



# Maryland

## Department of the Environment

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

Ben Grumbles, Secretary  
Horacio Tablada, Deputy Secretary

April 8, 2019

Mr. Alan Girard  
Chesapeake Bay Foundation  
Headquarters and Maryland State Office  
Philip Merrill Environmental Center  
6 Herndon Avenue  
Annapolis, MD 21403

RE: Valley Proteins, Inc. – Sufficiency of Water Quality Protection for the Transquaking River and Watershed.

Dear Mr. Girard:

In response to the November 16, 2018 joint letter to the Maryland Department of Environment (Department) from the Chesapeake Bay Foundation (CBF) and concerned citizen organizations, staff from the Wastewater Permits Program (and the Office of Attorney General) met with the signatories' representatives on January 22, 2019. I appreciate your assistance and efforts in coordinating this communication and those that have followed. In that meeting we discussed various issues that were raised in the letter. This follow-up letter is directed to each of the signatories' representatives who participated in the meeting. My use of "you" or "your" in the following response is intended to address each of those participants.

I want to begin by thanking each of you for your efforts to try to understand the status of the permit and its relationship to other permits or functions and especially for taking the time to express your concerns to the Department and to invite a discussion. The quality and tone of the discussion was very helpful for Department staff in attendance at our meeting, and I believe we made some initial level of progress in defining or clarifying some of the subject matter. After hearing the discussion and performing further research and review of public documents related to this permit renewal process, I now better understand some of the sources of your questions in your letter and why you have expressed concerns.

The purpose and authority of the wastewater discharge permit is to authorize and regulate the quality and quantity of pollutants directly discharged by the facility/permittee to waters of the state. Valley Proteins has requested to increase their discharge volume, and that proposed "expansion" is required to be addressed in the permit renewal. Therefore, the context of the term

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“expansion” from the point of view of the discharge permit is the proposed future flow increase, with its potential for new quantities of pollutants to be discharged and the permit’s responsibility to acknowledge or address the corresponding additional flow volume to be discharged into waters of the state.

The renewal permit that is needed to authorize the *discharge* expansion is still pending so that no authorization for that expansion has been provided and no such discharge expansion has occurred. It is my understanding that other forms of expansion, such as office, maintenance or warehouse space, has been observed by the public. Nevertheless, any permit decision for allowing the new flow basis is still pending, and no new permit authorization has occurred. I hope our meeting with you also helped to clarify this fact.

The existing permit has remained relevant and protective during its effective period. When the permit was last issued, it included limits to implement the Transquaking TMDL. The TMDL has not changed during this time. Because the TMDL has not changed, we did not choose to prioritize the renewal of this permit above other permit workload demands.

The discharge permit has continued to be fully enforceable. The Department does not typically retain compliance records longer than 3 to 5 years. A review of recent records show several violations over that time. The most significant are two violations of the fecal coliforms limitation and a spill event on the grounds of the facility. The Department has taken enforcement action with regard to these violations.

The Department’s tentative determination regarding the pending application will be ready for publication by this summer. A public participation process that will provide up to a 30 day period for public comment is required (and up to a total of 90 days upon request). You will receive a letter announcing the tentative determination and the date of the public hearing.

Regarding the water appropriations permit, as you know a public process was held and a response to public comments was provided. As we attempted to further explain in our meeting, an increase in the amount of water appropriated for the facility does not mean there is also an automatic increase in effluent discharge or that an equal increase in the authorized discharge has occurred. The issuance of the appropriations permit was not an indication of any decision regarding the discharge permit because the changes to the facility that the appropriations permit enables did not require a revision to the discharge permit. The Department’s appropriations permit group does in fact coordinate with the wastewater permits group to avoid the very discrepancies you were concerned with.

There is available capacity in the current discharge permit’s design basis, but any potential increase from this water appropriations permit is small relative to the existing flow. Other water

appropriation authorizations, in addition to a new discharge permit, would have to occur for the facility to be able to appropriate enough water to significantly increase its discharge flow beyond the historical flow of the current discharge permit. The obligation of regulators to ensure that water quality is protected has not been negated.

While the above facts are true, it is also true that the public has expressed dissatisfaction and confusion over the permitting process. As attendees at our meeting explained, the confusion started with an air operations permit that was published in a paper that was not the publication that the community is used to seeing such permits announced. This resulted in difficulty in being a part of the public process as a result, if I understand what was expressed at our meeting. This occurred after the initial public meeting for the discharge permit renewal. Then the water appropriations permit process followed, leading to further confusion and considerable public concern over the status of Valley Proteins' request for expansion of the discharge permit flow.

While we cannot undo the public confusion that occurred, and the undesirable length of time the process has taken, it is clear that if the various programs within the Department who are involved in processing permits do not convey to the public that they are indeed coordinating with each other, the public will lack a sense of confidence in the results. I use the term "convey" because behind the scenes the Department's programs do coordinate and talk to each other on these matters.

For example, the water appropriations permit staff and the wastewater permits staff did consult each other and coordinate during the permit issuance process for the appropriations permit. Regardless, if the public cannot sense that the permitting programs are aware of relevant activities by other programs, some of the benefits of that internal coordination are lost. I know my program is interested in looking for ways to improve that level of transparency with the public, and we are benefiting from the interaction with you on this issue.

The Department seeks continuous improvement in its processes and organization. Within the past two years, the primary unit for establishing water quality standards and for developing and implementing the Department's primary tool for protecting local and downstream waters in a comprehensive way, known as Total Maximum Daily Loads, or TMDLs, merged with the Department's water, stormwater, and wastewater administration to form the new Water and Science Administration. This reorganization is continuing to evolve in terms of uniting all the water programs as a consolidated team. Interactions and input from stakeholders such as your organizations will continue to help us move forward in a collaborative way.

No matter what level of collaboration exists, misunderstandings may still occur due to the complexity of the subjects. For example, an unfortunate choice of words occurred in one of the documents provided to the public in response to questions regarding the appropriations permit.

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There was a reference made to “20,000,000 *pounds per day* of raw material processed over 5.5 days per week” when it might have been more clearly stated as “20,000,000 *pounds per 5.5 days...*,” as that may have helped resolve further questions.

A second statement was also unclear in the Department’s response document for the water appropriations permit addressing raw material production and capacity-based permit limits. Suffice it to say that for most if not all of the regulated pollutants, the Department has no plans nor basis to authorize any increase in the permit limits because Maryland water quality requirements supercede any federal production-based pollutant allowances for increased production. The current permit’s pollutant loading limits are not partial to production level changes but rather are static, in effect becoming more constraining over time if production levels increase.

The Maryland Department of the Environment does not have any direct responsibility or authority regarding how much product Valley Proteins manufactures or how much raw materials they use. Further, neither the water appropriations permit, nor the air permit, nor the wastewater permit has direct authority to limit the volume of waste they *remove* from their site.

Your letter and our meeting together devoted considerable attention to the subject of sludge and land application. The Department is not aware of any plans by Valley Proteins to land apply (off-site) the wastewater effluent that their system is authorized to treat and discharge to surface waters. Their treatment process does generate agricultural waste that is being reused off-site as a soil amendment under rules managed by the Maryland Department of Agriculture (MDA).

With regard to nonpoint source impacts, if it is not Valley Proteins’ nutrient content being applied to farms in the watershed, then it will be from some other nutrient source in order for such farms to be productive. The advantage posed with the source of nutrients from Valley Proteins is that we can have some accounting of it via our permit. After our meeting with you occurred, we began working with MDA to consider a reasonable approach that might further support MDA’s regulatory authority and procedures with regard to the agricultural-based removed substances from Valley Proteins. The Department will be coordinating with MDA on any appropriate improvements to the discharge permit language, and the results will be included in the tentative permit determination that we expect to publish by this summer for public review.

Our meeting with you also included discussion about some kind of proposed plan for a central holding tank somewhere in the county, which some speculated was related to Valley Proteins’ wastewater. I was told by Valley Proteins that their company was not a participant in such plans. This answer may be based in part on the fact that the company contracts with a third party to fully handle off site reuse of their treatment sludge. Such entities involved with land application must comply with MDA rules that prohibit the application of nutrients to farmland during the winter period from December 16 through February 28. Those without storage comply by taking their

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agricultural waste outside of Maryland. Nevertheless, publicly available information by the County indicates that the County is no longer being asked to consider the plan.

You also posed questions regarding the status of the Transquaking River TMDL. It is unlikely that the existing TMDL for the tidal portion of the Transquaking River will need to be updated anytime in the near future. The modeling for the Bay TMDL is also protective of tidal segments, and the Bay model does get updated with current land use data and bmps. However, the upper portion of the Transquaking River, part of the nontidal segment, did not have a current water quality model, and prior evaluations depended on assumptions associated with a free flowing segment. Clearly the presence of the Higgins Mill Pond complicates that flow.

As a result, and consistent with citizen requests, the Department has recently completed a significant effort to develop a new water quality model of the free-flowing segment into Higgins Mill Pond. Current land use data, such as for animal feeding operations, from the updated Bay Model land use data (2018) for Dorchester County is included as inputs into this new water quality model. The results of this model suggest the need for more stringent requirements from Valley Protein's discharge point to the receiving stream. More information and final model results will be provided in detail to the public and to Valley Proteins in a revised draft permit that will initiate the full public participation process.

Your letter requested details about how the "impaired local surface and ground waters will be impacted by potentially increased discharges from the Facility..." As noted above, permit staff skilled in water quality modelling have recently completed a detailed analysis of the stream segment that receives the permitted discharge from Valley Proteins. The result of that model will be new and more stringent permit requirements to be included in the Department's draft permit regardless of whether the facility chooses to move forward with their proposed plans to increase their discharge volume.

The discharge permit for Dorchester Lumber Company was referenced in your letter as an example of a need to revise the TMDL that exists for the tidal portion of the Transquaking River. Instead, that permit involves an insignificant level of nutrients relative to the TMDL, and no additional monitoring was determined to be necessary in the permit for nitrogen or phosphorus as a result.

The letter also referenced a second new discharger, Beaver Run Mobile Home Park, as an example of a need to revise the existing TMDL. However the resulting permit for Beaver Dam Mobile Homes provides an improvement, not an increase, to the previously existing discharge of pollutants. The 2015 information that you quoted from was actually information supporting the fact that the new permit for the proposed Beaver Run wastewater system to the Higgins Millpond and Transquaking River would result in reductions to both surface and groundwater from the levels that were historically discharged from that site. Specifically, the permit was designed to reduce the discharge

of nitrogen to surface water by 94% *below* prior historical levels that were estimated to be 315 lbs/year.

We anticipate completion of a draft permit and factsheet for Valley Proteins that will include the items we have indicated above, as well as the beginning of the public process, by the beginning of summer. The public process will include a public hearing and a public comment period. Your organizations are on our interest list, and we will directly notify each of you on the details of the hearing date and the comment period. Our goal is to have a final permit issued by this fall.

We also plan to arrange for a follow-up meeting with you prior to completing our draft permit, and we will be coordinating with CBF on the details. I plan to invite staff from the Department's Air and Radiation Administration to help address one or more of the related questions resulting from our last meeting.

Finally, included in the table below are some additional responses to the concerns raised in your letter. Other questions were forwarded to me after our last meeting. Two of those questions are addressed in Part B of the table below. The other questions that were forwarded to me after the meeting will be addressed either in our next meeting or through a separate correspondence.

**Additional Responses to November 16, 2018 Letter on Valley Proteins**

Comment/Question	MDE's Response
1. It is not clear how or whether the facility has remained in compliance with its now eighteen-year-old discharge permit, or whether the permit is sufficient to cover current operations and comply with applicable TMDLs.	<p><u>Is the permittee in Compliance?</u> - The permittee has been in general compliance with the current permit except for some self-reported issues. The most recent review of DMRs (January 2016 - October 2018) shows that the permittee has not timely submitted some monitoring results on several occasions (81 times out of 1076 results, 7.5% of the time). The last time incomplete results were received was with the December 2017 DMR. Other than the submittal problems, the most recent episodes of permit problems are as follows:</p> <ul style="list-style-type: none"><li>● 11/30/2018 - There was a BOD exceedance. The reported 40.3 lb/day exceeded the daily max limit of 39 lb/day.</li><li>● 11/30/18 - There were two ammonia exceedances. The reported monthly average value of 7.2 mg/L exceeded the limit of 5.5 mg/L. Additionally, the reported daily maximum value of 23.2 exceeded the limit of 23 mg/L.</li><li>● 9/30/18 - There was a Fecal Coliform exceedance. The reported 293.8 MPN/100mL exceeded the monthly average limit of 200 MPN/100mL.</li></ul>

- 7/31/18 - There was a Fecal Coliform exceedance. The reported monthly average value of 1199.3 MPN/100mL exceeded the limit of 200 MPN/100mL.
- 08/27/2017 - There was an accidental sludge release (on-site) from the Aeration Tank due to mechanical failure. It was estimated that 100-500 gallons were spilled. Our Compliance Program considers this spill to be a singular event that has been resolved and cleaned up.

Is the Permit Complying with TMDLs? - The current permit complies with TMDLs. The current TMDLs applicable to this permit are the Total Maximum Daily Loads of Nitrogen and Phosphorus for the Transquaking River Dorchester, Maryland and the Chesapeake Bay TMDL.

In the Transquaking River TMDL, the facility has specific Total Nitrogen (TN) and Total Phosphorus (TP) Waste Load Allocations (WLAs) included as limits. Total Nitrogen is limited in the current permit, from April 1 through November 30, to 41.0 lbs/day monthly average and 82.0 lbs/day daily maximum. The 41.0 lbs/day limit is equivalent to 1,231 lbs/month TN WLA in the TMDL. Total Phosphorus is limited in the current permit year-round to 4.1 lbs/day monthly average and 8.2 lbs/day daily maximum. The 4.1 lbs/day limit is equivalent to 123 lbs/month TP WLA in the TMDL. The WLAs for the facility (formerly known as Darling International, Inc.) are shown below.

*Technical Memorandum  
Significant Nutrient Point Sources and Nonpoint Sources in the  
Transquaking River Watershed*

**Table 1A  
Loads Attributed to Significant Point Sources for  
Low-Flow and Average Annual Nitrogen TMDLs<sup>a</sup>**

Source Name	Permit Number	TN Load <i>lbs/month</i>	Flow <i>mgd</i>	Concentration <i>mg/l</i>
Darling International, Inc	MD0003247	1,231	0.246	20

**Table 1B  
Loads Attributed to Significant Point Sources for  
Low-Flow and Average Annual Phosphorus TMDLs<sup>a</sup>**

Source Name	Permit Number	TP Load <i>lbs/month</i>	Flow <i>mgd</i>	Concentration <i>mg/l</i>
Darling International, Inc	MD0003247	123	0.246	2

In the Bay TMDL, the facility (also formerly known as JRC Enterprises, Inc.) is listed as part of the aggregate industrial facilities. Thus there are no separate or additional TN, TP and sediment WLAs that apply to the facility under the Bay TMDL, similar to minor (<.5 mgd) POTWs under the Bay TMDL.

2. Expansion of the facility appears to be going forward without a clear and comprehensive public plan to accommodate the expansion and associated increased discharge in compliance with the Transquaking TMDL.

As a result of our meeting on January 22, 2019, we now better understand your concerns about construction\expansion at the facility. The concerns include the air permits issued to the facility. To investigate those concerns we looked at the current Air and Radiation Administration operating permit for the facility (# 019-0029) issued November 1, 2017. The table below details all of the permitted emissions equipment covered by this permit. You'll see that in 2017 three (3) boilers were added and modifications were made to the one (1) feather rendering line at the facility.

Registered installations from the ARA permit to operate:

This permit-to-operate incorporates requirements for the following registered installations:

Registration No.	Description	Date of Installation
5-0024	One (1) Trane MCF4-70 natural gas or No.2 fuel oil/biofuels (yellow grease & tallow) boiler rated at 100 million Btu per hour heat input, but derated to 99.5 million Btu per hour.	11/1987
5-0025	One (1) Zum Keystone #1542 natural gas or No.2 fuel oil/biofuels (yellow grease & tallow) boiler rated at 49.5 million Btu per hour heat input.	9/1991
0019-0029-5-0049	One (1) Babcock and Wilcox natural gas/No. 2 fuel oil fired boiler rated at 98.4 million Btu per hour heat input, equipped with low NO <sub>x</sub> burners and flue gas recirculation.	2010
019-0029-5-0060	One (1) Cleaver Brooks natural gas fired boiler rated at 29.3 MMBtu/hr. This boiler may be fired on No. 2 fuel oil or saleable fat during periods of natural gas curtailment.	Est. 2017 (though built prior to 1989)
019-0029-5-0061 & 5-0062	Two (2) Johnston natural gas fired boilers, each rated at 60.5 MMBtu/hr. These boilers may be fired on No. 2 fuel oil or saleable fat during periods of natural gas curtailment.	Est. 2017
019-0029-8-0063	One (1) Meat rendering line Process (Poultry offal processing) including four (4) Rietz disintegrators, one (1) fine ground precrusher, two (2) double-effect falling film evaporators with integral condensers, one (1) shell-n-tube condenser, one (1) Marley cooling tower, one (1) TST 100 Stord cooker with integral condenser and associated process equipment  The Meat Process line is controlled with the following: one (1) venturi scrubber for non-condensable gases, one (1) venturi scrubber for high intensity gases, one (1) single-stage packed tower scrubber to treat non-condensable and high intensity gases, two (2) 1500 HP Johnston and one (1) 700 HP Cleaver Brooks boilers to treat non-	1988-current



	condensable gases (alternate control scenario) and one (1) room air scrubber.	
019-0029-8-0064	One (1) Feather rendering line Process (Feather and Blood processing) Process including three (3) continuous feather hydrolysers with integral condensers, two (2) continuous feather meal Atlas dryers, one (1) Atlas-Stord TST-100 dryer with integral condenser including a coagulator and associated feather and blood processing equipment.  The Feather Process Line is controlled with the following: one (1) venturi scrubber, one (1) two-stage packed tower air scrubber, two (2) 1500 HP Johnston and one (1) HP Cleaver Brooks boiler to treat non-condensable gases (alternate control scenario) and one (1) room-air packed tower scrubber.	1970- Modification 2017
8-0065	Meal loadout, no control device	
Not Registered	One (1) 15,000-gallon above ground storage tank for No.2 fuel oil.	1995

Our assessment at the meeting was that it was possible that air-related modifications could be done without necessitating modifications to the water discharge permit (i.e. these changes could be made without increasing the flow from the facility). To confirm our initial assessment, we looked at the flow from the facility for calendar year 2018 and estimated that the facility discharged, as an annual average approximately 135,000 gallons per day (gpd). This flow from the facility is not an increase; in fact it is below the long term average. So while it is understandable that the physical construction can be considered as a facility expansion, this was not the expansion that directly results in the wastewater discharge increasing to 575,000 gpd. For such an expansion to occur, the discharge permit will have to be revised and reissued.

Once we have completed a tentative determination (TD) on the application notice will be published in a newspaper local to the facility (we have been publishing in The Daily Banner). We will also send notice of the TD to interested parties. We will make the tentative determination draft permit and fact sheet available to the public on our website. The notice will contain instructions on how the public can access the draft permit and fact sheet. We will have a 30-day public comment period (plus the allowed extension upon request to a total of 90 days). We also will hold a public hearing to accept oral comments.

The application being processed consists of an original application plus two (2) application amendments. Valley Proteins submitted an application on June 1, 2004, for renewal of a permit to discharge an average of 150,000 gallons per day of treated process wastewater from a poultry rendering

	<p>facility. On May 5, 2014, the applicant submitted a permit modification request to increase discharge from an average of 150,000 gallons per day to 575,000 gallons per day of treated process wastewater. We published a Notice of a Public Informational Meeting on 7/18/2014 and 7/25/2014. On September 17, 2015, Valley Proteins noted the inclusion of a Vehicle Maintenance Building which included a truck wash area. All requests/updates are combined into one application now called 04-DP-0024.</p>
<p>3. The issuance of the water appropriation permit to accommodate expansion without public explanation on how the increased discharge volumes from the expansion will be managed seems to negate the obligation of regulators to ensure that water quality is protected.</p>	<p>The appropriations permit is not a discharge permit expansion. The appropriation permit covers activities that withdraw water from State's surface and/or groundwater. Uses of water do not automatically translate to discharge increases because recycling can be involved, as well as other sources of water consumption such as evaporative losses, etc. For this appropriations permit, a limited amount of additional flow (from 115,000 gallons per day to 150,000 gallons per day) was requested primarily due to evaporative losses via the boiler system. While the appropriations permit is concerned about flow volumes, the discharge permit is focused on limiting pollutant concentrations and pollutant loadings.</p> <p>The wastewater permits program coordinates with MDE's TMDL program to develop a permit that implements compliance with all TMDLs. Loading limits in the current discharge permit, which remains in full force and effect, ensure that even if a new increase in flow were to occur, the permit will not allow violations of existing water quality limits or of any TMDL requirements without triggering a permit violation.</p> <p>No approval of any new or increased flow expansions will occur without public explanation on how the increased volumes from the expansion will be managed. As noted elsewhere in this response, we expect a draft renewal permit to be published by this summer. At that point a public notice (TD) will be published, a hearing will be scheduled and there will be a public comment period, all before any final determination is issued on the permit.</p>
<p>4. Redirecting some of the rendering Facility's discharge to a land application without a permit would be inconsistent with the requirements of the Transquaking TMDL and put groundwater further at risk.</p>	<p>The Department does not completely agree. A discharge permit is not the only tool to protect groundwater and it may not necessarily be the best tool in every situation. Rather, reuse of the effluent <i>without</i> being guided by the well established protocols of the Maryland Department of Agriculture including a Nutrient Management Plan would be inconsistent with the TMDL and/or put groundwater at risk. The fact is that prior owner(s) did have a permit to spray irrigate and did ultimately impact groundwater such that the site is no longer authorized for spray irrigation of effluent. The primary groundwater impact was however likely the result of an unlined treatment lagoon. The experience at this site does not contradict the view that the implementation of a nutrient management plan at a farm under the protocols</p>

	<p>managed by the Department of Agriculture for reuse of effluent as a nutrient source can be as effective or more effective than a groundwater discharge permit authorizing the discharge of waste on the same property owned and operated by the wastewater generator/discharger.</p> <p>The current permit prohibits the application of wastewater to the ground on site (Special Condition K.). There has been no onsite spray irrigation of treated wastewater at this facility since 1991. The current owner of the facility, the national corporation Valley Proteins, Inc., did not obtain ownership of the facility until 2013, or 22 years after land application was no longer authorized in the permit..</p> <p>Valley Proteins' current permit requires that the facility report on how removed substances generated at the facility are disposed of. (Removed substances are wastes such as solids, sludges, or other pollutants removed from or resulting from treatment or control of wastewater, or facility operations.) Removed substances are currently disposed of through a licensed hauler, Denali Water Solutions, LLC.</p>
<p>5. If, in fact, the Facility is producing wastewater or other discharges that are land-applied, then those discharges must be covered by a groundwater discharge permit and appropriate monitoring for groundwater contamination must be included.</p>	<p>In preparing the tentative permit determination, the Department is investigating ways to improve on the current permit's removed substances reporting requirements.</p> <p>For the property owned by Valley Proteins, there are groundwater monitoring requirements in the current permit due to, now discontinued, spray irrigation fields and formerly leaking waste lagoons. The nitrogen concentrations have dropped and are at normal levels at six of the eight installed monitoring wells. It is anticipated that in the renewal permit we will still require that nitrogen concentrations in groundwater be monitored at two (of eight) of the remaining wells.</p> <p>Case # 2635 is no longer active. Dorchester County Board of Appeals reports on their <a href="#">website</a> (and <a href="#">Facebook page</a>) that Case #2635 – Edmond H. Burns IV &amp; Candy L. Burns has been formally withdrawn as of 1/10/2019. The case was for – Edmond &amp; Candy Burns, Special Exception request for the storage of agricultural fertilizer in the AC, Agricultural Conservation Zoning District.</p>
<p>B.1. Subsequent question: investigate the dam's safety should the flow from Valley Protein increase from 150,000</p>	<p><u>The design of the dam will easily accommodate the additional flow.</u> The proposed flow increase to the river is .7 cfs (425,000 gpd). No stream flow data was available on this portion of the Transquaking River. Thus a proportional drainage area correlation to a nearby stream gauging station on the Chicamacomico River Near Salem, MD (USGS Gauge # 01490000) was used as a proxy. The median and mean flows are given in the table below.</p>

to 575,000 gallons per day (gpd).

**USGS 01490000 CHICAMACOMICO RIVER NEAR SALEM, MD**

**Dorchester County, Maryland**

**Hydrologic Unit Code 02080110**

**Latitude 38°30'42.0", Longitude 75°52'47.7" NAD83**

**Drainage area 15.0 square miles**

**Gage datum 2.88 feet above NAVD88**

<b>Median</b>	<b>Mean</b>	
25	37	cubic feet per second

**Proportional Numbers for Higgins Mill Pond Dam**

**Drainage area 11.4 square miles**

<b>Median</b>	<b>Mean</b>	
19.0	28.1	cubic feet per second
12,280,022	18,174,432	gallons per day

To be conservative we chose the lower of the statistics (the median). Per this flow the dam is typically seeing a flow of 19 cfs (12,280,022 gpd). Should Valley Proteins discharge increase the dam will see less than 4% more water. So the flow through the dam would increase to about 19.7 cfs (12,705,022 gpd).

Per MDE's Dam Safety Program the dam was built with a Spillway Capacity of 3320 cfs. I.e. the dam was built to safely handle flows **168** times greater than this increased flow. Additionally the spillways can handle the 100-year storm and still have 1 foot of freeboard.

	<p>Also from MDE's Dam Safety Program we compiled the following specifications on the dam:</p> <p>Dam#: 126 (NID#): (MD00126) AI:38740 Dam Type: Earth DS Hazard: LOW Purpose: Recreation Year Built: 1801 Year Modified: 1999H Last Inspection Date: 5/30/2014 Condition: FAIR Drainage Area: 11.4 sq. miles Lake name: Higgins Millpond Surface Area: 152 acres Height: 9 feet Dam Length: 805 ft Normal Pool Depth: 4 -5 ft Spillway Type: 100 ft wide sheet pile principal spillway and 50 ft wide grass emergency spillway Spillway Capacity: Total Flow = 3320 cfs; Principal = 2480 cfs, Emergency = 838 cfs Percent SDF<sup>1</sup>: 100%; Passes 100-year storm with 1 foot of freeboard</p>
<p>B.2. Subsequent Question: Does land distribution of sludge generated by Valley's rendering process constitute transfer of point source pollution to non point source pollution within same impaired watershed?</p>	<p>No. It does not constitute a "transfer". Only pollutants that are <i>actually</i> discharged from a point source (such as a pipe or conveyance) to surface waters of the state are considered "point source pollution". If potential pollutants are prevented from being released through a point source, and instead are suitable for beneficial use such as agricultural waste under a nutrient management plan, then that release is appropriately managed as a nonpoint source. Beneficial use of wastewater or its byproducts prior to entering waters of the state is a vital option for maintaining and restoring waters of the state. However there may be opportunity for additional reporting and tracking of that beneficial use through the point source's removed substances reporting requirements.</p>

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<sup>1</sup> spillway design flood (SDF) is the flood used to design a dam spillway; it's also the maximum flow that can pass through a spillway without causing serious structural damage.

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Thank you again for your letter and the opportunity to meet with you. We look forward to continuing to work with you in the very near future and throughout the formal public participation period this summer.

Sincerely,

A handwritten signature in black ink that reads "Ed Stone". The signature is written in a cursive, flowing style.

Ed Stone

Wastewater Permits Program Manager

Water and Science Administration

Maryland Department of Environment

cc: Fred Pomeroy, Dorchester Citizens for Planned Growth  
Matt Pluta, ShoreRivers  
Patricia Comella, League of Women Voters of the Mid-Shore of Maryland  
Richard Ball, Dorchester Citizens for Planned Growth  
Roman Jesien, Dorchester Citizens for Planned Growth