BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

SIERRA CLUB and PRAIRIE RIVERS NETWORK,	)	
Petitioners,	)	
v.	)	**PCB 22-69**
	)	**APPEAL FROM IEPA**
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY and WILLIAMSON ENERGY LLC,	)	**DECISION GRANTING NPDES PERMIT**
Respondents.	)	

NOTICE OF FILING

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Illinois Pollution Control Board PETITIONERS' RESPONSE TO RESPONDENTS' MOTIONS FOR SUMMARY JUDGMENT and a CERTIFICATE OF SERVICE, copies of which are herewith served upon you.

Albert Ettinger (ARDC No. 3125045)
7100 N. Greenview
Chicago, Illinois 60626
773 818 4825
Ettinger.Albert@gmail.com

November 4, 2022

CERTIFICATE OF SERVICE

The undersigned herby certifies that a copy of the foregoing was electronically filed through the Clerk's Office COOL system and sent via email on this 4th day of November, 2022 to the following:

Carol Webb, Hearing Officer
Illinois Pollution Control Board
James R. Thompson Center
100 W. Randolph Street, Suite 11-500
Chicago, IL 60601
Carol.webb@illinois.gov

Kevin D. Bonin
Andrew B. Armstrong
Illinois Environmental Protection Agency
500 South 2nd Street
Springfield, Illinois 62701
Kevin.bonin@ilag.gov
Andrew.armstrong@ilag.gov

Jeffrey R. Baron
Bailey & Glasser, LLP
34 N. Gore Avenue, Suite 102
Webster Groves, MO 63119
jbaron@baileyglasser.com

Albert Ettinger (ARDC No. 3125045)
7100 N. Greenview
Chicago, Illinois 60626
773 818 4825
Ettinger.Albert@gmail.com

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The question before the Board with regard to Respondents' motions for summary judgment is whether respondents Illinois Environmental Protection Agency ("IEPA") and Williamson Energy LLC ("Williamson/Foresight" or the "Permittee") have established as a matter of law that the record shows that the Permit granted by IEPA ensures protection of all water quality standards and was issued in compliance with the law (including the Board rules), and that Respondents are entitled to judgement as a matter of law. *Prairie Rivers Network v. Ill. Pollution Control Bd.*, 2016 IL App (1st) 150971. In fact, however, the record and the very motion papers filed by Respondents further establish that the Permit fails to ensure protection of water quality standards in numerous respects. The Permit - which allows piping up 7.2 million gallons per day (5000 gallons per minute) from the Pond Creek Mine for 12.5 miles to the Big Muddy River as well as discharges to tributaries to Pond Creek, a tributary of the Big Muddy - does not ensure protection of water quality standards in the Big Muddy, Pond Creek or other water bodies because:

- The Permit does not ensure that discharges allowed to the Big Muddy (outfall 011) comply with the 500 mg/L chloride water quality standard of 35 Ill. Adm. Code 302, but at best requires that an enforceable limit be established in the future without public participation or Board review;
- The Permit cannot ensure anything because in critical aspects it is so ambiguous and lacking in detail that it will be impossible to follow or enforce;
- The Permit leaves it in the hands of a habitual Environmental Protection Act violator to implement key provisions of the Permit although IEPA could have easily provided for disinterested enforcement of critical permit limits without imposing unnecessary costs;

- The Permit allows discharges in violation of the numeric chronic toxicity standards of 35 Ill. Am. Code 302.208(e) from eight outfalls (outfalls 01-08) to tributaries of Pond Creek and allows discharges to the Big Muddy that will increase and aggravate the existing numeric dissolved oxygen standard violations of the segment of the Big Muddy into which Pond Creek and the proposed 011 outfall discharges;
- The Permit fails to ensure compliance with the water quality standards set forth at 35 Ill Adm. Code 302.105 (a) and (c) to "fully protect" existing uses from toxicity and the cumulative effects of the myriad of pollutants (at least chloride, sulfate, copper, ammonia, phosphorus, iron and nickel) allowed by the Permit, and instead relies on a chloride standard known to be unprotective;
- Respondents' motion papers, like IEPA in writing the permit, did not consider the cumulative effects of the discharge together with other pollution (including discharges from the Sugar Camp and Viking mines also owned by Foresight)[1];
- Respondents' motion papers, like IEPA in writing the Permit, practically ignore the science showing that increased discharges of chloride and sulfate would exacerbate the toxic effects of mercury and the harmful effects of excessive phosphorus already in the Big Muddy even if Williamson/Foresight did not itself add mercury or phosphorus to the river;
- The motion of IEPA shows that, contrary to the Responsiveness Summary that was filed by IEPA when it issued the Permit, the discharge actually does contain significant

[1] Foresight Energy LP and the mining operations it runs include the Pond Creek, and the Sugar Camp and Viking Mines, located 10 miles north of Pond Creek Mine. This group of closely-related entities are discussed by SEC filings at R3639-40. See also, 3662 and http://www.foresight.com/operations/#mines.

amounts of phosphorus, toxic levels of ammonia, and substantial amounts of deoxygenating waste; and

- The Permit does nothing to ensure against the potential effect of the loss of 3 million gallons per day or more of groundwater being pumped out of the mine upon the existing uses of creeks in the region of the mine.

Moreover, it is clear that IEPA did not really consider alternatives to allowing massive new pollution to a river relied on by many for recreation and sustenance in applying 35 Ill. Am. Code 302.105(c)(2)(B)(iii), but only rubber-stamped a self-contradictory study that ignored some alternatives.

Still further, the motion papers of IEPA and Williamson/Foresight reinforce Petitioners' argument that the record shows that in determining whether the Permit benefitted economic development, IEPA ignored potential adverse local economic effects of the mine, including bioaccumulation of toxic pollutants from the mine wastes in fish eaten by subsistence and recreational fishers and their families, and the fact that the coal being mined will fuel climate change that will harm the people of southern Illinois as well as the rest of the planet.

I. THE APPLICABLE LEGAL PRINCIPLES PRECLUDE GRANTING RESPONDENTS' MOTIONS.

Petitioners' Burden is only to show Violation of the Environmental Protection Act or Board Rules which require IEPA "ensure" protection of water quality standards – Respondents recite a portion of the relevant law regarding the appeal but ignore the most critical part of it. As Respondents state, Petitioners bear the burden of proving that IEPA's issuance of the Permit violates the Environmental Protection Act or Illinois Pollution Control Board regulations. (IEPA Br.3, Williamson/Foresight Br. 7). Respondents do not discuss what this means in the context of this appeal of an NPDES permit limit.

In particular, is not the burden of Petitioners to prove that violations of water quality standards will necessarily result from the permitted discharge and Petitioners do not have to negate the possibility that things just might work out despite a defective permit. Petitioners need only show that the IEPA violated rules designed to protect against such violations of water quality standards. *Ill. EPA v. Ill. Pollution Control Bd*., 386 Ill. App. 3d 375, 383 (3d Dist. 2008).

Further, the record must contain evidence to support the issuance of the permit and the conditions attached to that permit. The Board reviews the entirety of the record to determine 1) if the record supports IEPA's decision, and 2) that the procedures used by IEPA are consistent with the Act and Board regulations. The Board does not affirm IEPA's decision on the permit unless the record supports the decision. *Des Plaines Watershed Alliance v. Illinois EPA,* PCB 04-88 at 11, 2007 ENV. LEXIS 149, *31 (April 19, 2007), aff'd sub nom, *IEPA v. IPCB*, 896 N.E.2d 479 (Ill. App. Ct. 3d. 2007)

As stated in the Board rules, "The Agency shall apply and *ensure* compliance with all of the following, whenever applicable: …

(d) Any more stringent limitation, including those:

1) necessary to meet water quality standards, …

2) necessary to meet any other federal law or regulation, or

3) required to implement any applicable water quality standards, …

35 Ill. Adm. Code 309.141 (emphasis added). Under federal law, discharges may not be permitted that may "cause or contribute" to the violation of any numeric or narrative water quality standard. 40 CFR 122.44(d).

The burden on the Agency to write a permit that ensures protection of standards and compliance with federal law cannot be met through unsubstantiated guesswork or wishful

thinking. To "ensure" means "to make certain." Corey H. by *Shirley P. v. Board of Education*, 995 F. Supp. 900, 913 (N.D. Ill. 1998) See also, https://dictionary.cambridge.org/dictionary/english/ensure (ensure = "to make something certain to happen"), www.merriam-webster.com/dictionary/ensure (ensure = "to make sure, certain or safe.").

The burden on Petitioners, then, is only to show that IEPA has failed to make certain that all of the applicable water quality standards are met. Further, Petitioners may meet their burden by demonstrating the record lacks evidence to support IEPA's decision. Still further, "IEPA's decision is not awarded any special deference from the Board." *See Des Plaines River Watershed Alliance* PCB 04-88 at 11, 2007 ENV. LEXIS 149 *31 (April 19, 2007) (citing *IEPA v. PCB*, 115 Ill. 2d 65, 70; 503 N.E.2d 343, 345 (1986) ("The Board reviews the entirety of the record to determine (1) if the record supports the IEPA's decision, and (2) that the procedures used by the IEPA are consistent with the Act and Board regulations. The Board does not affirm the IEPA's decision on the permit unless the record supports the decision.")).

In summary, the Permit should be remanded to IEPA to be repaired if the record does not show that IEPA "ensured" protection of water quality standards or indicates that the agency violated the rules regarding issuance of the Permit in any respect. If as to any parameter there is substantial doubt whether the water quality standard will be violated, the Permit does not "ensure" protection and should be remanded to be rewritten so that it does ensure protection.

Undoubtedly, it will seem harsh to some dischargers that a permit should be remanded if it does not ensure compliance with water quality standards. But the cost to the discharger is only the time it takes to correct the permit. It is far crueler to allow discharges that will harm Illinois waters and Illinois communities, including disadvantaged persons, that depend on them.

Nature of NPDES Permits – Because of the suggestion that it is not a problem if the permit is poorly written or ambiguous (Williamson/Foresight Br. 23), the basic law regarding interpretation of NPDES permits must be reviewed. As to this, the law is clear that NPDES permits are to be interpreted like contracts. *NRDC v. County of Los Angeles,* 725 F.3d 1194, 1207 (9th Cir. 2013); *Piney Run Preservation Ass'n v. County Commissioners of Carroll County,* 268 F.3d 255, 269 (4th Cir. 2001); *NRDC v. Metro. Water Reclamation Dist. of Greater Chi.*, 175 F. Supp. 3d 1041, 1051 (N.D. Ill. 2016). Both common sense and ancient common law hold that a permit cannot ensure anything if it unclear. Corbin on Contracts, One Volume Edition (West 1952) p. 143 ("A court cannot enforce a contract unless it can determine what it is").

In Illinois, "[t]he essential terms of a contract must be definite and certain in order for a contract to be enforceable." *Midland Hotel Corp. v. Reuben H. Donnelly Corp,,* 118 Ill. 2d 306, 314 (1987). These same requirements apply by extension to an NPDES permit. A vague or poorly worded permit should be remanded for clarification so that it can ensure protections.

Expert Testimony – Williamson/Foresight, but not IEPA, relies on expert testimony to support its argument for summary judgment. It ignores the rules applicable to expert testimony and seems to believe that if it can get someone with a resume to say that the permit is alright that that is good enough. (Williamson/Foresight Br. 10) The law, however, is clear that expert opinion must be grounded in the facts of the case and that an opinion that ignores important facts or science is not even admissible, let alone probative. Experts that ignore relevant facts, or experts that offer opinions unsupported by facts in the record, are considered unreliable and should not be allowed to present opinions to the finder of fact. *Gross v. Illinois Workers' Comp. Comm'n*, 2011 IL App (4th) 100615WC, ¶ 24 (rejecting expert testimony that ignored facts of plaintiff's history of smoking). Instead, "expert opinions must be supported by facts and are only

as valid as the facts underlying them." *In re Joseph S.,* 339 Ill. App. 3d 599, 607 (1st Dist. 2003) (explaining the need to look behind an expert opinion to ensure it is supported by facts). If an expert's opinion amounts to guess or surmise, it is too speculative to be reliable. *Dyback v. Weber,* 114 Ill. 2d 232, 244-45 (1986) (precluding testimony of an expert who had not based opinion on any facts relevant to the case). *See also, Modelski v. Navistar International Transportation Corp.,* 302 Ill. App. 3d 879, 885 (1st Dist. 1999) (rejecting expert testimony that the court deemed to be "nothing more than guess or speculation.").

These limitations on expert testimony are grounded in the concepts of relevancy. *Id.* "'Relevant evidence' means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more or less probable than it would be without the evidence." Fed R. Evid. 401. "It follows, therefore, that testimony grounded in guess, surmise, or conjecture, not being regarded as proof of a fact, is irrelevant as it has no tendency to make the existence of a fact more or less probable. From this conclusion follows the rule that expert opinions based upon the witness's guess, speculation, or conjecture as to what he believed might have happened are inadmissible." *Modelski,* 302 Ill. App. 3d at 245.

In the context of the standards for issuing NPDES permits involved in this case, those principles logically lead to somewhat asymmetric treatment between the expert testimony of Petitioners and that of Respondents. An expert or even a layperson can point out the danger raised by a particular form of pollution or circumstances without necessarily observing particular data that show that environmental damage is occurring.[2] However, to "ensure" that the danger of

[2] Moreover, Petitioners could not take their own data on the site before the 2020 comment deadline or even get access to much of the data relied on by IEPA until IEPA produced the record in 2022 after this appeal was filed.

damage is not present requires carefully looking at all the particulars of the situation and concluding based on data that the possible danger is not present.

Summary Judgment Standard - Summary judgment is appropriate in a permit appeal or other matter when there is no genuine issue of material fact and the record before the Board demonstrates a clear right to judgment as a matter of law. 35 Ill. Adm. Code 101.516(b), *Outboard Marine Corp. v. Liberty Mut. Ins. Co*., 154 Ill. 2d 90 (1992); *Clayton Chemical Acquisition L.L.C. v. IEPA*, PCB 98-113, 2001 WL 237473, *2 (March 1, 2001). Summary judgment cannot be granted on the basis of conclusory IEPA statements that are not unambiguously supported by the record. *Prairie Rivers Network v. Illinois PCB*. 2016 IL App. (1st) 150971, ¶38.

Applying these principles to the record in this case establishes that Respondents' Motions for Summary Judgment must be denied and Petitioners' motion for summary judgment should be granted.[3]

II. THE PERMIT FAILS TO ENSURE COMPLIANCE WITH WATER QUALITY STANDARDS IN THE BIG MUDDY RIVER FOR AT LEAST CHLORIDE, COPPER, IRON, NICKEL AND SULFATE IN VIOLATION OF 35 ILL. ADM. CODE 309.141 BECAUSE IT IS INCOMPLETE, UNCLEAR AND UNPROTECTIVE.

a. The Permit cannot legally be issued as a work in progress that allows critical portions of the Permit to escape review by the public and the Board.

The Permit allows piping up 7.2 million gallons per day (5000 gallons per minute) from the Pond Creek Mine for 12.5 miles to the Big Muddy River. (R. 27) This unusual proposal was

[3] It is pretty much inevitable in the case of cross-motions for summary judgment that there will be repetition in the briefing. Petitioners, while repeating parts of their Memorandum in Support of Petitioners' Motion for Summary Judgment ("Pets' Mem. for SJ"), have sought here to focus on the arguments made in Respondents' motions. Petitioners accordingly incorporate by reference the basic facts presented in Petitioners' Memorandum in Support of their Motion for Summary Judgment regarding the Permit, the hearing, Petitioners' Post-Hearing comments and other matters (Pet's Mem. for S.J. pp. 7-23) except to address arguments made by Respondents.

planned because the water being piped is too contaminated by chloride, sulfate and other pollutants to discharge into Pond Creek or other creeks near the mine into which Williamson/Foresight has been discharging wastewater. (R4, 13, 3303, 3584-5, 3590)

IEPA has approved this scheme but the Permit does not ensure against violations of the chloride standard in the Big Muddy River because no effective effluent limit for chloride appears in the Permit. Instead of a limit, there is at best a plan to establish a limit.

Central to defining the chloride limit and compliance with Board monitoring requirements, which require that compliance with every permit term be monitored (35 Ill. Adm. Code 309. 146(c)), is the requirement for "continuous" chloride monitoring above and below the discharge. Indeed, the Permit does not have fixed concentration or load limits for the discharge for outfall 011, despite 35 Ill. Adm. Code 302.309.143(b), but instead states a narrative limit that is based on the Permittee determining what it can discharge without causing a violation of water quality standards. The Permittee is to do this based on continuous monitoring of conductivity which will somehow, someday be correlated with the chloride concentration. Continuous conductivity monitoring is also being used to detect violations of the 500 mg/L "not [to] be exceeded" outside of the mixing zone chloride water quality standard of 35 Ill. Adm. Code 302. 208(g). (R.2, 3, 27, 28, 37, 38, 41, 48, 52, 53, 61, 65, 66, 68, 69, 71, 75, 78, 80, 81, 82,83,86, 93, 98, 104, 110)[4]

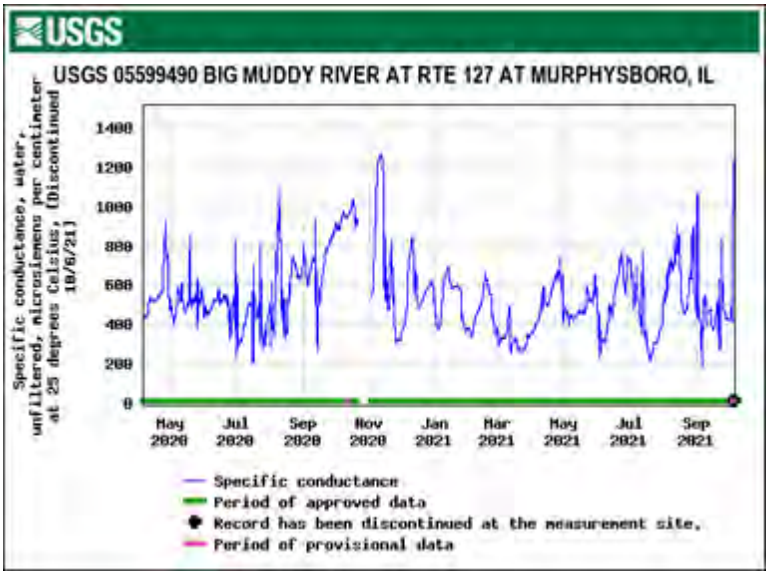
The critical formula for deriving chloride levels from conductivity levels in the Big Muddy was not done at the time of the public hearing in 2019, and, as was made clear from Respondents' recent filings, still is not done.

[4] U.S. EPA defines conductivity at R. 4816.

While it is stated that this monitoring scheme will be "sophisticated" and "computer-operated" and implied that it will be as wonderful as the Brooklyn Bridge (Williamson/Foresight Br.4), the Permit does not spell out much of anything about it. At the 2019 hearing, IEPA admitted that the details had to be worked out. (R. 2736-37) Williamson/Foresight presented a document indicating that an employee will sit in a little building next to the river and control the flow of the discharge from the mine on a continuous basis based on the continuous conductivity measurements. (R. 3306) Naturally, the Williamson/Foresight employee with this task will have an incentive to get rid of as much wastewater as possible to avoid backing up the system. Just what data will the employee have at his/her disposal, and how is he/she to work with the data? The answers to these questions are yet unresolved and have not been made publicly available.

We do know that the problem of instantaneously deriving chloride levels from conductivity levels will not be easy. Conductivity can vary quite substantially over a few days or hours as is illustrated by United States Geological Survey data (see chart below) collected in the Big Muddy River during the last eighteen months for which such data were available.[5]

[5] This data is available at https://nwis.waterdata.usgs.gov/il/nwis/uv?cb_00095=on&format=gif_default&site_no=05599490&period=&begin_date=2020-04-06&end_date=2021-10-06, See also, R. 5447 which shows similar wild gyrations in conductivity levels in the river.



Moreover, there is no reason to believe that the ratio of chloride as a percentage of the total conductivity the Big Muddy River is constant over the year or even over a 24-hour period. No studies of this have been presented. We just do not know. It would seem that chloride should be a much higher percentage of the measured conductivity after rock salt has been applied to roads in the area. Discharges from Foresight's upstream Sugar Camp and Viking mines might also affect the proper calibration and cause it to vary unpredictably.

Evidence presented by Williamson/Foresight in its Memorandum as to measurement of the chloride/conductivity ratio actually serves to highlight the work that must be done before anything like this scheme could be permitted. Williamson/Foresight points to a statement by its expert, Dr. Mindy Yeager-Amstead, regarding seven samples that purportedly reflect the conductivity-chloride ratio of the proposed 011 discharge that give her confidence that the calibration can be made. (Williamson/Foresight Br.21, R. 508-09) However, assuming with Dr. Yeager-Amstead that this is a start on establishing the conductivity-chloride ratio for the effluent

coming out of Outfall 011 from the mine,[6] it tells us nothing of the critical value of the conductivity-chloride ratio of the water in the Big Muddy River.[7]

Determining chloride levels in the Big Muddy using a conductivity meter is the tough problem that has to be solved because the Permit allows the Permittee to discharge chloride based on the background levels of chloride in the Big Muddy. (S.C. #15 R. 27) Obviously, to do this accurately will require studies over several years (so as to include diverse weather conditions) to determine how chloride levels correspond to conductivity levels during different seasons and flow conditions. These studies must also determine how discharges from Foresight's Sugar Camp mine, known also to have very levels of chloride (R. 8378), and other sources affect chloride levels and the amount of chloride that is present as shown by measures of conductivity.

There is nothing in the record which shows that Williamson/Foresight or IEPA has made an actual scientifically sound study of the relation between conductivity and chloride in the Big Muddy. Both the public and the Board are being asked to buy "a pig in a poke".

The Board rules require "completion of a draft permit," not a work in progress. 35 Ill. Adm. Code 309.109. Issuance of a "final" permit with essential parts missing frustrates the entire review process. Further, the Board rules state that "All permits shall specify… monitoring

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[6] However, the concentration of chloride in the discharge is expected by Williamson/Foresight's consultants to get worse over time. (R. 8378). IEPA has attempted to address this issue in SC #15 by requiring studies of the conductivity ratio in the Permit to ensure that the calibration curves remain accurate, but it is not specified what will happen if the curves are found to have become inaccurate. Will the Permit be modified? Will the Permittee have to stop discharging while the work needed to protect the river is done? How long can they go on discharging levels based on old data before that chloride concentration got worse?

[7] It appears that Dr. Yeager-Armstead recognizes that the seven samples are not adequate to establish even the relationship between conductively and chloride in the 011 Outfall effluent. She wrote, "Additionally, the consistent relationship between individual salts and specific conductivity*, once established*, will allow for real-time monitoring of stream and discharge constituent concentrations." (R. 509 (emphasis added) The Permit was issued without this important relationship having been established even for the effluent.

equipment and methods" 35 Ill. Adm. Code 309.146(d). The rules also provide that the Agency shall for each permit specify quantitative limitations, 35 Ill. Adm. Code 309.143(b), and do not contemplate that a permit will simply describe a procedure for establishing quantitative limitations.

The CWA requires that "[p]ublic participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this Act shall be provided for, encouraged, and assisted by the Administrator and the States." 33 U.S.C. § 1251(e). This requirement mandates that the public be afforded an opportunity to "meaningfully comment" on pending permits. *Waterkeeper Alliance v. U.S. EPA,* 399 F.3d 486, 503–04 (2d Cir. 2005); *Environmental Defense Center v. U.S. EPA*, 344 F.3d 832, 858 (9th Cir. 2003); *PennEnvironment v. PPG Industries*, 964 F. Supp. 2d 429, 458–59 (W.D. Pa. 2013); *Ohio Valley Environmental Coalition v. U.S. Army Corps of Engineers*, 674 F.Supp.2d 783, 802-3 (S.D.W. Va. 2009). Congress in enacting this requirement intended that the Act be implemented in a "fishbowl-like atmosphere." *Adams v. U.S. EPA*, 38 F.3d 43, 52 (1st Cir. 1995).

Here, by allowing development of the key permit condition - the centerpiece of the protection of the Big Muddy from chloride toxicity - after the close of the normal permit development process, IEPA has denied the public its right to public participation in the development of permit standards and effluent limitations.[8] It is unclear that the Agency even

[8] Permitting schemes that do not allow for public review of key elements of NPDES permits violate the CWA. *Waterkeeper Alliance v. U.S. EPA*, 399 F.3d 486, 503-504 (2d. Cir. 2005). Permits that rely on elements that are not part of the permit "deprives the public of the opportunity for the sort of regulatory participation that the Act guarantees because [such a permit] effectively shields the . . . management plans from public scrutiny and comment." *Id*. at 503. The public has a right to assist in the 'development, revision, and enforcement of ... [an] *effluent limitation.*'" *Id*. quoting 33 U.S.C. § 1251(e) (emphasis in the original). Such a permit

intends to tell the public what it and Williamson/Foresight have cooked up but in any case, "Merely conferring with the public after an agency decision does not meet [the CWA public consultation] requirement." 40 CFR § 25.4(d).

Respondents make several arguments to excuse the failure of the Permit to contain enforceable chloride limits. Profoundly missing the point, IEPA says that the fact the calibration is to be done later is alright because the calibrations will be approved and reassessed *by the Agency*. (IEPA Br. 16) That does nothing to remedy the problem that the critical work is not being done in a fashion to allow practical review by the public and the Board.

Williamson/Foresight claims there is no explicit requirement that there be public participation in the development of calibration curves. (Williamson/Foresight Br. 22) Actually, this is false because the rules do require that the public be shown a final permit and that it must "specify" monitoring equipment and methods. 35 Ill. Adm. Code 309.146(d). Certainly, to misinterpret the rules to allow the Agency and the Permittee to develop the key permitting requirements off-stage after the Permit has been finalized would frustrate both public participation and Board review of Agency decision making.[9]

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also "impermissibly compromises the public's ability to bring citizen-suits, a 'proven enforcement tool' that 'Congress intended [to be used...] to both spur and supplement government enforcement actions.'" *Id*. (quoting Clean Water Act Amendments of 1985, Senate Environment and Public Works Comm., S.Rep. No.50, 99th Cong., 1st Sess. 28 (1985)).

[9] If the Agency finished specifying the method for determining the chloride limit in the final Permit after the public comment period, it should have re-opened the record to receive additional written comment under 35 Ill. Adm. Code 309.120, as interested parties certainly could not have been expected to anticipate these key permit requirements given that nothing but vague plans had been provided on this topic by the Agency during the 2019 public comment period. Given that the Permittee and the Agency have still not worked out the chloride limit, the necessary public comment can be allowed after remand.

b. The Permit suffers from serious drafting problems.

Special Condition No. 16 subparts d and e (R. 28) contain serious proofreading mistakes that must be corrected on remand.[10] Less easy to fix is IEPA's entire approach to limits on discharges to the Big Muddy.

As to limits on discharges of sulfate, chloride, nickel, copper and iron (dissolved) from Outfall 011 to the Big Muddy, page 10 of the Permit (R.13) directs the Permittee and the public to Special Condition 15. But Special Condition 15 of the Permit does not set forth effluent limits for those pollutants. It provides some monitoring conditions, which may be eliminated in two and a half years (R. 28), limits the flow conditions during which the Permittee may discharge without putting any limit on the load allowed except to limit the flow to 5,000 gpm (= 7.2 MGD) (*contra*, 35 Ill. Adm. Code 309.143(b)), and limits the concentration of chloride in the discharge to 5000 mg/L, ten times the acute water quality standard of 35 Ill. Adm. 302.208(g). Otherwise, Special Condition 15 tells Williamson/Foresight to work out what to discharge under the Illinois water quality standards, the key language being "discharges not meeting the water quality standards of 35 Ill. Adm. Code 302 may only be discharged at such times that sufficient flow exists in the receiving stream to ensure that water quality standards in the receiving stream beyond the area of allow mixing will not be exceeded". (R. 27) It is impossible to discern what "ensure" means here or how the public will determine the extent of the violations without filing a Freedom of Information Act request and conducting a scientific investigation.

[10] "If the water quality standard, based on a hardness of 91 mg/L … exceeds …40% and 20% over the WQS." Clearly, the water quality standard cannot exceed the water quality standard by 40%, 20% or any other amount. Petitioners believe IEPA meant to write that if the measured concentration of the named pollutants exceed the water quality standard by the stated amounts that the discharge should be stopped pending the showing that standards "can be met."

In Petitioners' Memorandum in Support of Petitioners' Motion for Summary Judgement filed 9/19/2022, Petitioners explained varying theories as to the relationship between Special Conditions 15 and 16. (Pets' Mem. in Support of S.J. p. 28 footnote 17). IEPA has now stated its belief that Special Condition 15 contains what IEPA purports are the limits on chloride, sulfate, nickel, iron and copper (IEPA Br. 8), instead of Special Condition 16 which states some enforceable if fatally lax limits. Thus, it appears that IEPA only stated limits by way of reference to the water quality standards of 35 Ill. Adm. Code 302, and that IEPA thinks the Permittee is required to meet the water quality standards at the edge of the mixing zone.

The law is clear that IEPA cannot set effluent limits simply by telling the permittee not to violate water quality standards. *Natural Resources Defense Council v. United States Environmental Protection Agency*, 808 F.3d 556, 562 (2d Cir. 2015), *Prairie Rivers Network v. Ill. Pollution Control Bd*., 2016 IL App (1st) 150971, ¶27. Here again, IEPA is turning the limits over to the Permittee. There is some direction to the Permittee as to how to do this but whether those directions are followed and what science will be used to do the calibration will not be shared with the public until it is too late to challenge the Permit or prevent years of toxic discharges.

IEPA now states that the Special Condition 16 provisions regarding when the discharge should stop are not the effluent limits but are intended to act as a backstop, or as IEPA states "an automatic cease and desist provision." (IEPA Br. 8) It appears, then, that IEPA believes that Special Condition 16 fills in some of the gaps in Special Condition 15, but the ambiguities and uncertainties in Special Condition 16 are many. By negative implication, Williamson/Foresight is being permitted to continue discharging into the Big Muddy as long as chloride levels are above 140% of the *acute* water quality standard for chloride no more than 20% of the time 10

feet *below* the mixing zone. This unacceptable situation is similar as to sulfate, chloride, iron, copper and nickel.

Moreover, what does it mean that the Permittee can start discharging again after it has shown water quality standards "can be met." Presumably, IEPA believes that the 500 mg/L standard "can be met" within the mixing zone. Finding that the standard has been violated would not necessarily change that. Certainly, it does not appear that there is anything in the Permit that would preclude the Permittee from making the showing by reaffirming what IEPA already believes and explaining that the substantial and extended violations 10 feet below the mixing zone were due to operator error or bad luck. In any case, Special Condition 16, like the rest of the Permit, relies almost entirely on collection of data and self-monitoring by Williamson/ Foresight. Also, given the Williamson/Foresight poor compliance history, there is no reason to believe that Williamson/Foresight will treat a condition requiring it to stop discharging with any more respect than it treats other permit conditions.

Finally, Special Condition 15b.ii is also unclear and opens another can of worms. It does not specifically state what monitoring may be eliminated, but lists chloride monitoring as among the types of monitoring that might be eliminated. If monitoring of downstream chloride concentrations was eliminated, the whole pretense that there are enforceable permit limits for Outfall 011 would be vitiated.

c. Williamson/Foresight's long history of violations requires inclusion of a mandate for the mine to pay for monitoring by a disinterested third party.

IEPA addresses the history of Williamson/Foresight permit non-compliance, including numerous reporting violations (R.49, R. 5459-5485)[11], by requiring Williamson/Foresight to file an additional report. This requirement - that a biased, for-profit operation that has failed to file numerous relatively simple reports should file a report regarding complex monitoring data—most certainly does not ensure protection of the Big Muddy or water quality standards.

415 ILCS 5/39(a) states *inter alia* that "In granting permits, the Agency may impose reasonable conditions specifically related to the applicant's past compliance history with this Act as necessary to correct, detect, or prevent noncompliance." In this situation—where a company plans to make hundreds of millions of dollars while saving itself some money by discharging toxic wastewater into a river on which many persons are dependent—the Act requires that there be monitoring in addition to self-reporting.[12]

Moreover, there is no reason why the taxpayers should be required to pay to for this monitoring. The Permit should include a provision requiring the Permittee to pay the United States Geological Survey, the Illinois State Water Survey, or some other disinterested party to conduct continuous monitoring at the edge of the mixing zone below Outfall 011and below the Pond Creek confluence with the Big Muddy for every parameter that might be affected by the

[11] This total, 78 violations, only includes the violations of the Pond Creek Mine as of September 2021. It does not include violations by Williamson/Foresight's Sugar Camp operations or violations from the last year.

[12] According to the Williamson/Foresight antidegradation statement, the company plans to take about 7 million tons per year from the mine. (R. 8311) As of 9/8/22, the price of Illinois basin coal is over $196/ton. https://www.eia.gov/coal/markets/https://www.eia.gov/coal/markets/. It is safe to say that the cost of paying the USGS to put a super-gauge or two on the Big Muddy River is unlikely to render unprofitable the Permittees' mines discharging to the Big Muddy, unless, of course, the gauges discover pollution that the Permittee would not have reported.

operation of the Pond Creek coal mine, at least including ammonia, chloride, copper, iron, nickel and sulfate, and dissolved oxygen.

Assuming that Williamson/Foresight actually intends for the monitoring below the discharge required by the Permit to be done correctly, it should not cost it a significant additional amount of money to pay a disinterested agency to develop a proper monitoring scheme and implement and operate it.

In summary, with regard to the basic drafting and operational portions of the Permit as to Outfall 011 into the Big Muddy, a remand to IEPA is needed with directions for the Agency to:

- Finish developing the basic permit limit for the 011 Outfall to the Big Muddy by developing the calibration of the critical conductivity/chloride system for Outfall 011 to the Big Muddy, including a detailed explanation with specific permit requirements as to how the limit will be implemented and compliance reported in a way that will allow practicable monitoring by both the Agency and the public;
- Explain in detail what the effluent limits are for Outfall 011 for sulfate, nickel, copper and iron based on chronic toxicity, and make clear that chronic water quality standards must be met at the edge of the mixing zone and assure that necessary monitoring will not be eliminated;
- Develop a monitoring system that, in addition to self-monitoring, requires the Permittee to pay for scientific monitoring by a disinterested third party of compliance with at least chloride, copper, iron, nickel, sulfate, ammonia, and dissolved oxygen standards at the edge of the mixing zone[13];

[13] Ammonia and dissolved oxygen problems were not studied by IEPA apparently under the mistaken impression that there was not significant deoxygenating waste in the discharge. However, as explained below, data collected by Williamson/Foresight shortly before the public

- Clarify and correct the vague and unintelligible portions of the Special Condition 16; and
- Allow for informed public comment on all of these provisions that constitute the basic limits of the Permit on which the public was not allowed to comment either because the provision had not been developed or was not presented in a coherent fashion in the draft Permit.

III. THE PERMIT ALLOWS DISCHARGES TO TRIBUTARIES OF POND CREEK THAT WILL CAUSE VIOLATIONS OF CHRONIC STANDARDS FOR CADMIUM, COPPER, AND NICKEL, AND ALLOWS DISCHARGES OF AMMONIA THAT WILL INCREASE VIOLATIONS OF DISSOLVED OXYGEN STANDARDS IN THE BIG MUDDY.

a. The Permit allows chronic violation of numerous water quality standards in Pond Creek.

It is undeniable that the permit limits set for Outfalls 01 to 08 are based on the acute water quality standard and that the tributaries and Pond Creek are not being protected from chronic toxicity from numerous pollutants. The Permit allows Williamson/Foresight to discharge up to the acute concentration for cadmium, copper, nickel, and zinc (R. 211-20) although there are chronic standards provided for these pollutants in 35 Ill. Adm. Code 302.208 and there is no dilution available in either the unnamed tributaries or Pond Creek. There is no possibility of a legal mixing zone of any kind in Pond Creek or its tributaries under 35 Ill. Adm. Code 302.102.

IEPA in its brief confirms the fact that it is allowing discharges into Pond Creek and its tributaries at concentrations above the level of the water quality standards for chronic toxicity. But wait, IEPA offers the excuse that the discharges from Outfalls 01 to 08 are "non-continuous, intermittent discharges." (IEPA Br. 10) This might be a convincing excuse if the Permit in fact limited discharges to "non-continuous, intermittent discharges" but the Permit does nothing of

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hearing that was apparently missed by IEPA and not presented to the public indicate that IEPA's assumption that there was not deoxygenating waste in the discharge was erroneous.

the sort. It expressly allows dry weather discharges, sets no load limits on those discharges and sets only concentration limits based on acute water quality standards.

IEPA cannot ensure protection of water quality standards based on its hopes as to what the discharges will be if those hopes are not stated in the permit.

Sierra Club v. Genon Power Midwest LP, 2021 U.S. Dist. LEXIS 174710 (W.D. Pa. 2021) illustrates the principle that one cannot rely on understandings that are not contained in the language of the permit. In that case, it was the discharger that claimed that it could rely on terms that did not appear in the permit. The discharger in *Sierra Club v. Genon Power* argued that it was allowed a mixing zone to dilute its discharge, although there was no mention of a mixing zone in the permit. Applying basic contract interpretation principles, *Sierra Club v. Genon Power* held that, as there was nothing in the permit language regarding a mixing zone, the discharger was liable for discharges that failed to meet standards at the point of discharge.

Were Williamson/Foresight to discharge continually or in large volumes from one or more of Outfalls 01 to 08 contrary to IEPA's expectations, IEPA or groups concerned about protecting water quality would have to argue that there are load limits which do not appear in the Permit. It seems improbable that IEPA or clean water advocates would win on that argument given that the Permit has no load limits.

In any case, the question here is whether the limits as written for discharges from Outfalls 01-08 *ensure* protection of chronic standards. Manifestly, the Permit fails again whatever IEPA's expectations may be.

On remand, IEPA could fix this problem by placing limits in the permit that protect chronic standards, by prohibiting dry weather discharges from Outfalls 01-08, or by complying with 35 Ill. Adm. Code 309.143(b) and specifying load limits.

b. The Permit allows discharges that will exacerbate existing violations of the dissolved oxygen standards in the Big Muddy.

Frankly, Petitioners were not fully aware how bad and unprotective this Permit was until IEPA filed its brief purporting to defend the Permit.[14] IEPA told the public in the Responsiveness Summary that there were not significant deoxygenating pollutants in the proposed discharge (R.105). Petitioners accepted IEPA's representation because coal mining wastes do not normally have substantial deoxygenating wastes, but noted that the basis for IEPA's confidence in this was unclear. (Petitioners' Memorandum in Support of their Motion for Summary Judgment Br. 20 Fn. 12)[15] It is clear now that IEPA misled the public and that there are significant levels of deoxygenating waste in the proposed discharge, including ammonia concentrations that contribute substantial nitrogenous oxygen demand and causes other problems.[16]

IEPA in its motion for summary judgment (IEPA Br.7) specifically cites six documents that the agency claims reflect the concentration of pollutants which will be in the 011 discharge to the Big Muddy.[17] The concentration of ammonia in these six samples taken between October 25, 2019 and December 16, 2019, weeks or days before the public hearing and apparently not made public until the filing of the record in this appeal, show ammonia levels of 1.99 mg/L, 2.10 mg/L, 2.01 mg/L, 1.78 mg/L, 1.93 mg/L and 1.04 mg/L (R. 1296, 1297, 1298, 1301, 2506, 2509, 2510). Such levels are significant and represent ammonia discharges with higher concentrations

[14] Petitioners did object to the Permit on the basis that it would decrease dissolved oxygen levels. (R. 4353)

[15] Petitioners will charitably assume that Williamson/Foresight was also misled by the Agency's statements that there is no phosphorus or deoxygenating waste in the discharge which it repeats in its brief (Williamson/Foresight Br. 11) although it presumably had the October to December 2019 sampling reports before IEPA.

[16] US EPA has summarized the threats from ammonia pollution. https://www.epa.gov/caddis-vol2/ammonia

than those often prohibited as toxic in Illinois, see 35 Ill. Adm. Code. 355.203(a)[18] More critically, the nitrification process for that concentration of ammonia in a potentially 7.2 MGD from Outfall 011 to the Big Muddy will have a substantial negative effect on dissolved oxygen levels in a water body which is already impaired by low dissolved oxygen levels. (R. 4353, 5448, 5449 and 2018 303(d) list Segments N-12, N-16 and N-99 as impaired by low DO)[19] The documents also indicate significant phosphorus levels that can stimulate noxious algal blooms.[20]

Allowing a discharger to add more pollutants of a kind that is already causing an impairment violates the Clean Water Act and basic permitting rules. *Friends of Pinto Creek v. U.S. Environmental Protection Agency*, 504 F.3d 1007, 1012 (9th Cir. 2007); *Alabama Dept. of Env. Management v. Alabama Rivers Alliance*, 14 So.3d 853, 866 (Ala. Civ. App. 2007).

In addition to its contribution to oxygen demand, ammonia concentrations like those in the mine effluent are known to act in two other ways. First, ammonia acts as a form of the nutrient, nitrogen, that *directly fuels growth of harmful algae* (e.g., R.G. Wetzel, Limnology,

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[17] Petitioners were not aware of these data and did not expect to see such ammonia levels. The record, moreover, makes clear that even the Williamson/Foresight consultants expect the concentration of some of the pollutants to get worse (increase) over time. (R.8378)

[18] Particularly given that the pH of the discharge would be over 8.3 as shown by the six samples, the ammonia discharges would be highly toxic during warmer seasons. Thus, limits protecting against ammonia toxicity should be considered by the agency on remand.

[19] The total conversion of ammonia (NH_3) to nitrate (NO_3^-) takes 4.6 parts oxygen and 7.1 parts alkalinity to convert 1 part ammonia (NH3). http://ctwpaa.org/understanding-the-basic-principles-of-nitrogen/

[20] The data provided by IEPA showed appreciable phosphorus in the mine effluent, up to 0.13 mg/L, more than enough to stimulate harmful algae and above the Wisconsin phosphorus criteria and the standard proposed by the Illinois Nutrient Science Advisory Committee. https://www2.illinois.gov/epa/topics/water-quality/standards/Documents/NSAC%20Report%20-%20Final.pdf#search=illinois%20nutrient%20science%20advisory%20committee%20final%20report

Academic Press (Third Ed. 2001), p. 214[21]. Second, such ammonia concentrations can be highly toxic to sensitive beneficial aquatic life and can persist miles downstream.[22]

Thus, for yet more reasons, the Permit should be remanded; to establish proper limits regarding deoxygenating (oxygen-demanding) wastes, ammonia toxicity, and the direct fueling of harmful cyanobacteria (blue-green algae) by the substantial ammonia and phosphorus in the mine effluent.

IV. THE PERMIT FAILS TO ENSURE PROTECTION OF EXISTING USES AS REQUIRED BY 35 ILL. ADM. CODE 302.105(A) AND (C).

The entire scheme adopted by the Permittee and approved by IEPA is keyed to meeting Illinois' relatively few applicable numeric water quality standards. The mantra of IEPA in the Responsiveness Summary is that the Illinois numeric water quality standards, particularly the 500 mg/L chloride standard, can be counted on to protect existing uses of the Big Muddy and other affected rivers from the many toxic and otherwise harmful pollutants in the mine wastes.

Respondents make essentially two arguments as to why meeting the 500 mg/L chloride standards is good enough to comply with the Board rules. First, they ignore 35 Ill. Adm. Code 302.105 (a) and (c) and, second, they simply claim that the work done by the Permittee and the opinion of its expert demonstrates that existing uses of the Big Muddy will be protected.

In fact, the law is plain that IEPA permits must protect existing uses and all narrative standards in addition to ensuring that permits meet numeric standards.[23] Further, the record is

[21] See also, https://www.sciencedirect.com/science/article/abs/pii/0378109791906924 and https://repository.library.noaa.gov/view/noaa/13054

[22] https://www.epa.gov/caddis-vol2/ammonia.

[23] In addition to chloride, other Illinois standards relevant to the Pond Creek Mine permit that should not be applied automatically in the context of considering limits are those for nickel and selenium, which are apparently well above the Federal standard. Compare nickel and selenium data at R. 8363 and federal criteria of 40 CFR 131.36. Illinois does not even have a standard for arsenic for protection of fish consumption and arsenic levels have been detected above the

clear that IEPA did not ensure protection of existing uses; instead, both IEPA and the Permittee's expert completely ignored multiple threats to existing uses in the Big Muddy, even miles downstream of the discharge, that were brought to their attention by Petitioners and others in the public comments.

a. The Board rules do not allow IEPA to rely on the numeric chloride standard to protect the Big Muddy.

Had IEPA looked into the subject, the agency would have found that the Illinois chloride standard is far from protective as was shown by much of the evidence in the record.[24] As explained above, simply meeting the 500 mg/L chloride standard (even if the permit ensured that) is not protective because science developed in the past decade demonstrates that the 500 mg/L chloride is much too loose to protect beneficial aquatic life from chronic exposure. Further, total dissolved solids (or total conductivity) is also a critical consideration, and the cumulative, interactive effects of the numerous pollutants in the mine wastes also must be considered. Substantial recent peer-reviewed science has shown that, even considering chloride in isolation, the 500 mg/L limit just does not cut it—it is grossly inadequate to protect the designated use of the Big Muddy for aquatic life.

IEPA failed to ensure protection of existing uses in the Big Muddy and other impacted water bodies as required by 35 Ill. Admin. Code sections 302.105(a) and (c). Both Respondents attempt to counter this argument by citing the Permit's compliance with applicable numeric water quality standards. However, it is clear that section 302.105(c) mandates the Permit comply with both applicable numeric standards and ensure protection of existing uses.

Federal human health fish consumption criteria (R. 8363). It is known that many people are eating fish caught in the Big Muddy River. (R. 2905, 3023, 304, 3232, 3322, 3392, 3668, 3753, 3759, 5141).

"A court will interpret an administrative regulation in the same manner as it would interpret a statute." *Arellano v. Dep't of Hum. Servs.*, 402 Ill. App. 3d 665, 673 (2nd Dist. 2010). *See also, First National Bank of Chicago v. Standard Bank & Trust,* 172 F.3d 472, 476 (7th Cir.1999) ("Administrative rules are subject to the same well-known maxims of construction as legislative statutes"); *Alabama Tissue Ctr. v. Sullivan,* 975 F.2d 373, 379 (7th Cir. 1992) ("The same rules of construction apply to administrative rules as to statutes".)

"The fundamental rule of statutory construction is to ascertain and give effect to legislative intent, which is the most reliable indicator of the language of the statute itself, given its plain and ordinary meaning." *Bd. of Educ. of Roxana Cmty. Unit Sch. Dist. No. 1, Madison Cnty. v. Reg'l Bd. of Sch. Trustees of Madison Cnty.*, 2021 IL App (5th) 200277, ¶20 (citing *Land v. Board of Education of the City of Chicago*, 202 Ill. 2d 414, 421 (2002)). *See also, Arellano,* 402 Ill. App. 3d at 673 ("[O]ur primary aim is to give effect to the drafters' intent, and the best indicator of that intent is the regulations' language, given its plain and ordinary meaning.") "In determining the plain meaning of statutory terms, a court must consider the statute in its entirety, keeping in mind the subject it addresses and the apparent intent of the legislature in enacting it." *People v. Perry*, 224 Ill. 2d 312, 323 (2007). "If possible, a court must give effect to every word, clause, and sentence; it must not read a statute so as to render any part inoperative, superfluous, or insignificant; and it must not depart from the statute's plain language by reading into it exceptions, limitations, or conditions the legislature did not express." *People v. Ellis*, 199 Ill. 2d 28, 39 (2002).

"As a general rule, the use of the conjunctive, as in the word 'and,' indicates that the legislature intended for *all* of the listed requirements to be met." *Soh v. Target Marketing*

[24] A recent presentation that illustrates this science can be viewed at

Systems, Inc., 353 Ill. App. 3d 126, 131 (1st Dist. 2004) (citing 1A Norman J. Singer, Sutherland on Statutory Construction § 21.14, at 129 (5th ed. 1993)). *See also, Bd. of Educ. of Roxana Cmty* at ¶22; *Bd. of City of Carbondale v. Bower,* 332 Ill. App. 3d 928, 933 (5th Dist. 2002); *Richardson Brothers v. Board of Review of the Department of Employment Security,* 198 Ill. App. 3d 422, 425–26 (5th Dist. 1990) (requiring all elements of statute containing conjunctive "and" criteria to be met).

In this case, applicable anti-degradation regulation 35 IAC 302.105(c)(2)(B) mandates:

> 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:
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> * * *
>
> B) Assure the following:
>
> i The applicable numeric or narrative water quality standards 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, ***and***
> iv The activity that results in an increased pollutant will benefit the community at large.

(emphasis added). Notably, the requirements contained in section 302.105(c)(2)(B) are joined by the conjunctive word "and". As a result, it is clear that NPDES permits issued by IEPA must "fully protect" existing uses as well as applicable numeric water quality standards. IEPA simply failed to do so in this case.

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https://www.youtube.com/watch?v=mm9Evv21VSA

b. The record clearly demonstrates that IEPA ignored numerous threats to aquatic life and other uses of the Big Muddy.

Predictably, IEPA and Williamson/Foresight focus on the effect of the Outfall 011 discharge in isolation and ignore every possible effect except for chloride toxicity in the mixing zone and immediately downstream of the mixing zone. However, as shown above, the Permit as now written does not ensure against violation of the 500 mg/L standard and the 500 mg/L chloride standard is not protective. But beyond that, the issue is whether the shotgun blast of pollution allowed by the Permit may contribute to injury to any existing uses in any part of the Big Muddy, alone or in combination with other pollution that is there.

No one denies that the Big Muddy is already suffering from a number of serious insults to its biological integrity.[25] These insults include at least:

- The discharge of dissolved solids (measured as total dissolved solids (TDS)), including inorganic salts of chloride and sulfate, and many other pollutants by the Foresight Sugar Camp Mine and other sources,
- The discharge of dissolved solids, including inorganic salts of chloride and sulfate, and many other pollutants by the Pond Creek Mine into Pond Creek which flows directly into the Big Muddy below the proposed 011 Outfall,
- Mercury from atmospheric deposition and probably other sources,
- Phosphorus, from sources that apparently include the Pond Creek mine, that is known to fuel harmful algae and contribute indirectly to violations of dissolved oxygen standards, and

[25] Williamson/Foresight's claim that none of these problems are due to coal mining is unsupported by the record and basically absurd.

- Deoxygenating wastes—thought by IEPA, apparently in error, to come entirely from sources other than the Pond Creek Mine.

Regarding the combined effects on the whole river of the discharges allowed by the Permit in combination with the other known pollution, extensive comments supported by scientific studies were presented by Petitioners and others objecting that it was not sufficient for IEPA to focus on meeting the 500 mg/L chloride standard to protect the Big Muddy and other affected waters. This evidence showed that chloride pollution should not be considered in isolation; it must be considered together with the cumulative effects of other dissolved substances which contribute to conductivity. (R. 3288, 4354-8)

IEPA cannot ensure protection of existing uses while ignoring these threats. IEPA essentially ignored all of this accepted science, which places its solemn unsupported declaration that the discharge will not harm existing uses (IEPA Br. 11) in conflict with the record.[26]

Cumulative Negative Effects of Chloride and Total Conductivity

Petitioners presented extensive work by the U.S. EPA on the negative effects of total dissolved solids as measured through conductivity (which include inorganic salts of chloride, sulfate and various other pollutants). Abundant scientific evidence, showing that total conductivity itself is a parameter that may affect existing uses, was documented in the Draft Field Based Methods for Developing Aquatic Life Criteria (U.S. EPA 2016) (R. 4795). Petitioners objected that neither the applicant nor IEPA have apparently given any thought as to how increased conductivity might affect aquatic life existing uses in Pond Creek or the Big Muddy River. (R. 4356) The available evidence indicates that harm to existing uses will occur.

[26] IEPA's statement that the agency responded to all significant comments in the Responsive Summary (IEPA Br.2) is false. IEPA did not so much as mention most of the science presented and apparently misunderstood the small amount of that science that it purported to consider.

In his comment provided by Petitioners, Dr. Matthew Baker of the University of Maryland stated:

> Recent work has suggested that conductivity related to both chlorides and sulfates can produce both acute and chronic toxicity as well as reduced metabolism and lowered abundance of sensitive taxa (Clements and Kotalik 2016, Voss and Bernhard 2017). The fact that the stream is already impaired does not relieve the mining company or IEPA from establishing effluent limits protective of water quality standards, including those meant to protect aquatic life. There is little to no consideration of the addition of more chlorides, sulfates, or other pollutants to these streams or effects on other taxa (e.g., Wang et al. 2007, Timpano et al. 2010, Bier et al. 2012). What consideration that exists is implicitly focused entirely on concentrations and not also on the impact of loads.
>
> Second, cumulative or synergistic effects are likely to occur in a stream where additional stressors and harmful pollutants are present (Omerod et al. 2010). I have ·observed this myself in mining impacted streams, where conditional analysis showed that impacts of habitat degradation or thermal stress were enhanced by the presence of mining effluent (Baker 2014). Other studies have taken such impacts and interaction into account when investigating the effects of mining discharges (e.g., Gerritsen et al. 2010, Merriam et al. 2011, Cook et al. 2015). Cumulative effects have lately been the focus of study where multiple NPDES permits contribute to downstream impairment (Lindberg et al. 2011, Merriam et al. 2015, Nippgen et al. 2017, McManus et al 2020). IEPA has not taken these cumulative or synergistic effects into account at all in the proposed permit. (R. 4377-8)

Indeed, as mentioned above, even considering chloride in isolation, recent scientific work has shown that the 500 mg/L chloride standard is simply not protective of mussels and other species that are (or could be) present in the Big Muddy watershed. (R. 4580, 4603, 4688, 4702) The U.S. EPA chronic standard for chloride is 230 mg/L (R. 3288), and that number is not to be exceeded as a four-day average more than once every three years on the average, 40 CFR 131.36 (General Notes). Under the Permit, a chloride level of 500 mg/L would be allowed at the edge of the mixing zone at all times. Recent studies were placed into the record showing that even the 230 mg/L federal criterion is too high to protect beneficial aquatic life. (R. 4358)

Looking at the situation more broadly, given that the Foresight operation at Sugar Camp will also be allowed to discharge chloride and other pollutants; and the Pond Creek Mine, in addition to the pipeline discharge, will also be dumping chloride and other pollutants into Pond Creek that will enter the Big Muddy, the total effect on the Big Muddy is massive. (R 3023, R. 4255-56) Considering only the chloride from Williamson/Foresight operations,[27] discharges to the Big Muddy have the potential to raise the chloride level in the whole river from the background level at Rend Lake (31 mg/L reported by IEPA (R. 65) to a level well over the federal chronic standard, (230 mg/L)(R. 4355-56)

Chloride, phosphorus and cyanobacteria

Petitioners and others presented evidence of two other ways in which the discharges into the Big Muddy and to the tributaries of Pond Creek, which discharges into the Big Muddy below Outfall 011, would harm the Big Muddy by compounding the effect of the phosphorus pollution that is in the Big Muddy from other sources.

No one denies that nutrient pollution is entering the Big Muddy at high levels from agriculture and other sources. Segments of the Big Muddy downstream of the 011 Outfall discharge have been listed as impaired by phosphorus. (R. 2999, 4353) Adding high levels of chloride to the mix makes the situation worse.

First, the effects of excessive nutrients and increased salinization of waters have an additive effect to adversely affect aquatic life. As stated in a study placed into the record by Petitioners:

> Our study has found that the combined effects of the two stressors - across the range of values examined - are entirely additive for all of the taxa we examined including phytoplankton, periphyton, macroalgae, snails, and zooplankton. While

[27] Petitioners do not know if Foresight's Viking Mine also contributes chloride or other pollutants to the Big Muddy.

> the impacts of anthropogenic additions of nutrients and salt are not synergistic, their combined effects on aquatic ecosystems are still of tremendous concern since they both contribute to major changes including phytoplankton and periphyton blooms (via bottom-up and top-down mechanisms, respectively). Equally important are the impacts of salinization alone, including causing a major decline in numerous taxa including zooplankton, snails, and macroalgae. One would reasonably predict that such declines would have further cascading effects on consumers that rely on the salt-sensitive prey and on species that rely on the expansive *Nitella* meadows (and perhaps other salt-sensitive macrophyte species) in freshwater lakes for habitats. Overall, the combined effects of salinization and eutrophication might fast-forward the process of lakes becoming hypertrophic, and this could potentially result in devastating algal blooms and poor water quality. Lovisa Lind and others, Ecosphere, *Salty fertile lakes: how salinization and eutrophication alter the structure of aquatic communities*. R 3175, at 3190

Second, Petitioners offered scientific evidence that the high chloride discharges (and metals) from the Pond Creek Mine to the Big Muddy and tributaries of Pond Creek would exacerbate the existing problems caused by low dissolved oxygen and high phosphorus in the Big Muddy by promoting release of phosphorus from sediments and by favoring cyanobacteria, which can produce microcystin and many other toxins. (R. 4353)[28] Regarding cyanobacteria, Dr. JoAnn Burkholder commented:

> Harmful toxigenic cyanobacteria will have a competitive advantage over other algae in the environmental conditions created by the Pond Creek Mine's alkaline effluent, including high specific conductance, high chloride, and enhanced phosphorus (P) release from the sediments. Cyanobacteria also generally have high tolerance for limited light and toxic heavy metals relative to other algae. … Pertinent to benthic cyanobacteria, high concentrations of sulfate and chloride have been shown to enhance phosphorus release from the sediments (Caraco et al. 1993, Zak et al. 2006, Jin et al.2013). Most toxigenic cyanobacteria are "phosphorus loving" (Burkholder 2009 and references therein) – that is, they have high P optima and would be expected to be stimulated by the enhanced sediment P release. The hypoxic conditions that are contributing to the degradation of this stream segment (IEPA 2016) would further enhance sediment P release (Carlton and Wetzel 1988, Stumm and Morgan 1995). (R. 4415)

[28] Dr. Burkholder did not have access to the data made public with the recent filing of the hearing record showing potentially high ammonia and phosphorus levels in the 011 Outfall.

Chloride, Sulfate and Mercury

Petitioners and others also presented scientific studies and comments regarding how increasing chloride and sulfate levels would exacerbate the already excessive levels of mercury in the system by liberating mercury now buried in anoxic sediments as toxic forms. (R. 3322, 3377, 3491, 4356) As stated by Dr. Burkholder:

> The high chloride and sulfate concentrations added to the water column of the substantial mixing zones would significantly increase mercury release from the sediments and, in turn, increase the potential for mercury contamination and toxicity to fish and other beneficial aquatic life. These effects would occur because there are strong chemical interactions between the overlying water and the sediments (Wetzel 2001). Mercury contamination is already contributing to the degradation of this stream segment (IEPA 2016). …
>
> The threshold value for major mercury release from the sediments may be substantially lower: In other work (Farrell et al. 1990), the fraction of total mercury-II (Hg^{+2}) bound in the form of chlorocomplexes increased as the chloride concentration of the water increased; and the total toxic activity of the mercury chlorocomplexes increased as a near-linear function of the total chloride concentration–but there was no significant increase in the mole fraction until the total chloride concentration was 10^{-3} M (35 mg chloride/L). The data again suggested a threshold for mercury release, at 35 mg chloride/L; this concentration corresponded to the chloride level at which significant decreases, related to mercury toxicity, were observed in growth of the test organisms. The permit level of chloride under consideration by IEPA, 500 mg chloride/L (outside mixing zones) would be more than 10-fold higher than that estimated threshold. (R. 4413-14)[29]

Dr. Burkholder's comment also refuted the claim made by IEPA in the permit notice that the chloride and sulfate would pass harmlessly over the (supposedly "oxygen-rich") uppermost sediment so that toxic methylmercury would not form from the mercury already on the bottom. (R. 4414) Dr. Burkholder further commented that the toxic pollutants in the effluent discharge will cause higher respiration, stress, and death of aquatic life in the mixing zone, as well as

[29] Essentially the same point – that increased chloride would release metals from sediments – was made in an earlier comment to the Illinois Dept. of Natural Resources. IDNR responded that

chronic stress, higher respiration, and death of some biota in downstream waters. The elevated respiration, as well as the death of aquatic life and their decomposition, would contribute to impairment from hypoxic/anoxic conditions. The exacerbated low-oxygen conditions will, in turn, enhance formation of toxic methylmercury from the sediments. (R. 4417)

In summary, it is clear from the record that this permit designed by IEPA does not "fully protect" existing uses because, in addition to ignoring chloride toxicity below 500 mg/L, IEPA failed to consider these factors that were presented by Petitioners.

Total Conductivity - IEPA apparently did not consider the peer-reviewed science indicating that there will be major impacts to the Big Muddy from total conductivity, as well as cumulative impacts. One does not assure protection of existing uses by ignoring risks to them that have been attested by experts.

Cyanobacteria and other algal blooms - Regarding the combined effects of the Pond Creek Mines discharges and phosphorus in the sediment and continuing to come from a variety of sources, IEPA entirely missed the point. Even if the Pond Creek Mine discharges contained no phosphorus, they would enhance existing phosphorus movement from the sediments to the water column in an already-phosphorus-impaired river, and favor development of a particularly harmful form of algal growth (cyanobacteria or blue-green algae) that is capable of making toxins harmful to aquatic life and humans. It appears, moreover, based on the late 2019 data cited in the IEPA Brief (Br. 7) that Outfall 011 has significant levels of phosphorus.[30]

Mercury - IEPA tried to wish away the expected effects of high levels of chloride and sulfate in the effluent on mercury levels in a river already known to be impaired by mercury.

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impacts on surface water were to be addressed by IEPA and conveyed the comment to IEPA (R. 3578), but IEPA appears to have ignored the point.

IEPA failed to consider Dr. Burkholder's (2020) comments on this important issue. (R. 72) Those comments, based on peer-reviewed science, explained that methylmercury formation will be enhanced by the high sulfate and chloride of the mining effluent under conditions of hypoxia/anoxia in the bottom water and sediments of the Big Muddy River. Portions of the Big Muddy below the Pond Creek Mine are known to be impaired by low-oxygen conditions according to the state's 303(d). Yet, IEPA simply repeated verbatim its previous, unsupported claim that the discharged effluent will not interact with low-oxygen conditions in the receiving river—not in the mixing zone and not downstream from it. IEPA provided no data to support its assertion that there is no hypoxic water in the area and anoxic sediments are only "deep down." *If either claim by IEPA was true, the river would not be impaired by low-oxygen (hypoxic/ anoxic) conditions.* IEPA also relied on wishful thinking to conclude that because the (very high) chloride concentration discharged will decrease as the effluent moves downstream, there should be little risk of mercury release from sediments in downstream areas. Petitioners presented science showing that enhanced mercury release would be expected at chloride levels as low as 31 mg/L, whereas Williamson/Foresight discharges will raise chloride levels far above that level well below the mixing zone. (R. 455-56, 4414)

Further, it is unclear that IEPA considered the effect of allowing Williamson/Foresight to clean up the mess in Pond Creek by piping reverse osmosis (RO) reject water to the Big Muddy. Certainly, IEPA did not consider anywhere in the record how the RO reject water that is claimed to be highly toxic by Williamson/Foresight consultants (R.88, 8328) will affect the Big Muddy or its designated use for aquatic life.

[30] The data recently made available by IEPA are limited, but four of the six samples analyzed show substantial phosphorus levels in the 011 discharge. (R. 1296, R. 1297, R. 1298, R. 1299)

c. The opinion of the Williamson/Foresight expert does not show that existing uses are fully protected by the Permit because she focused entirely on the area in the immediate vicinity of the 011 discharge, and did not consider the threats raised by much evidence in the record.

William/Foresight, but not IEPA, cites the opinion of Dr. Mindy Yeager Amstead, a professor at a West Virginia university who worked for the mining industry for 15 years, to support the claim that the Permit protects existing uses in the face of extensive evidence and expert comments refuting that claim, as presented in Petitioners' January 17, 2020 comments. (Williamson/Foresight Br. 14, 20) The first thing to note is that Dr. Yeager-Amstead does not even claim to have read Petitioners' detailed comments and expert opinion (R.4352-5416), let alone to have somehow refuted them.[31] As a result, her testimony lacks foundation, and should be disregarded by the Board.

The law is clear that an expert opinion that fails to address important facts or science is not admissible, let alone probative. *Gross v. Illinois Workers' Comp. Comm'n*, 2011 IL App (4th) 100615WC, ¶ 24 (rejecting expert testimony that ignored facts of plaintiff's history of smoking). Instead, "expert opinions must be supported by facts and are only as valid as the facts underlying them." *Dyback v. Weber,* 114 Ill. 2d 232, 244-45 (1986); *In re Joseph S.,* 339 Ill. App. 3d 599, 607 (1st Dist. 2003; *Modelski v. Navistar International Transportation Corp.,* 302 Ill. App. 3d 879, 885 (1st Dist. 1999). On her own admission, Dr. Yeager-Amstead did not review most of the key reports and pieces of evidence in this case. Nonetheless, Williamson/Foresight offers her opinions about the purported merits of Williamsons/Foresight's proposed calibration and monitoring scheme and the potential effect of the discharges on existing uses. Lacking a

[31] Dr. Yeager-Armstead reports having reviewed Petitioners' August 12, 2019 initial comment (R. 3102 -3108 and attached exhibits) that Petitioners scraped together in the few days they had to request a public hearing without the benefit of having reviewed any permit documents, learned facts from the hearing held in December 18, 2019, or expert assistance.

grounding in the key facts of the case, her opinion is foundationless and should be excluded by the Board.

Even if the Board were to allow Dr. Yeager-Armstead's opinion, her opinion fails to show that the Permit protects existing uses. Dr. Yeager-Armstead praises the monitoring scheme and calibration of the conductivity/chloride system (R. 511), although she obviously never saw this calibration because, unless Williamson/Foresight is hiding its studies, such a calibration has not been developed for the receiving segment of the Big Muddy. She supports her claim based on only seven data points that showed a similar relative contribution of chloride to total ions *in the effluent* on the few days tested. She acknowledged that more work needed to be done and apparently did not consider the far more difficult task of calibrating the conductivity/chloride relationship *in the Big Muddy River*.

Dr. Yeager-Amstead implies that U.S. EPA approves of the Illinois 500 mg/L chloride standard, which is false. The EPA chronic criterion is 230 mg/L. The Illinois standard is inconsistent with the U.S. EPA criteria (R.4358) and with many studies that were placed into the record and cited by Petitioners' Post-Hearing comments that Dr. Yeager-Armstead did not read.

Dr. Yeager-Amstead emphasizes that chloride is not bioaccumulative, which is true, but dismisses the fact that the chloride will increase biota exposure to mercury by incorrectly claiming that the chloride will never reach lower hypoxic/anoxic bottom waters or sediments. Moreover, mercury is not only highly toxic but also bioaccumulative.

Dr. Yeager-Amstead states that there is no evidence that increased chloride concentrations can increase the toxicity of algal blooms (R.513), but that comment shows a misunderstanding of the problem. The problem as explained by Dr. Burkholder (R.4415) is that increased chloride favors harmful cyanobacteria over beneficial algae—that is, the increased

chloride gives cyanobacteria a competitive edge—in forming their toxic blooms.[32] Dr. Yeager-Amstead apparently has not seen the Burkholder comments or the numerous peer-reviewed studied cited in them and, thus, did not understand that point.[33]

Dr. Yeager-Armstead (5, Responses to Comments - last comment) claims that the chloride concentrations present in the river outside the mixing zones will create "safe" conditions. However, in addition to enhancing mobilization of mercury, the elevated chloride will enhance movement of some toxic metals from the sediments back into solution where beneficial aquatic life would be exposed to them. Some of these substances are known to bioaccumulate in fish and also threaten the health safety of human consumers.

Dr. Yeager-Armstead's basic points about aquatic life are that the Big Muddy River has low-quality biota in the vicinity of the 011 Outfall (Segment N-16) and that the whole river has poor habitat, so adding another big slug of pollution probably will not hurt anything. (R.510) It is possible that she is correct about the area in the immediate area of the discharge, but IEPA has reported that the Big Muddy is fully supporting aquatic life in segments of the river further

[32] Dr. Yeager-Amstead misunderstands the Lind study which she apparently did read. (R. 513) That study described effects of chloride and nutrients in laboratory cultures on algae taken from lakes. There is no reason to believe that the conclusions of the study would not be applicable to algae across freshwaters including rivers.

[33] The Rosen et al. (2018) USGS report cited in Petitioners' August 2019 comments was criticized by Dr. Yeager-Armstead as inappropriate because it was "only about lakes." The study was about cyanobacteria from a lake that were *tested in culture for their salinity tolerance.* Rosen et al. conducted experiments in culture to assess the salinity tolerance of cyanobacteria from these blooms because the cyanobacteria from that lake have been shown to thrive during river transport into rivers and low-salinity estuarine conditions. Thus, the findings are indeed germane to the conditions in the Big Muddy River created by the mine effluent. Rosen et al. showed, as many publications have shown, that various potentially harmful cyanobacteria can indeed thrive in chloride concentrations similar to those added by the mining wastes as well as higher levels.

below the Sugar Camp and Pond Creek discharges,[34] and many people report successfully fishing in those downstream segments. (see record citations in Pet's Mem. in Support of SJ p. 6) The record establishes that this situation is likely to worsen if the pollution from the Pond Creek Mine is not abated.

In summary, Petitioners have offered substantial expert evidence that the discharge may cause or contribute to damage to existing uses, and that the Permit does not fully protect such uses. An expert opinion that does not address the risks pointed out by Petitioners does not even create a "battle of the experts."

But even if Dr. Yeager-Armstead's testimony did purport to answer the expert testimony placed into the record by Petitioners, the Permit could only be upheld as fully protecting existing uses if the Board was convinced that her opinion was so strong that it could be said that the testimony fully answered the concerns. The question is not whether it is more likely than not that existing uses will survive. The question is whether the Permit ensures that existing uses are "fully protected." That standard cannot be met with opinion testimony that just might be admissible to a jury.

d. The Permit does not protect creeks from drawdown.

Regarding the effect on existing uses on streams of the drawdown of 3.5 MGD, IEPA apparently did nothing except to explain that the creeks in the immediate vicinity would probably not be affected because the groundwater is being drained out of more distant unknown and unsung creeks. (R. 105) IEPA in its brief repeats this statement that "local" creeks would not be affected, but only apparently what IEPA considers to be more distant waters. (IEPA Br. 11)

[34] The most recent IEPA 303(d) list shows segment N-99, which is well below the Sugar Camp and Pond Creek discharges, as fully meeting aquatic life uses (p.7).
https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Documents/A1_Streams_FINAL_5-26-22.pdf

IEPA also claims that the creeks to be affected would be affected anyway because the Pond Creek Mine is going to withdraw the groundwater in any case. (Id.)

However, it makes no difference under the law how close the dewatered streams are to the mine. Further, the dewatering would not occur or would be less destructive if Williamson/Foresight did not mine at the site or used mining methods that did not result in colossal amounts of groundwater falling into its mine.

V. THE AGENCY'S CONSIDERATION OF THE 35 ILL. ADM. CODE 302.105(C)(2)(B)(III) AND (IV) FACTORS WAS INADEQUATE.

IEPA did not seriously consider alternatives for addressing chloride discharges. During the public comment period, Petitioners and others complained of the superficial consideration of alternatives to using dilution to try to solve the salty groundwater problem. Petitioners and others also complained that the blanket statements by the Permittee that alternatives were too expensive did not provide a sufficient basis/supporting rationale to reject alternatives. (R 3019, 3107, 3220, 3698, 4364) Further, Petitioners offered examples of treatment methods being used to treat coal mine wastewater in West Virginia and Poland. (R. 4364, 5519, 5539)

Petitioners' suggestions were ignored without response by IEPA.

It is unclear what economic analysis IEPA performed in rejecting alternatives other than to reject those alternatives that the Permittee or its consultants thought were too expensive. Contrary to U.S. EPA Guidance which requires costing out alternatives, https://www.epa.gov/sites/default/files/2016-03/documents/econworkbook-complete.pdf (at page 3-3), the consultants provided a cost estimate for only one of the alternatives, crystallization (R. 8330). Even as to that one alternative for which the Permittee's consultants provided a cost estimate, the consultants provided no information as to how the $0.25/gallon estimate was calculated. To reject alternatives, the consultants relied in large part on an IPCB opinion about

the costs of alternatives (R. 8328), but that opinion is 40 years old. Surely even the mining business has made some technological improvements in 40 years, or would do so if pushed.

The consultants do not even bother to provide a superficial financial impact analysis, much less a solid financial impact analysis with clear, detailed supporting rationale as recommended by U.S. EPA (Ibid 3-5). No effort is made to determine whether any of the feasible alternatives would render the mine unprofitable.

The IEPA alternatives analysis is also self-contradictory. IEPA follows the Permittee's consultants in rejecting reverse osmosis (RO) for the 3.5 MGD of groundwater entering the mine (R.88). However, the Agency allows for RO reject water— claimed by the consultant's report on which IEPA relied to be too hazardous to be stored or treated easily (R. 88)—to be dumped into the Big Muddy. (R. 2, 27, 37) The costs of using RO to treat the total of the wastewater in addition to the 1 MGD to be treated by reverse osmosis are not assessed, either.

Further, the option of applying RO to the whole waste stream, and then disposing of the estimated 25% of the waste stream that would remain (R. 8328) through one of the other means of wastewater treatment mentioned in the antidegradation analysis, is not considered by the consultants. One alternative is explicitly rejected solely because it would have to be used in conjunction with another technology. (R. 8331)

Use of constructed wetlands was considered by the consultants and found effective to address some pollution. (R.8337) This alternative, however, was rejected by IEPA because the amount of land that would have to be used "is enormous and would begin to crowd out other land uses," (R. 8337) and because "it is not expected that constructed wetland can treat the volume of stormwater expected at this facility." The consultants provide no details regarding the acreage that would be required or the other land uses that would begin to be crowded out. In

rubber-stamping the consultant's conclusions, IEPA also did not consider whether constructed wetlands could be advantageous in addressing part of the problem if not all of it.[35]

Particularly now that we know that the 011 Outfall will include ammonia and other wastes that will reduce dissolved oxygen levels in a water body already impaired by low oxygen levels, it is clear that treatment wetlands and wetland restoration should be carefully considered as an alternative. The Big Muddy deserves much better than a two paragraph kiss off of an alternative that is feasible to reduce part of the loading.

An agency cannot reject an alternative because it does not completely take care of a problem by itself, if it can be combined with additional approaches to the problem that might solve it. *Simmons v. U. S. Army Corps of Engineers*, 120 F.3d 664, 669 (7th Cir. 1997). Further, under 35 Ill. Adm. Code 302.105(c)(2)(B)(iii), an alternative that is feasible to reduce the extent of the proposed increase in the pollution loading must be required in the permit. New pollution must be "minimized." Here, that law at least requires considering a combination of alternatives to dumping into the Big Muddy all the wastes that flows from groundwater into the Pond Creek Mine. IEPA should have required reverse osmosis, treatment wetlands, and crystallization to the extent that those alternatives were feasible to address portions of the major pollution loading proposed by Williams/Foresight.

Finally, while IEPA considered the benefits to the community at large from employment and tax revenue, it did not consider potential damage to neighbors, subsistence or recreational fishers, or the climate. Those factors should be given at least some consideration on remand.

[35] Of course, no consideration is given in the antidegradation analysis by Williamson/Foresight or IEPA to the enormous amount of farmland taken out of production or damaged by the Pond Creek Mine itself.

Without citing any authority, Williamson/Foresight argues that the rules do not require IEPA to take into account any harm to the environment other than direct injury from the allowed discharges (Williamson/Foresight Br. 13) but that is simply **not** what the rules say. The rules state that IEPA must assure that an activity justifying an increased discharge must "benefit the community at large." 35 Ill. Adm. Code 302.105(b)(3)(B)(ii). The rule does not suggest that harms to the community which do not flow directly from the discharge may be ignored, or that IEPA may ignore injuries to the community if other agencies might also have a role in protecting the community. It contradicts the language of the rule to conclude that IEPA is free to license pollution to accommodate an activity that will benefit one segment of the community without considering whether that activity will benefit the community as a whole. It is uncontested that IEPA did not consider the community as a whole here.

CONCLUSION

Williamson/Foresight is correct that the Big Muddy has had water quality problems over the years. But many people who depend on it will be harmed by a discharge that seems to assure that the problems in the Big Muddy will worsen, and its water quality and biota will remain at this new worse level until the Sugar Camp and Pond Creek Mines run out of coal or the price of coal goes down.

The NPDES permit (No IL0077666) IEPA issued to Williamson Energy LLC on April 15, 2022 does not ensure compliance with water quality standards or federal law. The record shows that the Permit is not finished, allows violations of water quality standards and federal law, and does not address numerous threats to the Big Muddy that were identified in the record. Statements by Respondents that purport to address those threats miss the point or are totally unsupported.

The Board should deny Respondents' Motions for Summary Judgment and direct that the Agency reconsider the Permit in order to establish conditions and limits necessary to ensure protection of Illinois water quality standards, including protection of existing uses in the Big Muddy River, and to bring the Permit into compliance with the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq., and Illinois law.

Respectfully Submitted,

Albert Ettinger (ARDC No. 3125045)
7100 N. Greenview
Chicago, Illinois 60626
773 818 4825
Ettinger.Albert@gmail.com

Sarah Rubenstein (ARDC No. 6244789)
Great Rivers Environmental Law Center
319 N. 4th Street, Suite 800
St. Louis, MO 63102
(314) 231-4181
srubenstein@greatriverslaw.org

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