameter can be measured with a known level of confidence. For the purposes of this permit, the detection limit is the lowest concentration that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method during routine laboratory

operating conditions (i.e., the level above which an actual value is reported for an analyte, and the level below which an analyte is reported as non-detect).

P. ADDITIONAL MONITORING

1. No later than 90 days after a source water has been finalized, the permittee shall submit a completed NPDES application Form 2C, sections V and VI to the Department.
2. Pursuant to requirements set forth in 40 CFR 122.21(k)(5)(vi), within 2 years of commencing discharges authorized by this permit the permittee shall submit a completed NPDES application Form 2C, sections V and VI to the Department. The form need not include parameters already monitored as a requirement of this permit.

Q. AQUACULTURE CONSIDERATIONS

The permittee shall maintain a Facility Management Plan for the operations to address a minimum of these aquaculture BMPs. The initial document shall be provided to the Department within 6 months of the effective date of this permit. Updated copies should be available upon request.

1. Solids Control Management
 - a. The permittee shall employ efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of fish growth in order to minimize potential discharges of uneaten feed and waste products to waters of the U.S.
 - b. In order to minimize the discharge of accumulated solids from settling ponds and basins and production systems, the permittee shall identify and implement procedures for routine cleaning of rearing units and off-line settling basins, and procedures to minimize any discharge of accumulated solids during the inventorying, grading, and harvesting of fish in the purge system.
 - c. The permittee shall remove and dispose of fish mortalities properly on a regular basis to prevent discharge to waters of the State, except in such cases where the Department authorizes such discharge in order to benefit the aquatic environment.
2. Materials Storage
 - a. The permittee shall store drugs, pesticides, and feed in a manner designed to prevent spills that may result in the discharge of drugs, pesticides, or feed to State waters.
 - b. The permittee shall implement procedures for properly containing, cleaning, and disposing of any spilled material.

3. Structural Maintenance
 - a. The permittee shall inspect the production system and the wastewater treatment system on a routine basis in order to identify and promptly repair any damage.
 - b. The permittee shall conduct regular maintenance of the production system and the wastewater treatment system in order to insure that they are properly functioning.
4. Recordkeeping
 - a. In order to calculate representative feed conversion ratios, the permittee shall maintain records for fish rearing units documenting the feed amounts and estimates of the numbers and weight of fish.
 - b. The permittee shall keep records documenting the frequency of cleaning, inspections, maintenance, and repairs of the purge system.
5. Training
 - a. In order to ensure the proper clean-up and disposal of spilled material, the permittee shall adequately train all relevant facility personnel in spill prevention and how to respond in the event of a spill.
 - b. The permittee shall train staff on the proper operation and cleaning of production and wastewater treatment systems including training in feeding procedures and proper use of equipment.

R. THERMAL MIXING ZONE

No later than 15 months after the effective date of this permit, the permittee shall submit results of a study/studies which reassert(s) that they will meet the temperature limits of the permit, including:

1. A comparative analysis between current conditions within the permitted mixing zone and a "baseline" condition, which could be based upon the results from sampling and testing done prior to discharging.
2. Thermal analysis or modeling data to show that should the current limits on net temperature difference be reached for Outfall 001, it would not allow the 2°C above or below ambient thermal barrier to exceed the allowed mixing zone. This data should include ambient temperature data at a point upstream and outside the thermal plume of the discharges. Specifically, data shall be presented for conditions occurring from April through October, when ambient temperatures have historically been at their highest.
3. If data shows that the current methods are not sufficient to maintain a net temperature difference of 2°C above or below ambient, then additional treatment methods must be implemented by the permittee.

The Department reserves the right to reopen this permit as a major modification based upon the results of this study to establish new thermal limits for the protection of water quality and/or compliance with the permitted mixing zone.

S. FLOODING ASSESSMENT

The permittee shall determine the potential for both upstream and downstream flooding as a result of the additional flow from both the facility discharge and stormwater discharges using modeling and provide the results of the assessment to the Department for verification that it poses no threat to existing physical structures or facilities.

The permittee must perform regular facility maintenance on any Stormwater Management structures and facilities to ensure proper function.

T. GEOSMIN STUDY PLAN

The permittee must determine a “baseline” for the concentration of Geosmin currently present in the receiving waters and in tissues from aquatic species representative of the primary uses of the Marshyhope Creek for each season, identified below. The “baseline” data should be submitted to the Department prior to beginning discharge. The permittee must submit updated “baseline” data every six-months until the start of discharge. Annually thereafter, the permittee must submit a report to the Department including the concentration of Geosmin for each season.

Geosmin study must include, at a minimum, the following species:

- Largemouth Bass
- Channel Catfish
- Bluegill Sunfish
- Yellow Perch
- Black Crappie
- Striped Bass
- Snakehead
- Blue Catfish

U. CHEMICALS AND ADDITIVES

1. No chemicals or additives shall be discharged through Outfall 001 without prior approval from the Department.
2. A list of approved additives are: [Reserved].
3. Additives include antibiotics and medications used to maintain fish health. Prior to using any additives not listed above the permittee must receive approval from the Department.
4. If chemicals or additives are added to the fish tank water that has not received approval from the Department, the effluent from the tanks shall be directed to wastewater collection tanks and either discharged to the sanitary sewer or hauled off-site for disposal at a permitted facility.

5. If water potentially containing chlorine or chlorine compounds (that have been used for disinfection of aquatic organism holding tanks or other equipment) is to be discharged via Outfall 001, the water shall be chemically dechlorinated or held for at least 24 hours after application of the chlorine before being discharged to State waters. The wastewater shall be subject to a total residual chlorine limit of <math><0.1\text{ mg/l}</math>, verified before discharge by taking an individual sample within 15 minutes, which shall be analyzed within 15 minutes of retrieval. The results shall be recorded and made available to Department personnel upon request.

V. OUTFALL IDENTIFICATION

1. Prior to the individual outfall coming online, the permittee shall submit a written description of the outfall and, if different, the monitoring points, and a map or plat showing their location to the Water and Science Administration's Inspection and Compliance Program and to the Industrial Stormwater Permits Division.
2. You must post a sign identifying the location of the outfall and any monitoring points and conduct periodic maintenance of the signs to ensure that they are legible, viable, and factually correct. At minimum, the signs must include:
 - a. The State and NPDES permit number;
 - b. The Department's wastewater permits portal URL (<https://mdewwp.page.link/WWPPortal>); and
 - c. A contact name and phone number for obtaining additional facility information.

W. NOTIFICATION OF START OF DISCHARGE

Prior to the start of discharge, the permittee shall notify the Water and Science Administration, Inspection and Compliance Program, in writing of the date of the first discharge.

X. NUTRIENT OFFSET PLAN

The permittee must submit an initial Nutrient Offset Plan (NOP) to the Department for approval no later than 6 months after the effective date of this permit. The NOP shall detail the credits that have been obtained to offset the nutrient loads being discharged in Special Condition I.A above. For total nitrogen, only loads in excess of 4,700 lbs/year need to be offset. For phosphorus, the entire discharged load needs to be offset. Any modifications to the NOP must be submitted to the Department for approval at least 6 months before the implementation of those offsets.

The permittee must generate an Annual Nutrient Report, delivered to the Department the first week in February of each year.

1. The Annual Nutrient Report will detail Total Phosphorus for the growing season (May – October), and the annual load for Total Phosphorus.

2. The Annual Nutrient Report will detail the annual load for Total Nitrogen and the status of meeting a permit goal¹ of Total Nitrogen reduction by 33%. If the 33% reduction goal is not met by the 2nd year of the permit, the permittee must provide a justification why this isn't achievable in the annual report. Failure to provide such justification shall be considered a permit noncompliance.
3. If the permittee cannot meet the limits for nutrients, the loads must be offset consistent with their approved NOP.

Y. STORMWATER DISCHARGES ASSOCIATED WITH SEAFOOD PROCESSING

No later than 60 days prior to commencing any discharges from seafood processing activities, the permittee shall apply for coverage under the *General Permit for Discharges Associated with Seafood Processing* (currently State Permit No. 11-SE, NPDES Permit No. MDG520000). A copy of the 11-SE permit, notice of intent (NOI) and associated guidance are available at "<https://mde.maryland.gov/programs/permits/watermanagementpermits/pages/seafood.aspx>".

II. GENERAL CONDITIONS

A. MONITORING AND REPORTING

1. REPRESENTATIVE SAMPLING

Samples and measurements taken as required herein shall be taken at such times as to be representative of the quantity and quality of the discharges during the specified monitoring periods.

2. REPORTING-MONITORING RESULTS SUBMITTED MONTHLY

Monitoring results obtained during each calendar month shall be summarized and submitted electronically using NetDMR. Results shall be submitted to the Department via NetDMR no later than the 28th of the month following the end of the reporting month. Specific requirements regarding submittal of data and reports using NetDMR are described below:

- a. NetDMR is a U.S. EPA tool allowing regulated Clean Water Act permittees to submit monitoring reports electronically via a secure Internet application. The permittee must apply for access to NetDMR at www.epa.gov/netdmr and register for a NetDMR Webinar. Before the permittee can submit official DMRs using NetDMR the permittee must attend a training Webinar and successfully set-up and submit test monitoring results electronically.
- b. The permittee may be eligible for a temporary waiver by MDE from NPDES electronic reporting requirements if the permittee has no current internet access and is physically located in a geographic area (i.e., zip code) that is identified as under-served for broadband internet access in the most recent National Broadband Map from the Federal Communications Commission (FCC); or if the permittee can demonstrate that such electronic reporting of the monitoring data and reports would pose an unreasonable burden or expense to the NPDES-permitted facility. Waiver requests must be submitted in writing to the Department for written approval at least 120 days prior to the date the permittee

¹ The WIP establishes goals for reductions for nutrients. The reduction is not a limit.

would be required under this permit to begin using NetDMR. This demonstration shall be valid for one (1) year from the date of the Department approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to the Department unless the permittee submits a renewed waiver request and such request is approved by the Department.

3. SAMPLING AND ANALYSIS METHODS

The analytical and sampling methods used shall conform to procedures for the analysis of pollutants as identified in Title 40 CFR Part 136 - "Guidelines Establishing Test Procedures for the Analysis of Pollutants" unless otherwise specified.

4. DATA RECORDING REQUIREMENTS

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. the exact place, date, and time of sampling or measurement;
- b. the person(s) who performed the sampling or measurement;
- c. the dates and times the analyses were performed;
- d. the person(s) who performed the analyses;
- e. the analytical techniques or methods used; and
- f. the results of all required analyses.

5. MONITORING EQUIPMENT MAINTENANCE

The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation to insure accuracy of measurements.

6. ADDITIONAL MONITORING BY PERMITTEE

If the permittee monitors any pollutant, using approved analytical methods as specified above, at the locations designated herein more frequently than required by this permit, the results of such monitoring, including the increased frequency, shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report form (EPA No. 3320-1).

7. RECORDS RETENTION

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed, calibration and maintenance of instrumentation, and original recordings from continuous monitoring instrumentation shall be retained for a minimum of three years. This period shall be automatically extended during the course of litigation, or when requested by the Department.

B. MANAGEMENT REQUIREMENTS

1. CHANGE IN DISCHARGE

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit at a level in excess of that

authorized shall constitute a violation of the terms and conditions of this permit. The permittee shall report any anticipated facility expansions, production increases, or process modifications which will result in new, different or an increased discharge of pollutants by submitting a new application at least 180 days prior to the commencement of the changed discharge except that if the change only affects a listed pollutant and will not violate the effluent limitations specified in this permit, by providing written notice to the Department. Following such notice, the permit may be modified by the Department to include new effluent limitations on those pollutants.

2. NONCOMPLIANCE WITH EFFLUENT LIMITATIONS

If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum or daily minimum effluent limitation specified in this permit, the permittee shall notify the Inspection and Compliance Program by telephone at (410) 537-3510 within 24 hours of becoming aware of the noncompliance. Within five calendar days, the permittee shall provide the Department with the following information in writing:

- a. a description of the non-complying discharge including its impact upon the receiving waters;
- b. cause of noncompliance;
- c. anticipated time the condition of noncompliance is expected to continue or if such condition has been corrected, the duration of the period of noncompliance;
- d. steps taken by the permittee to reduce and eliminate the non-complying discharge;
- e. steps to be taken by the permittee to prevent recurrence of the condition of noncompliance; and
- f. a description of accelerated or additional monitoring conducted by the permittee to determine the nature and impact of noncompliant discharge.

3. FACILITIES OPERATION

All treatment, control and monitoring facilities, or systems installed or used by the permittee are to be maintained in good working order and operated efficiently.

4. ADVERSE IMPACT

The permittee shall take all reasonable steps to minimize or prevent any adverse impact to waters of the State or to human health resulting from noncompliance with any effluent limitation specified in this permit, including any accelerated or additional monitoring necessary to determine the nature and impact of the noncompliant discharge.

5. BYPASSING

Any bypass of treatment facilities necessary to maintain compliance with the terms and conditions of this permit is prohibited unless:

- a. the bypass is unavoidable to prevent a loss of life, personal injury or substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources;
- b. there are no feasible alternatives;
- c. notification is received by the Department within 24 hours (if orally notified, then followed by a written submission within five calendar days of the permittee's becoming aware of the bypass). Where the need for a bypass is known (or should have been known) in advance, this notification shall be submitted to the Department for approval at least ten calendar days before the date of bypass or at the earliest possible date if the period of advance knowledge is less than ten calendar days; and
- d. the bypass is allowed under conditions determined by the Department to be necessary to minimize adverse effects.

6. CONDITIONS NECESSARY FOR DEMONSTRATION OF AN UPSET

An upset shall constitute an affirmative defense to an action brought for noncompliance with technology-based effluent limitations only if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence, that:

- a. an upset occurred and that the permittee can identify the specific cause(s) of the upset;
- b. the permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;
- c. the permittee submitted a 24-hour notification of upset in accordance with the reporting requirements of General Condition II.B.2 above;
- d. the permittee submitted, within five (5) calendar days of becoming aware of the upset, documentation to support and justify the upset; and
- e. the permittee complied with any remedial measures required to minimize adverse impact.

7. REMOVED SUBSTANCES

Wastes such as solids, sludges, or other pollutants removed from or resulting from treatment or control of wastewaters, or facility operations, may require additional permits. Wastes shall be disposed of in a manner to prevent any removed substances or runoff from such substances from entering or from being placed in a location where they may enter the waters of the State.

8. POWER FAILURE

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

- a. provide an alternative power source sufficient to operate the wastewater collection and treatment facilities or,

- b. halt, reduce or otherwise control production and all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater collection and treatment facilities.

C. RESPONSIBILITIES

1. RIGHT OF ENTRY

The permittee shall permit the Secretary of the Department, the Regional Administrator for the Environmental Protection Agency, or their authorized representatives, upon the presentation of credentials to:

- a. enter upon the permittee's premises where an effluent source is located or where any records are required to be kept under the terms and conditions of this permit;
- b. access and copy, at reasonable times, any records required to be kept under the terms and conditions of this permit;
- c. inspect, at reasonable times, any monitoring equipment or monitoring method required in this permit;
- d. inspect, at reasonable times, any collection, treatment, pollution management, or discharge facilities required under this permit; and
- e. sample, at reasonable times, any discharge of pollutants.

2. TRANSFER OF OWNERSHIP OR CONTROL OF FACILITIES

In the event of any change in ownership or control of facilities from which the authorized discharge emanates, the permit may be transferred to another person if:

- a. the permittee notifies the Department in writing, of the proposed transfer;
- b. a written agreement, indicating the specific date of proposed transfer of permit coverage and acknowledging responsibilities of current and new permittees for compliance with the liability for the terms and conditions of this permit, is submitted to the Department; and
- c. neither the current permittee nor the new permittee receive notification from the Department, within 30 calendar days, of intent to modify, revoke, reissue or terminate the existing permit.

3. REAPPLICATION FOR A PERMIT –[Reserved]

4. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Section 308 of the Clean Water Act, 33 U.S.C. § 1318, all submitted data shall be available for public inspection at the offices of the Department and the Regional Administrator of the Environmental Protection Agency.

5. PERMIT MODIFICATION

A permit may be modified by the Department upon written request of the permittee and after notice and opportunity for a public hearing in accordance with and for the reasons set forth in 40 CFR § 122.62 and 122.63.

6. PERMIT MODIFICATION, SUSPENSION, OR REVOCATION

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked and reissued in whole or in part during its term for causes including, but not limited to, the following:

- a. violation of any terms or conditions of this permit;
- b. obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- c. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
- d. a determination that the permitted discharge poses a threat to human health or welfare or to the environment and can only be regulated to acceptable levels by permit modification or termination.
- e. upon a final, unreviewable determination that the permittee lacks, or is in violation, of any federal, state, or local approval necessary to conduct the activities by this permit.

7. TOXIC POLLUTANTS

If a toxic effluent standard or prohibition (including any schedule of compliance specified in such toxic effluent standard or prohibition) is established by the U.S. Environmental Protection Agency, or pursuant to Section 9-314 of the Environment Article, Annotated Code of Maryland, for a toxic pollutant which is present in the discharges authorized herein and such standard is more stringent than any limitation upon such pollutant in this permit, this permit shall be revoked and reissued or modified in accordance with the toxic effluent standard or prohibition and the permittee so notified. Any effluent standard established in this case for a pollutant which is injurious to human health is effective and enforceable by the time set forth in the promulgated standard, even absent permit modification.

8. OIL AND HAZARDOUS SUBSTANCES PROHIBITED

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibility, liability, or penalties to which the permittee may be subject under Section 311 of the Clean Water Act (33 U.S.C. § 1321), or under the Annotated Code of Maryland.

9. CIVIL AND CRIMINAL LIABILITY

Except as provided in permit conditions on "bypassing," "upset," and "power failure," nothing in this permit shall be construed to preclude the institution of any legal action nor relieve the permittee from civil or criminal responsibilities and/or penalties for noncompliance with Title 9 of the Environment Article, Annotated Code of Maryland or any federal, local, or other State law or regulation.

10. PROPERTY RIGHTS/COMPLIANCE WITH OTHER REQUIREMENTS

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, State or local laws or regulations.

11. SEVERABILITY

The provisions of this permit are severable. If any provisions of this permit shall be held invalid for any reason, the remaining provisions shall remain in full force and effect. If the application of any provision of this permit to any circumstances is held invalid, its application to other circumstances shall not be affected.

12. WATER CONSTRUCTION AND OBSTRUCTION

This permit does not authorize the construction or placing of physical structures, facilities, or debris, or the undertaking of related activities in any waters of the State.

13. COMPLIANCE WITH WATER POLLUTION ABATEMENT STATUTES

The permittee shall comply at all times with the provisions of the Environment Article, Title 7, Subtitle 2 and Title 9, Subtitle 3 of the Annotated Code of Maryland and the Clean Water Act, 33 U.S.C. § 1251 et seq.

14. ACTION ON VIOLATIONS

The issue or reissue of this permit does not constitute a decision by the State not to proceed in administrative, civil, or criminal action for any violations of State law or regulations occurring before the issue or reissue of this permit, nor a waiver of the State's right to do so.

15. CIVIL PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS

In addition to civil penalties for violations of State water pollution control laws set forth in Section 9-342 of the Environment Article, Annotated Code of Maryland, the Permittee shall be subject to civil penalty set forth in 33 U.S.C. § 1319 (d) of the Clean Water Act as adjusted for inflation according to 40 CFR, §19.4.

16. CRIMINAL PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS

In addition to criminal penalties for violations of State water pollution control laws set forth in Section 9-343 of the Environment Article, Annotated Code of Maryland, the Permittee shall be subjected to criminal penalty set forth in 33 U.S.C. § 1319 (c).

17. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

18. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to the Director shall be signed and certified as required by 40 CFR 122.22.

19. REOPENER CLAUSE FOR PERMITS

This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301, 304, and 307 of the Clean Water Act [33 USCS §§ 1311, 1314, 1317] if the effluent standard or limitation so issued or approved:

- a. contains different conditions or is otherwise more stringent than any effluent limitation in this permit or
- b. controls any pollutant not limited in this permit. This permit, as modified or reissued under this paragraph, shall also contain any other requirements of the Act then applicable.

D. AUTHORITY TO ISSUE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS

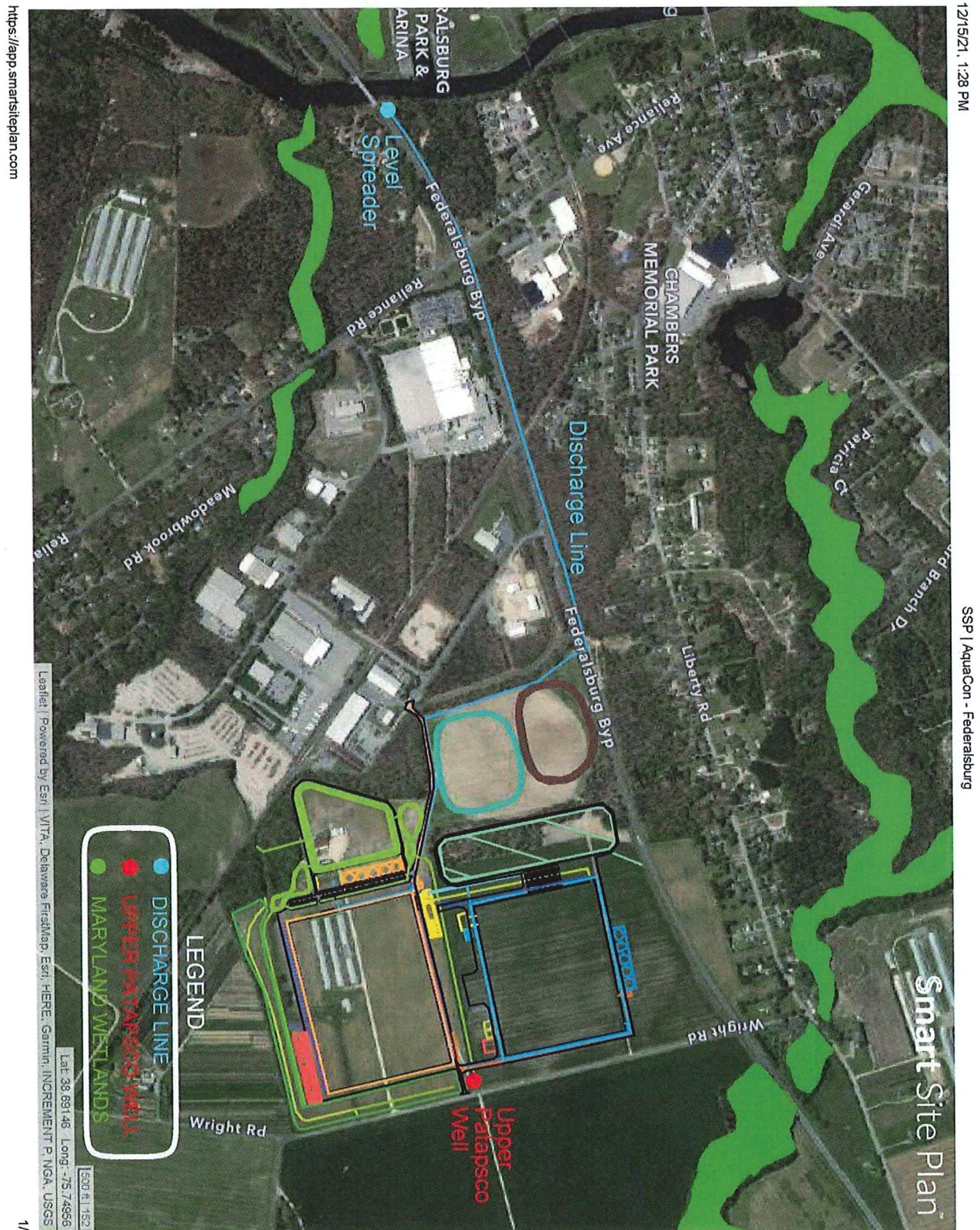
On September 5, 1974, the Administrator of the U.S. Environmental Protection Agency approved the proposal submitted by the State of Maryland for the operation of a permit program for discharges into navigable waters pursuant to Section 402 of the Clean Water Act, 33 U.S.C. Section 1342.

Pursuant to the aforementioned approval, this discharge permit is both a State of Maryland discharge permit and a NPDES permit.

This permit and the authorization to discharge shall expire at midnight on the expiration date. The permittee shall not discharge after that date unless a new application has been submitted to the Department in accordance with the renewal application provisions of this permit.

D. Lee Currey, Director
Water and Science Administration

Image 1. Proposed facility map including supply well, discharge line, level spreader/outfall, and wetland locations in the surrounding area.





THE SENATE OF MARYLAND
ANNAPOLIS, MARYLAND 21401

August 31, 2022

Ms. Jeannie Haddaway-Riccio, Secretary
Maryland Department of Natural Resources
580 Taylor Ave.
Annapolis, MD 21401

Mr. Horacio Tablada, Secretary
Maryland Department of the Environment
1800 Washington Blvd.
Baltimore, MD 21230

Dear Secretary Haddaway-Riccio and Secretary Tablada,

Maryland's nascent aquaculture industry produces important economic benefits to the state and functions as a supportive complement to the region's iconic wild fisheries. Historically, Maryland aquaculture has focused on native species grown within tidal waterways. However, new methods and technology – some of which were developed in-state – create the potential for land-based systems using non-native species. We recognize and support your continued assistance to the aquaculture industry with sensible and balanced regulation and the actions of the General Assembly over the past 20 years reflect the same commitment.

As the first proposed large land-based facility in Maryland, the draft permit for the AquaCon indoor salmon facility in Federalsburg has raised a number of questions and significant concerns from residents, environmental advocates and the scientific community. It is critical that environmental considerations are fully screened to safeguard local water quality and the only known active Atlantic Sturgeon spawning habitat in the state. Furthermore, as this facility would set a new standard and precedent for land-based aquaculture in Maryland, it is imperative that the requirements of all discharge permits anticipate issues unique to this type of facility and are written conservatively - to prevent negative impacts that could inhibit further development of land-based aquaculture across the state.

The permit, as drafted, acknowledges many of these concerns without fully addressing how they will be managed by the applicant. We believe the following questions have not been fully vetted and must be answered before issuing final discharge permits and allowing the facility to begin construction:

For the Department of Natural Resources:

1. The permit documents reference potential impacts to juvenile sturgeon. What are those potential impacts and how would it affect the overall population? Would there be impacts to the eggs that are laid on the bottom of the creek?
2. What information is available about the potential impacts of Geosemin on native aquatic species in Marshyhope Creek?

3. Has the state contacted the National Oceanic and Atmospheric Administration (NOAA) regarding potential application of the Endangered Species Act or consequential impacts to the known fragile population of juvenile sturgeon nearby the proposed facility and discharge?

For the Department of the Environment:

1. In the permit it is acknowledged that this facility will cause exceedances of the TMDL in the creek. There is a requirement that the facility management prepares an offset plan within the first 6 months of the permit going into effect. Why isn't the offset plan required before the permit is issued? What potential offsets in this area are plausible that provide the Department reasonable assurance that the applicant can mitigate the exceedance?
2. Flows of 2.3 million gallons of water per day are proposed to be withdrawn from surficial aquifers. As surficial aquifers in the region are generally known to contribute as much as 70% of the total nitrogen load received by local waterways, why does the draft permit not set expectations for treating these nutrients prior to discharge?
3. Given the impacts of climate change, the importance of irrigation to sustain the core industry of the middle Shore – corn and soybean production – will certainly increase. How will the proposed large water withdrawal impact future requests to increase or expand irrigation capacity?
4. How does the Department anticipate the operator will modulate temperature and salinity during adverse conditions, such as river freezes and seasonal variations in river flow?
5. Why does the permit not include contingencies for a major failure or a massive salmon die-off?
6. The draft permit is based in part on regulatory tools developed for an unbuilt facility in Maine. That facility is planned to discharge to Penobscot Bay, a much colder, deeper, and larger waterbody than Marshyhope Creek. How did MDE account for these differences in receiving waters when drafting the permit terms for the AquaCon facility?

We appreciate your attention to these questions. Given that a tentative determination has already been published, we respectfully request responses from your agencies by September 22.

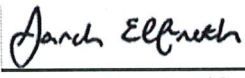
Sincerely,



Senator Paul Pinsky



Senator Guy Guzzone



Senator Sarah Elfreth



Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmf.org

A.G. "Spud" Woodward (GA), Chair Joseph Cimino (NJ), Vice-Chair Robert E. Beal, Executive Director

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

September 12, 2022

Lee Currey, Director
Water and Science Administration
Maryland Department of Environment
1800 Washington Boulevard
Baltimore, Maryland 21230

Dear Director Currey,

The Atlantic States Marine Fisheries Commission (ASMFC or Commission) is the Interstate Fisheries Commission formed by the 15 Atlantic Coast states and chartered by Congress in 1942. The Commission is tasked with management of the nation's estuarine, diadromous, and marine fishery resources which occupy habitats in the member states' jurisdictional waters along the US East Coast (see www.asmf.org). On occasion, the Commission elects to seek additional information regarding proposals that could adversely affect resources under its jurisdiction, and this is one of those occasions. Please see the questions below regarding the proposal from AquaCon Maryland LLC to construct a 25-acre land-based aquaculture facility in the Frank Adams Industrial Park in Federalsburg, Maryland to raise Atlantic salmon. The applicant proposes to place intake and discharge pipes on Marshyhope Creek.

The Commission maintains 27 fishery management plans (FMPs) for ecologically, economically, and culturally important species of fish and shellfish. In response to the severely depleted population status, the Commission and its member states developed and implemented an FMP for Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) in 1990. Through this FMP, the states implemented a moratorium on harvest and possession of Atlantic sturgeon in 1998. This moratorium will remain in place until at least 2037 in order to build a robust female spawning population. In addition, the Federal government declared Atlantic sturgeon endangered under the Endangered Species Act (ESA) in 2012. The Atlantic sturgeon population is beginning to show some modest recovery in response to the severely restrictive management program and the Commission wants to ensure there are no new threats to this recovery. The Commission is interested in this project because Marshyhope Creek serves as the home to the only known spawning population of Federally-listed endangered Atlantic sturgeon in Maryland. Sturgeon need hard bottom substrates in freshwater reaches for successful spawning, so any activity that affects those features directly (e.g., dredging) or indirectly (e.g., sedimentation or saltwater intrusion) would affect Atlantic sturgeon habitat. All life stages of Atlantic sturgeon also require sufficient water quantities and qualities, which are often impacted by the activities mentioned above. Marshyhope Creek's unique sand and cobble substrate is important for sturgeon spawning and has led to a portion of the creek being designated as "critical habitat" under the ESA. In addition, the Commission is currently considering designating the Chesapeake Bay, including the Nanticoke River-Marshyhope Creek estuary a Fish Habitat of Concern for Atlantic sturgeon. Since 2016, there have been more than 27,000 adult sturgeon

detections in Marshyhope Creek during spawning season, including nearly 3,000 detections in the specific area proposed for wastewater discharge. Mark-recapture studies have estimated that 40 or fewer adults migrate and spawn in the Marshyhope each year, most of which are males. Given the high level of adult detections and the limited number of adults that spawn in the river, this clearly indicates these few animals frequently return to this important and unique habitat. These characteristics make the Marshyhope Creek Atlantic sturgeon population extremely unique yet highly vulnerable to disturbance. Marshyhope Creek is also considered important spawning habitat for other ASMFC-managed species, including herring (*Alosa spp.*) and hickory shad (*Alosa mediocris*).

As you are aware, Maryland Department of the Environment has issued a draft permit for groundwater withdrawal and associated surface water discharge into Marshyhope Creek that would enable AquaCon to discharge 2.3 million gallons of wastewater per day. This water is used in purge tanks, where salmon are held prior to harvest, and purged of geosmin, a bicyclic organic hydrocarbon which produces a muddy taste in farmed salmon.

The following are the Commission's questions related to the proposed Atlantic salmon aquaculture facility:

- Maryshope Creek is designated "critical habitat" for the Federally-endangered Atlantic sturgeon, and they have been detected in the area where this discharge is proposed to take place. Has NOAA Fisheries been consulted on this permit for impacts to critical habitat or direct impacts to sturgeon? If not, why?
- How will the discharge of wastewater impact the sand/cobble substrate that is critical to sturgeon spawning? Could discharge of feces, sediment, or increased erosion due to increased stream flow degrade spawning habitat and smother sturgeon eggs and larvae?
- The proposed discharge of cold groundwater in the tidal reaches of Marshyhope Creek is likely to create thermal and salinity gradients which could restrict availability of upstream habitat to sturgeon spawning. How have these effects been evaluated and accounted for?
- Have other alternatives to discharge to Marshyhope Creek been fully evaluated? Are there other discharge/treatment options that would avoid these potential negative impacts?
- Marshyhope Creek is already considered impaired by sediment, nitrogen, and phosphorus pollution due to agricultural and other land uses in the watershed. The draft permit would allow the discharge of nitrogen and phosphorus from the proposed facility in excess of the total maximum daily load of these nutrients for Marshyhope Creek with no specific plan for addressing such overages. Additional nutrient enhancement would negatively impact water quality, potentially leading lower dissolved oxygen and dead zones. How does the draft permit ensure that water quality degradation will not threaten Atlantic sturgeon?
- Relative to nutrients, sediment, chemicals, and pathogens discussed above, what are the testing, monitoring, and reporting requirements associated with this permit? What are the ramifications for exceedance or release of any of these substances?
- What is the impact of the hydrocarbon geosmin on Atlantic sturgeon? Have these effects been evaluated?

Page 3 of 3
Director Currey
September 12, 2022

- What other chemical residues and agents could be present in the discharge? Are there plans to utilize any pharmaceuticals, disinfectants, hormones, or antibiotics in the production of salmon and how would these substances be removed prior to discharge?
- What pathogens or parasites are associated with these types of aquaculture systems and how can it be ensured that these will not be released to the Marshyhope Creek ecosystem?
- What are the plans to address possible escapement of fish in the event of a natural disaster or other systems failure? Atlantic salmon are not native to the region and could cause significant ecological issues if released.

The Commission is considering submitting formal comments by the October 17, 2022 deadline. We request responses to the above questions in time to allow for comments to be developed and submitted by the deadline. On behalf of the 15 Atlantic Coast states, thank you for your attention to this request.

Sincerely,



Robert E. Beal

cc: Horacio A. Tablada, Secretary, Maryland Department of the Environment
Suzanne Dorsey, Deputy Secretary, Maryland Department of the Environment
Paul Hlavinka, Industrial Stormwater Permits Division, Maryland Department of the Environment
Jeannie H. Riccio, Secretary, Maryland Department of Natural Resources
Tony Redman, Chief, Environmental Review Program, Maryland Department of Natural Resources
Kimberly Damon-Randall, NOAA Fisheries, Office of Protected Resources
Kimberly M. Jahnigen Abner, Mayor, Town of Federalsburg
Lawrence DiRe, Town Manager, Town of Federalsburg