BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

DES PLAINES RIVER WATERSHED ALLIANCE, LIVABLE COMMUNITIES ALLIANCE, PRAIRIE RIVERS NETWORK, and SIEERA CLUB,	)	
Petitioners,	)	
v.	)	PCB 04-88 (NPDES Permit Appeal)
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY and VILLAGE OF NEW LENOX,	)	
Respondents.	)	

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PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Pollution Control Board an original and four (4) copies of the **AGENCY'S RESPONSE TO PETITIONERS' MOTION FOR AND MEMORANDUM OF LAW IN SUPPORT OF SUMMARY JUDGMENT** of the Illinois Environmental Protection Agency, a copy of which is herewith served upon you.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By:_____
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Dated: May 24, 2005
Illinois Environmental Protection Agency
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RESPONSE TO PETITIONERS' MOTION FOR AND MEMORANDUM OF LAW IN SUPPORT OF SUMMARY JUDGMENT

NOW COMES the Respondent, Illinois Environmental Protection Agency ("Illinois EPA" or "Agency") by and through its attorney, Sanjay K. Sofat, Assistant Counsel and Special Assistant Attorney General, pursuant to 35 Ill. Adm. Code 101.516, and the Hearing Officer Order dated April 28, 2005, hereby submits this response to Des Plaines River Watershed Alliance, Livable Communities Alliance, Prairie Rivers Network, and Sierra Club's (hereinafter "Petitioners") Motion for and Memorandum of Law in Support of Summary Judgment to the Illinois Pollution Control Board ("Illinois PCB" or "Board"). The Illinois EPA respectfully requests that the Board **DENY** the Petitioners' Motion for Summary Judgment, as there exist genuine issues of material fact and Petitioners are not entitled to judgment as a matter of law. In support of its Response, the Agency states as follows:

MOTION FOR SUMMARY JUDGMENT

1. On June 10, 2002, the Agency received the Village's application for expansion of its existing wastewater treatment plant. The Village is proposing to expand the plant design average flow from 1.54 million gallons per day ("MGD") to 2.516 MGD; and the design maximum flow from 4.0 MGD to 5.963 MGD in Phase 1 and to 7.93 MGD in Phase 2. *Agency Record at 424.*

2. The Village's application concerns an existing source that was built in 1973 to treat waste water. The Village is requesting expansion of the treatment plant at 301 North Cedar Road ("plant" or "STP 1") based on projected growth in the community and also because the plant is operating at 85 percent capacity. *Agency Record at 354.*

3. The Village also operates a treatment plant ("STP 2") that discharges into Jackson Branch of Jackson Creek. *Agency record at 354.*

4. The Village's STP 1 discharges into Hickory Creek, which is a general use water. *Agency record at 354.* Hickory Creek is a tributary of the Des Plaines River, which flows in Will County. *Agency Record 115.* Hickory Creek has a flow of 2.4 cubic feet per second ("cfs") during critical 7Q10 flow, and is rated a "C" stream under the Agency's Biological Stream Characterization ("BCS") system. *Agency Record at 5*

5. Hickory Creek, segment GG-02, is listed on the Illinois' impaired waters list, Illinois 303(d) list. *Agency Record at 5.* The potential causes of impairment at the time of listing were nutrients, phosphorus, nitrogen, salinity/TDS/Chlorides, TDS (chlorides), flow alterations, and suspended solids. The potential sources

associated with the impairment are municipal point sources, combined sewer overflows, construction, land development, urban runoff/storm sewers, hydrological/habitat modification, and flow regulation/modification. *Agency record at 5.*

6. Hickory Creek is not listed as a biologically significant water body in the Illinois Natural Survey publication *Biologically Significant Illinois Streams*. According to this publication, Hickory Creek does not support any threatened or endangered species. *Agency record at 5.*

7. The Agency conducted a facility related stream survey in 1991. This facility related stream survey is not representative of the current stream conditions as the facility has been expanded since the 1991 survey. *Agency record at 5.*

8. At the Agency's request, the Village performed a macroinvertebrate survey of Hickory Creek below the plant's discharge in August 2002. The survey found pollution intolerant organisms both upstream and downstream of the existing discharge from STP 1. *Agency record at 5.*

9. On December 17, 2002, the Agency sent a draft NPDES permit to the Village for its review and requested comments within fifteen (15) days of the date of the letter. *Agency Record at 572.*

10. The Village provided comments during the 15-day notice period. The Village had no objections to the proposed conditions of its permit. *Agency Record at 591.*

11. The Agency public notice the draft permit on January 5, 2003 for thirty (30) days. No changes were made to the draft permit prior to the public notice. *Agency Record at 598.*

12. Petitioners provided comments at the public hearing held on April 24, 2003. *Agency record at 61-104.* Petitioners also provided written comments to the Hearing Officer. *Agency record at 107-322.*

13. Petitioners provided the following comments[1] regarding the draft permit conditions:

i. The draft permit allowed discharges of phosphorus and nitrogen that cause, have a reasonable potential to cause or contribute to violations of the water quality standards regarding offensive conditions, 302.203.
ii. The drat permit allows discharges that may cause, have a reasonable potential to cause or contribute to violations of state water quality standards regarding dissolved oxygen, 302.206, and copper, 302.208(e) in violation of 40 CFR 122.44(d) and 309.141.
iii. The draft permit and the studies and lack of studies that led to the creation of the draft permit did not comply with Illinois' Anti-degradation rules protecting the exiting uses of the receiving stream.

14. Petitioners asked the Agency to modify the permit in the following respect:

i. Provide for economically feasible controls on the discharge of nutrients including phosphorus and nitrogen.
ii. The limits in the permit be such to prevent discharges that could cause or contribute to violations of water quality standards regarding offensive conditions and dissolved oxygen.
iii. Proper biological studies be conducted to assure that the discharge would not adversely affect uses of stream.
iv. Consider whether the increased discharge was actually necessary in light of potential alternatives; and
v. Consider alternatives to allowing the levels of pollutants in the streams that would be allowed by the draft permit.

15. In response to the public's comments, the Agency made the following changes to the draft permit:

i. The Village's discharge is subjected to ammonia limits for spring/fall months;
ii. Total dissolved solids from the discharge are limited to a daily maximum concentration of 1000 milligram per liter ("mg/L"); and
iii. The Village's discharge is subjected to the dissolved oxygen limit of 6 mg/L.

[1] Petitioners' motion for summary judgment at 3.

Agency record at 353.

16. On October 31, 2003, the Agency approved the Village's NPDES permit renewal request. *Agency record at 353.*

17. On December 2, 2003, Petitioners filed a petition for review of the Agency's final decision.

18. On December 18, 2003, the Board found the Petitioners' petition to meet requirements of 35 Ill. Adm. Code 105.210 and Section 40(e)(2) of the Illinois Environmental Protection Act ("Act").

19. On February 4, 2005, Petitioners filed their motion for summary judgment with the Board.

20. Petitioner argues that the final permit, as issued, violates 35 Ill. Adm. Code 302.105, 304.105, and 309.141. *Mot at 5.*

21. Contrary to Petitioners' claim, the Agency's anti-degradation analysis did comply with 35 Ill. Adm. Code 302.105(c). *Agency record at 005-007; 372-374; 357; 358.* The Agency's anti-degradation analysis, in accordance with Section 302.105(c), did consider all technically and economically reasonable alternatives to avoid or minimize the increase in pollutant loading. In this case, the Village considered land application of the proposed increase in discharge, use of water by a golf course, and regionalization of plants as alternatives to the proposed discharge. A land application system to treat 0.93 MGD would cost approximately $23, 300, 000. The Agency determined that land application alternative is not feasible, both technically and economically, because the land

costs and the pumping and transmission costs would be prohibitive. *Agency record at 006, 374.*

22. Contrary to Petitioners' claim, the permit, as issued, does not violate 35 Ill. Adm. Code 302.203 ("offensive conditions") or numeric water quality standard for copper. *Agency record at 6; 356; 357; 361; 363; 365; 366.* Illinois does not have numeric water quality standards for nutrients that apply to Hickory Creek. The Agency considered the application of the narrative standard at Section 302.203, which prohibits "plant and algal growth of other than natural origin." *Agency record at 357.* The Agency concluded that no permit limits for nutrient is required as the incremental loading of nutrients from the discharge is not expected to increase algae or other noxious plant growth, or diminish the present aquatic community or otherwise worsen the existing stream conditions. *Agency record at 6.*

The Agency did not include copper limits in the Village's permit as it has no reasonable potential to exceed the chronic water quality standard. Also, the Agency data does not show that Hickory Creek contains significant amounts of metals. Further, the land use in the area or the effluent itself are not significant sources of copper. *Agency record at 361.*

23. Contrary to Petitioners' claim, the permit, as issued, does not violate 35 Ill. Adm. Code 304.105. *Agency record at 5-7; 369; 370; 361; 365; 366.* The Agency determined that the Village's discharge will meet all applicable water quality standards. *Agency record at 7.* The Agency further concluded that all existing uses will be fully protected. The Village's discharge will meet ammonia standard,

as the permit limit is set at water quality standard. *Agency record at 356-357.* The discharge is subjected to the most stringent effluent standards for BOD in accordance with 35 Ill. Adm. Code 304.120. The TDS limits in the permit are set at water quality standards. *Agency record at 7.* Also, the Village's discharge is subjected to dissolved oxygen limit which is set at water quality standard of 6 mg/L. *Agency record at 353.* Further, Contrary to Petitioners' claim, the permit, as issued, does not violate 35 Ill. Adm. Code 309.141(d). *Agency record at 5-7; 359; 360; 364.*

24. Contrary to Petitioners' claim, the permit, as issued, protects the existing uses of Hickory Creek. *Agency record at 5-7; 368; 369.* The Agency's anti-degradation analysis concludes that the discharge from the proposed expansion would not impair the existing uses of Hickory Creek. *Agency record at 368.* A stream survey performed by the Village showed that the existing discharge has not caused any significant impact to the receiving stream as measured by macroinverteberates.

25. As a relief, Petitioners requests the Board to direct the Agency to i) assure that all technically and economically reasonable measures to avoid or minimize the extent of nutrient loadings to Hickory Creek; ii) assure that discharges not cause or contribute to violations of the water quality standard prohibiting "offensive conditions"; and iii) assure that discharge not cause or contribute to violations of numeric water quality standard for copper. *Mot at 7.*

26. As is evident from the Agency's discussion in "Material Facts In Dispute", there are genuine issues as to material facts. Also, Petitioners are not entitled to

judgment as a matter of law. Further, the Petitioners' right is not clear and free from doubt.

27. Therefore, the Board must DENY the Petitioners' motion for summary judgment as Petitioners have failed to show that no genuine issue as to any material fact exist and Petitioners are not entitled to the judgment as a matter of law.

WHEREFORE, the Agency respectfully requests that the Board DENY Petitioners' Motion for Summary Judgment, as genuine issue as to many material facts exist, and further because the permit, as issued, does not violate the applicable provisions of the Act or Board regulations.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: _____

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Special Assistant Attorney General

DATED: May 24, 2005
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STANDARD OF REVIEW

The "purpose of a summary judgment proceeding is to determine whether there are any genuine issues of triable fact." *Kobus v. Formfit Co.*, 35 Ill.2d 533, 538, 221 N.E.2d 633 (1966). The courts have granted a motion for summary judgment only when "the pleadings, depositions, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." 735 ILCS 5/2-1005(c), *also see*, *Fooden v. Board of Governors*, 48 Ill.2d 580, 586-87, 272 N.E.2d 497 (1971), *cert. denied* (1972), 408 U.S. 943, 92 S.Ct. 2847 (*emphasis added*). "While use of the summary judgment procedure is to be encouraged as an aid in the expeditious disposition of a lawsuit, it is a drastic means of disposing of litigation and therefore should be allowed only when the right of the moving party is clear and free from doubt." *Purtill v. Hess*, 111 Ill.2d 229, 239, 489 N.E.2d 867, 871 (1986) (*emphasis added*), *citing Allen v. Meyer*, 14 Ill.2d 284, 292, 152 N.E.2d 576 (1958); *Beverly Bank v. Alsip Bank*, 106 Ill.App.3d 1012, 1016, 62 Ill. Dec. 572, 436 N.E.2d 598 (1982); *Schnabel v. County of Du Page*, 101 Ill.App.3d 553, 560, 57 Ill.Dec. 121, 428 N.E. 2d 671 (1981).

The Board's ruling in *Roger Stone v. Illinois EPA and Naperville Park District*, PCB 01-68 (January 18, 2001) is directly applicable here. *Roger Stone* involved a third party permit appeal of an NPDES permit. In denying the petitioner's motion for summary judgment, the Board stated that, "there are still factual issues which must be further developed at hearing." *Id. at* 5. The Board's holding was based on "the Agency list of issues as well as conflicting factual statements in the pleadings by the parties." *Id.*

MATERIAL FACTS IN DISPUTE

It is evident that the following material facts are in dispute, and therefore, need to be developed through the discovery process and at the Board hearing.

Hickory Creek

In the Statement of Relevant Facts[2], Petitioners states that, "Hickory Creek ... was once known for its exceptionally high water quality and biological integrity." Phillip Smith (1971) was quoted indicating that "Hickory Creek is the outstanding stream in the [Des Plaines River] system and contains populations of such unusual species as the northern hogsucker, rosyface shiner, and slender madtom." (HR115). SOF ¶1.

The Agency disputes the Petitioners' statement in SOF ¶1. It is not clear from the above statement if the outstanding conditions in Hickory Creek existed throughout the Creek. The relevant fact here is whether these outstanding conditions existed immediately upstream and downstream of the Village's STP plant outfall. According to Northeastern Illinois Planning Commission (1981), land use upstream of Pilcher Park was primarily agricultural while downstream land use was predominately residential and commercial with numerous sewers and Combined Sewers Overflows in the Joliet area. The Agency's water quality reports since 1986 have reported the upper 12 miles of Hickory Creek as fully meeting aquatic life use while the lower 10 miles were rated as partial support. The lower portion includes the Joliet metropolitan area. Rosyface shiner have recently (2003) been reported upstream and downstream of the Village's STP 1. Further, Hickory Creek is not on the current list of biologically significant streams compiled by the Illinois Department of Natural Resources ("IDNR"). Furthermore, IDNR has noted that no threatened or endangered species exist in the vicinity of the

[2] Petitioners Statement of Relevant Facts is cited as SOF ¶.

segment of Hickory Creek in which the Village's STP 1 discharges. *Agency record at 371.*

Petitioners state that, "Dr. David Bardack … In fact, Hickory Creek has attained the status of a classic biological study area…. As a relatively unpolluted and unaltered stream with a diversified fauna...." (HR 108). SOF ¶3.

The Agency disputes the Petitioners' statement in SOF ¶3. It is not clear from the above statement if these conditions in Hickory Creek existed throughout the Creek. The relevant fact is whether these conditions exit immediately upstream and downstream of the Village's STP plant outfall. According to Northeastern Illinois Planning Commission (1981), land use upstream of Pilcher Park was primarily agricultural while downstream land use was predominately residential and commercial with numerous sewers and Combined Sewers Overflows in the Joliet area. The Agency's water quality reports since 1986 have reported the upper 12 miles of Hickory Creek as fully meeting aquatic life use while the lower 10 miles were rated as partial support. Further, the Agency and IDNR classified all of Hickory Creek as a "C" stream in the 1989 and 1996 Biological Stream Characterization reports. This characterization of Hickory Creek was based on data collected between 1980 and 1988. *Agency record at 371; 699.*

Petitioners' state that, "Hickory Creek is found on the draft 2002 Illinois 303(d) list of impaired waters. "The causes of impairment given ... at that time were nutrients, phosphorus, nitrogen, salinity/TDS/Chlorides, TDS (chlorides), flow alterations, and suspended solids. The sources associated with the impairment are municipal point sources...." (HR 5) In the Illinois Water Quality Report 2004, Hickory Creek is listed as impaired with the potential causes of impairment being silver, nitrogen, pH, sedimentation/siltation, total dissolved solids, chlorides, flow alterations, physical-habitat alterations, total fecal coliform bacteria, total suspended solids, excess algal growth, and total phosphorus. SOF ¶5.

The Agency's draft 2002 Illinois 303(d) list did not list all of Hickory Creek as impaired. The lower 10.1 miles were listed as impaired based primarily on water quality data collected at Washington Street in Joliet at river mile 2.5. The upper 12 miles were rated as full aquatic life use based primarily on biological data collected at river mile 10.6, Marley Road. Also, the list of potential sources of impairment included more than just municipal wastewater discharges. The list also included CSOs, urban runoff/storm sewers, land development and flow regulation/modification. The inclusion of pH as a potential cause of impairment in the 2002 Illinois Water Quality Report was a mistake. The pH value that indicated noncompliance with the minimum pH standard of 6.5 was mistakenly entered into the database as 0.87 instead of 7.87.

Offensive Conditions/Algal Blooms

Petitioners' state that, "a number of witnesses gave reports of algal blooms in Hickory Creek including nearby resident Kim Kowalski. (HR 76)." SOF ¶6.

It is not clear from the above statement whether the reported algal blooms occurred upstream or downstream of the Village's STP 1 or when the blooms occurred. Did the blooms occur during low, normal, or high flow stream conditions? Further, there are several factors that can contribute to excessive algal growth including nutrients, stream flows, dams/impoundments, turbidity and sunlight/canopy cover. It is possible to have excessive algal growth even if nutrients are not substantially elevated. There is a dam located in Pilcher Park at river mile 4.6, which is about 3.8 miles downstream of the Village's STP 1. Furthermore, it is a known fact that algae is a vital part of the aquatic community and only excessive algal population is considered a problem. The best measure of determining if excessive algal conditions exist in a stream is by studying the

local fish population. Only if the oxygen concentration dips to low levels, the fish population is adversely impacted. *Agency record at 361; 515; 639.*

Petitioners' state that, "Jim Bland, Director of Integrated Lakes Management, testified that "[I] should comment that as recently as August of this year I saw something unique in-stream, something I have not seen before. The entirety of the stream is covered from Pilcher Park almost all the way up to Cedar Street with Hydrodictyon and algae on the surface of it. So here you have a running stream covered almost completely and a running stream that's really a very, very viable and important resource, pretty sadly degraded by the sorts of nutrient discharge that we are seeing." (HR 80). SOF ¶7.

The Agency disputes the Petitioners' statement in SOF ¶7. As the permit hearing was only an informational hearing, the public was allowed to provide comments, but not testimony. Contrary to Petitioners' claim, Jim Bland could not have testified at the hearing. In addition, the statement, "[t]he entirety of the stream is covered from Pilcher Park almost all the way up to Cedar Street with Hydrodictyon and algae on the surface of it", does not indicate that there is a dam located in Pilcher Park at about river mile 4.6. Hydrodictyon is a green algae commonly found in lakes, small ponds, and irrigation ditches. The statement also does not indicate where the bloom stopped. The Village's STP 1 discharge is located about 0.18 mile downstream of Cedar Street. If the Village's STP 1 was responsible for this condition, the green algae would not extend upstream of the discharge. *Agency record at 361; 515; 639.*

Petitioners state that, "Community resident Brad Salamy testified at the hearing that, "Last summer, and this was alluded to earlier, the creek was greener than I had ever seen it, a little patch down the center was liquid, the rest of it was completely green like you could walk on it." (HR 82-3). SOF ¶8.

As the permit hearing was only an informational hearing, the public was allowed to provide comments, but not to provide testimony. Contrary to Petitioners' claim, Brad Salamy could not have testified at the hearing. The above statement does not indicate where in relation to the Village's STP 1 discharge this green patch was seen. This statement is confusing as it tends to indicate that there was only a little patch of water down the center. Hickory Creek near Marley Road has fairly extensive areas of water willow that can make up a large proportion of the stream channel during low flow stream conditions. *Agency record at 361; 515; 639.*

Levels of Phosphorus in Hickory Creek

Petitioners' state that, "Phosphorous concentrations are high in the creek. In addition to the IEPA impaired water data discussed above (¶5), the U.S. Geological Survey database shows that for the period of '92 to '97 total phosphorus exceeded Illinois' EPA trigger value for more than 20 percent of the samples. Illinois EPA's trigger is approximately eight times higher than the USEPA's recommended criterion. Furthermore, data collected in August 2002 by the Village of New Lenox indicate the total phosphorus instream on that particular day when they sampled was between 1.49 and 1.63 milligrams per liter. These concentrations are approximately 20 times the USEPA-recommended criterion and more than twice Illinois EPA's trigger. (Wentzel Testimony HR 67). SOF ¶9.

Phosphorus levels in Hickory Creek are elevated from background levels both upstream and downstream of the Village's STP 1 discharge. There are at least 12 wastewater treatment plants that discharge into Hickory Creek and its tributaries. Nine of these facilities are located upstream of the Village's STP 1 discharge. The two stations sampled in 1997 that were used for the assessment of Hickory Creek for the 2002 Illinois Water Quality Report were located upstream (GG-06) and downstream (GG-02) of the

Village's STP 1. Station GG-06 at Marley Road was assessed as full aquatic life use based on biological data. Station GG-02 at Washington Street, Joliet was assessed as partial support based on water chemistry data. Both stations had total phosphorus concentrations that exceeded the Agency's cause listing criteria of 0.61 mg/L. Phosphorus is only listed as a possible cause of impairment if other data, biological and or water quality numeric standards, indicate impairment. Phosphorus concentrations were similar at these two stations in 1997 with means of 0.58 mg/L at GG-06 and 0.53 mg/L at GG-02. Moverover, the statement that phosphorus values are "high" in the Creek is not a fact but Petitioners' opinion. As, even within the various ecoregions utilized by U.S. EPA, "the national criteria recommendations are based on statistical distribution and recurrence frequencies, not direct relationship to detrimental or impaired stream conditions," the Agency concluded that there is nothing unusual about the phosphorus levels in Hickory Creek. *Agency record at 365.*

Effect of New Lenox Discharge on Nutrient Levels, Algal blooms, Dissolved oxygen and pH in Hickory Creek

Petitioners summarize the comments provided by Professors David Jenkins and Michael Lemke as:

- Based on the New Lenox August data, the current plant releases an average of 64.7 kg of nitrate+nitrite per day and 16.1 kg of total P [total phosphorus] into Hickory Creek.
- Based on long-term average August flow data from USGS and USGS Schmuhl Road nutrient analyses, current Hickory Creek nutrient loads upstream from the WWTP#1 are 151 kg nitrate+nitrite, and 22.7 kg total P.

- Therefore, the plant is responsible for 30% of downstream nitrate+nitrite load in Hickory Creek, and 41% of the Hickory Creek total P load.

- As currently planned (and assuming nutrient levels in plant discharge remain the same), the new plant discharge will release 105.7 kg of nitrate+nitrite per day and 26.3 kg of total P per day into Hickory Creek. Assuming that Hickory Creek flow will not change for reasons other than the planned extra plant discharge, the new plant discharge will release 41% of the stream nitrate+nitrite load, and 53.7% of the stream P load on an average basis.

- More importantly, the same-sized receiving stream will be bearing 170% the levels of nitrate+nitrite upstream of the plant, and 216% of the total P levels upstream of the plant. These levels of nutrient loading will have substantial effects on downstream water quality, not only in Hickory Creek, but also the Des Plaines River and the Illinois River. The Hickory Creek channel will also be receiving substantially more flow, which will have effects on stream habitat and biota that are separate from nutrient effects.

Summary of Hickory Creek Water Quality Information, David Jenkins and Michael Lemke (HR 304-305). SOF ¶8.

The Agency disputes the implications of Petitioners' statement in SOF ¶11. These statements fail to establish any proof that the Village's STP 1 discharge would cause violation of water quality standards algal blooms, dissolved oxygen water quality standard, and pH standard.

Petitioners state that, "published treatises placed in the record show that elevated nutrient levels cause impairment of streams."

> "Eutrophication is a fundamental concern in the management of all water bodies.... There is now also considerable interest in the enrichment of streams and rivers (see discussion by Dodds and Welch 2000). For example in 1992, the United States Department of Agriculture National Water Quality Inventory reported that enrichment and

sedimentation were the most significant causes of water quality degradation in 44% of >1,000,000 km of streams and rivers surveyed in the US (http://www.usda.gov/stream_restoration).

Management problems caused by [nutrient] enrichment, and associated benthic algal proliferations, include aesthetic degradation..., loss of pollution-sensitive invertebrate taxa through smothering of substrata by algae ..., and degradation of water quality (particularly dissolved oxygen and pH) resulting in fish kills...."

Biggs, B.J.F. 2000. Eutrophication of streams and rivers: dissolved nutrient-chlorophyll relationships for benthic algae. J. North Am. Benthol. Soc. 19:17-31. (HR 187)

"Reasons for nutrient criteria include: 1) adverse effects on humans and domestic animals, 2) aesthetic impairment, 3) interference with human use, 4) negative impacts on aquatic life, and 5) excessive nutrient input into downstream systems."

Dodds, W. K. and E.B. Welch. 2000. Establishing nutrient criteria in streams. J. North Am. Benthol. Soc. 19:186-196. (HR 177)

"High algal growth can affect fish distribution by altering the physical (algal mass accumulation) and chemical (dissolved oxygen, pH) characteristics of the river system."

Sabater, S., J. Armengol, E. Comas, F. Sabater, I Urrizalqui, and I. Urrutia. 2000. Algal biomass in a disturbed Atlantic river: water quality relationships and environmental implications. Science of the Total Environment. 263:185-195. (HR 210)

There is a positive correlation between nutrients in streams and algal activity.

"The present analysis suggests that managing nutrient supply could not only reduce the magnitude of maximum biomass, but also reduce the frequency and duration of benthic algal proliferations in streams."

Biggs, B.J.F. 2000. (HR 187)

"... our study indicates that there is a generally positive relationship between Chl [chlorophyll] and TP [total phosphorus] in temperate streams ..."

Van Nieuwenhuyse, E.E. and J.R. Jones. 1996. Phosphorus-chlorophyll relationship in temperate streams and its variation with stream catchment area. Can. J. Fish. Aquat. Sci. 53:99-105. (HR 206)

"If streams are not turbid, preventing maximum benthic chlorophyll levels from exceeding 200 mg/m2 is reasonable because streams with higher levels are not aesthetically pleasing, and their recreational uses may be compromised. For benthic chlorophyll to remain below 200 mg/m2 at the very least, TN should remain below 3 mg/L and TP below 0.4 mg/L."

Dodds, W. K. and E.B. Welch. 2000. (HR 184)

"Photosynthesis and respiration are the two important biological processes that alter the concentration of oxygen and carbon dioxide. In highly productive waters, such as slow moving rivers with abundant macrophytes, oxygen is elevated and carbon dioxide is reduced during the daytime, while the reverse occurs at night."

Allan, J. D., 1995. Stream Ecology: structure and function of running waters. Chapman & Hall, New York (HR 163)

"Diel (24 h) changes in oxygen concentration provide a means of estimating photosynthesis and respiration of the total ecosystem..."

(Allan, J. D. HR 163)

"Carbon dioxide likewise tends to deviate from atmospheric equilibrium in highly productive lowland streams where luxuriant growths of macrophytes and microbenthic algae can result in diel shifts in dissolved CO2.... Because of the interdependence of CO2 concentration and pH ..., mid-day pH can increase by as much as 0.5 units."

(Allan, J. D. HR 164)

"Dissolved O_2 deficit and high pH are perhaps the most severe algal-related problems affecting the aquatic life-support characteristics of a river or stream. Deficits of DO can occur when respiration of organic C produced by photosynthetic processes in the stream exceeds the ability of reaeration to supply DO."

(Dodds, W. K. and E.B. Welch. HR 180)

"The contribution of algal biomass to the diel dissolved oxygen (DO) variability in rivers is common in systems receiving high nutrient inputs...."

Sabater, S., J. Armengol, E. Comas, F. Sabater, I Urrizalqui, and I. Urrutia. 2000. (HR 216). SOF ¶12.

The Agency disputes Petitioners' implication of cited quotes in SOF ¶12. These treatises fail to establish that the Village's STP 1 discharge would cause violation of water quality standards for algal blooms, dissolved oxygen water quality standard, and pH standard. In addition, these treatises are irrelevant as the discussion is directed at developing criteria for nutrients, and not at developing effluent limits for a discharge. Further, the water based effluent limit for dissolved oxygen will help to improve the instream dissolved oxygen concentrations in Hickory Creek as this Creek is an effluent dominated stream during low flow conditions. *Agency record at 356.*

Petitioners state that, "[i]t is likely that nutrient discharges from New Lenox WWTP #1 are already adversely impacting Hickory Creek and that reductions of nutrient discharges are needed to prevent further impact. (Statement of Professors Jenkins and Lemke HR 305)." SOF ¶13

The above statement is an opinion made by Professors at the permit hearing, and is not a statement of fact. There is no evidence in the record to support Petitioners' statement.

Petitioners state that, [t]he IEPA at the hearing on the draft permit acknowledged that it was "very possible" that supersaturated oxygen levels found during the daytime hours in Hickory Creek are due to algae saturation photosynthesis. (HR 67)." SOF ¶14.

Petitioners are taking the Agency's comment out of context. The Agency's comment is referring to a phenomenon that may be occurring in Hickory Creek, not in any way, implying that the Village's STP 1 is causing the supersaturated oxygen levels in the Creek. *Agency record at 068; 361.*

Petitioners' state that, "Hickory Creek also violated pH standards by exceeding a pH of 9, likely as the result of algal activity. (HR 126)." SOF ¶15.

The statement is a Petitioners' statement of opinion and not a statement of fact. Also, the Agency, from the review of its raw data, found that a pH value of 0.87 was mistakenly entered into the database, instead of 7.87.

Current Biological Integrity of Hickory Creek

Petitioners' state that, "IEPA did not analyze the effects of the existing New Lenox discharge with a recent valid study. The Antidegradation Assessment Memorandum from Scott Twait to Abel Haile, Nov. 26, 2002 states that "The most recent facility related stream survey conducted by the Agency was on June 10, 1991. The facility related stream survey is not representative of the stream conditions that exist at this time, since the facility has been expanded since the 1991 facility related stream survey was conducted." (HR 5). *SOF ¶16.*

The Agency disputes Petitioners' claim that "IEPA did not analyze the effects of the existing New Lenox discharge with a recent valid study," as this claim is inaccurate. The Agency did, along with other information, did consider a study performed by the Village in 2003. The study showed that no significant impact by the Village's discharge on the receiving stream as measured by macroinvertebrates. *Agency record at 368; 403-418; 512-521.*

Petitioners state that, [t]he applicant' contractor, Earth Tech, performed a biological study for the Village of New Lenox (HR 513-519) at IEPA's request (HR 660.5). There is extensive discussion in the Hearing Record among IEPA staff regarding deficiencies in the Earth Tech study. (HR 537, HR 556-558, HR 561, HR 661-698)." SOF ¶17.

The Agency disputes Petitioners' statements that the Village's study was "deficient." The discussion in the record simply provides the views of various Agency staff members who were involved in reviewing the Village's study. Most of the discussion was focused on various valid methodologies that could have been used for performing MBI analysis. *Agency record at 665; 671; 674-675.* Some of the tolerance values assigned to several species were not as the Agency would have assigned them. *Agency record at 370.* The consultant made these changes and recalculated the MBI results. The difference between the two results was relatively minor. The pertinent inquiry here is whether the Village's study is adequate in determining the impact of the Village's existing discharge on the aquatic life of Hickory Creek. The overall conclusion of the study was that as there was very little difference between upstream and downstream MBI values, there was an insignificant or no adverse effect on the receiving stream from the effluent. *Agency record at 370; 562.*

Petitioners' state that, "[a] Sept. 24, 2002 internal IEPA email from Howard Essig to Roy Smoger states, "The

macroinvertebrate memo prepared by Earth Tech is one of the poorest studies I have seen in a while." It is further stated that "Statements made by Earth Tech on page 3 of their report are all without merit. They do not back up any of their statements with data. For example they attribute differences in taxa between stations to variations in stream flow, dissolved oxygen levels and habitat types- but they provided no stream flow or dissolved oxygen data." It is still further stated in this email that "Earth Tech also indicated that the current baseflow of Hickory Creek is adequate to dilute the volume discharged from the WWTP. They did not provide any flow data on Hickory Creek or the New Lenox WWTP to back up this claim." (HR 666-7)." SOF ¶18.

The statement cited by Petitioners is a dialogue between two Agency staff members, and is not the Agency's final conclusion on the validity of the Village's study for intended purposes. The Agency's considers the Village's study as valid for its limited purpose to show that the existing discharge is not adversely impacting Hickory Creek. *Agency record at 370; 562.*

Petitioners' state that, "[a]nother internal IEPA memo, the Oct. 9, 2002 Memorandum from Roy Smoger to Bob Mosher, summarizes the reviews by Smoger, Howard Essig and Mark Joseph of the Earth Tech study and recommends that the study be conducted again. This memo states, "We find it difficult to judge the validity of the analyses and conclusions because the study used different collection methods, different taxon-tolerance values, and different criteria for interpreting MBI scores than those typically used by Illinois EPA. In addition, the report does not contain enough specific information on habitat, water chemistry, and flow." The memo concludes, "Therefore we recommend that Earth Tech conduct the survey again following the guidelines listed below." (HR 559-560)." SOF ¶19.

The statement cited by Petitioners is a dialogue between two Agency staff members, and is not the Agency's final conclusion on the validity of the Village's study. The discussion stems from the fact that the procedures used by the Village's consultant

were not exactly as the Agency would have used. The discussion also shows that there are alternative field sampling practices. Based on the information received from the Village's consultant during the Agency review, the Agency concluded that the study is valid and acceptable way of characterizing the current conditions of Hickory Creek. *Agency record at 370; 562.*

Petitioners' state that, "[a] Nov. 25, 2002 email indicates confusion on whether IEPA field staff would redo the study. (HR 700) A Nov. 26, 2002 email from IEPA's Gregg Good shows IEPA's decision to ignore the Earth Tech study, stating, "Therefore, forget using the contractor's bug study." On the same day, IEPA referenced the study in the Antidegradation Assessment. Antidegradation Assessment Memorandum from Scott Twait to Abel Haile, Nov. 26, 2002 (HR 5): "New Lenox sponsored a macroinvertebrate survey of Hickory Creek at this location in August 2002. Pollution intolerant organisms were found both upstream and downstream of the existing discharge." (HR 562)." SOF ¶20.

The Agency disputes Petitioners' unfounded claim that the Gregg Good's email in any way represents the Agency's decision to ignore the Earth Tech study. Upon reviewing the basis for listing Hickory Creek as "partial impairment," the Agency concluded that the decision to list as partial impairment was rather based on violation of standards for total dissolved solids, and not on biological information. The Agency's conclusion is also supported by the Village's study that pollution intolerant organisms were found both upstream and downstream of the Village's STP 1 existing discharge. *Agency record at 562.*

Copper

Petitioners state that, "[i]n the reasonable potential analysis for copper done for this permit modification (Memorandum of July 16, 2002 from Scott Twait to Abel

Haile), the concentration of the highest sample was 20.5 µg/l while the chronic standard for copper at the hardness level found in Hickory Creek is 20.6 µg/l. IEPA's calculation of the reasonable potential for a violation of water quality standards for copper using the U.S. EPA method revealed that there was a reasonable potential for the level of copper to be more than double the acute water quality standard for copper and to exceed the chronic standard by a factor of over 3.7. (HR 508)." SOF ¶22.

The results of the two copper samples collected by the Village's STP 1 were 0.0141 mg/L and 0.0205 mg/L. The average of the copper samples was 0.0173 mg/L. As this value is less than the chronic water quality standard of 0.0206 mg/L, the Agency determined that there was no reason to incorporate permit limits for copper.

Petitioners' state that, "[a]t the hearing, IEPA answered that it had done no studies of alternatives to allowing the discharge other than to review a study of land treatment done by the applicant's contractor and that it had not made any study of the cost of removing phosphorus or nitrogen at the plant. (HR 73-4)" SOF ¶26.

A study performed by the Illinois Associated of Wastewater Agencies (IAWA) regarding cost and efficiency of nutrient treatment was before the Agency at the time the Agency was making its final decision. At the hearing, the Agency indicated that "a 2.5 MGD plant addition capabilities to remove both nitrogen and phosphorus is estimated to have capital cost in excess of $5.4 million. This does not include the annual operations and maintenance costs." *Agency record at 74; 358.*

Petitioners state that, "[f]urther, Petitioners urged that the IEPA take the steps necessary to comply with 35 Ill. Adm. Code 302.105(c). Petitioners presented comments that the alternatives to allowing the increase in pollution were not reasonably weighed prior to the issuance of the draft permit and that many of the costs of proceeding under the draft permit were ignored. William Eyring, Senior Engineer for the Center of Neighborhood Technology, raised concerns about the social and economic costs of expanding the plant in the center of the Village. (HR 120-1) Jim Bland

testified that the environmental effects of the kinds of development that would be facilitated by the plant expansion were not considered. (HR 78-79, HR 109) Petitioners testified that the estimated costs of alternatives (e.g. land treatment and land application of treated wastewater) to allowing the increased discharge were unreasonably inflated and the costs of minimizing nutrient discharges were not considered. Environmental economist Jeff Swano requested a life cycle analysis be performed on all considered alternatives as an appropriate economic assessment of the costs to provide a better cost-benefit analysis and to provide the public with a costs-per-treated-volume figure. (HR 70-2)." *SOF ¶28.*

The Agency disputes Petitioners' those statement that constitute interpretation of the Board regulations. Such statements are not undisputed statements of facts. Further, since the permit hearing was only an informational hearing and no testimony was allowed, Petitioners could not have testified at the hearing.

Petitioners' state that, "[i]n particular, Jim Bland, an expert on eutrophication, testified on behalf of the Des Plaines River Watershed Alliance at the public hearing that "Data concerning increased nutrient loading, especially phosphorus is not included in the proposed permit.... On a long term basis the proposed increase in discharge will increase the "attached algae" (periphyton that covers the rocks and bottom rubble that are characteristic of this reach (c.f. Ecological Effects of Wastewater, E.B. Welch). This increase in stream productivity has the capacity to dramatically alter the character of the invertebrate communities downgradient from the STP." (HR 110). SOF ¶30.

The Agency objects to Petitioners' claim that Mr. Jim Bland is "an expert on eutrophication," as this claim is not supported in the record. Also, the Agency disputes Petitioners' comment that Mr. Bland "testified", as the permit hearing was only an information hearing, Mr. Bland could not have testified at this hearing.

The Final Permit and Responsiveness Document

Petitioners state that, "[t]he permit set no limit for copper. (HR 343) No explanation appears in the record as to why the Agency proceeded in conflict with the U.S. EPA recommended method for determining the reasonable potential to violate the acute copper standard. No study was done under 35 Ill. Adm. Code 302.102 to develop a mixing zone analysis. Regarding the chronic standard, the New Lenox Responsiveness Summary states "It is important to remember that this comment is dealing with reasonable potential to exceed a chronic water quality standard. By definition, a chronic standard must not be exceeded in the receiving stream by the average of at least four samples." (HR 363) Yet there is no discussion of the possibility of requiring more samples than the two provided." SOF ¶38.

Facilities such as the Village's STP 1 that have been identified through the pre-treatment program as having a low risk for high levels of metals are not a significant source of copper. As no known source of copper is discharging into the Village's STP 1, and the sample results were below the chronic water quality standard, the Agency determined that no permit conditions for copper are necessary. The Agency's decision to not incorporate copper limits is consistent with the Act and Board regulations.

Petitioners' state that, "[n]o limits were set for phosphorus or nitrogen. (HR 343) Other than to mention that a study done by the Illinois Association of Wastewater Agencies (never placed in the record) indicating that the combined costs of treating nitrogen to an unmentioned level and phosphorus to the level of 0.5 mg/L might cost capital costs of $5.4 million (HR 358), IEPA never discussed the cost of treating phosphorus. No mention appears in the record of any analysis of the cost, feasibility or reasonableness of any level of phosphorus treatment alone (without nitrogen treatment) or of any level of phosphorus treatment other than 0.5 mg/L." SOF ¶40.

The Agency, based on the information in the Agency record, found that Hickory Creek does not have an "offensive conditions" situation, and that Hickory Creek is supporting a healthy and diverse aquatic ecosystem. Therefore, no permit limits are required for offensive conditions. *Agency record at 361; 364.* Additionally, the Agency

disputes the statement that the study performed by the Illinois Association of Wastewater Agencies was not part of the record, as the record properly includes everything the Agency relied upon at the time it made its decision.

Petitioners' state that, "[n]o limits are placed in the permit to prevent violation of the "offensive conditions" narrative standard. The Responsiveness Summary indicates that the Agency would only place limits on nutrients in the permit after numeric standards are set. (HR 356) The IEPA declines to attempt to place limits in the permit to satisfy the narrative standard on plant and algal growth because "This is a very difficult standard to apply to a permit." (HR 357)." SOF ¶41.

Petitioners' statement in SOF ¶41 that, "[n]o limits are placed in the permit to prevent violation of the 'offensive conditions'" is a statement of law, and not a fact. It is the Board's, not the Petitioners', authority to determine if the Agency imposed the proper requirements in the permit. The Agency based on the information in the Agency record, determined that Hickory Creek does not have "offensive conditions" situation, and that Hickory Creek is supporting a healthy and diverse aquatic life. Therefore, no permit limits are necessary with regard to offensive conditions. *Agency record at 361; 364.*

ARGUMENTS

The sole basis for the Petitioners' motion for summary judgment is that the permit as issued would violate 35 Ill. Adm. Code 302.105, 302.203, and 304.105 of the Board, warranting summary judgment in their favor. As there exist numerous issues of material facts and law, the Agency requests that the Petitioners' motion for summary judgment is DENIED.

I. THE PERMIT AS ISSUED COMPLIES WITH THE APPLICABLE REQUIREMENTS OF ANTIDEGRADATION REGULATIONS

Petitioners argue that the permit as issued does not comply with 35 Ill. Adm. Code 302.105(c)(2)(B)(iii) as the Agency did not assure that the permit incorporated all reasonable measures to avoid or minimize the extent of the new pollution loading. Specifically, Petitioners argue that the Agency failed to assure that reasonable controls were put on nutrients. *Memo at 6.* In support of their argument, Petitioners claim that the Village's STP 1 is a major source of phosphorus to Hickory Creek and that phosphorus is already having an adverse impact on the stream and downstream waters. *Memo at 7.* Petitioners further argue that Section 302.105(c) language is plainly mandatory and requires that the Agency *must* assure that *all* reasonable measures to minimize the extent of the pollution have been incorporated. *Memo at 8.*

The Agency disagrees with the Petitioners' interpretation that Section 302.105(c) requires the Agency to incorporate phosphorus treatment controls in the Village's permit. In support of this, the Agency provides the following analysis:

Section 302.105, in part, provides:

c) High Quality Waters

2) The Agency must assess any proposed increase in pollutant loading that necessitates a new, renewed or modified NPDES permit or any activity requiring a CWA Section 401 certification to determine compliance with this Section. The assessment to determine compliance with this Section must be made on a case-by-case basis. In making this assessment, the Agency must:

A) Consider the fate and effect of any parameters proposed for an increased pollutant loading.

B) Assure the following:

i) The applicable numeric or narrative water quality standard will not be exceeded as a result of the proposed activity;

ii) All existing uses will be fully protected;

iii) All technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in

> pollutant loading have been incorporated into the proposed activity.... 35 Ill. Adm. Code 302.105 (*emphasis added*).

Petitioners read Section 302.105(c)(2)(B)(iii) to require that if there is an increased pollutant loading by an activity and a technology to treat that pollutant is available, the Agency must incorporate such controls in the permit. Petitioners' reading of Section 302.105 is erroneous. The Agency believes that the basic directive of Section 302.105(c)(2) is that where technical and economical alternatives exit to an activity and those alternatives are reasonable, the Agency must consider such alternatives in its assessment. This assessment must be done on a case-by-case basis. The real objective of this assessment is to reduce the pollutant loading if it is reasonable to do so. Petitioners ignore the balancing test required by the antidegradation rules. For example, in case of Tier II waters, water quality cannot be lowered below the level necessary to protect the fishable/swimmable uses and other existing uses. However, maintaining a level of water quality above the "fishable/swimmable" level is not always required and water quality may be lowered if necessary to accomplish important economic or social development in the area in which the waters are located. *In The Matter Of: Revisions To Antidegradation Rules*, 35 Ill. Adm. Code 302.105, 303.205, 303.206, AND 102.800-102.830, 2001 WL 34084035, R01-13, June 21, 2001, page 3. (*emphasis added*).

Pursuant to Section 302.105(f)(1)(D), the Agency conducted its assessment of alternatives to the Village's proposed increase in pollutant loading. *Agency record at 5-7; 372-374.* The Agency in its Responsiveness Summary discusses in detail the various alternatives considered in this case. The Village considered land application of its effluent as an alternative but found the alternative to be economically unreasonable. The Village's consultant estimates that 425 acres of land is required for irrigation alternative,

out of which 269.9 acres is required for irrigation purposes and the rest of the land for treatment and buffer zone. The supplement information provided by the Village's consultant shows that the Village contacted a neighboring golf course to find if the golf course would be interested in spraying its effluent. The golf course did not consider the offer due to high groundwater and artesian wells that feed the ponds. Further, the Agency and NIPC require communities to explore other alternatives for wastewater treatment such as land application and regionalization of plants when possible and cost effective. Unlike the Petitioners' assertion, the Agency did consider all technically and economically reasonable alternatives to minimize the pollution loading from the Village's STP 1.

Unlike Petitioners' claim, the Village's STP 1 is not a major source of phosphorus to Hickory Creek and there is no evidence in the record to assert that phosphorus from the Village's STP 1 is already causing an adverse impact on the stream. Along with the non-point sources of phosphorus, there are at least 12 wastewater treatment plants that discharge into Hickory Creek. Nine of these facilities are located upstream of the Village's STP 1 discharge. Contrary to Petitioners' claim, the Agency did consider all technically and economically reasonable alternatives to the proposed increase in pollutant loading.

II. THE PERMIT AS ISSUED DOES NOT VIOLATE APPLICABLE NUMERIC OR NARRATIVE WATER QUALITY STANADRDS

In order to prevail in their motion for summary judgment, Petitioners must show through undisputed facts that the permit as issued would cause violations the numeric or

narrative water quality standards. It is evident from the following discussion that Petitioners fail to meet this burden.

A. The Permit As Issued Does Not Violate Section 304.105 or 309.141 Requirements

Petitioners argue that the Agency failed to assure that the plant discharges would not cause violations of the standards for dissolved oxygen and pH. Petitioners further argue that the Agency violated Section 304.105 in granting this permit. *Memo at 10-11.*

As the Village's permit has a water quality based effluent limit for dissolved oxygen and pH, Petitioners' assertion is without any merit. Petitioner fails to show how Section 304.105 would be violated by this permit. The Agency is well-aware of the requirements of Section 304.105. However, in this case, the Agency determined that the Village's effluent, alone or in combination with other effluents, will meet all applicable water quality standards. The record fully supports the Agency's determination that the permit, as issued, would not cause the violation of the Act or the applicable Board regulations.

B. The Permit As Issued Would Not Cause a Violation of Section 302.203

Petitioners argue that Sections 302.203, 304.105, and 309.141 are clearly violated by the permit as the record clearly establishes that the offensive conditions standard is currently being violated. *Memo at 12.*

Petitioners' argument lacks the reasonable interpretation of the law and is not supported by the undisputed facts. Section 303.203, in part, provides that, "[w]aters of the State shall be free from sludge or bottom deposits, floating debris, visible oil, odor,

plant or algal growth, color or turbidity of other than natural origin. 35 Ill. Adm. Code 302.203 (*emphasis added*). A plain review of this section reveals that this section has two components. The first component enumerates the substances that are prohibited in the State's waters. The second component clarifies that the enumerated substances are prohibited only when they are of 'other than natural origin.' The Agency contends that 'unnatural' is the operative word in determining the violation of Section 302.203. Therefore, a Section 302.203 violation can only occur if plant or algal growth of unnatural origin is found in receiving waters. The record lacks any evidence to suggest that unnatural algal growth exists below the Village's discharge point. Petitioners have made no attempt to prove otherwise. Petitioners' statements, at the best, suggest that algae was witnessed in the stream. These statements do not establish that algal bloom of unnatural growth was found in Hickory Creek below the Village's discharge point.

If Petitioners are arguing that Section 302.203 strictly prohibits the discharge of any levels of phosphorus in the receiving waters, then this argument must be rejected. Under such construction, discharge of even a small amount of phosphorus is a violation of Section 302.203. Nitrogen and phosphorus are the primary nutrient required for virtually all plant life, both terrestrial and aquatic. These nutrients are available to water bodies naturally as well as anthropogenically. Phosphorus is generally believed to be the nutrient in shortest supply in the freshwater ecosystems, and therefore, its concentrations may often limit plant growth. Sometimes a waterbody receiving nutrients may have algae that is not limited by phosphorus but rather by another nutrient or by water quality factors. Phosphorus is an essential nutrient for the health of aquatic life. The Agency objects to Petitioners' narrow and literal interpretation as Section 302.203 does not stand

for a total prohibition of discharge of small amounts of phosphorus in the receiving stream. The general principle is that the Board regulations are construed and applied to avoid absurd and unfair results. *See Village of Fox River Grove v. Pollution Control Board*, 299 Ill. App. 3d 869, 880, 234 Ill. Dec. 316, 702 N.E. 2d 656, 664 (1998). Therefore, the Petitioners' interpretation must be rejected as it produces impractical and absurd results.

In *City of East Moline v. Illinois EPA*, 1989 WL 144768, PCB 87-127 (Nov. 15, 1989), the petitioner had asked for a variance from the water quality standards of 35 Ill. Adm. Code 302.203 relating to unnatural sludge for its discharge to an unnamed tributary of the Mississippi River. The Board denied the petitioner's request for relief and concluded that the petitioner's discharge violated both Section 302.203 and Section 304.106. The Board's conclusion was in part based on the Agency's findings that "the quality of the water changed from clear to brown and turbid; sludge was up to 14-20 inches deep; no fish were found below the discharge point in the tributary, but were found upstream; and benthic organisms were reduced substantially." *Id.* at 1989 WL 144768, *6. Petitioners have failed to meet the burden of proof required under the *City of East Moline.*

To prevail in their motion for summary judgment, Petitioners must present undisputed facts to show that Hickory Creek right below the Village's STP 1 has algal growth of unnatural origin. Mere presence of algal growth that is of natural origin is not prohibited by Section 302.203. The Agency's discussion in Material Facts In Dispute section of this response, shows that these material facts are at dispute. Therefore, the

Board must DENY Petitioners' motion and direct the parties to develop these facts through the discovery process and at the Board hearing.

C. The Agency's Decision to Not Include Copper Limits in the Permit Does Not Lead to Violation of The Act or Board Regulations

Petitioners argue that the permit does not comply with 35 Ill. Adm. Code 302.105 or 309.141 as it does not limit all pollutants that may cause or contribute to a violation of the copper standard. *Memorandum of Law (hereinafter "Memo") at 14.*

Petitioners' argument is flawed in that it assumes that copper limit was necessary in this case. The following discussion shows that the Agency's decision to issue the Village's NPDES permit without copper limit is supported by the record and is consistent with the Act and the applicable Board regulations.

The Agency uses the USEPA *Technical Support Document for Water Quality Based Toxics Control* ("TSD") as a technical guidance document. Using the TSD, the Agency determines whether further analysis is necessary. The Agency does not believe that the USEPA's procedure described in the TDS is valid when a small sample size exists because the TDS recommends the application of higher multiplier. In cases where limited data exist, the Agency evaluates these substances against the water quality standards applicable to the receiving stream. This approach is especially appropriate in cases where facilities have been previously identified through the pre-treatment program as having a low risk of high levels of metals and other industrial pollutants in treated domestic waste effluents. In this case, the Agency determined that the Village's STP 1 is one of such facilities.

The Village reported results of copper samples collected on January 9, 2001 and June 15, 2001 as 0.0141 mg/L and 0.0205 mg/L respectively. The average of copper samples was 0.0173 mg/L. Since this value is less than the chronic water quality standard of 0.0206 mg/L, the Agency determined that there permit limit for copper was not warranted in this case. If one of the samples would have exceeded the acute water quality standard, the Agency would have incorporate copper limits into the permit or would have required 6 months of monitoring. Also, if the average of the samples would have exceed the chronic water quality standard, the Agency would have incorporated copper limits into the permit or would have required 6 months of monitoring. If there seems to have been an outlier or more data is necessary, the Agency would have required more sampling. This decision was also based on the fact that no known source of copper is discharging into the Village's waste stream.

CONCLUSION

For the reasons and arguments provided herein, the Agency respectfully requests that the Board **DENY** the Petitioners' motion for summary judgment, and direct the parties to develop factual issues through the discovery process and at the Board hearing.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: _____
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STATE OF ILLINOIS)
) SS
COUNTY OF SANGAMON)

PROOF OF SERVICE

I, the undersigned, on oath state that I have served the attached the **RESPONSE TO PETITIONERS' MOTION FOR AND MEMORANDUM OF LAW IN SUPPORT OF SUMMARY JUDGMENT** upon the persons to whom it is directed, by placing a copy in an envelope addressed to:

Dorothy Gunn, Clerk
Illinois Pollution Control Board
James R. Thompson Center, Suite 11-500
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Albert F. Ettinger
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Roy M. Harsch
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and mailing it from Springfield, Illinois on May 24, 2005, by U.S. Mail with sufficient postage affixed.

Sanjay K. Sofat

SUBSCRIBED AND SWORN BEFORE ME
THIS 24th DAY OF MAY, 2005.

Brenda Boehner

OFFICIAL SEAL
BRENDA BOEHNER
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 11-14-2005

THIS FILING PRINTED ON RECYCLED PAPER