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## **I. BACKGROUND**

### **A. The Transquaking River and Transquaking River Watershed**

The Transquaking River originates south of East New Market, Maryland and “flows approximately 23.2 miles to its confluence with the Chesapeake Bay, about 7 miles due south of Bestpitch through Fishing Bay.” EPA, DECISION RATIONALE: TMDLS OF NITROGEN AND PHOSPHORUS FOR THE TRANSQUAKING RIVER DORCHESTER CO., MD, at 2 (2000). The Transquaking River “is tidal throughout its navigable reach, which extends from the highly depositional delta area at its mouth for approximately 20.5 miles upstream to an area known as Higgins Millpond.” MDE-05434. Additionally, “[t]he Transquaking River and its tributaries are designated Use I — water contact recreation, and protection of nontidal warm water aquatic life... parts of the lower mainstem and tributaries of the Transquaking River are designated Use II — support of estuarine and marine aquatic life and shellfish harvesting” MDE-01585.

The Transquaking River watershed experiences a “critical season for excessive algal growth...during the summer months for low flow and average flow conditions. During low flow conditions the stream is poorly flushed, resulting in slow moving, warm water, which is susceptible to excessive algal growth.” MDE-05445.

#### *1. Impaired waters*

A 28-year resident of Dorchester County recalls a time when the Transquaking River “was a jewel, really. The species of birds was incredible, there were yellow perch there, wonderful large mouth bass, slab crappies.” MDE-00702. Another resident recalls that the Transquaking water was “crystal clear when we were little and it’s nowhere near that now.” MDE-00742. Presently

the water is described by a resident as a “nice shade of yuk” and that “sadly, the only -- mostly the only things that really thrive in there are invasive species.” MDE-00702.

MDE also took note of the diminished water quality of the Transquaking River watershed when it listed the river “on the 1996 303(d) list of impaired waterbodies...The specific causes of impairment included signs of eutrophication in the form of seasonal algae blooms and low dissolved oxygen concentrations...MDE listed nutrients, both nitrogen and phosphorus, from natural and nonpoint sources as the causes and sources of the impairments.” EPA, DECISION RATIONALE: TMDLS OF NITROGEN AND PHOSPHORUS FOR THE TRANSQUAKING RIVER DORCHESTER CO., MD, at 2 (2000). In 2000, the Total Maximum Daily Load (“TMDL”) of Nitrogen and Phosphorus for the Transquaking River was approved by the Environmental Protection Agency (“EPA”).

## **B. Higgins Millpond**

Higgins Millpond is a privately owned impoundment that was originally created by the now partially demolished Higgins Millpond Dam. MDE-00106; MDE-01676. The impoundment is about a foot and-a-half deep covering 152 acres and, at one time, used as a source of drinking water. MDE-00705; MDE-05153; MDE-05434. The impoundment “causes this region of the river to have a low flushing rate” and seasonal variations cause fluctuations in the water quality. MDE-00106; *see also* MDE-00092 (“[T]he pond does not flow like a stream and pollutants can accumulate in the pond environment...”).

### *1. Toxic conditions and seasonal variations*

Documentation ranging from the 1930s to the 1970s reflect water quality within Higgins Millpond that supported the watershed’s designated uses:

[H]istorically [Higgins Millpond] had water-quality conditions that supported fishing and recreation...the largest known white catfish caught in Maryland at that time was from Higgins Millpond in 1963...In contrast, beginning in the 1980s, people reportedly were no longer able to swim in the pond and fishing and ecosystem conditions became severely impaired.

MDE-01164.

Predominantly within the summer and fall, the water within the impoundment is consistently plagued with “harmful algae blooms (‘HABs’), levels of toxic Microcystin above the recommended human contact threshold, and dissolved oxygen levels below the numeric water quality criteria of not less than 5 mg/l ‘at any time...’” Pet’rs’ Opening Mem. at 15 (citing MDE-01234); *see also* MDE-02714 (“[O]ftentimes little to no flow during summer months. The dam in the pond holds back nutrients and other pollutants from freely flowing down the river systems, and instead releases pulses of these pollutants during major rain and high flow events.”). The harmful algae blooms “continue to persist in the pond at an increasing rate and longer duration.” MDE-02715. Significant blue-green algae blooms, Microcystin levels well above the water contact threshold — which are often longstanding and recurring, public health advisories, state posted signs warning of the toxic seasonal conditions, reports from citizens of massive fish kills, and the poisoning — and subsequent death of two dogs after swimming in the impoundment — reflect some of the real-world consequences of the poor water quality. Pet’rs’ Opening Mem. at 16-19.

## *2. “More thought and study”*

Data and monitoring of Higgins Millpond is limited as “[t]here is not an USGS station on the Transquaking above Higgins Millpond.” MDE-00084. Information is also limited as to both Higgins Millpond and the impacts caused by the accumulation of pollutants within the

impoundment — and the subsequent flushing of those pollutants into the non-tidal portion of the Transquaking River watershed. *See also* MDE-06961 (comments of ShoreRivers noting the shortage of monitoring stations throughout the entire watershed: “Since 2013 the Department of Natural Resources (DNR) discontinued the operation of three monitoring stations on the Transquaking River, making it harder to assess whether or not the permit is degrading water quality conditions.”).

The record reflects that, since the inception of the Transquaking TMDL, the Department has both acknowledged the ever-deteriorating water quality of Higgins Millpond and used its discretion to postpone further assessment of Higgins Millpond. MDE-01676 (“[T]he 2014 Integrated Report (IR) does not have an assessment record for Higgins Millpond. The Department acknowledges the occurrence of HABs [Harmful Algae Blooms] in Higgins Millpond and downstream in Transquaking River *but feels it necessary to give this scenario more thought and study prior to creating an impairment listing*. Part of the reason for this is that Maryland does not currently have an established HAB water quality criterion or assessment methodology. Another important consideration is that Higgins Millpond is a privately-owned impoundment.”) (emphasis added); *see also* MDE-01677 (“Nowhere within any of these TMDL reports, has it been implied that they address potential water quality issues in Higgins Millpond or in any other impoundments within the Transquaking River watershed.”); *see also* Ans. Mem. of MDE at 20 (“[T]he Department noted in its response to public comments that *it is currently assessing the need...to improve the water quality of Higgins Mill Pond*...Such an assessment could lead the Department to revisit the TMDL for the Transquaking River...” (emphasis added); *see also* Ans. Mem. of MDE at 22 (“[W]hile Petitioners argue for additional data...*gathering additional data would require stream gauges to measure water flow both into*

*and out of Higgins Mill Pond, and the measurements would have to be gathered over years...Instead, the Department reasonably relied on the model to issue the Permit with significantly more stringent effluent limitations while it assesses the water quality of Higgins Mill Pond and sources of any impairments, and determines what further steps may be necessary to protect it.”* (emphasis added).

Additionally, in 2015, the Department considered placing Higgins Millpond under the Clean Lakes Program. However, that never materialized: “Historically, the State has managed ‘significant, publicly owned lakes’ under CWA §303(d)...The Department does not, by policy, rule out managing lakes not on this list, and has done so under specific conditions in the past. The Department is initializing the process of developing a guidance document to clarify this issue.” MDE, MD’S FINAL 2014 INTEGRATED REPORT OF SURFACE WATER QUALITY at 164-65 (Oct. 16, 2015); *see also* MDE-01674.

Finally, at least within the last decade, the Department asserted that the Transquaking TMDL did not address nutrient loading issues for Higgins Millpond:

Nowhere within any of these TMDL reports, has it been implied that they address potential water quality issues in Higgins Millpond or in any other impoundments within the Transquaking River watershed. Consistent with how other impoundments have been addressed in the past, impoundments will be assessed and analyzed separately for water quality impairments and TMDL development due to their unique hydrologic characteristics that differentiate them from flowing streams and tidal waters. Thus, if Higgins Millpond should be listed as impaired in the future, it will be addressed through a separate analysis effort.

MDE-01677.

However, originating Transquaking TMDL documents reflect that Higgins Millpond is included within the TMDL’s consideration. Take for example the EPA’s Decision Rationale wherein the EPA describes the Transquaking River from its originating position south of East New Market, MD all the way through its confluence with the Chesapeake Bay. EPA, DECISION

## RATIONALE: TMDLS OF NITROGEN AND PHOSPHORUS FOR THE TRANSQUAKING RIVER

DORCHESTER CO., MD, at 2 (2000). The documents make no mention of excluding or assessing Higgins Millpond separately. This reflects the Transquaking TMDL's expectation of the Department's commitment to the entirety of the Transquaking River watershed and not just certain segments. *See* Mem. of Darling Ingredients, Inc. in Opp. at 4 ("Higgins Millpond was created by damming an upper segment of the Transquaking River and, therefore, is included in the Transquaking River TMDL"). Now granted, how Higgins Millpond, as part of the Transquaking TMDL, is addressed could be within the Department's discretion. However, what is clear is that the Transquaking TMDL never excluded Higgins Millpond and the non-tidal portions of the Transquaking River watershed.

### **C. The Transquaking River TMDL**

Again, in 2000, the TMDL of Nitrogen and Phosphorus for the Transquaking River was approved by the EPA ("Transquaking TMDL"). However, as the years have progressed, the Transquaking River watershed has still not achieved its designated uses. The Transquaking TMDL apportions both annual and seasonal wasteload allocations to the Facility. This is to account for low-flow and average-flow scenarios based upon the critical environmental conditions and seasonal environmental variations found within the entirety of the Transquaking River watershed. EPA, DECISION RATIONALE: TMDLS OF NITROGEN AND PHOSPHORUS FOR THE TRANSQUAKING RIVER DORCHESTER CO., MD, at 9 (2000). Low flow allocations are applicable from May 1 to October 31 which are expressed as lbs/month. MDE-05449. The annual allocations are based on achieving the monthly wasteload allocation values year-round and are expressed as lbs/year. EPA, DECISION RATIONALE: TMDLS OF NITROGEN AND PHOSPHORUS FOR

THE TRANSQUAKING RIVER DORCHESTER CO., MD, at 9 (2000). The TMDL identifies the Facility as the single point source within the Transquaking River watershed contributing a “major load” of phosphorus and nitrogen to the watershed. MDE-05434. Additionally, the TMDL notes that the low flow TMDL “is driven primarily by point source loads.” MDE-05450.

The EPA, in part, based its approval of the Transquaking TMDL due to assurances that the TMDL would meet the eight regulatory conditions pursuant to 40 C.F.R. § 130. This requires, among other things, the TMDL to consider a total allowable load as well as individual wasteload allocations and load allocations, critical environmental conditions, and seasonal variations. EPA, DECISION RATIONALE: TMDLS OF NITROGEN AND PHOSPHORUS FOR THE TRANSQUAKING RIVER DORCHESTER CO., MD, at 1 (2000). The EPA found that “[t]here is a reasonable assurance that the TMDL can be met.” *Id.* at 14. Regarding nonpoint sources, the EPA was assured by the Department that “[n]onpoint source controls to achieve LAs [load allocations] can be implemented through a number of existing programs.” *Id.* MDE described the load allocations as able to achieve water quality standards because the allocations “show that the sum of nutrient loadings to the Transquaking River from existing point and nonpoint sources or anticipated changed point sources and anticipated land uses can be maintained safely within the TMDLs established here.” MDE-05446.

#### **D. The Chesapeake Bay TMDL**

The Chesapeake Bay TMDL (“Bay TMDL”) is one of the “largest and most complex” TMDLs in the United States. EPA, CHESAPEAKE BAY TMDL at ES-3 (Dec. 29, 2010). However, the Bay TMDL applies only to the tidal portions of the Transquaking River watershed:

[t]he TMDL is actually a combination of 92 smaller TMDLs for individual Chesapeake Bay *tidal segments*...It is important to note that the pollution controls



employed to meet the TMDL will also have significant benefits for water quality in tens of thousands of streams, creeks, lakes and rivers throughout the region.

*Id.* (emphasis added); *see also Id.* at ES-2 (“Regulated point sources and non-regulated nonpoint sources of nitrogen, phosphorus, and sediment are fully considered and evaluated separately in terms of their relative contributions to water quality impairment of the Chesapeake Bay’s *tidal waters*.”) (emphasis added). Thus, the Bay TMDL operates in broad brushstrokes, addressing the larger tidal waters of the Chesapeake Bay. The finer points — such as the local conditions of the smaller streams, creeks, lakes, and rivers — are either addressed through the residual positive impacts of the Bay TMDL or by existing TMDLs. The strength of the Bay TMDL — the all-encompassing way it addresses the Chesapeake Bay — also points to a weakness: its inability to address the more granular level waterbodies.

The “broad brushstrokes” of the Bay TMDL are evident in how the Bay TMDL identifies the Facility. The Facility is classified “as a ‘minor industrial facility’ or an ‘insignificant industrial discharge’...and assigns an overall aggregate pollutant load reduction to the entire class of such industrial facilities.” Ans. Mem. of MDE at 7. Compare this with the Transquaking TMDL where the Facility contributes a major load of phosphorus and nitrogen to the watershed. MDE-05434. Additionally, within the Bay TMDL, seasonal variations are “inherently” considered which are then expressed within a total annual limitation. Ans. Mem. of MDE at 19. Compare this with the Transquaking TMDL that expressly considers seasonal limitations and accounts for such within the low flow allocations. MDE-05445-49.

Though the Bay TMDL goes some distance in addressing the Transquaking River watershed, the Bay TMDL does not address the granular level that the Transquaking TMDL is able to further address. Even if impliedly so, the Bay TMDL acknowledges its limitations: “Thousands of

previously approved TMDLs have been established to protect local waters across the Chesapeake Bay watershed...For watersheds and waterbodies where both local TMDLs and Chesapeake Bay TMDLs have already been developed or established for nitrogen, phosphorus, and sediment, the more stringent of the TMDLs will apply. *In some cases, the reductions required to meet local conditions shown in existing TMDLs may be more stringent than those needed to meet Bay requirements, and vice versa.*” See EPA, CHESAPEAKE BAY TMDL at 2-6 (Dec. 29, 2010) (emphasis added).

#### **E. The Facility**

Valley Proteins, Inc. is “one of the largest rendering companies in the United States.” MDE-01623. In 2013, Valley Proteins, Inc. acquired the Facility, a poultry rendering plant, located in Linkwood, Dorchester County, Maryland. MDE-01622; *see also* Mem. of Darling Ingredients, Inc. in Opp. at 2 (“The Facility was originally built in 1957 and has had five prior owners.”). The Facility, owned by Darling International, Inc. prior to the Valley Proteins, Inc. acquisition, “performs poultry rendering, converting poultry processing waste into pet food. The facility renders approximately 20 million pounds of raw material per week over 5.5 processing days...A maximum of 4.0 million pounds of raw material and an average of 3.64 million pounds of raw material are processed each full day of operation.” MDE-00047. The meat and poultry products industry discharges “the highest phosphorus levels and second highest nitrogen levels of all industrial categories.” MDE-01539.

Whether the current Permit reflects Valley Proteins, Inc. ongoing goal for growth by continuing “to explore new opportunities to serve its raw materials suppliers and customers” is the subject of confusion within the record. MDE-01623. The record reflects that growth through

acquisitions, expansion into global markets, and investment in biofuel technologies is a primary focus for Valley Proteins, Inc. *Id.* Additionally, the growth of the Facility precedes the expansion goals of Valley Proteins, Inc.:

In contrast, regional poultry rendering facility operations likely expanded over this timeframe [1980s to 2010]...total poultry production on the Delmarva Peninsula (“broilers sold”), which more than doubled from the 1960s to 2010...historical aerial photographs of the Valley Proteins (and predecessor company) operations from 1960 to 1980...facility operations expanded over that timeframe...A 1988 permit fact sheet for the facility (cite omitted) also states that the facility effluent had been found to be ‘acutely toxic’ to aquatic life in a test done in 1987. Facility discharge to the Transquaking River contained significant nutrients during this timeframe, and was found to be toxic to aquatic life.

(comments by Gregory Schnaar, Ph.D., P.G. (VA)) MDE-01165.

In response to concerns that the Permit’s maximum increase in discharge to 575,000 gallons per day reflects an intention to expand operations, the Permittee claims “[T]he Facility is not electing to triple its flow and has no plans to increase current production materially...Instead, the WWTP design will allow a discharge of 240,000 gallons per day, and a treatment capacity of 400,000 gallons per day.” Mem. of Darling Ingredients, Inc. in Opp. at 26. To make this reassurance, the Permittee references its Exhibit A, a letter from Reid Engineering Company, Inc., wherein the Director of Engineering states — in part — that “[t]he Wastewater Treatment Plant is being designed for an estimated Maximum Daily throughput Flow volume capacity of 400,000 gpd, as there are currently no planned increases in rendering plant production capacity.” The Permittee relies on this statement as its sole reassurance that the Permit’s increase in discharge and treatment capacity do not reflect any intent by the current owners of the Facility to increase capacity in the future.

## **F. The Permit(s)**

### *1. The previous permit or “Zombie Permit”*

The first permit for the Facility was issued in 1978. “[T]he existing permit was issued in 2001, and it expired in 2006 — though administratively continued after 2006.” MDE-00301. Notably, this administratively extended permit was never updated or renewed within that span of time. Pet’rs’ Opening Mem. at 7; Pet’rs’ Opening Mem. at 1 (“[F]ifteen years of delay, during which the permit ought to have been updated three separate times.”). Consequently, the previous permit is coined by some as a “zombie permit.” See comments at MDE 01036, 00955, 00752.

The implications of a Zombie Permit are far reaching. Due to concerns involving such zombie permits, the Maryland General Assembly introduced H.D. 649, 2022 Leg., 444th Sess. (Md. 2022). (cross filed as S. 492, 2022 Leg., 444th Sess. (Md. 2022)., which passed both chambers and became effective July 1, 2022, pursuant to Article II, § 17(b) of the Maryland Constitution. The bill established certain inspection and reporting requirements, along with penalty provisions for noncompliance. The bill, codified in part in Md. Code Ann., Env’t § 9-328.1 (2022), seriously limits the administrative extensions in an effort to clear out the backlog of such permits. 2022 Md. Laws, ch. 22. The Attorney General, in written testimony in support, noted that the effort to do so, which also included increased staffing at MDE, was “...a necessary strategy to ensure that MDE conducts better oversight of water suppliers and discontinues the use of multi-year zombie permits.” Environment – Discharge Permits – Inspections and Administrative Continuations: Hearing on H.D. 649 Before the Environment and Transportation Committee, 2022 Leg., 444th Sess. (Md. 2022) (statement of Hannibal G. Williams II Kemerer, Chief Counsel, Legislative Affairs, Office of the Att’y Gen.).

The Transquaking TMDL was predicated, in part, on reassurances by the MDE that the Facility would maintain compliance. Of note is the Transquaking TMDL “Assurance of Implementation” section which states that “[t]he NPDES permits in the Transquaking River will have compliance provisions, which provide a reasonable assurance of implementation.” MDE-05450. However, within the span of time that the Department continued to administratively extend the previous permit, the Facility maintained a checkered compliance history with questionable oversight. “The Environmental Protection Agency’s Enforcement and Compliance History Online Database shows that the Valley Proteins facility has been in significant noncompliance since at least 2018, with significant violations reported in 11 of the last 12 quarters of data available.” Matt Pluta, commenting on behalf of Choptank Riverkeeper, MDE-02712. As asserted by Petitioners, during the fifteen-year period where the permit was administratively extended, “...the Facility violated permit terms and conditions, including exceedances of effluent limits and unauthorized discharge events, and was subject to compliance actions by the State.” Pet’rs’ Opening Mem. at 7. They point to MDE-06057 – MDE-06192 where ample support for their assertion is found. It is against this backdrop that the Court is asked to review the new permit.

## **II. DISCUSSION**

Petitioners’ ask the Court to resolve three questions:<sup>1</sup> (1) Does the Permit violate State or federal law by not ensuring compliance with water quality standards? (2) Is the compliance

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<sup>1</sup> The Department phrased the Questions Presented as follows:

- (1) Do the Permit’s effluent limitations protect water quality when they are derived from the total maximum daily loads, the federal regulatory mechanisms for developing water quality-based effluent limitations, for both the Transquaking River and Chesapeake Bay?
- (2) Does the Permit include an appropriate compliance schedule when it imposes strict, new effluent limitations that require the Facility to upgrade its wastewater treatment plant capabilities?

schedule contrary to State and federal law, or otherwise arbitrary and capricious, because it does not ensure compliance with water quality standards in the shortest reasonable time? and (3) Are the provisions governing waste sludge removed from the Facility inconsistent with State and federal law, or otherwise arbitrary and capricious?

The Department responds that the Permit is consistent with the applicable TMDLs and reflects the Department's best, and discretionary, judgment. Petitioners argue that the Department cannot ensure water quality standards and acted arbitrarily and capriciously within its decision-making. The Court agrees with the Petitioners in part and the Department in part. The Court agrees with the Petitioners that the Permit terms, specifically surrounding Total Nitrogen and Total Phosphorus limits, do not ensure compliance with water quality standards. The Court agrees with the Respondent and the Department regarding the compliance schedule and views the compliance schedule as a lawful and reasonable mechanism under the circumstances. The Court agrees with the Respondent and the Department that the removed substances provision ensures compliance with water quality standards to the extent that it can.

#### **A. Standards of Review**

Within Maryland's Environmental Code, the "General Assembly has provided for judicial review of permits issued by the Department...Such review is based on an administrative record that includes the various items set forth in EN § 1-606(c). Judicial review begins in the circuit court pursuant to the Maryland Rules." *Maryland Dep't of the Env't v. Cnty. Commissioners of Carroll Cnty.*, 465 Md. 169, 200-01 (2019).

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(3) Does the Permit correctly regulate the application of "removed substances" onsite at the Facility, and not "removed substances" possessed by third parties not subject to the Permit and its conditions?

When sitting within the position of judicial review of an agency decision, a court generally reviews “only the agency’s decision to issue each permit against the administrative record before the Department...” *In the Matter of the Petition of Blue Water Balt., et al.*, 260 Md. App. 246, 276 (2024) (quoting EN §1-601(d) and §1-606(c)). Additionally, the court is to “determine whether the permitting decision is legally correct and supported by competent, substantial evidence and determine whether the agency action is arbitrary and capricious.” *Id.* In making this determination, different standards of review are implicated. *Carroll Cnty.*, 465 Md. at 201-04.

Regarding factual findings by the Department, the Court employs the “substantial evidence” standard. *Id.* at 201-02 (“[D]efers to the facts found and inferences drawn by the agency when the record supports those findings and inferences.”). The substantial evidence standard requires that a court consider the entire record and then consider whether the agency was reasonable in its conclusion: “whether a reasoning mind reasonably could have reached the factual conclusion the agency reached.” *Md. Dep’t of the Env’t v. Anacostia Riverkeeper*, 447 Md. 88, 120 (2016) (quoting *Najafi v. Motor Vehicle Admin.*, 418 Md. 164, 173 (2011)). A court provides an added level of deference — great deference — regarding factual findings that involve scientific matters. *Carroll Cnty.*, 465 Md. at 201-02.

Regarding the Department’s discretionary decisions, the arbitrary and capricious standard is employed by the Court. This standard affords great deference to the Department as the “court is not to substitute its own judgment for that of the agency and should affirm decisions of ‘less than ideal clarity’ so long as the court can reasonably discern the agency’s reasoning.” *Md. Small MS4 Coalition v. Md. Dep’t of the Env’t*, 479 Md. 1 (2022) (quoting *Carroll Cnty.*, 465 Md. at 202). However, “[t]he arbitrary and capricious standard is not meant to reduce judicial review to a rubber-stamp of agency action.” *AES Sparrows Point LNG, LLC v. Wilson*, 589 F.3d 721, 733 (4<sup>th</sup>

Cir. 2009). Courts expect the agency to draw permissible and reasonable inferences and conclusions that are supported by competent and substantial evidence. *Baltimore Gas & Elec. Co. v. Pub. Serv. Comm'n of Maryland*, 305 Md. 145, 161-62 (1986) (“Another important consideration is the extent to which the agency engaged in a process of reasoned elaboration in formulating its interpretation of the statute. When an agency clearly demonstrates that it has focused its attention on the statutory provisions in question, thoroughly addressed the relevant issues, and reached its interpretation through a sound reasoning process, the agency’s interpretation will be accorded the persuasiveness due a well-considered opinion of an expert body.”). Further, an agency’s decision may be considered arbitrary and capricious “if it is contrary to or inconsistent with an enabling statute’s language or policy goals.” *Harvey v. Marshall*, 389 Md. 243, 302 (2005).

Regarding the Department’s legal conclusions, the court affords “the agency less deference than with respect to fact findings or discretionary decisions.” *Carroll County*, 465 Md. at 202-03 (quoting *Anacostia Riverkeeper*, 447 Md. at 122). The Court will not “uphold an action based on legal error, but we ‘give careful consideration to the agency’s interpretation’ of laws the Department has been charged to administer.” *Blue Water Balt., et al.*, 260 Md. App. 246, 277 (quoting *Carroll Cnty.*, 465 Md. at 203).

The Permittee places great emphasis on a court’s burden when reviewing matters committed to agency discretion while diminishing a court’s own discretion: “Reviewing courts *must* defer to the expertise and discretion of the MDE unless it ‘exercised its discretion unreasonably and without a rational basis.’” Mem. of Darling Ingredients, Inc. in Opp. at 8-9 (quoting *Maryland Dep’t of the Env’t v. Assateague Coastal Tr.*, 484 Md. 399, 649 (2023)) (emphasis added). However, this characterization does not give full and proper credence to the nuance within the



*Assateague Coastal Trust* explanation: the Court also acknowledged that the “standard is highly contextual” and that an agency decision “will be upheld ‘if the agency's path *may be reasonably discerned*.’” *Assateague Coastal Tr.*, 484 Md. 399, 450 (2023) (quoting *Bowman Transp., Inc. v. Arkansas-Best Freight Sys., Inc.*, 419 U.S. 281, 285-86, 95 S.Ct. 438, 42 L.Ed.2d 447 (1974)) (emphasis added). In one respect, the Permittee’s description is correct, a court is to show a good deal of deference, but without the nuance, one is left with a sense that a court has almost no avenue to meaningfully question an agency decision. Additionally, the Permittee conflates the volume of the record with any validity of the Department’s analysis — a notion this Court soundly rejects. Mem. of Darling Ingredients, Inc. in Opp. at 9 (“The findings and decisions of the MDE...are supported by a 6,977-page record...Despite the detailed and comprehensive analysis by MDE, Petitioners make a series of arguments challenging the adequacy of TN and TP limits in the Permit.”).

Thus, the Court reiterates the difference between a court playing the role of “an uber administrative agency” and a court’s very real and legitimate burden to ensure an agency adheres to permissible and reasonable inferences and conclusions. *Kor-Ko Ltd. v. Maryland Dep’t of the Env’t*, 451 Md. 401, 413 (2017); *see also Baltimore Gas & Elec. Co.*, 305 Md. 145, 161-62 (1986). The Court’s overarching burden is to ensure that the Department’s conclusions and decisions are: (1) reasonable and supported by competent and substantial evidence, (2) show consistent and clear reasoning within its decision-making, and/or (3) do not commit errors of law. In each of the standards implicated within a judicial review, a court’s reason and discernment remains intact. For example, within a case of agency discretionary decision-making, the “great deference” entitled to an agency is not supreme deference or, as the 4<sup>th</sup> Circuit

expounded, courts are not in the business of rubber stamping an agency decision. *AES Sparrows Point LNG, LLC*, 589 F.3d 721, 733 (4<sup>th</sup> Cir. 2009).

## **B. Applicable Legal Framework**

The Clean Water Act (“CWA”) was established to address, and control, water pollution. The CWA operates with a form of shared implementation between the federal government and the states known as “cooperative federalism.” The federal government, via the CWA, establishes the regulatory floor and the state, through common law and statute(s), establish the ceiling. *See Int’l Paper Co. v. Ouellette*, 479 U.S. 481, 497, 107 S. Ct. 805, 814, 93 L. Ed. 2d 883 (1987).

A good starting place, in this matter, is the Environment Article of the Annotated Code of Maryland public policy section which describes one of the over-arching goals of the legislation: “To provide that no waste is discharged into any waters of this State without first receiving necessary treatment or other corrective action to protect the legitimate beneficial uses of the waters of this State.” Md. Code Ann., Env’t § 9-302(b)(3) (2002). The Court begins by noting that “Maryland adopted a statutory framework that replicates and adds to the provisions of the federal Act [Clean Water Act].” Pet’rs’ Opening Mem. at 10. The CWA established the floor wherein its jurisdiction covers, generally speaking for this matter’s purposes, navigable waterbodies. *See* 88 FR 3004. Maryland added to that provision by including any waters of the State. Thus, the entirety of the Transquaking River watershed falls under Maryland’s Environmental Code or, put another way, no segment of the Transquaking River watershed is without coverage by Maryland’s Environmental Code.

Further, to achieve the Maryland Environment Articles’ goal of providing “that no waste is discharged into any waters of this State without first receiving necessary treatment or other

corrective action,” a discharge permit is required when an entity, such as the Facility, requests to discharge “any pollutant or combination of pollutants into the waters of this State.” Md. Code Ann., Env’t § 9-302(b)(3) (2002); Md. Code Ann., Env’t § 9-301 (2023).

A discharge permit must meet “(1) All applicable State and federal water quality standards and effluent limitations” and all other requirements of Maryland’s Environmental Code to be eligible for issuance. Md. Code Ann., Env’t § 9-324 (2022). The Department maintains discretion and may “refuse to issue a discharge permit if... (2) The Department finds that issuance of the permit would violate any State or federal law or any rule or regulation adopted under any State or federal law.” Md. Code Ann., Env’t § 9-327 (2006). To organize the applicable law that informs and has shaped this section of the Maryland Environmental Code, the Court will break down Md. Code Ann., Env’t § 9-324 phrase by phrase.

*1. “Subject to the provisions of this section, the Department may issue a discharge permit”*

Initially, the Court observes the permissive “may.” The Department maintains discretion as to the issuance of a discharge permit. And yet, just as in the applicable standards of review, this discretion is not absolute: the Department must still adhere to State and federal requirements. Nonetheless, this discretionary “may” is the starting point. Additionally, the Maryland Environmental Code, within § 9-326(a)(1), provides the Department room to impose “any conditions the Department considers necessary to prevent a violation.” Finally, an internal check on the Department’s discretion was created within § 9-328(a)(2) which imposes limits on a discharge permits term and the number of times the Department may extend a permit.

2. “[I]f the Department finds that the discharge meets all applicable State and federal water quality standards and effluent limitations”

One of the central federal regulatory mechanisms in the matter before the Court involves the establishment of TMDLs and the National Pollutant Discharge Elimination System (“NPDES”) permitting process. The CWA requires an NPDES permit for an entity to discharge pollutants. 33 U.S.C. §1311(a) & §1342 (2019). The Department is authorized to issue a discharge permit once it finds that the discharge meets the applicable water quality standards. Md. Code Ann., Env’t § 9-324(a) (2022).

Water quality standards are created when a waterbody is listed as CWA 303(d) impaired. States submit water quality standards to the EPA for review and approval — based on the water body’s designated use. *Cnty. Commissioners of Carroll Cnty.*, 465 Md. 169, 186 (2019); *Md. Dep’t of the Env’t v. Anacostia Riverkeeper*, 447 Md. 88, 102 (2016) (“After setting WQSs [water quality standards], the states establish effluent limitations in permits as the primary way to meet the WQSs because, as we have explained, effluent limitations restrict the discharge of pollutants.”). To achieve water quality standards, discharge permits implement both technology-based and water quality-based pollution controls. *Id.* At this stage, the TMDLs are created: “TMDLs arise out of a multi-step process that begins with the establishment of water quality standards.” *Anacostia Riverkeeper*, 447 Md. 88, 101 (2016) (citing *Am. Farm Bureau Fed’n*, 792 F.3d at 289: “TMDLs happen after a state enacts pursuant to its law (but required by the Clean Water Act) water quality standards.”).

A TMDL is developed to guide limiting the amount of discharge of any pollutant responsible for the impairment to water quality. The TMDL then allocates the specific amount of the pollutant(s) that any given point source or nonpoint source can discharge. *Carroll Cnty.*, 465 Md.

169, 193 (2019). For example, the Transquaking TMDL represents the maximum amount of Nitrogen and Phosphorus that is allowably released into the Transquaking River watershed while maintaining the applicable water quality standards. The TMDL is a sum of its parts — those parts being the “various point and nonpoint sources together with a ‘natural background’ amount of the pollutant and a ‘margin of safety.’” *Carroll Cnty.*, 465 Md. 169, 190-93 (2019); 40 C.F.R. § 130.2(I); 33 U.S.C.A. § 1313(d)(1)(C) (2000) (“Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.”).

Put another way, a TMDL is a guiding tool that is meant to inform the creation of the sum of its parts:

A TMDL such as the Bay TMDL is neither self-implementing nor directly enforceable. Rather, it serves as an informational tool that the EPA and the states use in seeking to achieve the specified pollutant levels — and the applicable water quality standards — by means of discharge permits and other regulatory tools...To enforce the TMDL limits and corresponding water quality standards, agencies that issue discharge permits seek to ensure that the total pollution discharged by point sources does not exceed the wasteload allocations in the relevant TMDLs. The combined pollution allotted to all of the point sources should equal the sum of the wasteload allocations in a TMDL.

*Carroll Cnty.*, 465 Md. 169, 193 (2019).

Therefore, the sum of the parts — the wasteload allocations and load allocations — are subject to change. This is why the EPA, in its Decision Rationale for the Transquaking TMDL, stated that the “the breakout of the total loads for nitrogen and phosphorus to the point sources and nonpoint sources is one allocation scenario. As implementation of the established TMDLs proceed, Maryland may find that other combinations of point and nonpoint course allocations are more feasible and/or cost effective.” EPA, DECISION RATIONALE: TMDLS OF NITROGEN AND

PHOSPHORUS FOR THE TRANSQUAKING RIVER DORCHESTER CO., MD, at 11 (2000). However, such deviations within a wasteload allocation for a point source must, among other things, “demonstrate that the loading change is consistent with the goals of the TMDL and will implement the applicable water quality standards.” *Id.* at 11.

a. 40 C.F.R. § 122.44(d)(1)(vii)

Another applicable federal requirement for this matter is 40 C.F.R. § 122.44(d)(1)(vii):

When developing water quality-based effluent limits under this paragraph the permitting authority shall ensure that: (A) The level of water quality to be achieved by limits on point sources established under this paragraph is derived from, and complies with all applicable water quality standards; and (B) Effluent limits are developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA pursuant to 40 CFR 130.7.

The Department must show not only that it “appropriately considered the applicable TMDLs when calculating limits” — fulfilling (B) — but also “that those TMDL-derived limits” will achieve water quality standards in the Transquaking River watershed — fulfilling (A). *See Pet’rs’ Reply Mem.* at 4. As the Petitioners note “[t]he importance of *both* (A) *and* (B) is highlighted in this case...” *Id.* (emphasis in original).

b. Water quality-based effluent limits and localized impacts

Also of note is the use of water quality-based effluent limits (“WQBELs”). “WQBELs need not be identical to TMDL provisions but rather should, as needed to comply with applicable state water quality standards... be more stringent than the TMDL requirements.” *In re Springfield Water & Sewer Comm’n*, 2021 WL 2483825 (May 27, 2021). Thus, because WQBELs may be developed in addition to the TMDL process, this allows room for supplemental concentration-

based WQBELs. Supplemental concentration-based WQBELs are sometimes used to address localized impacts that a TMDL's wasteload allocations watershed loading analysis may not have considered: "permit writers should consider using their discretionary authority under 40 CFR 122.45(f)(2) to include supplemental concentration-based WQBELs in permits where appropriate." EPA, PERMIT LIMITS – PERMITTING TO MEET A TOTAL MAXIMUM DAILY LOAD, <https://www.epa.gov/npdes/permit-limits-permitting-meet-total-maximum-daily-load-tmdl> (last visited 06/03/2024). The EPA — once again — provides avenues to the Department to go from broader brushstrokes to finer detail: "[B]ecause TMDL WLAs [waste load allocations] are often based on watershed loadings analyses and may not have considered localized impacts, supplemental concentration-based WQBELs may be appropriate to prevent a discharge from causing localized impacts in critical low-flow stream segments within the watershed." *Id.*

### **III. THE PERMIT DOES NOT ENSURE COMPLIANCE WITH WATER QUALITY STANDARDS.**

The Department claims the "Court should uphold the Permit because it is consistent with the Act [CWA] and the Maryland Code, and supported by substantial evidence before the Department." Ans. Mem. of MDE at 8. The Department asserts that the Permit is consistent with both the applicable law and applicable TMDLs, specifically in terms of the Permit's Total Nitrogen and Total Phosphorus limitations. *Id.* at 12. Because, the Department asserts, the limits are established using the applicable TMDLs, this ensures the Permit limitations will meet water quality standards. *Id.* The Department argues that Petitioners "ignore the TMDL process and the translation of a TMDL into permit limits in asserting that the Permit's conditions do not comply with water quality standards." *Id.* However, the Court does not read the Petitioners' concerns as

such. The Petitioners raise concerns that do not conflict with the TMDL process or of the translation of a TMDL into permit limits. On the contrary, the Petitioners' concerns fall squarely within these processes.

Take for example the issue of how to best utilize actual load data. Actual load data can be used to inform whether waste load allocations need adjustment. *See* discussion *Infra* Section III(A)(1). The same is true for the Department's decision-making surrounding nonpoint source allocations — such adjustments are permissible within the Transquaking TMDL. *See* discussion *Infra* Section III(C). Or take the Petitioners' concern whether annual loading limits can address discrete seasonal variations found within portions of the watershed: this concern fits within the process wherein the TMDL terms are translated into the Permit terms. *See* discussion *Infra* Section III(B). The Petitioners' concerns regarding the Department's reliance upon a computational model within its decision-making for the Permit terms also applies. *See* discussion *Infra* Section III(D). Finally, supplemental concentration-based water-quality based effluent limitations were not created to assist translating a TMDL into permit limits. *See* discussion *Infra* Section III(F).

Accordingly, not only is the Court convinced that Petitioners' concerns fit squarely within the TMDL process and the translation of a TMDL into permit limits, but the Court is also not convinced that the Department fulfills its obligations found within 40 C.F.R. § 122.44(d)(1)(vii). Again, both (A) and (B) of 40 C.F.R. § 122.44(d)(1)(vii) are required. Petitioners do not argue that the Permit is inconsistent with (B) of 40 C.F.R. § 122.44(d)(1)(vii): "Effluent limits...are consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA." Rather, Petitioners argue that though the Permit may achieve (B), the Permit does not achieve (A): "The level of water quality to be



achieved by limits on point sources...derived from, and complies with all applicable water quality standards.” As a result, though the Permit’s Total Nitrogen and Total Phosphorus limitations may be consistent with wasteload allocations in the applicable TMDLs, the Permit’s Total Nitrogen and Total Phosphorus limitations are not sufficient to achieve water quality standards via 40 C.F.R. § 122.44(d)(1)(vii)(A). The Department has not provided substantial evidence on the record demonstrating that the Permit will ensure compliance with water quality standards for the reasons that follow. *Baltimore Gas & Elec. Co.*, 305 Md. 145, 161-62 (1986).

**A. The Department’s Decision-Making Surrounding Total Nitrogen and Total Phosphorus Limits Is Arbitrary and Capricious.**

*1. The Department’s rejection of actual load data results in arbitrary and capricious decision-making.*

Allowable nutrient loads are set by the permitted discharges. By contrast, actual nutrient loads represent discharge data that reflect the average annual loading from the Facility. Said another way, actual nutrient loads do not represent the maximum effluent limits set by the Department but represent how the Facility is “spending” its portion of the “pollution diet.” Actual nutrient load data from 2007 – 2020 shows, based upon the Facilities prior “spending”, that the new Permit allows for an 18% increase in Total Nitrogen and a 16% increase in Total Phosphorus. MDE-1157-58; MDE-1171. Petitioners use the actual nutrient load data to question the validity of the Department’s claims that the Permit is more stringent than the previous permit: “the Permit simply does not guarantee that there will be a meaningful or consistent reduction in Total Nitrogen and Total Phosphorus loads to the Transquaking watershed.” Pet’rs’ Reply Mem. at 7.

Petitioners assert that when the Department “compares the long-expired prior permit’s *allowable* nutrient loads (not *actual* loads) to the renewed Permit’s allowable nutrient loads” this comparison “does not allow the Department to guarantee meaningful pollution reductions or water quality improvements and cannot ensure compliance with water quality standards as required by law.” Pet’rs’ Opening Mem. at 20 (emphasis in original). The Department claims that though it considered actual load data “such a methodology would not comply with the Act’s requirements that effluent limits be technology or water-quality based.” Ans. Mem. of MDE at 12-13. The Department employs a “*see*” site to *Md. Dep’t of the Env’t v. Assateague Coastal Trust*, 484 Md. 399 (2023) and *Carroll Cnty.*, 465 Md. at 186 (2023) as its support for this assertion. Other than the two “*see*” cites, the Court is left with the Department’s *ipse dixit* assertion as cold comfort.

Because, when turning to *Assateague Coastal Trust*, which heavily relies on *Carroll Cnty.*, the Court is not convinced that *Assateague Coastal Trust* would explicitly exclude actual load data from the Department’s analysis when creating water quality-based limits. For instance, when discussing water quality-based effluent limitations, *Assateague Coastal Trust* states that for “water quality based effluent limitations, the reference point is the waterway, and the strategy is for the point source to implement any additional actions (beyond the already required technologies) necessary to achieve the applicable water quality standard.” *Md. Dep’t of the Env’t v. Assateague Coastal Trust*, 484 Md. 399, 413 (2023) (quoting *Carroll Cnty.*, 465 Md. at 187-88). The Court notes the use of the phrase “any additional actions...necessary to achieve.” This phrase is broad and could very well encompass the use of actual load data. Further, when discussing the Department’s regulatory and rulemaking authority under Maryland’s water pollution control laws, *Assateague Coastal Trust* states:

“[T]he Department is required to consider...existing physical conditions; the character of the area involved, including surrounding land uses; priority ranking of waters as to effluent limits; the nature of the existing receiving water body; the technical feasibility of measuring or reducing the particular type of water pollution. ...General Assembly has also provided the Department with discretion to impose, as circumstances require, different requirements for different pollutant sources and for different geographic areas.

*Assateague Coastal Trust*, 484 Md. 399, 426-27 (2023) (quoting EN § 9-313(c)).

The Court notes the use of the phrases “existing physical conditions”, “character of the area involved”, the Department’s “discretion to impose, as circumstances require, different requirements for different pollutant sources.” Thus, again, *Assateague Coastal Trust* appears to support the Department’s use of information such as actual load data. To that end, the Petitioners assert that the actual load data should justifiably inform a reduction in effluent limits and that the effluent limits should reflect more accurately the actual load data. *See* Pet’rs’ Opening Mem. at 20. This aligns with the *Assateague Coastal Trust*’s guidance that the Department’s discretion encompasses a broad range of strategies, to which actual load data is easily included.

The Department also argues that “[e]ven if historical loading was an appropriate basis for current permitting decisions, Petitioners provide no justification to support the use of average annual loading over the past thirteen years...such as why the Department should have relied on an annual average load instead of the maximum or minimum allowed annual loads, the average maximum or minimum monthly loads, or even why the specific thirteen-year period here is an appropriate timeframe.” Ans. Mem. of MDE at 13. Though the Department’s assertion poses a legitimate question of what time frame for measurement is most applicable, the Department’s ignoring actual load data results is not reasonable. Actual load data is not conjectural or hypothetical. Actual load data reflects what the Facility is, in fact, discharging. After the previous permit was extended for fifteen years, it does not take scientific or agency expertise to question

the efficacy of excluding actual load data from instituting permit limits. *See discussion Supra* Section I(F)(1) (noting the discussion and citations surrounding the implications of the fifteen-year delay in renewing the previous permit: the public was not provided an opportunity to meaningfully review the Permit and that the Facility maintained a checkered compliance history within that timeframe.). Excluding actual load data, under these circumstances, results in a situation wherein the facts and inferences drawn by the agency are unsupported by the record. *Carroll County*, 465 Md. at 201-02. Or, as the Petitioners assert, comparing the “long-expired prior permit’s *allowable* nutrient loads (not *actual* loads) to the renewed Permit’s allowable nutrient loads... is solely a paper exercise...” Pet’rs’ Opening Mem. at 20 (emphasis in original).

The Department further states that the “reliance on the Petitioners preferred methodology could lead to ‘use it or lose it’ approach for other facilities, incentivizing discharges of the maximum pollutant loads allowed by law to avoid later risking mandated reduction. Such an approach could perversely lead to increased actual nutrient loads and a potential decline in the receiving water body’s water quality.” Ans. Mem. of MDE at 13. The Department essentially argues that it was justified in excluding actual load data — real-world real-time data — from its analysis because a hypothetical facility may take advantage of such reasoning. The Court observes that a fine line exists between a cautious forecast and slippery slope reasoning. A cautious forecast is founded upon information such as case studies, case law, and agency data that justifiably informs such an assertion. Slippery slope reasoning is informed, at best, by fear-based conjecture. Again, the Department, *ipse dixit*, offers this justification. Without support, such a claim is not only one of “less than ideal clarity” but also fails to “draw permissible and reasonable inferences” and supported conclusions. *Md. Small MS4 Coal.*, 479 Md. 1 (2022); *Baltimore Gas & Elec. Co.*, 305 Md. 145, 161–62 (1986). In sum, the Department’s reasoning

against elevating the use of actual data within its analysis cannot be discerned. The Department's reasoning and explanations are not founded upon well-reasoned analysis nor are the inferences supported by the record. *Carroll Cnty.*, 465 Md. at 201-02.

*2. The Department's overemphasis on the stringency of the Permit results in arbitrary and capricious decision-making.*

The Department and the Permittee argue that because the Permit is more stringent than its predecessor, this should assuage the Petitioners' concerns regarding the Permit's ability to ensure water quality standards. *See* Mem. of Darling Ingredients, Inc. in Opp. at 5 (“[T]he Prior Permit did not impose any limits relating to flow from the Facility, unlike the new permit which contains more stringent effluent limits depending on increased flow.”). Because, the assertion goes, the Permit seems to reflect a decrease in annual limits, the Permit is — *de facto* — stricter. *See* Mem. of Darling Ingredients, Inc. in Opp. at 5; *see also* Ans. Mem. of MDE at 12.

Additionally, both the Department and Permittee assert that stringency is shown by applying the TMDLs that appear stricter than other applicable TMDLs. Thus, they assert, this Permit is more stringent because the Department applied the Bay TMDL annual limitations and the Transquaking TMDL monthly limitations. Ans. Mem. of MDE at 12; Mem. of Darling Ingredients, Inc. in Opp. at 11 & 19-20.

Ultimately, the Petitioners seemingly refute the proverbial value of stringency and instead argue that the proper measure of the validity of the Permit is whether the Permit achieves compliance under the whole of 40 C.F.R. § 122.44(d)(1)(vii) and other applicable legal standards. Pet'rs' Reply Mem. at 2 (“The Maryland Water Pollution Control law and the federal Clean Water Act are clear in their mandate that discharge permits must ensure compliance with

water quality standards.”). The Petitioners assert that — stringency or no — the Permit can still not achieve water quality standards. Under the Petitioners’ argument, in theory, a permit could be less stringent than a previous permit and, if the permit fulfills its obligations such as are found within 40 C.F.R. § 122.44(d)(1)(vii) and any other applicable law, would remain legally permissible. This Court agrees: as a result, whether the Permit is more stringent than the prior permit is not the controlling standard.

Further, it comes as no surprise that the Permit is stricter than the previous permit. Without scientific or agency expertise, a reasoning mind can easily grasp how there would be some improvement from the previous permit. The previous permit was, again, administratively extended for fifteen years and the watershed without a complete assessment for fifteen years or more. *See* discussion *Supra* Section I(F)(1). Some improvement in stringency is expected. Yet, it does not follow that simply because the Permit is more stringent than the previous permit, the Permit ensures water quality standards.

Nor does the Department’s reasoning reflect such a conclusion. One of the Department’s overarching arguments is that (1) because the Permit is more stringent and (2) because the Permit is consistent with the applicable TMDLs, the Permit achieves water quality standards. The Department employs 40 C.F.R. § 122.44(d)(1)(vii)(B): “are consistent with the assumptions and requirements of any available wasteload allocation for the discharge” to refute Petitioners’ concerns found within 40 C.F.R. § 122.44(d)(1)(vii)(A): “The level of water quality... is derived from, and complies with all applicable water quality standards.” The Department never truly refutes Petitioners’ concerns that the Permit fails to achieve the expectations found within 40 C.F.R. § 122.44(d)(1)(vii)(A). The Department’s arguments only satisfy 40 C.F.R. § 122.44(d)(1)(vii)(B). Thus, the Court is left without an avenue to discern the Department’s

reasoning for why 40 C.F.R. § 122.44(d)(1)(vii)(A) is fulfilled within the Permit limits for Total Nitrogen and Total Phosphorus.

In sum, actual load data cuts against the Department's assertion that the Permit is more stringent than the previous permit. Rather than using this data to inform meaningful reductions, the Department side-steps the application of the data and attempts to reassure the Court that because the Permit is more stringent on its face, this can ensure water quality standards. However, such reasoning fails to satisfy 40 C.F.R. § 122.44(d)(1)(vii)(A). This assertion is unsupported by the record and is arbitrary and capricious. If the Department is to ensure water quality standards, Total Nitrogen and Total Phosphorus limits must guarantee meaningful reductions. As the Permit stands, the Department cannot ensure that is the case.

#### **B. The Annual Loading Limits Do Not Ensure Water Quality Standards Within the Entirety of the Watershed.**

Whether permit limits are expressed as daily/monthly/or annual limitations has not escaped the notice of federal courts. *See Friends of Earth, Inc. v. E.P.A.*, 446 F.3d 140, 145 (D.C. Cir. 2006); *see also Nat. Res. Def. Council, Inc. v. Muszynski*, 268 F.3d 91, 99 (2d Cir. 2001). Courts have questioned — and split on the answer — of the permissibility of expressing effluent limitations in anything but a daily limitation. Variations in the type of pollutant and the body of water can impact the reasoning of whether daily versus monthly versus annual effluent limitations are implemented. *Nat. Res. Def. Council, Inc.*, 268 F.3d 91, 99 (2d Cir. 2001) (“EPA argues that a daily measure of phosphorus would be inappropriate given that phosphorus concentrations vary seasonally and annually... phosphorus concentrations in waterbodies are affected ‘by the seasonal interplay of temperatures, density, and wind,’ resulting in the frequent

occurrence of ‘very large short-term yearly variations which characterize the gradually increasing concentration.’”).

Additionally, daily monitoring can sometimes skew data or a waterbody can “sometimes tolerate large one-day discharges of certain pollutants without violating water quality standards or causing undue environmental harm, so long as seasonal or annual discharges remain relatively low...the many ways in which pollutants damage the environment call for a more flexible understanding of ‘daily.’” *Friends of Earth, Inc.*, 446 F.3d 140, 145 (D.C. Cir. 2006). Another aspect to consider is whether the period of time by which to monitor pollutants could allow for “opportunities for the agency to set lower environmental standards” or establish “a loophole for polluters to average their pollutant levels over time and avoid violations for short-term pollution surges.” Jason Malinsky, *Balancing the Pollution Budget After Friends of the Earth v. EPA*, 34 Ecology L.Q. 861, 864 (2007).

As previously noted, the Transquaking TMDL apportions both annual and seasonal wasteload allocations to account for low-flow and average-flow scenarios based upon the critical environmental conditions and seasonal environmental variations found within the entirety of the Transquaking River watershed. *See discussion Supra* Section I(C). The Bay TMDL only apportions annual allocations based upon the tidal portions of the watershed. *See discussion Supra* Section I(D); *see also* Pet’rs’ Opening Mem. at 23 (noting Petitioners’ articulation of the relevance of seasonal limits within the Transquaking River watershed: “The Department has not demonstrated in the record that annual loading limits will address a scenario in which the Facility’s discharge contains elevated levels of phosphorus for several days during warm summer months while still meeting the annual load limit...Fish breathe every day and people are exposed to harmful algae blooms during a single event, not on an annual average basis.”).



The Petitioners assert that “[t]he Permit includes no daily or seasonal limits for Total Nitrogen or Total Phosphorus.” Pet’rs’ Opening Mem. at 21. This, they argue, results in a scenario where “TMDL-based annual loading limits...are not derived from, nor designed to protect, the hydrologic conditions of Higgins Millpond or the non-tidal stretches of the Transquaking River.” Pet’rs’ Opening Mem. at 22. The Petitioners further assert that the “Department has not demonstrated in the record that annual loading limits will address a scenario in which the Facility’s discharge contains elevated levels of phosphorus for several days during warm summer months while still meeting the annual load limit.” Pet’rs’ Opening Mem. at 23. This Court agrees.

The Department claims that the annual limitations derived from the Bay TMDL combined with monthly limits derived from the Transquaking TMDL sufficiently address seasonal variations. Ans. Mem. of MDE at 18-19. However, the Bay TMDL does not address the entirety of the Transquaking River watershed and the unique hydrologic conditions found within the non-tidal portions. *See* discussion *Supra* Section I(D). Additionally, though the Transquaking TMDL goes further in addressing seasonal variations, “data presented from Higgins Millpond illustrate[s] that a serious issue exists that is not reflected in the TMDL assessment.” MDE-1677. Even the Permit itself is questionable in its reach to the entirety of the watershed: “the Department repeatedly describes Permit terms as designed to protect the stretch from the outfall to — but *not including* — Higgins Millpond.” Pet’rs’ Opening Mem. at 21. (emphasis in original). In making this assertion, Petitioners cite MDE’s Final Response to Public Comments wherein the water quality-based limits in the Permit are described as protecting “the local receiving stream from the initial discharge point to Higgins Millpond.” MDE-00066. Considering such, legitimate and substantial questions emerge as to whether the Permit, as it

stands, sufficiently addresses seasonal variations. Therefore, the Department's reassurances that the annual and monthly limitations consider seasonal variations and ensure water quality standards is unconvincing and unreasonable.

### **C. The Department's Overreliance Upon the Contested Form of Computational Modeling Results in Arbitrary and Capricious Decision-Making.**

The Department's overreliance upon the computational model — the Vollenweider model — further impacts the Court's analysis of whether the Department's decision-making was reasonable. The Department has further "failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency" and, therefore, its decision "is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Anacostia Riverkeeper*, 447 Md. 88, 121 (2016) (quoting *Natural Res. Def. Council*, 808 F.3d at 569).

Computational models are "tools that provide a simplified, quantitative view of a small slice of the world." Wendy Wagner et al., *Misunderstanding Models in Environmental and Public Health Regulation*, 18 N.Y.U. Env'tl. L.J. 293, 294 (2010). To be clear, the Court wholeheartedly acknowledges that models are informative and helpful tools utilized within environmental law and policy. *See* EPA, CHESAPEAKE BAY TMDL EXECUTIVE SUMMARY at ES-5 (12/29/2010) (noting the EPA's description of modeling as a "critical and valuable tool."). However, computational models are also "fragile and contestable" and are not "truth machines." Wagner et al., *Misunderstanding Models*, at 295. Yet because of the often complex and highly specialized subject matter surrounding environmental law and policy, policymakers and judicial officers often over rely upon conclusions born from computational models. *Id.* ("The Clean Water Act expects modelers to isolate the precise point at which reductions in the pollutant load

for a river will enable it to attain water quality standards. Once the modeler provides this “answer,” policymakers then return and determine how to allocate the appropriate shares of pollutant reduction.”). The United States District Court for the Middle District of Pennsylvania noted that though the EPA “typically has wide latitude in determining the extent of data-gathering necessary to solve a problem” this discretion “while broad, is not infinite, and an agency’s choice of model will be rejected if it bears no rational relationship to the reality it purports to represent.” *Am. Farm Bureau Fed’n v. U.S. E.P.A.*, 984 F. Supp. 2d 289, 341 (M.D. Pa. 2013) (quoting *Sierra Club v. EPA*, 167 F.3d 658, 662 (D.C.Cir.1999)) (noting the Third Circuit’s rationale that the EPA’s over-reliance upon a model’s capabilities is quite possible.). All in all, computational models should inform decision-making without becoming a crutch for decision-makers, or put another way, computational models should never form the sole basis for decision-making.

#### *1. Additional observations regarding the standard of review for scientific expertise*

In *Daubert v. Merrell Dow Pharms., Inc.*, the Supreme Court set a standard whereby a court could determine the admissibility of scientific evidence: whether a scientific theory or technique can be tested, whether the theory or technique has been subjected to peer review and publications, and — in some instances — the potential rate of error of a given technique. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 593-95, 113 S. Ct. 2786, 2796-97, 125 L. Ed. 2d 469 (1993). General acceptance by the scientific community is also considered. *Id.* (“A ‘reliability assessment does not require, although it does permit, explicit identification of a relevant scientific community and an express determination of a particular degree of acceptance within that community.’”) (quoting *United States v. Downing*, 753 F.2d, at 1238).

Within *Morten v. State*, 242 Md. App. 537, 584 (2019), the Maryland courts provided additional guidance when considering the notion of reliability of a particular scientific method. “Reliability is protean”, the Court stated, and “not a monolith.” *Id.* Simply because the results of a particular scientific methodology may be admissible as a matter of law, this “does not in any way limit the opponent of the evidence from challenging its persuasive weight as a matter of fact. Even in the face of admissibility, the opponent of the evidence is fully entitled to challenge the evidence by various means.” *Id.* At 585. Thus, the Court continues, “[t]he issue of admissibility is only the opening round. The defendant still enjoys an inalienable right to expose the weaknesses of and to diminish the weight of the test results being offered against him. Threshold admissibility, as a matter of law, does not establish ultimate persuasion, as a matter of fact.” *Id.*

Just to reiterate, upon judicial review regarding findings of fact, the Court applies the substantial evidence standard and considers “whether a reasoning mind reasonably could have reached the factual conclusion the agency reached.” *Anacostia Riverkeeper*, 447 Md. at 120 (quoting *Najafi v. Motor Vehicle Admin.*, 418 Md. 164, 173). And with questions of scientific matters within an agency’s area of technical expertise, an even greater level of deference is afforded. *Carroll Cnty.*, 465 Md. at 201-02. However, to make this determination of whether a reasoning mind could have reached the factual conclusion the Department reached by relying upon the Vollenweider model, this Court will also look to the wisdom found within *Daubert* and *Morten v. State*. Though a judicial review does not give rise to a *Daubert* analysis, the general principles found therein inform this Court’s view of the Petitioners’ and Department’s arguments regarding the efficacy and weight afforded the computational model used by the Department. By applying these principles, the Court can more easily discern whether the Department drew

reasonable inferences and conclusions that are supported by competent and substantial evidence. Guided by these notions, this Court turns now to the specific model in question, the Vollenweider model.

## *2. The Vollenweider model*

The Vollenweider model is a computational model used to predict the “degree of a lake’s eutrophication as a function of the areal phosphorus loading.” MDE-00091. Additionally, the Department used the model to determine Higgins Millpond’s degree of eutrophication due to nitrogen and phosphorus loading. *See* MDE-01162; *see also* MDE-00090-91. Computational models of this kind are, apparently, limited. *See* Ans. Mem. of MDE at 21 (“Petitioners criticize the Department’s use of the Vollenweider model, but they fail to offer an alternative model that would have provided better information to the Department. Unfortunately, a tailor-made hydrologic model designed for Higgins Mill Pond could take years to develop.”). The Department states that it used the model because the model “uses real-world data collected from a variety of lakes...The model may also be simply executed and does not rely on assumptions or inputs unknown to the Department.” Ans. Mem. of MDE at 21. Additionally, the Department asserts that the model “is also known in the scientific community as a reasonable method to predict the degree of eutrophication of a lake.” Ans. Mem. of MDE at 21.

However, the reliability of the model is disputed: commenter Gregory Schnaar, Ph.D., P.G. (VA) with expertise within the field of Environmental Science asserts the model is “widely recognized” to have limitations to include, but not limited to, substantial prediction errors. MDE-01162-63 (noting Dr. Schnaar’s assertions that the Vollenweider analysis is simplistic and MDE’s application of the model includes significant errors). Petitioners share the same concern

and assert that reliance on the Vollenweider model is “flawed” due to its limitations, lack of actual flow data, and its inability to “replace the gap in the Department’s record where water quality-based limits for Higgins Millpond should have been developed using data from the Transquaking River and Higgins Millpond.” Pet’rs’ Opening Mem. at 25; *see also* Pet’rs’ Reply Mem. at 8 (noting Petitioners’ assertion that the Permit’s Total Phosphorus limits relied on a “flawed framing” of the Vollenweider analysis.); *see also* Pet’rs’ Reply Mem. at 9 (“But the Vollenweider analysis on which the Department relies did not account for the seasonal variability in the Transquaking watershed in and near Higgins Millpond. This shortcoming prevented the Department from determining whether, during dry and warm periods, the Facility’s discharge may constitute a greater percentage of the flow and nutrients into Higgins Millpond and would thus have a greater influence on water quality.”).

The Petitioners argue that if employing a model such as the Vollenweider model, more accurate information is necessary. *See* Pet’rs’ Opening Mem. at 25. To which the Department, yet again, employs its response that a complete assessment of the Transquaking River watershed is forthcoming: “[G]athering additional data would require stream gauges to measure water flow both into and out of Higgins Mill Pond, and the measurements would have to be gathered over years.” Ans. Mem. of MDE at 22. The fact that the Department does not have a different model, or more comprehensive information to employ within the model, is not a sufficient defense for the potential rate of error within the model. The greater level of deference afforded the Department in factual findings regarding scientific matters is substantially weakened by the lack of reliability of the Vollenweider model and its questionable status within the scientific community.

3. *The Department's over reliance upon a contested model to make its determinations rises to the level of arbitrary and capricious.*

The Department then employed the Vollenweider model to make discretionary determinations, namely, to (1) delay further assessment of Higgins Millpond and the non-tidal portions of the Transquaking River watershed, to (2) justify its reasoning that no modifications to the effluent limitations within the Permit were necessary. Notably, within the overall analysis, whether the Vollenweider model is a reasonable method to predict the degree of eutrophication within Higgins Millpond is secondary to whether it was reasonable of the Department to rely so heavily upon the model to make these determinations. Additionally, the Department then carries a burden to provide substantial evidence on the record demonstrating that the Permit will ensure compliance with water quality standards through such a reliance upon the Vollenweider model. *Carroll County*, 465 Md. at 201-04.

To reiterate, within discretionary decisions, the arbitrary and capricious standard is employed with the expectation that the agency will draw permissible and reasonable inferences and conclusions that are supported by competent and substantial evidence. *Baltimore Gas & Elec. Co.*, 305 Md. 145, 161-62 (1986). Thus, the question becomes whether the Department's over reliance upon a contested model to make its determinations rises to the level of arbitrary and capricious decision-making. The Department — and the record — are clear regarding its reliance upon the Vollenweider Model's analysis. *See* MDE-00091 ("For Higgins Millpond the Vollenweider Model was run....The results of that model confirmed that adding restrictions to the Valley Proteins discharge alone would not prevent eutrophication within Higgins Millpond.") (emphasis in original); *see also* Ans. Mem. of MDE at 18-19 ("The Department analyzed the feasibility of supplemental water quality-based limitations to further improve the

water quality of Higgins Mill Pond....The Department relied on the Vollenweider model, a mathematical model which analyzes a lake's eutrophication due to phosphorus loading...The analysis unfortunately concluded that Higgins Mill Pond would be eutrophic even without the phosphorus contributions from the Facility.”).

Because the record is clear regarding the level of reliance upon the Vollenweider model, and because of (1) the limited — and contested — acceptance by the scientific community, and (2) the potential rate of error of the model, the Court is not convinced that a reasoning mind could reach the factual conclusion the Department reached. Within a *Daubert* analysis, the Vollenweider model could very well find itself inadmissible because of the contested nature of the model's general acceptance within the scientific community and the potential rate of error. Adding the layer of a *Morten v. State* analysis, as a matter of fact, the Petitioners' rebuttal of the model exposes significant weaknesses within the model and diminishes the weight afforded to the results of the model. Additionally, when the Court also adds to the analysis the Department's ongoing lack of oversight in a complete assessment of the Transquaking River watershed, the Court finds that the Department's near singular reliance upon the Vollenweider model — and the conclusions drawn therein — arbitrary and capricious.

**D. Because the Department Did Not Consider the Facility's Potential Burden Towards Nonpoint Sources, the Department is in Error of Law or, in the Alternative, the Decision is Arbitrary and Capricious.**

“The term “point source” means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft,



from which pollutants are or may be discharged.” 33 U.S.C. § 1362(14). Point sources receive a wasteload allocation by the applicable TMDLs:

To enforce the TMDL limits and corresponding water quality standards, agencies that issue discharge permits seek to ensure that the total pollution discharged by point sources does not exceed the wasteload allocations in the relevant TMDLs. The combined pollution allotted to all of the point sources should equal the sum of the wasteload allocations in a TMDL. Therefore, the discharge permit for each point source is to contain water quality based effluent limitations consistent with the ‘assumptions and requirements’ of the wasteload allocation for that source in any applicable TMDL.

*Md. Dep’t of the Env’t v. Cnty. Commissioners of Carroll Cnty.*, 465 Md. 169, 193 (2019) (quoting 40 C.F.R. § 122.44(d)(1)(vii)(B)).

Nonpoint sources are “[u]ndefined by the statute” but include “dispersed runoff from rainwater or snowmelt that sweeps over buildings, farms, and roadways, and that carries pollutants and pesticides into navigable waters, their tributaries, and groundwater.” *Md. Small MS4 Coal. v. Md. Dep’t of the Env’t*, 479 Md. 1, 276 A.3d 573, 576-77 (2022). Because nonpoint sources are “unpredictable and amorphous nature...the Clean Water Act primarily targets point sources of pollution, using point source permits as its primary enforcement mechanism.” *Id.*

The Court gives careful consideration to the Department’s interpretation of law. *Blue Water Balt., et al.*, 260 Md. App. 246, 277 (2024). However, the Court cannot discern the Department’s permissible, reasonable inferences, and conclusions supported by competent and substantial evidence when the Department speaks in definitive terms regarding the Permit’s burden to account for nonpoint source effluent limitations. Ans. Mem. of MDE at 8 (“State and federal law simply do not require effluent limitations beyond those required by the TMDLs, particularly when sources not directly regulated by federal law, such as agriculture, contribute the majority of pollution to the Transquaking River and Higgins Mill Pond.”). The originating documents of the Transquaking TMDL — and MDE’s assurances found therein, EPA’s guidance, and Maryland

case law all reveal more nuance to the matter where the Department asserts there is none. For the Department to speak so definitively — and then with such a conclusion sidestep any responsibility the Facility may bear towards accounting for nonpoint source discharges within the Permit — leads to an error of law, or in the alternative, results in arbitrary and capricious decision-making.

Petitioners assert that both State and federal law “direct and empower the Department to take necessary steps to ensure compliance with water quality standards *in the Permit*.” Pet’rs’ Opening Mem. at 26 (emphasis in original). To support this assertion, Petitioners cite a section of *Maryland Small MS4 Coalition, et al. v. Maryland Department of the Environment* (“*MS4 Coalition*”) that outlines the general expectations of effluent limitations for point sources in a NPDES permits. This Court will begin by quoting the section in its entirety:

Both point and nonpoint sources impact water quality, but the Act's enforcement mechanism is through point source permits. Thus, if there is an excess of nonpoint source pollution impairing a body of water — despite the measures taken to reduce nonpoint source pollution — point source permits must impose a ‘more stringent limitation’ to counterbalance the nonpoint source pollution and protect the water quality. ‘Water quality standards are retained as a supplementary basis for effluent limitations, however, so that numerous point sources, despite individual compliance with effluent limitations, may be further regulated to prevent water quality from falling below acceptable levels’. Thus, water quality standards provide the link for how point source regulation under the Act accounts for nonpoint source pollution.

*Md. Small MS4 Coal.*, 479 Md. 1, 276 A.3d 573, 578 (2022) (quoting *EPA v. California ex rel. State Water Res. Control Bd.*, 426 U.S. 200, 205 n.12, 96 S.Ct. 2022, 48 L.Ed.2d 578 (1976)).

This Court notes the placement of this section, which is right before *MS4 Coalition* narrows its focus onto the matter within the opinion — that of expectations surrounding municipal separate storm sewer systems (“MS4s”). Thus, in very common fashion, *MS4 Coalition* begins with the broader parameters of the legal principles before narrowing in on those most applicable to the matter before *MS4 Coalition*.

The Department asserts that *MS4 Coalition* is inapplicable as the case is regarding MS4s. Ans. Mem. of MDE at 16 (“*Maryland Small MS4 Coalition* addressed pollution control for municipal separate storm sewer systems (‘MS4s’), a distinct class of NPDES dischargers with a unique standard of pollution control — the “maximum extent practicable,” or “MEP,” standard — in the Act.”). Within the Department’s analysis, the Department focuses solely upon the holding of the opinion — rather than upon the general rule *MS4 Coalition* initially outlines prior to its analysis. The Department does not argue that the general rule is incorrect. Instead, the Department shifts the focus away from the general rule that *MS4 Coalition* initially outlines and, rather, places emphasis upon a holding that is inapplicable in the matter before this Court.

The Permittee also asserts that the Petitioners’ use of the *MS4 Coalition* general rule is inapplicable to counter the Petitioners’ argument that necessary Permit terms to ensure compliance with water quality standards could require the Department to “shift TMDL allocations from nonpoint sources to point sources.” Pet’rs’ Opening Mem. at 26. The Permittee asserts that this amounts to the Petitioners claiming the MDE should “throw out the WLAs under the Bay TMDL” and does not account for the waterways with “enhanced protections under a TMDL.” Mem. of Darling Ingredients, Inc. in Opp. at 12-13. The Permittee begins its analysis by impliedly acknowledging the validity of the rule description: “[T]his quotation is merely a general statement regarding NPDES permitting.” *Id.* at 13. However, the Permittee asserts that “enhanced protections under a TMDL” cut against the general rule’s statement. *Id.* The Permittee then cites from a section of *MS4 Coalition* wherein the opinion had already transitioned from general rules regarding NPDES permits to the specifics regarding MS4 permits. Said another way, the Permittee’s support is immaterial to the matter at hand as the support is specifically regarding MS4s. Thus, like the Department, the Permittee does not attack the *MS4 Coalition*

articulation of the general rule surrounding NPDES permitting and point sources. The Permittee misapplies *MS4 Coalition* to counter the Petitioners' use of the general rule.

A common tradition within a court's analysis is to apply general rules of applicability within cases whose holdings may, ultimately, not apply. The same is true in this matter: this Court is comfortable using the general rule explained by *MS4 Coalition* because of its position within the opinion and its applicability to the matter at hand. Therefore, the Court acknowledges that point sources may bear an additional burden to account for nonpoint source discharge.

Additionally, the general rule within *MS4 Coalition* was not born within a vacuum. The rule aligns with, among other things, the EPA's guidance that "[i]n order to allocate loads among both nonpoint and point sources, there must be reasonable assurances that nonpoint source reduction will in fact be achieved. Where there are not reasonable assurances, under the CWA, the entire load reduction must be assigned to point sources." EPA, GUIDANCE FOR WATER QUALITY-BASED DECISIONS: THE TMDL PROCESS EPA PROCESS OF WATER (1991). Further, within the originating documents for the Transquaking TMDL, MDE assured the EPA that nonpoint source reduction would be achieved. *See discussion Supra* Section I(C).

The Court, like the Petitioner, makes clear that though a facility may bear an additional burden to account for nonpoint source discharge, this does not equate to a facility bearing the sole responsibility. Pet'rs' Reply Mem. at 4; *see also* Ans. Memo. of MDE at 15. However, some compensation may be necessary. *Md. Small MS4 Coal.*, 479 Md. 1, 276 A.3d 573, 578 (2022) ("[P]oint source permits must impose a 'more stringent limitation' to counterbalance the nonpoint source pollution and protect the water quality."). Further, upon the approval of the Transquaking TMDL, the Department made mandatory assurances to the EPA regarding nonpoint source reductions. Absent those reassurances, the EPA would have required the

Department to transfer part of the discharge from nonpoint sources to the Facility. Said another way, and to borrow verbiage from the law of contracts, the EPA relied on the promise by the Department that nonpoint source reductions would be met. Without such a promise, the EPA would have required the Facility to take on a larger Total Nitrogen and Total Phosphorus waste load allocation. When the Department states that federal law simply does not require effluent limitations beyond those required by the TMDLs, such a statement assumes that the TMDL in question is already approved. The Department's statement does not present what that approval was predicated upon. Thus, if the Department were to go back a step, federal law could quite possibly have required additional effluent limitations upon the Facility had the Department not made the reassurances it made.

What has resulted is a situation wherein the EPA acted in reliance upon the MDEs promise — by approving the Transquaking TMDL — and that promise has remained unfulfilled. The Department employs the outsized contribution of nonpoint sources to assert that the Facility bears no burden, without seeming to understand that this very assertion also points to the Department's failure to uphold this very essential reassurance found within the Transquaking TMDL to mitigate nonpoint source discharge.

To that end, the Department is incorrect that State law does not require effluent limitations beyond those required by the TMDLs: a more stringent limitation may sometimes be necessary to ensure water quality standards. *Md. Small MS4 Coal.*, 479 Md. 1 (2022). In the alternative, if not in error of law, the Department's reasoning reflects a failure to consider an important aspect of the problem such as the case law and EPA's expectation of reassurances. Because the Department has not ensured that nonpoint source reduction is alleviated through robust best management practices and programs, the Facility's allocation needs be reconsidered.

**E. The Department's Delayed Assessment of Addressing Water Quality Impacts for the Entirety of the Transquaking River Watershed Results in Arbitrary and Capricious Decision-Making.**

COMAR 26.08.04.02.A.1 states, in part, that the Department “shall issue or reissue a discharge permit upon a determination that” the discharge will comply with all applicable requirements. As Petitioners note, “[t]he law is not aspirational on this point; the Department ‘shall’ make a determination to ‘ensure’ the permitted discharge will comply with all water quality standards and other requirements.” Pet’rs’ Opening Mem. at 14 (quoting COMAR 26.08.04.02.A.1). The Department concedes that there is a larger issue regarding the water quality of Higgins Millpond but asserts that the Permit review is not the proper forum for those concerns. MDE-00106. On one level, this Court fully agrees: the necessary and comprehensive analysis of Higgins Millpond, long overdue, is not directly at issue in this matter. However, the water quality of Higgins Millpond — and the non-tidal portions of the watershed — fits within a larger question within this Permit review of (1) whether the Department can have reasonably reached the conclusions within the Permit with such limited information pertaining to the entirety of the Transquaking River watershed, and thereby (2) whether the Department’s failure to act in making such an assessment reflects an abdication of its basic responsibility to make a determination as required by COMAR 26.08.04.02.A.1.

Previously, the Department asserted that a comprehensive assessment of the Transquaking River watershed can exclude Higgins Millpond: Higgins Millpond, the Department reasons, is assessed and analyzed separately. *See* discussion *Supra* Section I(B)(1). However, inherent within this statement is the assumption that the waterbodies encompassed within these numerous

examples were, in fact, addressed. This is not the case with Higgins Millpond and the non-tidal portions of the Transquaking River watershed. To be clear, the Department maintains broad discretion on, among other things, decision-making, allocation of resources, and setting priorities. However, in this case, that same discretion is set against the Department's repeated reasoning for a delayed assessment. Consequently, the Department has effectively abandoned its responsibility to determine that the Permit will comply with water quality standards.

The delay in a thorough assessment of the Transquaking River watershed is — now — unreasonable. “You may delay, but time will not”<sup>2</sup> is a most fitting statement when this Court considers the impacts of the ever-increasing delays of a complete and thorough assessment of the Transquaking River watershed. Though the Department has delayed, time and the record, has shown that such a delay has led to the increasing degradation of the watershed. The delayed assessment — no matter how well reasoned and supported initially — has become less acceptable and more unreasonable over time as the water quality continues to worsen with clear detrimental impacts to health and human welfare. *See* discussion *Supra* Section I(A)(1); *Id.* at I(B)(1).

The Permittee asserts that “MDE committed no error by acknowledging the need for ongoing assessment of the Higgins Millpond due to the impacts of non-point sources.” Mem. of Darling Ingredients, Inc. in Opp. at 18. The Permittee additionally asserts: “Petitioners should be encouraged by — not critical of — MDE’s commitment to evaluate and address the substantial nutrient loads in the Higgins Millpond that are attributable to non-point sources...It is unclear why the Petitioners would take issue with MDE’s proactive approach to improving conditions in the Millpond.” Mem. of Darling Ingredients, Inc. in Opp. at 19. Though the Department may not

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<sup>2</sup> Benjamin Franklin

be in error of law, the decision-making is, assuredly, arbitrary and capricious. Within its assertion, the Permittee fails to acknowledge that the Department has maintained this similar line of reassurances since the inception of the Transquaking TMDL. Additionally, the Permittee does not acknowledge the statutory burden that is required of the Department towards the entirety of the Transquaking River watershed. *See* discussion *Supra* Section I(B)(1); *see also* I(C). Thus, the Permittee asks this Court to continue to take comfort in what may amount to another unfulfilled, and now unreasonable, reassurance by the Department.

The Department has repeatedly stated that Higgins Millpond and the non-tidal portions of the watershed would require “more thought and study.” *See* discussion *Supra* Section I(B)(1). This stance has taken on variations in form but the overarching narrative is to consistently reassure the public that an assessment was forthcoming. Impliedly, within these statements, the Department acknowledges its burden to assess and address the entirety of the Transquaking River watershed yet continues to delay the process. Consequently, from the outset of the permitting process, the Department is significantly limited in showing how the Permit will comply with water quality standards because of the lack of a complete and accurate assessment. Because of the delayed assessment, the Department is unable to generate substantial evidence on the record.

The Department’s decision not to assess Higgins Millpond and the non-tidal portions of the Transquaking River watershed cuts against (1) its responsibility towards the entirety of the watershed within the Transquaking TMDL when allocating loads to various sources, (2) its own discretionary decision to assess Higgins Millpond separately, (3) its responsibility to consider an important aspect of the problem, and (4) its ability to make a determination that the Permit will comply with all water quality standards and other applicable requirements. *See* COMAR 26.08.04.02.A; *see also* Md. Code Ann., Env’t § 9-323(a)(1)(2019). Because the Department has



delayed a comprehensive analysis, the Department has "failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency" and, therefore, "is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Anacostia Riverkeeper*, 447 Md. 88, 121 (2016) (quoting *Natural Res. Def. Council*, 808 F.3d at 569).

**F. The Department's Rejection of Supplemental Concentration-Based WQBELs is Unsupported by the Record and Results in Arbitrary and Capricious Decision-Making.**

The EPA has stated that TMDLs, like the Transquaking TMDL and Bay TMDL, will sometimes need to add supplemental water quality-based limitations to address localized impacts. A mechanism to do so is provided. *See* discussion *Supra* Section II(B)(2)(b). Though this mechanism is discretionary, the Department's discretion is not absolute. Petitioners argue that due to the necessity to address localized impacts within the Transquaking River watershed, and due to the limitations of the applicable TMDLs to do so, the Department's decision not to implement supplemental water quality-based limitations is now arbitrary and capricious.

The Court addresses this matter last because the reasoning is taken from the aggregate of the matters already considered by the Court. For example, the Department relied on the Vollenweider analysis to determine that supplemental water quality-based effluent limits would not positively impact Higgins Millpond. Ans. Mem. of MDE at 18-20. However, this geographically truncated conclusion by the Department does not consider the impact supplemental water quality-based limitations may provide to the entirety of the Transquaking River watershed. *See* Ans. Mem. of MDE at 18 ("The Department analyzed the feasibility...to further improve the water quality of Higgins Mill Pond."). Additionally, regarding seasonal

variations, as the Petitioners note, “the Department and the Permittee improperly characterize the Facility’s contribution of nutrients to the Transquaking watershed...framing is flawed by its failure to consider seasonal variation...the Department abandons this understanding of seasonal variation in the Permit and relies solely on total annual allocations (lbs/year) for Total Phosphorus and Total Nitrogen.” Pet’rs’ Reply Mem. at 9. Further, as the Court has noted, the Department’s failure to assess the entirety of the watershed automatically makes any conclusions drawn suspect. *See* discussion *Supra* Section III(D).

To reiterate, supplemental water quality-based effluent limits exist for circumstances just like the ones seen within the Transquaking River watershed: when seasonal variations — which informed the creation of the more granular Transquaking TMDL— have an outsized impact on the entirety of the watershed. The EPA acknowledged that a need such as this one may arise, and so it has. Again, the basis upon which the Department decided not to address localized impacts of seasonal variations through supplemental concentration-based WQBELs renders the Department’s decision arbitrary and capricious.

Additionally, the foundation upon which the Department created the limits for Total Nitrogen and Total Phosphorus, without considering supplemental concentration-based WQBELs, was built upon shaky ground unsupported by the record. The Court cannot conclude that a sound reasoning process has its foundation upon comparisons with one of the oldest administratively extended permits in Maryland, outdated and/or absent data, questionable methodologies, and a refusal to use the additional tools, information, and force of law available to the Department. As such, the Court cannot discern the Department’s reasoning and remands the Permit so that the Permit can ensure water quality standards.

#### **IV. THE COMPLIANCE SCHEDULE IS NOT VIOLATIVE OF LAW AND IS REASONABLE.**

The Petitioners claim that the compliance schedule violates the “shortest reasonable time” provision of COMAR 26.08.04.02C, which states, in part, that “(1) The Department may impose a compliance schedule as a condition of a permit for existing discharges which do not comply with permit conditions, effluent limits, or water quality standards. (2) When a compliance schedule is imposed, the Department shall: (a) Require the permittee to achieve compliance within: ... (ii) In the absence of any legally applicable schedule of compliance, the shortest reasonable time consistent with the requirements of the Federal Act and State law or regulation.” The Petitioners base this upon the administratively extended permit, the Permittee’s ample notice, and the fact that the compliance schedule is in place to support business expansion. Pet’rs’ Opening Mem. at 29-30.

The Department claims that the permit meets the threshold requirements of COMAR 26.08.04.02C as “existing discharges which do not comply with permit conditions, effluent limits, or water quality standards,” to which this court agrees. COMAR 26.08.04.02C; *see also* Ans. Mem. of MDE at 22-23. The schedule is needed, the Department asserts, for necessary upgrades to the Facility. *Id.* The Permittee adds to this claim by asserting that to meet even the bare minimum requirements of the new Permit, facility upgrades are necessary and to achieve such, considering financing and construction complications, a compliance schedule is a necessity. Mem. of Darling Ingredients, Inc. in Opp. at 25-27; MDE-00123 (“Valley Proteins upgrade is likely to be complicated. It will self-finance the upgrade...global supply chain has not returned to normal...sophisticated engineering and specialized design...engineering and design work cannot be finalized until final permit is issued...work is dependent on the terms of the final

permit...cost of the upgrade, and the financing...dependent on final engineering and design plans...best professional judgement, that 3-years is an appropriate timeframe.”).

Regarding the timeline for construction and upgrades to the Facility’s treatment plant: no matter whether the Permit should have already been updated or whether the Permit should have already brought its treatment plant into compliance, the fact remains that for that to happen now, a compliance schedule is lawful, necessary, and reasonable. *See* Pet’rs’ Opening Mem. at 29; *see also* Ans. Mem. of MDE at 23; *see also* MDE-00123 (“Valley Proteins is not being given 3 years to come into compliance. VP [Valley Proteins] must be in compliance with the terms of the renewal permit immediately upon its effective date. However...the Department has determined that substantially stricter limits are appropriate, which will require upgrades to the existing wastewater treatment works.”). The Court understands that achieving the contemplated modifications cannot be accomplished immediately. Here, the compliance schedule is lawful, reasonable, and supported by the record.

## **V. THE REMOVED SUBSTANCES PROVISION ENSURES COMPLIANCE WITH WATER QUALITY STANDARDS AND MARYLAND LAW.**

At issue is whether the Permit terms regarding removed substances must do more to ensure removed substances are transferred to parties with a Maryland Department of Agriculture (“MDA”) approved Nutrient Management Plan (“NMP”) — the mechanism wherein agricultural operations can apply the removed substances as fertilizer.

Removed substances are defined in the Permit as “any and all wastewater treatment solids removed from the facility for off-site disposal.” MDE-00021. Petitioners add a layer to this definition by asserting that removed substances fall within the scope of the Environmental

Code's definition of a "Pollutant": "(1) Any waste or wastewater that is discharged from: ... (ii) An industrial source; or (2) Any other liquid, gaseous, solid, or other substance that will pollute any waters of this State." Md. Code Ann., Env't § 9-101(g) (West); Pet'rs' Opening Mem. at 33 (noting that Md. Code Ann., Env't § 9-101(j)(1) defines "Solid waste" as "any garbage, refuse, sludge, or liquid from industrial, commercial, mining, or agricultural operations or from community activities."). Thus, Petitioners use the term "waste sludge" interchangeably with the term "removed substances."

The land application of removed substances is common practice. Petitioners' main concern with the removed substances provision of the Permit is that the Permit "does not enable the Department or the Permittee to ensure that waste sludge, or removed substances, will not be placed in a location where it is likely to pollute." Pet'rs' Reply Mem. at 10. The Petitioners assert that the Department must ensure "*some* level of verification by the Permittee and the Department that farms receiving the removed substances have an approved nutrient management plan." Pet'rs' Reply Mem. at 12 (emphasis in original). Removed substances, the Petitioners assert, could very well be placed back in the waters of the State by ungoverned third parties. Pet'rs' Reply Mem. at 12 (noting Petitioners' reference to a storage tank spill where removed substances were released into wetlands.).

Generally, the Permit regulates discharge of pollutants into the waters of the State. Ans. Mem. of MDE at 24; *see also* Md. Code Ann., Env't § 9-101(l) (defining "Waters of this State" as including, among other things as "(1) Both surface and underground waters within the boundaries of this State subject to its jurisdiction...Chesapeake Bay and its tributaries, and all ponds, lakes, rivers, streams, public ditches, tax ditches, and public drainage systems within this State."). The subject of dispute is the scope provided to the Department to "verify that all

removed substances will be transferred into a regulatory framework designed to protect water quality.” Pet’rs’ Reply Mem. at 12. The Department asserts that the permit terms for removed substances are “[t]o ensure the Facility does not also discharge these removed substances onsite, the Permit contains certain related conditions: ... reporting of removed substances ... sludge management ” so as “[t]o prevent them or runoff associated with them from discharging into waters of the State.” Ans. Mem. of MDE at 24. However, the Department asserts that the burden for accounting for the removed substances removal stops at the Facility. *See* Mem. of Darling Ingredients, Inc. in Opp. at 28 (noting that the Permittee asserts the Petitioners “seek to expand the scope of the Permit to require oversight by Darling Ingredients of farmers applying sludge as fertilizer pursuant to an NMP.”). Additionally, the Department asserts, tracking the removed substances beyond the Facility creates a conflict of agency oversight as NMPs are under the MDA. Ans. Mem. of MDE at 25. To track the application of the removed substances further than the Facility would require MDE’s cooperation with the MDA that the Department believes is out of its purview. *See* Ans. Mem. of MDE at 25. (“The Department of Agriculture considers NMPs as confidential documents, generally not subject to disclosure under the Public Information Act.”).

Petitioners respond that the Permit’s own language, specifically paragraph three of the removed substances section, conflicts with the thrust of the Department’s argument that the Department’s accounting for removed substances stops at the Facility. Pet’rs’ Reply Mem. at 11 (“[T]his reasoning is inconsistent with the Permit language itself and the record. The Permit terms — on their face — go beyond disposal or land application onsite at the Facility.”).

Paragraph three of the removed substances section states: “Substances, such as solids, sludges, or other pollutants removed from or resulting from treatment or control of wastewaters, or facility

operations, *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.*” MDE-00022 (emphasis added). The MDE, within comments regarding the final Permit, explained the scope of the provision this way:

*The purview of this NPDES permit is to regulate direct discharges from the site into surface waters of the State. In order to ensure sludge pollutants do not enter surface waters directly from the site, the permit prohibits all on-site sludge disposal. While the permit does contain requirements for tracking of removed substances, the purpose of this within the construct of an NPDES permit is to ensure all sludges are accounted for so that the Department can enforce the prohibition on direct discharge. Further controls regarding off-site handling and disposal of removed substances fall outside the scope of an NPDES permit.*

MDE-00127 (emphasis added).

Even though “further controls regarding off-site handling and disposal of removed substances” may fall outside the scope of an NPDES permit, the Petitioners argue that who the removed substances are passed onto and whether they have a NMP is well within the Department’s purview. Pet’rs’ Reply Mem. at 12 (noting that “Petitioners’ concerns focus on whether the Permittee or the Department can verify that waste sludge” is in compliance with the Permit terms and State law.). Petitioners agree, however, that it is within the authority of the Maryland Department of Agriculture to “oversee the creation and implementation of Nutrient Management Plans (‘NMPs’).” Mem. of Darling Ingredients, Inc. in Opp. at 28. Expanding the Permit to require oversight of third-party NMPs would shift the recipient farm’s burden of compliance to Darling Ingredients, which “was directly rejected by MDE in response to comments on the draft permit and has no legal basis under the CWA or Maryland law.” *Id.* Further, the NMPs are considered “confidential documents, generally not subject to disclosure under the Public Information Act.” Ans. Mem. of MDE at 25. The Facility would not be privy to the NMPs of third-party locations.

As the Permit stands at present, it prohibits the onsite discharge of removed substances and requires an accounting for all removed substances. It is undisputed that the offsite usage of removed substances as fertilizer is allowed. Further, the offsite usage of removed substances are regulated by the Department of Agriculture, pursuant to a third-party Nutrient Management Plan. In this regard, the Department has provided substantial evidence on the record demonstrating that the removed substances provision of the Permit will ensure compliance with water quality standards and Maryland law, to the extent that it can in light of the above-described regulatory framework.

## **VI. CONCLUSION**

For the reasons explained, the Court remands the Permit. The Permit is to include terms that ensure any discharges from the Facility will conform to Maryland and federal law and ensure compliance with water quality standards in the Transquaking River watershed.

In as far as the compliance schedule addresses a construction timeline, the compliance schedule is lawful, reasonable, and supported by the record.

In as far as the Permit contemplates a removed substances provision, the current removed substances provision adequately ensures compliance with water quality standards and Maryland law, to the extent that it can, in light of the above-described regulatory framework.

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A handwritten signature in black ink, appearing to read "William H. Jones", written over a horizontal line.

Judge

William H. Jones